Vertical Market Outlook Series

Healthcare

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Preface

Purpose of This Study

The Equipment Leasing & Finance Foundation (Foundation) commissioned this forward-looking report on the U.S. healthcare sector. Engine Group was selected to conduct the research. This, the third in a series of reports on vertical equipment markets, provides an outlook on the healthcare sector in the U.S., demographic and spending trends, and key developments impacting this sector over the next one to two years.

In preparing this report, Engine Group utilized its pre-existing expertise, coupled with inputs from several outside industry experts and consultants, in analyzing and examining trends in healthcare in the U.S. In addition, broad knowledge of the U.S. macroeconomic environment and the healthcare sector provided a foundation for the report.

How to Use This Report

This report is intended to provoke thought, conversation, and offer high-level insight for equipment finance professionals to reference in strategic planning. There are many subcategories within healthcare. This report focuses on those most relevant to the equipment finance sector, as determined by a Foundation-led Steering Committee of industry professionals.

Information Sources

Information used in this outlook comes from several sources:

Information provided by the Equipment Leasing & Finance Foundation, Equipment Leasing and Finance Association, Deloitte, Commerce Bank, Mercer Capital, Accenture, Centers for Medicare and Medicaid Services, U.S. Census Bureau, Healthcare Information and Management Systems Society, *Forbes, The Wall Street Journal, Health Affairs, Medical Buyer, Becker's Hospital Review,* and others.

Introduction

Growth in the healthcare industry shows little sign of slowing. Healthcare spending for the U.S. in 2017 was $3.5 trillion, which breaks down to $10,379 per person. Healthcare's share of Gross Domestic Product was 17.9 percent. By 2027, the Centers for Medicare & Medicaid Services (CMS) expect healthcare spending to reach $6 trillion, growing faster than GDP. By 2027, healthcare is expected to make up more than 19 percent of GDP.[1]

We will look at several trends and issues affecting the healthcare vertical in this report, but there are two themes intertwined with nearly every trend and issue in healthcare—cost and technology. There are growing costs associated with caring for a rapidly aging population. There is a need for more and better technology to combat a growing labor shortage. Those looking to disrupt the industry are using technology to improve outcomes and lower costs. Government regulation is evolving to address both increasing cost and expanding technology.

Healthcare is one of the most significant economic drivers in the U.S., and it is a major social issue, as well. The industry is changing rapidly in ways both large and small, and there's little indication that the rate of change will slow in the near term.

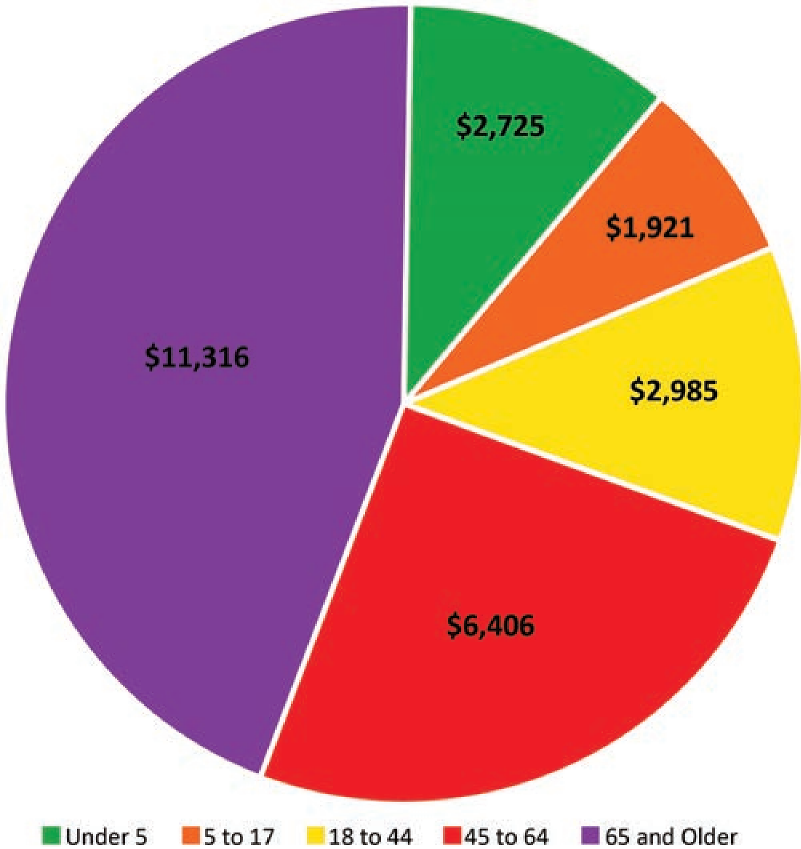
Macroeconomic Environment

Demographics

The population in the U.S. is aging. Life expectancy is on the rise while fertility rates fall, which will drive demand for medical services. According to the U.S. Census Bureau, the population of those age 65 and older will reach about 95 million by 2060—nearly one-fourth of the nation's population. Further, around 6 percent of Boomers will have more than one chronic disease.[2]

The aging population and the rise of chronic diseases are pushing the healthcare industry away from curing disease and instead to disease prevention and management. In 2016, individuals 65 and older had nearly double the healthcare costs of the next age group of 45 to 64. The figure below shows healthcare spending by age group for 2016.[3]

Figure 1: Average Annual Health Spending by Age in the U.S., 2016[4]



Healthcare Spending

In their "2019 Global Health Care Outlook," Deloitte reported healthcare expenditures are increasing not just in the U.S., but around the world. Globally, spending on healthcare is forecast to increase 5.4 percent annually from between 2017 and 2022, from around $7.7 trillion to just more than $10 trillion in 2022.[5]

In the U.S. specifically, CMS reported healthcare spending growth in 2017 at around 4 percent, which was down from nearly 5 percent in 2016. In the U.S., the lower increase in spending was pegged to slower growth in prescription drugs, hospital care, and physician services. CMS predicted U.S. annual spending growth to be nearly the same as global growth—5.5 percent through 2026. The increase in healthcare spending will come from an increase in hospital care, physician and clinical services, and retail prescription drugs.[6]

Spending for Medicare and Medicaid is expected to grow faster in 2019 and beyond than in 2017 and 2018. CMS expects private health insurance/out of pocket growth to slow a bit in 2019, then accelerate in 2020 and beyond. For expenditures by sector, CMS has forecast faster spending growth in 2019 and future years for prescription drugs, hospitals, and physician and clinical services.[7]

Equipment Finance

Entities in the U.S. will spend more than $1.8 trillion on fixed business investment and capital goods in 2019, with capital spending growing at a more moderate rate of around 4 percent compared to nearly 8 percent in 2018.[8]

Becker's Hospital Review noted in late December 2018 that healthcare industry experts expect the equipment leasing market for healthcare will grow at a compound annual growth rate (CAGR) of nearly 6.8 percent through 2021. Increased competition between providers, an evolving equipment market, and ever-tightening capital budgets will drive that growth.[9]

Freedonia reported in 2017 total demand for medical equipment and supplies in the U.S. would grow at a CAGR of 1.6 percent 2016 through 2021. The three fastest-growing categories—at CAGR of 2.4 percent each—are electromedical equipment, ophthalmic goods, and irradiation equipment. These categories also grew fastest from 2006 to 2016, but generally at higher rates. Ophthalmic goods grew at a CAGR of 2.0 percent, electromedical equipment at 3.3 percent and irradiation equipment at 6.3 percent.[0]

The Equipment Leasing and Finance Association (ELFA) reported medical equipment as the fourth-hottest equipment market for future financing volume, behind construction, trucks/trailers, and machine tools. Despite the industry's preference for leasing equipment, there are some downsides, namely reimbursement cuts that are making for weaker areas within medical equipment. In 2017, reimbursements were cut for analog X-ray and in 2018 for computerized radiography, in an effort to push providers to digital radiography. There is a strong secondary market for refurbished medical equipment, and it's growing. The market for refurbished medical equipment was valued at more than $8 billion in 2018 and is expected to reach nearly $12 billion by 2021. While we were unable to find information on the breakdown between new and refurbished medical equipment, the types more likely to consider the option of refurbished equipment are those with limited funding and declining reimbursements.[11]

In its What's Hot/What's Not: Equipment Market Forecast 2019, ELFA asked its members whether they expected the volume of specific equipment types to increase in the coming year, decrease or stay about the same. Members responding to the survey expected the book more in medical equipment in 2019 compared to 2018.[12]

Disruption

Disruption is a buzzword heard in essentially every industry—and healthcare is no different. Hospitals not only have to deal with falling profits, but they must adapt to compete with new entrants in the sector trying to turn the traditional healthcare business model around completely. For example, *The Wall Street Journal* reported the median hospital operating cash flow margin dropped to 8.1 percent in 2017 from 2016, when it was 9.5 percent. This is the lowest level in 10 years; the previous low point was 9.1 percent in 2008.[13]

Despite falling profits for traditional providers, the market for health technology is expected grow at a CAGR of nearly 16 percent between 2016 and 2021, when it is projected to be worth more than $280 billion, according to Deloitte's 2019 healthcare outlook. The World Health Organization defines health technology as: "the application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures, and systems developed to solve a health problem and improve quality of lives."[14]

There have been several initiatives by technology companies aiming to disrupt the health care sector in just the past couple of years:

- Apple has a relationship with a startup called Health Gorilla, which will allow them to add diagnostic data to the iPhone. The app is mainly for physicians, who can place orders and share medical records in the app, but there is a free version for patients, as well.
- Google acquired Apigee, an application program interface (API) management company to enhance interoperability among hospitals, physicians, and patients. Google is also using artificial intelligence (AI) to tackle disease.
- Verily, the healthcare unit of Alphabet (the parent company of Google), has a partnership with Nikon subsidiary Optos and the companies are working to detect diabetic retinopathy. Verily also wants to enter the health insurance market through partnerships and planned to invest $375 million in 2018 in the health insurance start-up, Oscar Health.[15]
- Philips' has an intelligent health care service, "Connected Care Solutions." It collects patient data around chronic disease and allows providers to monitor and deliver round-the-clock solutions like in-home remote monitoring and connected care; the ability to access data from a variety of sources in a single view and collaborative health management to enable virtual patient care.[16]

Consolidation

In an effort to operate more efficiently, add capabilities, and improve financial performance, many healthcare organizations are turning to mergers, acquisitions, and partnerships.

Analysis from Morgan Stanley in late 2018 found about 30 hospitals close each year, with 8 percent of hospitals at risk of closing and another 10 percent in weak condition. Rural hospitals are more likely to close than those in urban areas. Those small community hospitals, as well as critical access hospitals, face hurdles like old medical equipment, outdated power and technology, and aging facilities. These facilities might also have low patient numbers and physician shortages. These factors have led to hospital mergers, physician group acquisitions, and partnerships, with two-thirds of community hospitals now a part of a multihospital system or a diversified single hospital system. Healthcare executives don't see the pace of consolidation for health systems increasing, but don't expect it to slow much, either. Bain & Co. reported a record 149 deals worth a disclosed value of $29.6 billion in North American in 2018, compared to 130 deals worth $22.1 billion in 2017. Bain said it expects heightened interest in the North American healthcare market for 2019.[17]

According to *Health Affairs,* more than 60 percent of health system executives have expressed interest in acquiring outpatient, retail, or home health capabilities to expand their footprint and broaden their access points. According to PwC, the intent of these kinds of deals is for health systems "to achieve scale to be able to invest in infrastructure and programs necessary to drive quality, convenience and customer satisfaction, and ultimately deliver value to consumers, employers, and health insurers." Many are already acting on that interest, with vertical integration growing in healthcare. Insurers, pharmacies, and providers are buying each other or partnering with each other to move into different parts of the healthcare chain or change up traditional delivery systems. Walmart partnered with the Department of Veteran Affairs and now features telehealth centers in some stores. Vertical integrators include Cigna/Express Scripts, Albertsons/Rite, and United Healthcare/DaVita. Amazon's acquisition of online pharmacy Pillpack was hailed as another major recent acquisition.[18]

Not to be left out, some health systems are undertaking integration efforts of their own to expand their networks with a goal of not just competing with other health systems, but also with new, disruptive players. Those systems that are already participating in alternative payment methods (APM), especially, have experience managing claims, cost, and quality, and it allows them to contract with employers directly for services that would normally be done by a third party. An APM is a payment approach that gives added incentive payments to provide high-quality and cost-efficient care. APMs can apply to a specific clinical condition, a care episode, or a population. S&P said the shift to APMs would gain traction in 2019, which have risen steadily from 2015 to reach 34 percent of all reimbursements in 2017.[19]

Rural Hospitals

A recent report from Navigant found more than 20 percent of the rural hospitals in the U.S. are near insolvency. The report analyzed CMS data on 2,045 rural hospitals. There are about 430 hospitals in 43 states at risk; they employ around 150,000 people and take in $21.2 billion in annual patient revenue.[20]

Modern Healthcare reported 95 rural hospitals had closed since January 1, 2010. "Becker's Hospital CFO Report" stated in March 2019 the figure was 102 rural hospitals in 27 states had closed in the U.S. between January 1, 2010, and March 19, 2019. Finally, as of July 1, 2019, the North Carolina Rural Health Research Center, the organization tracking and reporting rural hospital closures, reports 106 rural hospital closures on their website.[21]

NC Rural Health Research said that for it to consider a hospital closed, it must stop providing "general, short-term, acute inpatient care." It does not consider a hospital close if it: "merged with, or was sold to, another hospital but the physical plant continued to provide inpatient acute care, converted to critical access status, or both closed and reopened during the same calendar year and at the same physical location."[22]

Rural hospitals face a declining population, falling inpatient admissions, vacant beds, and an increase in people covered by government-sponsored plans, all of which can contribute to failure. Dr. Daniel DeBehnke, a Navigant managing director, co-author of the report and former CEO of the Omaha-based Nebraska Medicine system said, "There is a snowball effect that drives a lack of capital, which causes an inability to invest in everything from technology to electronic health records to imaging to keep up with the standard of care." We did not find any data on losses for lessors/lenders in relation to rural hospital closures.[23]

Labor Shortage

There is a labor shortage in the U.S. There are more open jobs than there are workers to fill them. *Vox* reported in March on Department of Labor figures showing 7.6 million open jobs in the U.S, with 6.5 million people looking for work. That marked 11 months of more jobs than job seekers, and the gap keeps growing with every report.[24]

As is the case with other industries, healthcare has an aging workforce. The aging population continues to create demand for health care services, plus worries about general well-being are all helping to drive the shortage of skilled healthcare workers. Burnout is rampant among healthcare workers. A 2018 survey from Medscape found 42 percent of physicians said they felt burned out. Similarly, a *Becker's Hospital Review* survey of rehab therapists found while most enjoy their work, they're concerned about the direction in which their industry is heading, and a very small amount was happy with the direction of healthcare industry overall.[25]

Becker's Hospital Review reports one particular area where demand is only going to increase is skilled nursing. As the number of seniors rises, a projected nursing shortage will get worse. Hospitals will have to find a way to get new nurses trained and on the floor as quickly as possible. Data from U.S. Bureau of Labor Statistics also shows there will be a higher demand for nurses in long-term facilities with hospitals discharging patients quickly in an effort to reduce costs.

Technology will be useful in both training healthcare professionals and helping them do their jobs more efficiently. *Becker's* notes there are cutting-edge learning technologies available now that can play a larger role in education by "providing mobile, adaptive and scalable ways to quickly and effectively educate the nurses of tomorrow." Healthcare companies might even have to resort to Silicon Valley-type tactics to attract and retain medical staff; supporting transportation or housing needs or providing other perks to lure talent.[26]

Healthcare Specific Trends & Key Developments

Creating Financial Sustainability

Hospital operating margins are under pressure. Healthcare providers are using many different tactics to address increasing healthcare spending, including strict financial management, more efficient operations, a switch to outcomes-based care, and other innovative solutions. Increased healthcare spending isn't necessarily bad for providers; it's the increased healthcare costs and lower potential reimbursements. Payers have to look at the industry differently, as well. An increase in healthcare spending, likely means the payers have to pay more. Deloitte expects to see more public-private partnerships, even more investment in prevention and wellness, and taking cues from other industries.[27]

Drug Spend Will Be Targeted for Cost Savings

Becker's Hospital Review and *Health Affairs* both pointed to healthcare providers targeting drug spend to try to get cost savings as a significant trend in the industry. Healthcare makes up about 18 percent of the U.S. gross domestic product, with $3.3 trillion in spending each year. Prescription drugs make up around 17 percent of healthcare spending, and they are one of the fastest-growing expenditures in healthcare. In hospitals, pharmacies count for anywhere from 10 to 20 percent of the operating budget and 80 percent of the pharmacy budget is just for the cost of drugs. Drug costs have risen 12 percent since 2016 and are projected to increase into 2020, at least.

Healthcare executives will use any number of solutions to manage drug costs. Observers can expect to see cross-function teams formed among IT, pharmacy and clinical quality teams as they work together to establish automated processes that can identify and alert clinical leaders when care providers are prescribing brand-name drugs when generics would be just as effective.

Industry observers also expect to start seeing reform in the drug market in 2019 and beyond. Various government entities in the U.S. are contemplating and acting to close loopholes that allow drug makers to hold on to patents for long periods of time, discouraging competition. The Food and Drug Administration (FDA) is working on trying to increase competition, as well, by fast-tracking drug applications from new market entrants. In addition to pushing for more competition, the Department of Health and Human Services (HHS) is also trying to change how initial prices are set for drugs.[28]

Consumerism and Patient Experience

Consumers are becoming increasingly sensitive about the cost of healthcare. There are more individuals on high deductible health plans than ever, and increasing out-of-pocket costs are leading consumers to call for more transparency on price, quality, and safety in healthcare. They want better coordination, more convenience, and accessibility. Commerce Bank looked at some of the key issues around consumerism.[29]

- **High Deductible Health Plan:** In 2017, nearly 22 million people had one of these plans, which amounts to more than 40 percent of consumers. Around ten years ago, just 4.5 million people had a high deductible plan.
- **Consumer-centricity:** Around 40 percent of healthcare leaders surveyed recently said consumerism was the most important disruptive force in healthcare right now. They point to improving customer experience as a top priority for driving growth. IDC has reported 60 percent of healthcare

providers plan to "make optimizing the digital patient experience a top 3 strategic imperative by 2020."

- **Care anywhere:** Providers are moving to an omnichannel experience where patients can interact with the healthcare system in a variety of ways (allowing communication and access via phone, mobile devices, video, etc.) and locations. Giving consumers new and more care access points provides convenience, reduces costs, and increases utilization.
- **Price transparency:** Virtually all consumers (91 percent) want pricing information ahead of receiving care services, and nearly half (50 percent) want to know more about costs so they can better budget for their out-of-pocket expenses. CMS has said hospitals must publish their standard charges in 2019. This is one of the most difficult areas in which to get clear pricing information. Insurer payments to providers are different, and individual plans cover procedures at different levels, which means list prices often look nothing like what a patient actually pays.
- **Patient financing:** More and more patients are having trouble paying their medical bills. A study from Advisory Board found that as deductibles increase, the ability to pay drops. For a deductible between $500 and $999, 68 percent of patients could pay their bills. When the deductible was $5,000 or more, just 36 percent could pay.[30]

Younger consumers aren't happy with traditional healthcare and will force changes in the industry. Generation Z and Millennial health care consumers are far less likely than other generations to have a primary care physician. Compared to other generations, they're less satisfied with the efficacy of treatments, transparency about care, responsiveness to follow-ups, cost transparency, expectations about prescriptions, efficiency, and convenience. Digital capabilities also are more likely to influence how younger generations choose medical providers.[31]

Moving Beyond the Hospital Walls

Healthcare providers are moving away from traditional inpatient facilities, instead investing in outpatient clinics, same-day surgery centers, free-standing emergency rooms, and micro-hospitals, which offer just a few beds for overnight stays. Moving even further from the traditional healthcare setting, they are setting up programs and using digital technology to keep tabs on patients 24/7 in their own homes.[32]

Consumers have their own feelings on care in a non-traditional setting—more than half said they were willing to receive care in a non-traditional setting if that care was cheaper and more convenient.[33]

Investments in outside treatment are generally driven by economics: Traditional hospital care is expensive and inefficient for many medical issues. For example, treating pneumonia in an inpatient setting can cost 15 to 25 times more for low-risk patients who could be safely treated as outpatients, but are instead hospitalized.

A March 2017 report from Medpac for Congress reported the U.S. has more hospital beds than it needs, with an average hospital-occupancy rate of 62 percent in 2015. There were more hospital closings than openings from 2011 to 2015, with around half of those converting to outpatient-only facilities. Studies show hospital-level care at home for some conditions can be provided for anywhere from 30 to 50 percent less than inpatient care, not to mention with fewer complications, like infections, pressure sores, blood clots, and falls, lower mortality rates, and higher patient satisfaction.

New York's Mount Sinai Hospital developed its own hospital-at-home program, HaH-plus, for some patients who show up at the emergency department or are referred by their primary-care doctors. A mobile acute-care team provides staffing, medical equipment, medications and lab tests at home, and is on call 24/7 if a condition worsens. The hospital estimates 575,000 cases in the U.S. could qualify for similar programs; treating 20 percent of those cases in this manner could save $45 million each year for Medicare.[34]

According to *Becker's Hospital Review,* freestanding, 100-percent physician-owned ambulatory surgery centers (ASC) are becoming less common. Instead, ASCs are taking on a more joint venture-type structure, with ASC management companies, physicians and health systems/hospitals often working together. ASCs can maintain their independence while at the same time expanding service lines. Private equity firms have begun demonstrating interest in ASCs, even more recently.[35]

New Care Delivery Models

Healthcare systems are starting to focus on value- and outcomes-based reimbursement. Deloitte expects that healthcare systems will have to embrace new business, care delivery, and risk models to create the kind of affordable, high-quality healthcare solutions we will need in the future. One of those changes has already started—the move away from volume-based/fee-for-service (FFS) care models to value-based care (VBC). VBC reimbursement models are starting to replace FFS arrangements. This means healthcare services are increasingly delivered by a coordinated care community sharing the responsibility and risk of both outcomes and costs.[36]

The shift to value-based care seems to be most active in the U.S., but Forbes predicts it will start to spread around the world in 2019:

> *During 2019, the healthcare industry will continue to transit to the value-based model. We anticipate that by the end of 2019, up to 15% of global healthcare spending will be tied in some form with Value/outcome-based care concepts. The impetus for this shift will be more exigent for countries that currently spend nearly 10% or more of their GDP on healthcare spend [e.g., the United States, Netherlands, Sweden, France, Germany, Canada, and Japan among others]. During 2019, VBC initiative will continue to transition from economic model/cost-effectiveness measures to more health outcomes and treatment focus—by means of data-driven, risk-sharing frameworks, and sustainable reimbursement models that benefits both providers and payers.*[37]

Investing in Digital Technologies

Health systems will continue to invest in digital technologies to support their efforts to move toward patient-centered care and developing smart health technologies that can increase access and affordability, improve quality, and lower costs. Investment in technologies like blockchain, artificial intelligence (AI), virtual/augmented reality, and predictive analytics will help transform healthcare. These technologies are helping doctors diagnose and treat patients, as well as helping to improve the patient experience.[38]

Forbes predicts digital health technology catering to out-of-hospital care will grow 30 percent to be worth more than $25 billion in 2019. The increasing cost stemming from chronic health problems and an aging population will be the main driver for digital health solution such as remote patient monitoring (RPM) devices, telemedicine platforms, PERS (fall detection), and mHealth (wearable) applications. Reimbursement policies for clinically relevant digital health applications are expected to expand, thus opening care delivery beyond just physical medicine to include behavioral health, digital wellness therapies, dentistry, nutrition, and prescription management.[39]

While digital health technologies and tools have been at the forefront of emerging trends in healthcare, some industry observers think 2019 is the year they have to start delivering real results. The Healthcare Information and Management Systems Society (HIMSS) said consumers and government regulators will start holding technology providers accountable for providing results, not just new products with lofty claims they may or may not be able to prove.[40]

Robotics

Acquisidata reported that around 2,000 medical robot units were estimated to be sold in 2017, which was an increase of 23 percent compared to 2016. From 2018 through 2020, it's estimated that roughly 10,700 units would be sold. All told in healthcare, the market value for robots is around $7.7 billion for the period 2018-2020. While the main use in for robots in hospitals is for surgical procedures, they can be used for equipment and medicine transportation, with some able to transport medication directly from the pharmacy to the nurses' station.[41]

The global robotic surgery market is growing at a CAGR of more than 11 percent—it was worth $3.4 billion in 2016 to and is expected to grow to reach $5.8 billion in 2021. There are basically two end-users, hospitals, and ambulatory surgery centers.

There are some challenges facing the increased use of surgical robotic devices—they are expensive and have high capital and recurring costs. Reimbursement rates vary for procedures and are often not significantly different than reimbursement for laparoscopic or other procedures. This means they are accessible mostly to well-established hospitals that perform a high number of surgical procedures.

Typical surgical robot equipment costs between $1 million and $2.5 million, with an additional yearly service fee amounting to between $100,000 and $200,000. Compared to laparoscopic surgical equipment, which can be used in different specialties and for many different types of surgery, robotic surgical devices are limited in their applications. The costs associated with robotic surgeries are generally higher than in laparoscopic or open surgeries. Robotic surgical devices also have a limited, pre-programmed number of uses.

Despite cost, there are factors driving increased use of surgical robotic equipment. Surgeons are focusing more and more on minimally invasive surgeries, which are ideal for employing surgical robotic equipment. Surgical outcomes are better, with reduced recovery time and postoperative pain and shorter hospital stays. There are limitations in traditional surgical practices driving the adoption of surgical robotics—in urological surgeries, for example, the advantages over open surgery include a reduction in urinary incontinence, erectile disfunction, and mortality rates. Emerging economies are adopting surgical robotic equipment at a fast rate, especially in countries like India, where the cost is low.

The high cost and maintenance of robotic platforms hinders adoption, so companies are providing those platforms in lease to hospitals cost burden. Intuitive Surgical, whose da Vinci surgical platform dominates the market, provides lease opportunities to hospitals and ASCs with da Vinci-trained surgeons. In 2013, the company provided six systems under a lease agreement, which jumped to 63 systems by December 2015. Up to 70 percent of Intuitive Surgical's U.S. revenue comes from leasing the da Vinci system. Intuitive is also using the lease as a way to make head roads into emerging markets.[42]

Regulatory Compliance and Cybersecurity

Data has become increasingly important in healthcare, and protecting that data is essential. With an increasing reliance on expanded data use in clinical settings and connected medical devices, the need for government policies, regulatory oversight, and risk management to keep up with these developments will continue to be a key issue in the industry. Government regulations are aimed at strengthening healthcare security and safety at a micro-level; healthcare organizations turn their focus on compliance, ethics, and risk, driving awareness throughout the enterprise.[43]

Regulatory Compliance

Healthcare executives cite government regulations and initiatives at or near the top of their annual lists of concerns. Commerce Bank mentions a study estimated health systems, hospitals, and post-acute providers are required to meet 629 regulatory requirements across nine domains at an average cost of $1,200 for each patient admission, which requires 59 full-time equivalent employees (FTEs). In their healthcare finance trends for 2019, Commerce Bank notes three main regulatory forces currently at work:

- **Medicare reimbursement and fee structure**: HHS introduced new billing codes to reimburse physicians for remote patient monitoring, some telehealth services, and streamlined documentation. For Merit-based Incentive Payment Systems (the Merit-Based Incentive Payment System (MIPS) is the program that will determine Medicare payment adjustments. Using a composite performance score, eligible clinicians (ECs) may receive a payment bonus, a payment penalty, or no payment adjustment.) CMS has debuted eight new quality measures–some based on outcomes reporting from patients–and dropped 26 measures. It may not seem like much, but some industry observers have hailed the changes as “far-reaching” and described them as a “sea change,” especially because private payers often follow Medicare’s lead.[44]
- **The Affordable Care Act (ACA)**: There continues to be uncertainty around the ACA. Commerce bank notes two key areas:
  - The regulatory environment will become more complex with states able to “advance health reforms far more easily than the federal government … and take divergent paths to either stabilizing or segmenting the ACA marketplaces.”
  - Expect to see increases in the number of uninsured and underinsured with an elimination of the individual mandate penalty, the introduction of more restrictive non-ACA-compliant health plans, and Medicaid work requirements.
- **Drug prices:** Drug costs continue to draw attention, due in part to lawmakers learning 80 percent of the public find prescription drug costs to be unreasonable. Lawmakers are questioning manufacturers about price increases and investigating the role pharmacy benefit managers play in the pricing chain. The FDA has responded by promoting price-lowering competition through streamlined regulations for generics and new medicine approvals. A 30 percent cut to the Medicare payments in smaller hospitals and health systems that serve lower-income patients receive to help those vulnerable patients mitigate high medication costs has also helped raise the profile of high drug prices.[45]

Medical Device Market

Fitch Solutions recently forecasted the medical device market in the U.S. would reach a value of $200 billion by 2023; growing at a CAGR of nearly 5 percent. The market is expected to grow faster than the general economy due to an aging and increasing sick population and regulatory changes, most notably faster reviews and a suspension of the medical device excise tax.

There are considerations that could slow that CAGR, according to Fitch. Pressure to reshore medical device manufacturing and increasing attention on price could dampen growth. The market was worth around $164 billion in 2018.

With more people having chronic conditions, analysts expect medical device manufacturers to reach more patients; making around $615 per person in the U.S. by 2023, an increase over 2018 when the figure was $502.[46]

Medical Equipment Acquisition Trends

Health Facilities Management said in May 2019 there is no consistent equipment acquisition process recognized either in the U.S. or globally. The equipment acquisition process varies across health care systems. Not only does inconsistency cost time, increase cost, and raise performance issues, often, equipment is chosen by a single clinician who does not even talk to in-house experts.

In order to optimize procurement, a multidisciplinary group of internal experts needs to collaborate and plan, starting with the initial stages of equipment selection all the way through to a go-live date.

There are several factors in health care technology purchases—keeping up with other institutions, offering the latest care options, changes in staff, which included recruiting and retaining top talent—can all play a part in the process. Health care systems are also having aging equipment or standalone equipment like computed tomography [CT] scanners, general radiology rooms, and linear accelerators. Availability of parts and service for existing equipment are also important factors in determining the need for equipment replacement.[47]

Capital Strategies

Moody's reported in 2018 that expenses continue to outpace revenue in both nonprofit and public hospitals. More than 28 percent of hospitals had operating losses in 2017, up from 16.5 percent in 2016. Nearly 60 percent of providers reported lower absolute operating cash flows, which was the highest in five years.

These factors are helping push a growing trend in healthcare—alternative sources of capital. Health system leadership teams are looking to maximize revenue through innovation. BDO offered a handful of examples of alternative financing solutions that could be tweaked to provide opportunities for hospitals:

- Digital and physical B2C value chains
- Pooled asset management strategies
- Commercial Property Assessed Clean Energy (C-PACE) financing vehicles.

B2C Value Chains: Hospitals are finding innovative ways to create value from their electronic health records (EHRs) without sacrificing patient privacy. Providers can work with for-profit tech companies to innovate new products and solutions or profit-share while providing better care experiences and improved outcomes for patients by digitizing the back office. Health systems have worked incubated health tech startups or leveraging property to develop commercial and residential assets.

Pooled Assets: This alternative capital strategy helps hospitals and health systems calibrate their data, IP, talent, and assets with legal advice, consultants, and private investors. The entity that comes out can be a company, fund, venture capital group, or technology transfer office. Again, health systems have taken this approach to establish incubators or licensing organizations.

Cash for Going Green: Hospital administrators looking to upgrade facilities could look to C-PACE financing. Commercial Property Assessed Clean Energy (C-PACE) financing is available in 33 states. It provides financing for green energy upgrades like energy efficiency, renewable energy, and other projects. Repayments are made through an assessment on their property tax bill. Funds raised through C-PACE remain with the building property, which allows for long-term investments in building performance.[48]

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Acknowledgements

We would like to acknowledge the support of the Equipment Leasing & Finance Foundation and Steering Committee Volunteers including Jon Biorkman, Jeffry Elliott, Kara Miyasato, Todd Underwood, and Thomas Ware.

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