

JLL Research Report

Healthcare Real Estate Outlook

Prognosis for growth

What's inside?

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Top 2019 healthcare real estate

trends



1

Healthcare industry's undeniable economic force.

Although the future healthcare policy remains uncertain, healthcare has become not only the nation's largest employer but also one of the fastest-growing sectors of the economy. Driven by an aging and growing demographic, the industry's growth will continue to fuel demand for healthcare real estate in the long term.

2

Technology is pushing more healthcare services outside hospital walls.

The evolution of healthcare away from traditional hospital campuses is gaining momentum as new technology has become a key driver in the shift to outpatient care.

3

As demand for outpatient care has steadily risen, so have medical office building (MOB) fundamentals.

Occupancy has held consistently between 92.0 percent and 92.5 percent for the last several years. Steady demand kept net operating income stable through the recession and has kept NOI growth trending upward in recent years. Rising investor confidence in the MOB segment has driven increased transaction value (\$9.8 billion in 2018) while construction has kept pace with demand.

Trend 1

Healthcare industry's undeniable economic force

In 2018, healthcare became the largest employer in the U.S., surpassing retail and manufacturing, and is now over 13% of the workforce.

The healthcare industry is an undeniable force in the U.S. economy. Even as the sector is challenged by uncertainty in healthcare regulations and the pressure on healthcare providers to become more efficient, lower costs and improve quality of care, the healthcare industry continues to grow at a steady clip.

Healthcare is the largest employer in the U.S.

The U.S. healthcare industry is one of the largest and most complex in the world. 20.2 million Americans are employed in healthcare and social assistance, which has grown by 23 percent in the last decade (+3.8 million jobs) according to the Bureau of Labor Statistics (BLS). The healthcare sector represents roughly 13.4 percent of all employment nationally. Even more remarkably, the healthcare sector was responsible for 16.9 percent of all job creation in the last decade.

Healthcare employment is enjoying faster growth than any other sector in the U.S. workforce. December 2018 marked the largest monthly job

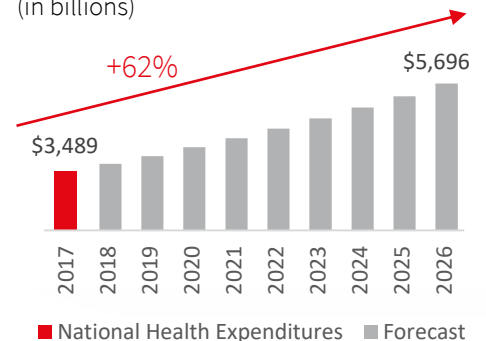
increase within the healthcare sector in nearly 30 years with the addition of over 50,000 healthcare professionals. Healthcare employment is expected to grow an additional 18 percent from 2016 to 2026.

The rise of healthcare spending in the U.S. economy

Healthcare is also one of the fastest growing industries in the U.S. economy. Healthcare spending grew to nearly \$3.5 trillion annually in 2017. According to the U.S. Centers for Medicare & Medicaid Services (CMS), national healthcare expenditures are projected to grow to \$5.7 trillion by 2026, representing an average annual rate of growth of 5.5 percent, reaching a projected 19.7 percent of GDP in 2026.

Healthcare spending is expected to grow by more than nearly \$2 trillion in the next decade.

U.S. health expenditures forecast (in billions)



Source: Centers for Medicare and Medicaid Services, U.S. Census Bureau



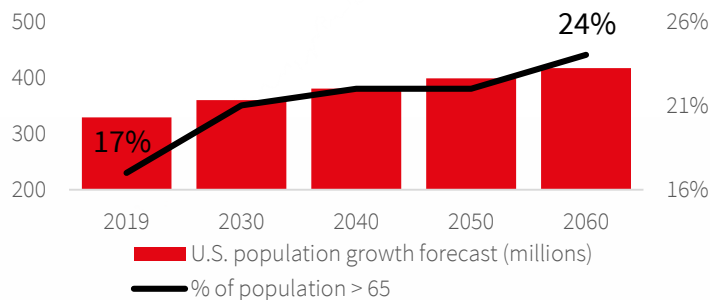
Underlying the forecast for growth in healthcare spending are high levels of U.S. employment and its accompanying employer-based health insurance model, the increase in healthcare utilization resulting from the Affordable Care Act (ACA) and the growing and aging U.S. population.

When the Affordable Care Act (ACA) was signed into law in 2010 the U.S. Census Bureau estimated that approximately 50 million Americans did not have healthcare insurance. By 2016, this number had declined to approximately 28.1 million Americans. The increase in the number of Americans with access to health insurance has resulted in an increase in physician office visits and an overall rise in healthcare utilization.

A growing and aging U.S. population is driving healthcare demand

Despite a recent slowing trend, the U.S. population is projected to grow by an average of 2.3 million people per year until 2030. By 2060, the United States is projected to grow by 79 million people.

By 2060, U.S. population will cross the 400 million threshold and one in four will be over the age of 65



Source: U.S. Census Bureau

During that same period, the American population over 65 years of age is projected to almost double, from 50 million to nearly 95 million, while the 85 and older population is expected to nearly triple, from 6.5 million to 19 million.

The aging U.S. population has a direct effect on the demand for healthcare as doctor visits and medical expenses dramatically increase with age. On average, people over the age of 65 spend five times more on healthcare than their younger counterparts.

Healthcare demand varies across regions. Fast-growing metro areas with hubs of technology and moderate climates are attracting both young professionals and retirees. The dual growth in these areas is prompting an increasing level of need for healthcare services.

Top metros by projected population growth, 2018-2023

Rank	Market	Total Population		Population Aged 65+	
		Absolute Gain (000s)	% Gain	Absolute Gain (000s)	% Gain
1	Austin	209	9.60%	66	27.70%
2	Orlando	213	8.30%	66	17.40%
3	Raleigh	111	8.10%	40	24.50%
4	Las Vegas	169	7.50%	56	17.10%
5	Dallas	523	7.00%	197	23.40%
6	Houston	488	6.90%	176	22.50%
7	San Antonio	174	6.90%	53	16.20%
8	Charlotte	174	6.70%	65	18.40%

Source: U.S. Census Bureau



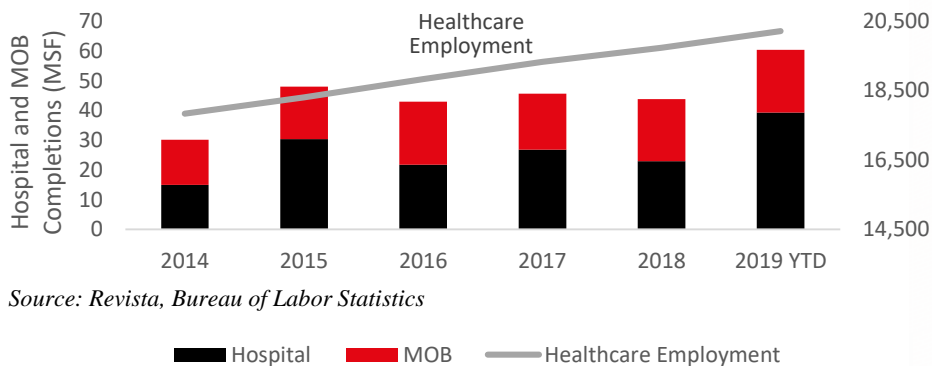
Behind this expanding industry, healthcare real estate needs are growing

Behind the favorable economic and demographic backdrop, new healthcare construction has not kept up with demand. The growing and aging U.S. population and the increase in the number of people insured under the Affordable Care Act (ACA) boosted demand for medical office properties in recent years and

these drivers will create positive healthcare demand in the long term. But while technology and advances in treatment have made the medical facilities more productive and efficient, the demand for healthcare services has outpaced new deliveries.

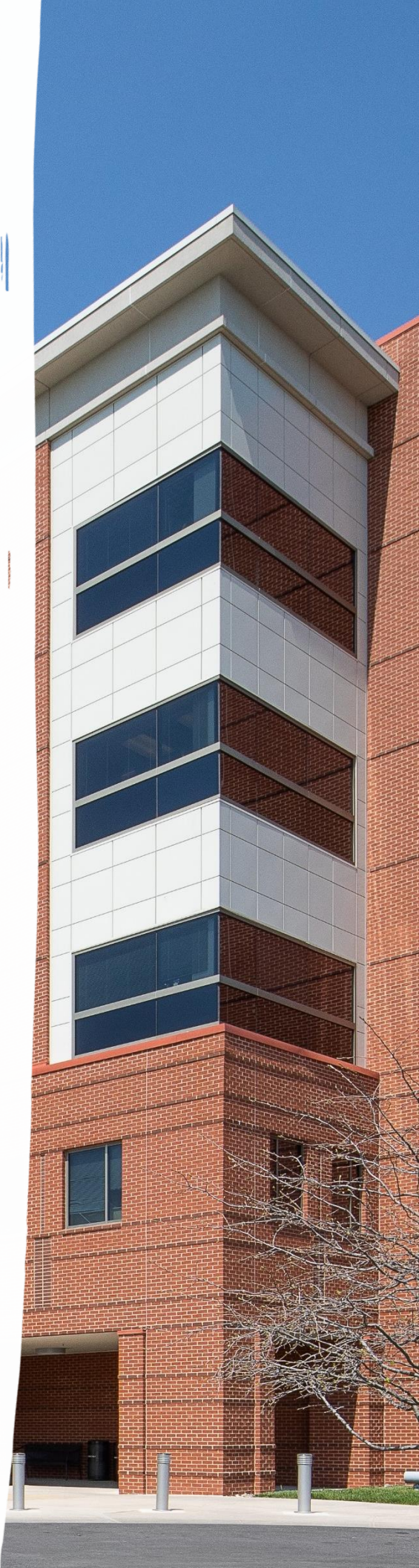
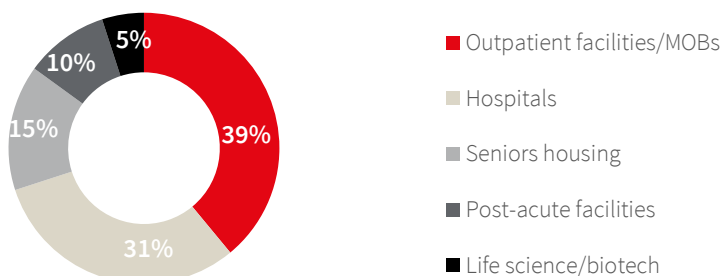
Healthcare employment is growing faster than any other U.S. sector but new construction is not keeping pace

New healthcare deliveries vs. Healthcare employment



The U.S. healthcare real estate industry's size and ownership continues to evolve. In 2018, the healthcare real estate market grew to over \$1.2 trillion but is more diverse than ever.

U.S. healthcare real estate market value and ownership distribution



Trend 2

Technology is pushing more healthcare services outside hospital walls

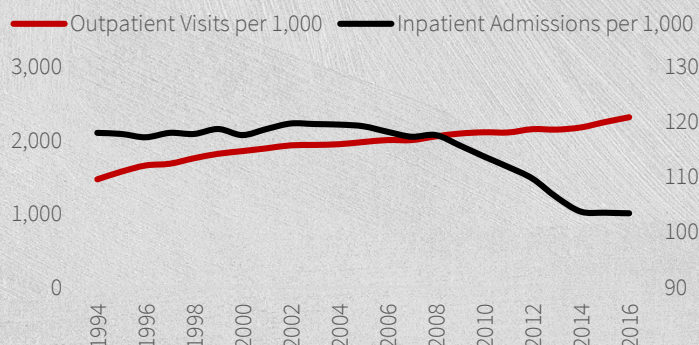
Healthcare's expansion to "convenient care"

Healthcare delivery continues to evolve toward a more decentralized model away from inpatient care at hospitals. Healthcare consumers increasingly expect greater availability and a better experience when seeking care. In response, healthcare organizations have developed locations that are easier for patients to access. Outpatient facilities with varied services, including physician services and ancillary services that are necessary to manage populations in one location, provide an advantage when you care for patients—patients want convenience and efficiency. The transition to value is a key driver, with healthcare organizations exploring ways to keep populations healthier and control costs by moving care off the traditional hospital campus.

The migration from inpatient to outpatient care, which has been taking place over the past 20 years, has contributed to a decrease in the national occupancy rate for hospitals from 77 percent to 61 percent since 1980, according to data from the Medicare Payment Advisory Commission. This trend is leading to new real estate strategies that include moving to outpatient and urgent care centers or smaller-scale micro-hospitals and health-system sponsored wellness centers.

Outpatient care is now booming and should continue to accelerate in the future.

Over the last 10 years, outpatient visitation increased by 25 percent



Source: American Hospital Association Annual Survey Data, Trend Watch 2018

Technology is a key driver in the shift to outpatient locations

While patient preferences and financial incentives sparked the shift in procedures from high-cost hospital settings to more cost-effective outpatient locations, new innovations are adding momentum to the trend. Many surgeries and medical and diagnostic procedures that once required an inpatient stay can now be performed safely in an outpatient setting, thanks to improvements including minimally invasive surgical procedures—such as laparoscopy and robotic surgery—and new anesthesia techniques that reduce complications and allow patients to return home sooner.

Payers are also driving the shift. Each year, the Centers for Medicare and Medicaid Services (CMS) evaluates a list of approximately 1,700 procedures that are designated as inpatient-only. Improvements in medical technologies and surgical techniques are increasing the number of procedures being removed from the inpatient-only list and allowing them to be performed in outpatient settings, further increasing the shift to outpatient procedures. In 2018, six procedures were removed from the inpatient-only list. CMS also approved additional procedures that may be performed on either an inpatient or outpatient basis, including knee replacements and gastric restrictive procedures. Further, beginning in 2019, CMS expanded the list of procedures that can be performed and reimbursed in outpatient surgery centers to include 12 cardiac catheterization diagnostic procedures and five ancillary procedures.

Innovations driving healthcare to outpatient settings

The musculoskeletal system. Laser spine surgery is a minimally invasive procedure that no longer requires an inpatient stay. Endoscopy and live imaging are used to visualize the damaged disc, and the damaged tissue is removed using a precision laser. Since the surgical scar is small, little or no post-surgery care is needed.

The circulatory system. Certain cardiology interventions—such as catheterization, percutaneous coronary intervention (PCI) and stent and percutaneous transluminal coronary angioplasties—are increasingly performed in outpatient settings. Over 45 percent of all PCI procedures shifted from the inpatient to the outpatient setting between 2004 and 2014, driven by clinical and technological innovation in safety such as the use of radial access, less contrast material, bleeding risk assessment, better anticoagulation options and improved disposable products.

The digestive system. A growing number of bariatric surgeries are performed on an outpatient basis. Gastric balloons ingested by patient to achieve weight loss can now be removed endoscopically, without the need for anesthesia or incision.

The ear, nose, throat, mouth and eyes. Improvements in safety, combined with technological advancements such as “dropless” surgery, mean that most cataract surgeries can now be performed in outpatient settings.

The respiratory system. More than 70 percent of patients who undergo thoracoscopic surgery can be discharged on the day of surgery due to the use of new techniques and technologies such as short endoscopes with small incisions and advanced robotic technological aids.

Source: Deloitte Insights, Growth in Outpatient Care

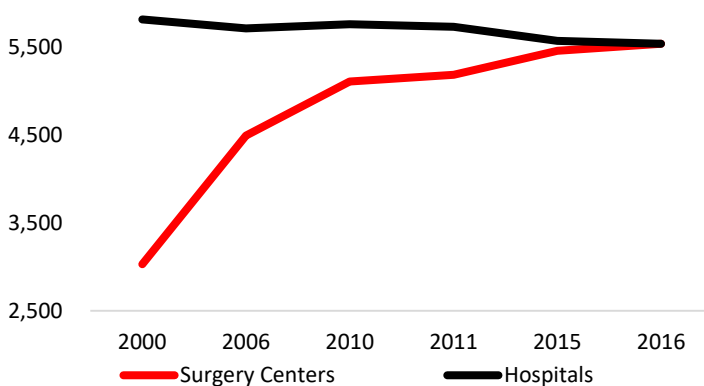


Sector spotlight—Ambulatory surgery centers

The growing role of surgery centers

Ambulatory surgery centers (ASCs) are healthcare facilities that offer patients the convenience of having surgeries and procedures performed safely outside the hospital setting. Since their inception more than four decades ago, ASCs have provided new opportunities to improve quality and patient care while simultaneously reducing costs. The numbers of hospitals and ambulatory surgery centers in the United States have grown to nearly equal, with 5,532 surgery centers and 5,534 hospitals according to the American Hospital Association (AHA). Surgery centers have grown 82 percent since 2000—while hospitals declined 5 percent during the same period. The average surgery center has 15,500 square feet and houses multiple operating rooms.

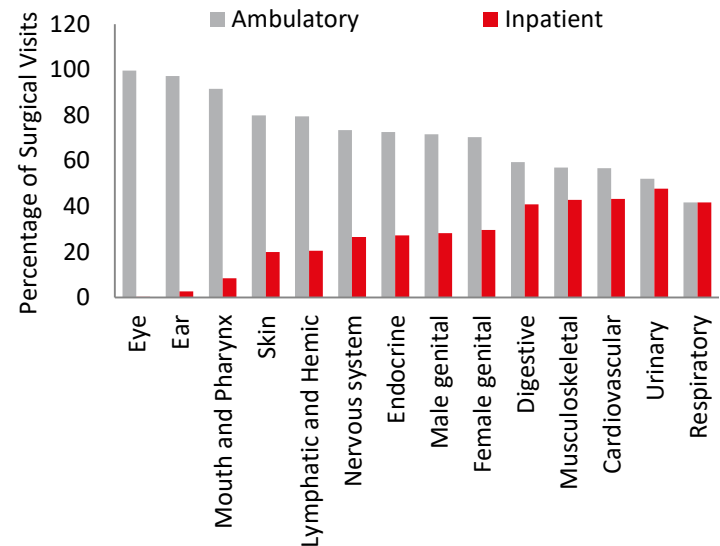
The number of surgery centers on course to surpass hospitals in the United States



Source: American Hospital Association, MedPAC Report to the Congress, 2018

Utilization of outpatient surgery centers can expect steady growth in 2019 and beyond, according to the 2018 Ambulatory Surgery Center Market Report by the Health Industry Distributors Association (HIDA), which predicts 16 percent growth in outpatient surgical procedure volumes through 2026. This growth is due in part to the expanding population of older patients but also boosted by technological advancements that allow more surgical procedures to shift from inpatient to outpatient settings. Two-thirds of surgeries are currently performed on an outpatient basis, an increase of 30 percent since 1990. HIDA's report predicts the ASC market will increase to \$40 billion in 2020 from an estimated \$36 billion in 2018.

Ambulatory versus inpatient surgeries in the United States by body system



Source: Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality

Nearly two-thirds of ASCs are single specialty. Gastroenterology, ophthalmology and pain management are the leading specialties, offering endoscopy and colonoscopy, cataract and vision correction surgery, and pain management procedures, respectively.

Surgery center ownership is highly fragmented. The top six operators of ASCs manage 20 percent of all surgery centers. Most ASCs are owned in part or in full by physicians. 64 percent of surgery centers are completely owned by physicians while the remaining 29 percent of surgery centers are joint ventures between physicians, operators and/or hospitals. Only 7 percent of ASCs are 100 percent owned by hospitals or a corporate provider.

Trend 3

As demand has risen, so have MOB fundamentals

MOB performance reflects sector vitality

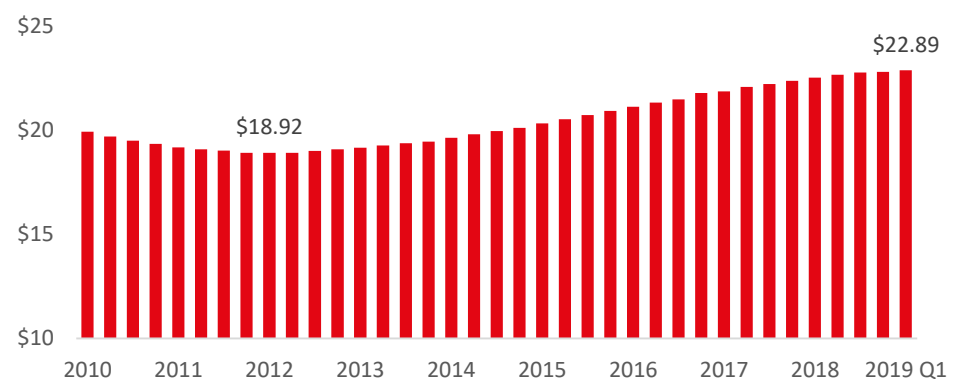
Despite economic uncertainty and the political focus on changing healthcare regulation, medical office real estate continues to perform well across nearly all U.S. markets. Medical office buildings (MOBs) account for approximately 10 percent of the U.S. office sector; they are typically smaller, about 40,000 square feet. From large healthcare systems to small, independent physician practices, these high-credit quality tenants are fueling demand for this growing sector.

MOB sector boasts uniquely stable fundamentals

Rents continued to rise in the U.S. medical office building sector, reaching new highs as of the first quarter of 2019. Tight market conditions and the completion of new, high-quality space pushed rents up 1.5 percent year-over-year to \$22.89 per square foot on average. MOB rents have grown 21 percent peak-to-trough from the low of \$18.92 in the second quarter of 2012.

Rents continue to rise, reaching above 10 year highs

Average market rent per square foot

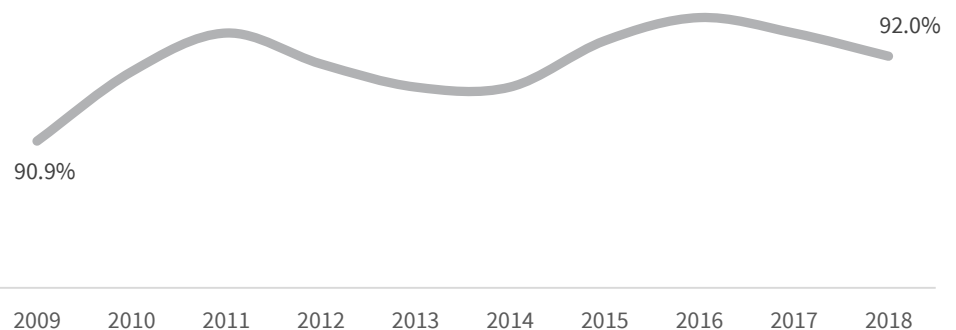


Source: JLL Research

Since 2015, this sector has held occupancy consistently between 92.0 percent and 92.5 percent. The quarterly weighted average occupancy ranged from a low of 90.4 percent in the first quarter of 2009 to a peak of 92.6 percent at the end of 2016—a mere 200-basis-point spread from recent peak to trough. Occupancy rates are expected to remain stable for the near future, with limited room for growth given the presently high rates.

MOB occupancy reflects stability of sector

Medical office average annual occupancy

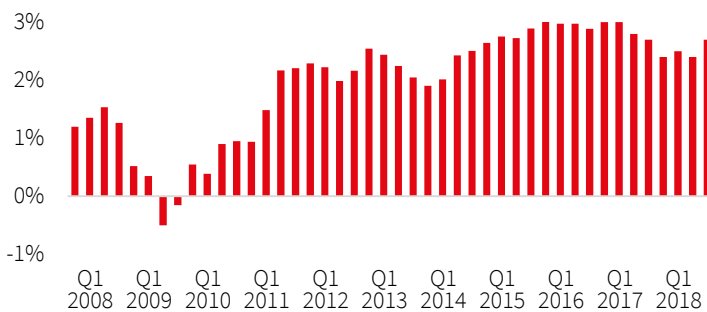


Source: Revista, Quarterly Weighted Average Occupancy

Medical office buildings also offer consistent and positive income growth compared to other property sectors. The office sector, by contrast, is often more volatile and cyclical. Office NOI experienced superior year-over-year growth of 14 percent in 2014 and 2015 but turned negative in late 2016 and only trended positive again in mid-2018. Meanwhile, medical office NOI growth has been historically positive, with just two negative quarters in the last 10 years during the Great Recession.

NOI growth consistently above 2.0 percent

YOY Same Store NOI Growth (TTM)



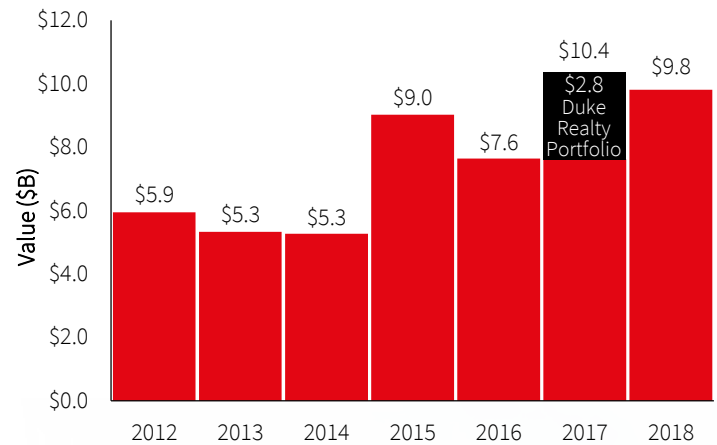
Source: Revista

Strong growth in medical office transactions

While healthcare-related real estate has grown, medical office buildings have emerged as the most popular property type within the niche. With fundamentals that are more cycle-resistant than other, more traditional property sectors, this class of buildings has seen investors doubling down on it for its stability and bright prospects for continuing strong performance. MOB transaction volumes have been on the rise over the last four years, further demonstrating the characteristics of a Core asset class. Medical office sales in 2018 totaled \$10.4 billion. Besides growing interest from institutional investors, notable transformational dispositions and M&A punctuated the landscape in 2018 and provide clear evidence of the vibrancy of the healthcare sector overall.

MOB real estate investment is no longer dominated by specialty healthcare real estate investment trusts (REITs). In 2014, REITs drove 60 percent of medical real estate transactions compared to 16 percent by hospitals and health systems. Today's buyer pool is better distributed, with new investors attracted by the stable growth in this sector.

MOB transaction volume near 2017 record high



Source: JLL Research, Real Capital Analytics, Revista



While total transaction volume in 2018 was slightly lower than the high in 2017, when adjusted for the \$2.8 billion Duke Realty healthcare division spinout, 2018 sales were remarkably robust. Five large portfolios in 2017 comprised nearly half the sales volume, while all portfolios in 2018 comprised only 35 percent, of volume. The strong supply of individual assets on the market in 2018 was fueled by the improved value of medical properties as the asset class has gained institutional acceptance.

On a regional level, 2018 recorded strong activity in several key markets. New York's volume in 2018 was \$1.3B, which was nearly three times 2017's volume. Houston was the second most active market in 2018. The \$886M of transaction volume in Houston was buoyed by LaSalle's estimated \$405M purchase of the Memorial Hermann Medical Plaza. Harrison Street Realty capital drove Chicago's volume of \$693M with its purchase of the DuPage Medical Group Portfolio. Lastly, Milwaukee's volume of \$400M was in large part due to Aurora Healthcare's purchase of over 18 MOB's from Welltower.

Most active MOB markets in 2018 ranked by transaction volume

Metro area	Volume (millions)	Square Feet	Per SF
New York	\$1,272.8	2.8M	\$384
Houston	\$886.2	1.9M	\$390
Chicago	\$692.9	1.8M	\$401
Atlanta	\$446.8	1.2M	\$333
Milwaukee	\$399.4	1.2M	\$315

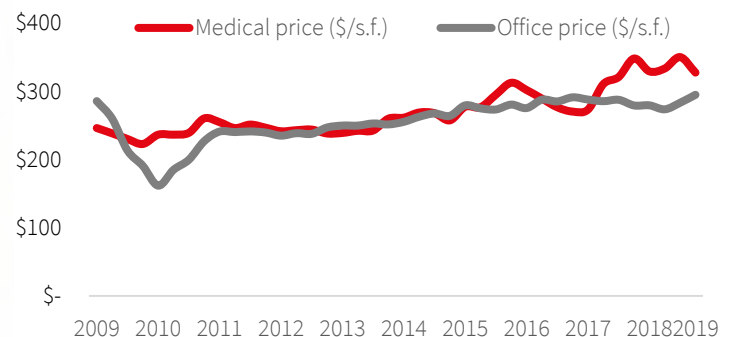
Source: Revista

MOB pricing trending higher

The MOB sector has recorded strong pricing performance with the average price per square foot at near-peak levels of \$327 per square foot. Pricing has steadily trended up, growing 50 percent over the last five years, and experienced sustained growth since the Great Recession. MOB average sale price numbers demonstrate this sector's appeal and relative resistance to downturns in the real estate market.

Strong pricing performance for medical office sales

U.S. average price per square foot



Source: JLL Research



Competition for investment opportunities in gateway markets has resulted in several years of cap rate compression and investors are moving into new sectors, with a greater focus on alternative property sectors such as MOB. As low yields for commercial office and other traditional real estate persist, institutional and foreign investors are increasingly turning to alternatives offering attractive returns. Medical office has consistently offered a 2 percent spread or greater in cap rate over similar benchmarks for the last five years, making it a desirable prospect given its consistent performance over the long term.

New construction concentrated around medical hubs

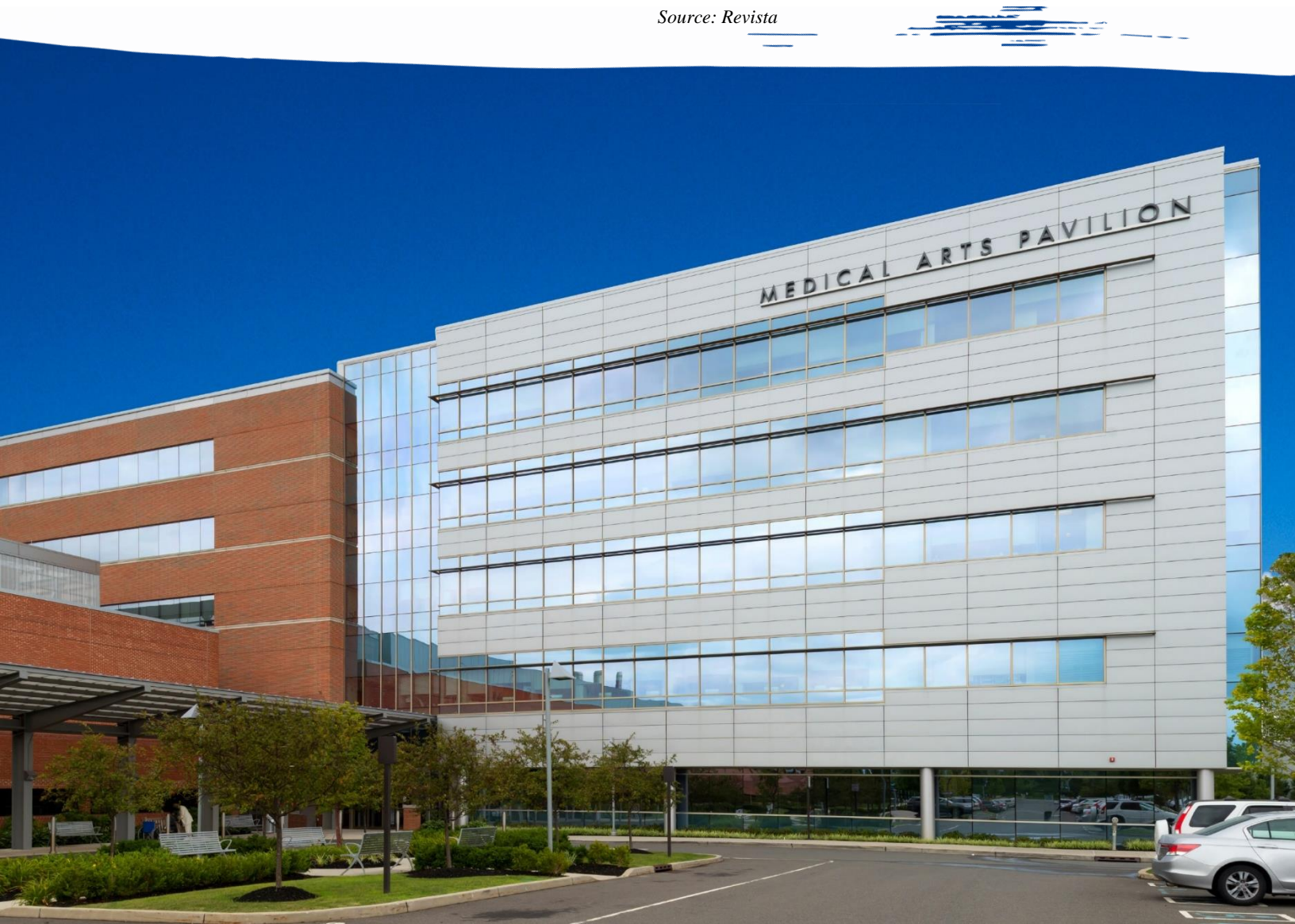
With strong demand, new development steadily increased MOB inventory in 2018. While 2019 expects to see higher completions and starts, with virtually no speculative development unlike other property types, these deliveries are in step with absorption, and overall, steady occupancies and increasing rental rates are on the short- and long-term outlook.

Across the United States, markets with the highest populations tend to also have the largest number of projects under construction. But construction trends differ geographically. In several smaller metros, like Denver, large health systems have multiple projects under way. UCHHealth University of Colorado Hospital, for example, recently announced a new 11-story tower on the Anschutz Medical Campus, adding to the nearly million square feet of UCHHealth projects under way in the region.

Top MOB markets for total s.f. under construction

Metro area	# Properties UC	Total SF UC (1,000)	UC % of Inv.	Total Value
New York	9	2,065	3.1%	\$1,675M
San Francisco	8	1,233	6.9%	\$788M
Chicago	14	1,229	3.3%	\$698M
Denver	6	722	5.6%	\$299M
Phoenix	3	683	4.0%	\$102M

Source: Revista



Looking forward

As U.S. healthcare legislation continues to be debated, uncertainty may influence decisions affecting near-term actions. For astute healthcare providers, long-term strategies will remain focused on solving for the predictable trends of the increasing healthcare economy, the growing and aging U.S. population and technological advances. In the long run, these trends will support demand for outpatient care and the medical office sector, regardless of any regulatory changes that may be enacted.



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