A New Wave of Investment & Consolidation in Cardiology

Merger and acquisition activity in the cardiology market is expected to accelerate considerably over the next 6-18 months

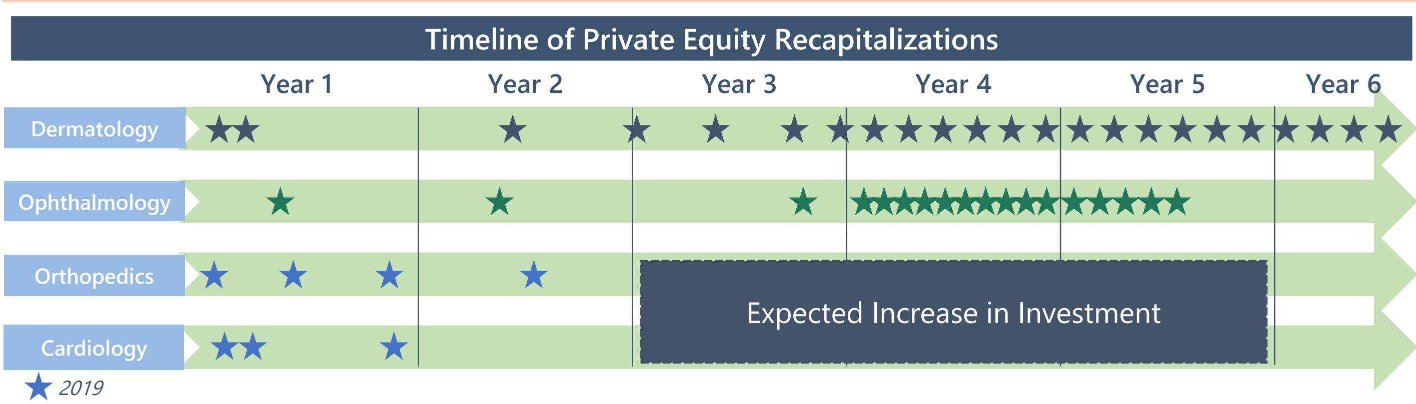
Provident Healthcare Partners

Private Equity Investors Eying the Cardiology Sector as New Wave of Investment

The initial wave of consolidation within physician practice management enabled private equity investors to generate high returns in specialties such as dermatology and ophthalmology, among others. These investors are now exploring investment opportunities in specialties that have historically experienced minimal private equity activity, but demonstrate similar organic and roll-up growth potential. Although cardiology as a specialty has experienced hospital-led consolidation over the past several years, private equity firms have only recently begun creating investment theses in the specialty. In fact, the industry saw its first major acquisition by private equity when Comvest Partners and Athyrium Capital Management acquired Sunset Cardiology in January 2019, through its multispecialty portfolio company, IMC Health Medical Centers. There are several factors and recent developments that make cardiology a highly attractive opportunity for private equity groups. Given the wide breadth of ancillary service offerings, increasing outpatient surgical volume, an aging population, and the growing importance of cardiology to overall healthcare, there is significant opportunity for private equity led consolidation. Further, technological improvements in cardiac medical devices and changes in reimbursement regulation are lowering costs and shifting many procedures that were once reliably inpatient to the outpatient realm.

As rates across healthcare remain volatile and the industry continues to transition from a fee-for-service to an outcome-based care model, cardiology practices are noting that the future viability of their business model hinges on size and scale. The ability to provide the entire continuum of cardiac care and negotiate rates with major payors' value-based care programs will determine the future success of private practices. The industry is highly fragmented with the vast majority of practices comprised of only 10 to 20 practitioners, while hospital-based departments at the top 10 hospitals for adult cardiology and heart surgery in the United States boast between 135 to as many as 440 practitioners. As smaller providers begin to see margin compression due to pricing pressure in a rising cost environment, they will need to make proactive business decisions in order to remain viable in the increasingly competitive landscape. For many practices the only historical option was joining the local health system; however many practitioners value independence and could view aligning with a private equity partner as a much more favorable option to continue to thrive in private practice in the long-term.

Provident has monitored private equity consolidation in many subspecialties of the healthcare industry, including those with significant portion of practicing physicians employed by a hospital, such as gastroenterology, anesthesiology, and most recently, orthopedics, among others. In Provident's experience working on early transactions in each of these sectors, the initial entrance of private equity leads to a ripple effect as more and more investors start to target the specialty for platform investment. The firm sees many parallels between these specialties and cardiology, which is expected to lead to private equity looking to replicate successful investment strategies in the sector within the next 6-18 months. The stars on the timeline below represent private equity platform investments in the 5 years following the initial investment within the dermatology, ophthalmology and orthopedics sectors.



Source: Pitchbook, Hospital web pages.

Strong Demand Presents Opportunity in Cardiology Industry

Heart disease and other risk factors continue to bolster demand

Provident has identified several trends that are expected to drive growth in the cardiology industry. There continues to be a large market for cardiology related services due to the prevalence of heart disease and its complications. Heart disease remains the leading cause of death in the United States – according to the CDC, about 647,000 Americans die each year from heart disease, or 1 in every 4 deaths nationally. Risk factors for heart disease include diabetes, hypertension, and obesity, all of which are prevalent in the United States with over 84 million adults exhibiting prediabetes, over 93 million adults classified as clinically obese, and over 108 million adults exhibiting hypertension. The most common type of heart disease, coronary artery disease, which can lead to myocardial infarctions, commonly called heart attacks, currently affects 18.2 million adults in the United States with about 805,000 Americans suffering from a heart attack (i.e. one person every 40 seconds) each year. 1 in 5 of those heart attacks occurs without the awareness of the patient, leading to more dangerous future complications.

The most affected population is growing and showing longer life expectancy and increased need for care …

Among those affected by heart disease and other cardiovascular issues, the largest population is the geriatric population aged 65 or older, which continues to increase by roughly 3.3% annually in the United States. In fact, the number of Americans 65 and older is on track to more than double, from 52 million in 2018 to 95 million by 2060, and the 65-and-older age group's share of the total population will rise from 16% to 23%. Such a large geriatric patient base is expected to be one of the critical factors for growth in the cardiology market over the forecast period shown in Figure 1.

This population is also the most commonly prone to heart disease risk factors. For example, hypertension is prevalent among adults ages 65 to 74 with roughly 61% of men and 67% of women in that age group affected as shown in Figure 2. While this population is growing it is also showing longer life expectancy, increasing long-term demand for cardiology services, particularly as this group's ability to pay co-pays strengthens due to increases in per capita disposable income. Given the strong demand and growth forces present in the industry, groups with the most resources will be best-positioned to take advantage of these trends as they progress. Provident expects that these dynamics will increase private equity interest in the industry over the next few years.

Figure 1: Percentage of U.S. Population over 65

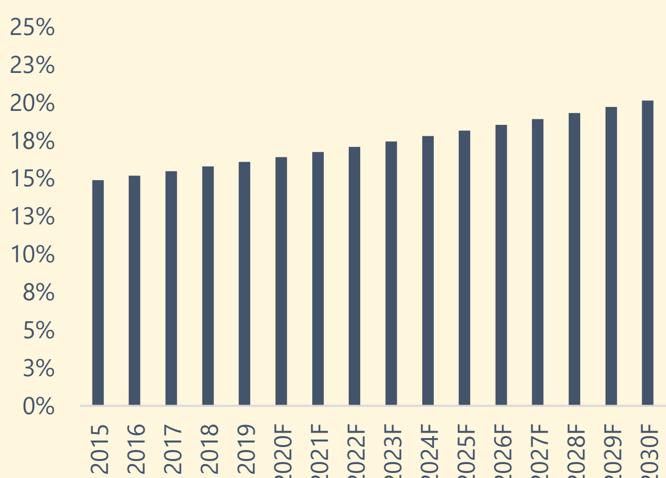
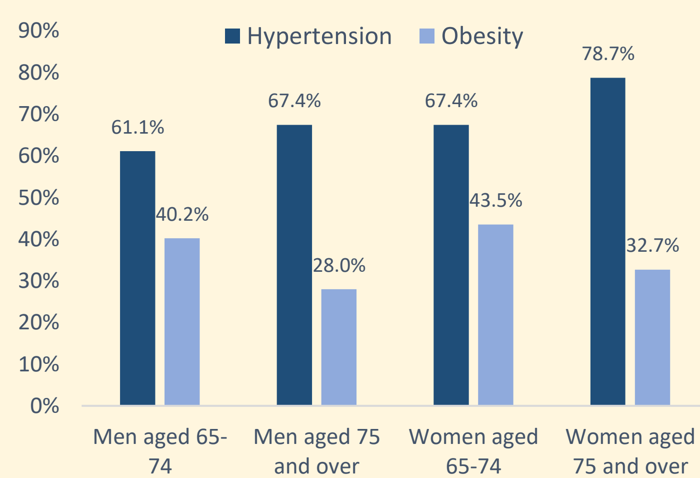


Figure 2: Percentage of US Population over 65 with Hypertension or Obesity



Source: U.S. Census Bureau, Centers for Disease Control and Prevention.

Burdened Supply and Low Regional Concentration Relative to Population Stimulates Trend Towards Consolidation

… however, supply has lagged demand

Despite the strong demand in the industry, the supply of cardiologists and surgeons continues to wane relative to growth in other specialties. Based on aforementioned factors such as population growth and population aging, it is expected that demand for cardiovascular surgeons will increase by 46% and that there will be a shortfall of cardiology specialists with active supply decreasing by 21% as early as 2025 due in large part to retirement and declining entrants, as noted in a journal by the American Heart Association. Many cardiologists are close to retirement with nearly 60% above 50 years of age as shown in Figure 3. Further, recruitment rates for new cardiologists trail demand and trail overall recruitment of physicians across specialties due to an extended training period, "burn out" and other factors. According to Pershing Yoakley & Associates (PYA), the number of cardiologists increased by only 1.1%, while the number of overall physicians increased by 7.7% due to fewer medical school graduates choosing cardiology or an associated sub-specialty in the five years leading up to 2015.

Further, there exists an incongruence between the number of cardiology specialists available in certain areas versus the number of individuals that need care. When grouped by region, there are vast swaths, particularly in the Great Lakes, Plains, New England, and Rocky Mountains regions, that are underserved compared with more densely populated regions as shown in Figure 4. These areas have one-half to one-quarter of the specialists available per 100,000 of population than in other areas of the country. As many cardiologists leave the industry with less than full replacement, Provident expects that groups providing the best incentives to residents will be optimally positioned for the future.

Figure 3: Cardiologist Age Distribution

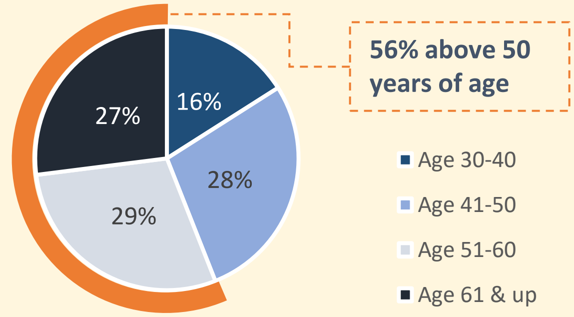
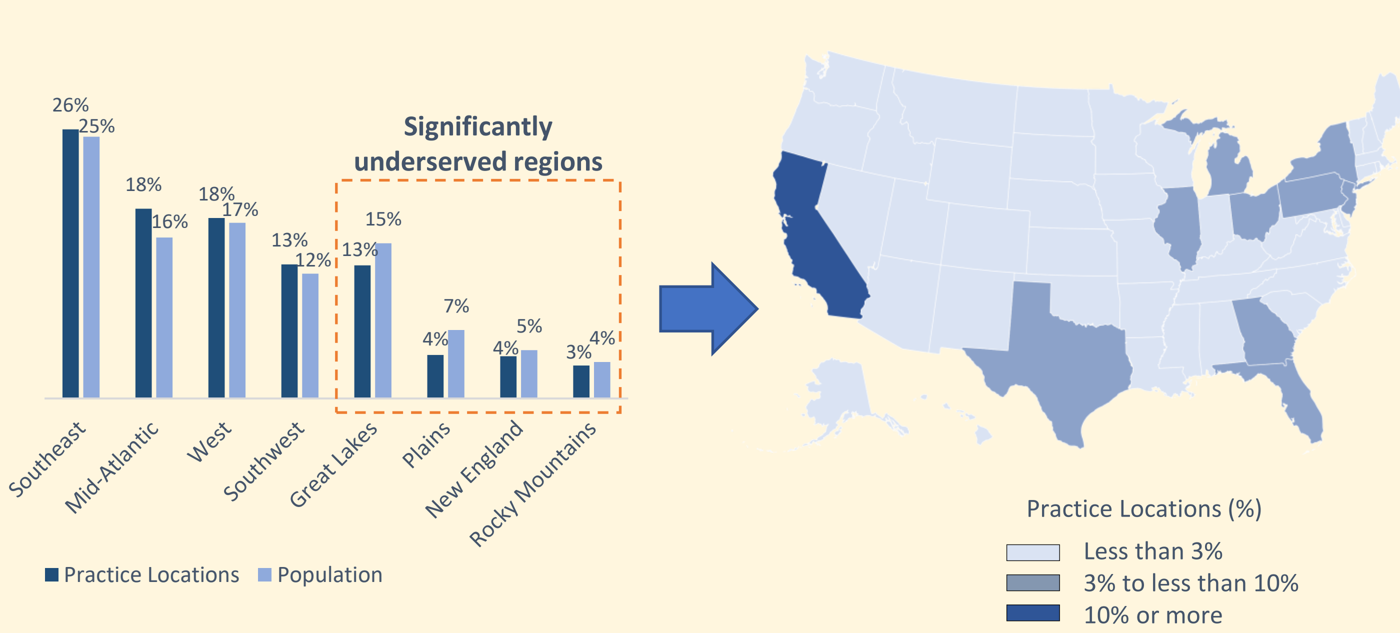


Figure 4: Cardiology Practice Locations vs. Population

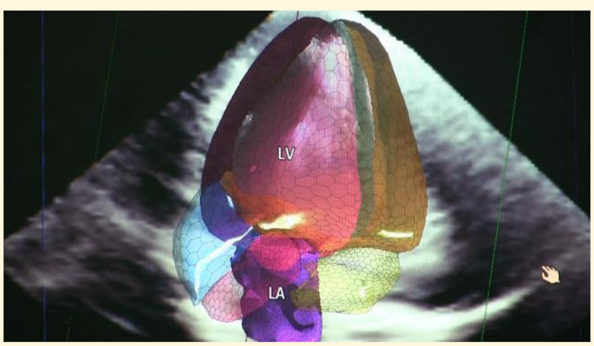


Technological Advancement Has Potential to Increase Quality of Care and Profits

Technological advancement in cardiac medical devices serve to reduce costs …

Despite the growing complexity of cardiovascular diseases, the technologies cardiologists utilize continue to advance, decreasing costs both for invasive and non-invasive procedures. Imaging techniques such as echocardiography (EKG) and magnetic resonance imaging (MRI) have seen numerous advances in recent years. The image resolution of echocardiograms has improved markedly, enabling cardiologists to better diagnose heart problems, reducing misdiagnosis and rework. MRIs continue to grow sharper in detail thanks to machines operating at stronger frequencies and faster computing systems. Stent technologies also continue to improve with advances in materials, making stents lighter and stronger than their ancestral counterparts, through more advanced alloys and better computer-controlled machining.

Figure 5: Philips Healthcare Epiq ultrasound system using AI to automatically identify the cardiac anatomy in a 3-D scan

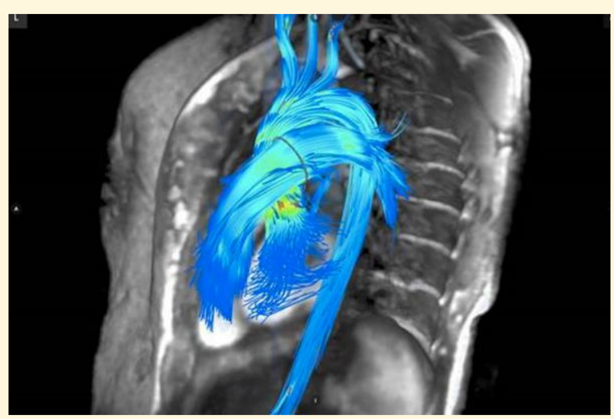


Even artificial intelligence has made its foray into the cardiology industry, both improving efficiency in identifying patients at risk based on "big data" before they present with any symptoms, as well as assisting in reducing operator inconsistencies by automatically identifying the optimal views in cardiac examinations. Finally, integration of EMR over the past 5 years has improved patient care and served to facilitate billing and collections. In fact, over 93% of cardiology practices have used electronic tools to lower costs and increase efficiency in these areas.

… but will require significant upfront investment

As the market continues to mature, Provident expects to see further advances in personalized cardiovascular healthcare and increased use of technology as a cost-saving measure. Further advances in cloud technology and interfaces for data sharing, as well as the use of predictive analytics are expected to help cardiologists detect cardiovascular risks, ultimately reducing complications, healthcare costs, and patient mortalities. As further advances come into the industry, cardiology specialists will need to adapt and invest suitable capital as the industry moves forward. Outside capital investment through a partnership presents an attractive alternative (and is often essential) for many cardiology groups, especially as those groups feel capital constrained due to greater liability insurance and regulatory requirements. Regardless of the direction chosen to obtain capital, Provident expects cardiology specialists will need to make steady investments in their practices' technologies to remain competitive in the future.

Figure 6: Using AI to speed workflow and perform a full 3-D chest scan with myocardium motion, and fully automated quantification



Source: IBIS World, Alliance for Advanced Biomedical Engineering.

Recent CMS Changes Contribute to Opportunity for ASCs

CMS approval of 6 CPT codes for ASCs has created a landmark investment opportunity in the industry

Effective January 1, 2020, the Centers for Medicare and Medicaid Services (CMS) will reimburse percutaneous coronary interventions (PCI), such as certain angioplasty and stenting procedures completed at ambulatory surgery centers (ASCs). The American College of Cardiology (ACC) and the Society for Cardiovascular Angiography and Interventions (SCAI) expressed support in public comment for this change.

Specifically, CMS will now provide reimbursement in ASCs for six specific current procedural terminology (CPT) codes covering percutaneous transluminal coronary angioplasty with or without the placement of stents in a single major coronary artery or branch in addition to each additional branch of a major coronary artery. Please see Table 1 below for the complete list of added codes.

This landmark change creates financial uncertainty for hospitals regarding Medicare payment for their cardiology services while opening the door for greater competition from ASCs, making them more attractive to outside capital partners.

In fact, according to Jessica Nantz, president of Spring, Texas-based Outpatient HealthCare Strategies, the largest growth opportunity in the industry will be the burgeoning market of cardiac procedures performed in ASC settings. Looking to benefit from this move, ASC-focused technology companies are capitalizing on creating cost-effective technologies that can be used in ASCs while surgeons continue to become more proficient in performing surgeries in the outpatient setting. In order to achieve appropriate scale and remain competitive with this emerging trend, Provident expects that cardiology practices may need to make large investments utilizing outside capital to update their current tools and facilities.

Table 1: CPT codes now eligible for reimbursement in ASCs

CPT Code	Description	Medicare Physician Payment Rate	Medicare ASC Facility Payment Rate
92920	Percutaneous transluminal coronary angioplasty; single major coronary artery or branch	$556.14	$3,021.61
92921	Percutaneous transluminal coronary angioplasty; each additional branch of a major coronary artery	Bundled with 92920	Bundled with 92920
92928	Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch	$618.58	$6,057.81
92929	Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; each additional branch of a major coronary artery	Bundled with 92928	Bundled with 92928
C9600	Percutaneous transcatheter placement of drug-eluting intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch	N/A – Physicians use codes 92928/92929	$6,189.28
C9601	Percutaneous transcatheter placement of drug-eluting intracoronary stent(s), with coronary angioplasty when performed; each additional branch of a major coronary artery	Bundled with C9600	Bundled with C9600

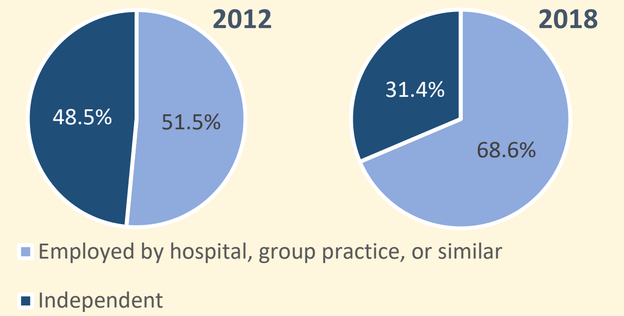
Source: Centers for Medicare & Medicaid Services, Outpatient Healthcare Strategies, ASC Communications, Ambulatory Surgery Center Association.

Private Equity Led Consolidation Opportunity

Low industry concentration makes it a prime target for consolidation

Due to increased financial security that being part of a larger practice or hospital affords practitioners, there is a definite trend towards consolidation of independent operators in this industry. From 2012 to 2018 there was a drop in independent operators from 48.5% to 31.4%, a significant change of 17.1% as shown in Figure 7.

Figure 7: Cardiology Specialist Employment

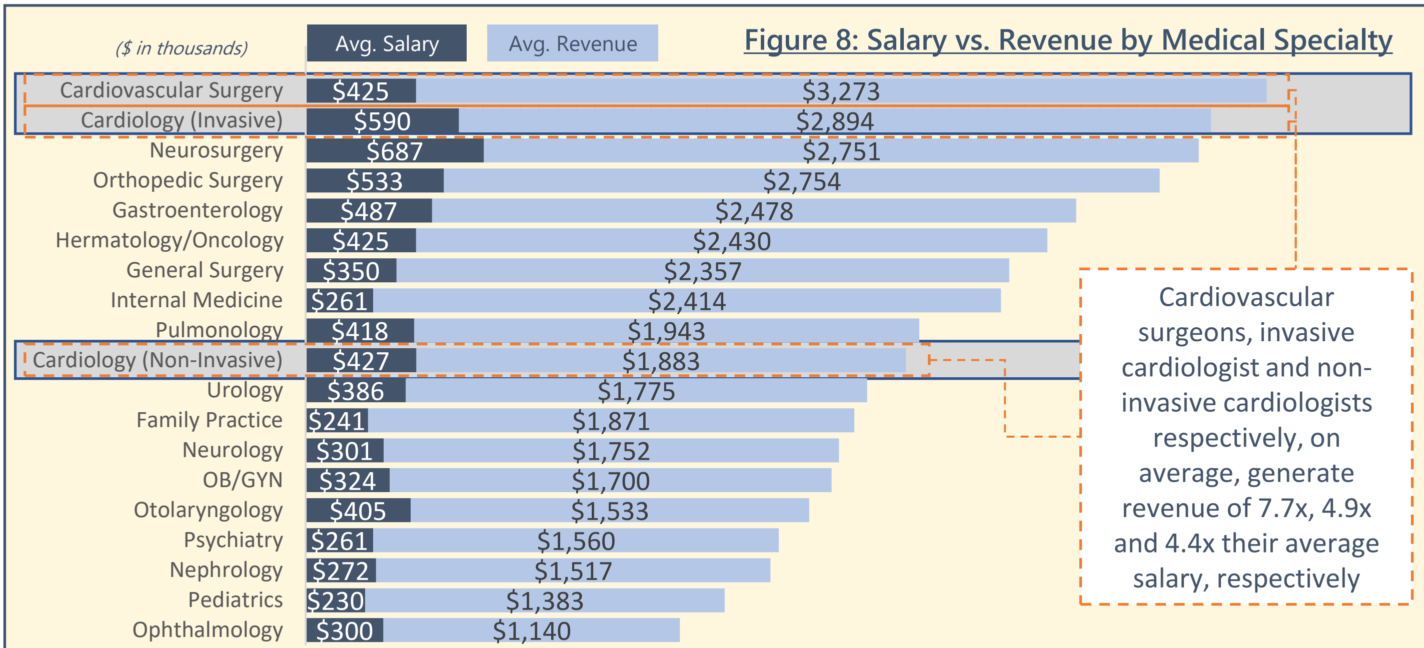


Predominantly, consolidation increases the financial stability of cardiology specialists amidst the rising costs of liability insurance, the payment concerns associated with high deductible health plans and HSAs, and the rising reimbursement pressures from Medicare and Medicaid. Consolidation also provides advantages of scale when negotiating insurance contracts and reaping referrals from primary care practitioners.

To date, industry concentration remains low despite the consolidation trend with the industry's six largest operators holding less than 20% of the market, collectively, and only 32,640 active cardiologists across the country. With the market being valued at over $45.7 billion, this represents a substantial opportunity to quickly gain market share by a large player in the industry or by a private equity investor, an attractive alternate opportunity to hospital consolidation for independent cardiology groups.

Private equity groups typically partner with one of the leading platforms in their region in order to consolidate fragmented markets through local and regional add-on acquisitions with the platform leading the way. Among medical practices cardiology is particularly attractive to PE firms given not only the aforementioned macroeconomic forces but also the favorable profitability of cardiologists vs. other medical specialties as shown in Figure 8.

Figure 8: Salary vs. Revenue by Medical Specialty



Source: Merritt Hawkins, IBIS World.

Private Equity Investments Explained

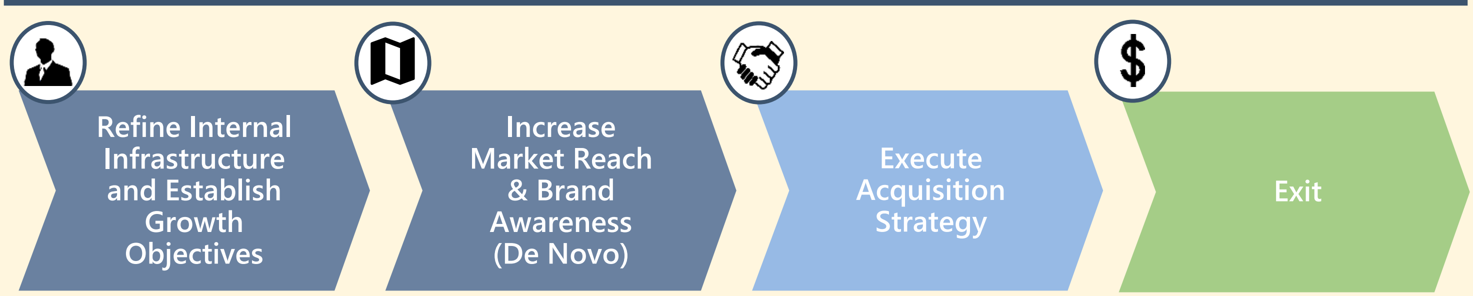
Private equity (PE) refers to investors and funds of capital that seek to make direct equity investments in privately-owned businesses. General Partners (GP) invest the fund's capital in businesses that align with their investment theses, seeking to exit their investments typically within three to seven years for substantial returns. Upon investment, or a recapitalization, a private equity firm will acquire a stake in a private business, providing the shareholders with significant liquidity in the form of cash proceeds as well as retained equity in the newly recapitalized company. Post-transaction, private equity firms provide access to capital and expertise as they seek to improve their investments both financially and operationally by building out the infrastructure to provide a foundation for growth.

The type of growth initiative varies from model to model. In most cases private equity firms will infuse their portfolio companies with capital to increase geographic density organically through de novo initiatives and inorganically by executing add-on acquisitions to enter into new geographies and increase market share. By expanding through acquisition, these investors create platforms used to integrate practices under one common management company.

In past decades, private equity investors sought to buy out practices entirely, accumulating all the profits created by providers. All physicians were paid a salary based on their production levels, which created a fair amount of unrest with their provider base. As the market evolved, general partners realized they needed to keep providers incentivized.

Today, when a practice partners with a private equity group, physician shareholders will be expected to rollover part of their ownership into the new company. This provides individuals with a large up front payment, taxed at lower capital gains rates, along with equity ownership in the new company. This new business model allows each provider to share in the profitability of the practice as they expand through acquisition and de novo initiatives. After a three to seven year holding period, it is anticipated that the practice will have grown in size tremendously, prompting the general partners to likely sell the platform to a larger private equity group. During this second transaction, physicians have the ability to roll additional equity into the newly formed company, providing cardiologists and cardiovascular surgeons with a second liquidity event, or lump-sum cash consideration.

The Four Stages of the Private Equity Investment



Conclusion – Provident's Perspective

Due in large part to the recent CMS approval of 6 CPT codes for ASCs, the ongoing developments in cardiac medical devices combined with other associated technological advances, and favorable macroeconomic tailwinds, Provident expects a significant inflow of capital from private equity, targeting cardiology practices, as well as associated ASCs for investment and acquisition.

Growth will be largely driven by a migration of patients to lower-cost ASCs as third-party and independent payers embrace cost savings that can be achieved without loss (and often improvement) in quality of care. We expect that procedures that were once only performed in the hospital to be commonplace in the ASCs of tomorrow. This will serve as a tremendous growth opportunity for the industry that private equity firms will quickly capitalize on without delay. This trend has already occurred in other industries such as gynecology, spine and other specialties and shows signs of beginning in the cardiac industry with the first transactions underway.

For investors, post-closing growth enhancement of add-on acquisitions can be realized through providing more efficient care, driving procedural volume into company-owned ambulatory surgery centers versus hospital operating rooms, adding full sub-specialty coverage, and scaling ancillary services to practices that have not fully invested into them.

At the same time, participating cardiologists and cardiovascular surgeons will be able to enjoy the benefits of scale while retaining the benefits of private practice. Most importantly, private practice cardiology specialists will be able to maintain clinical autonomy and work with a much more nimble organization as compared to a health system. These factors are what make private equity consolidation such an attractive alternative for cardiologists and cardiovascular surgeons looking to alleviate the administrative burden and mitigate risks of their private practices. Through partnering with a larger, privately-held entity, physicians will be able to enjoy the benefits of aligning with a management services organization while also sharing in the financial success of the enterprise through their compensation and equity appreciation.

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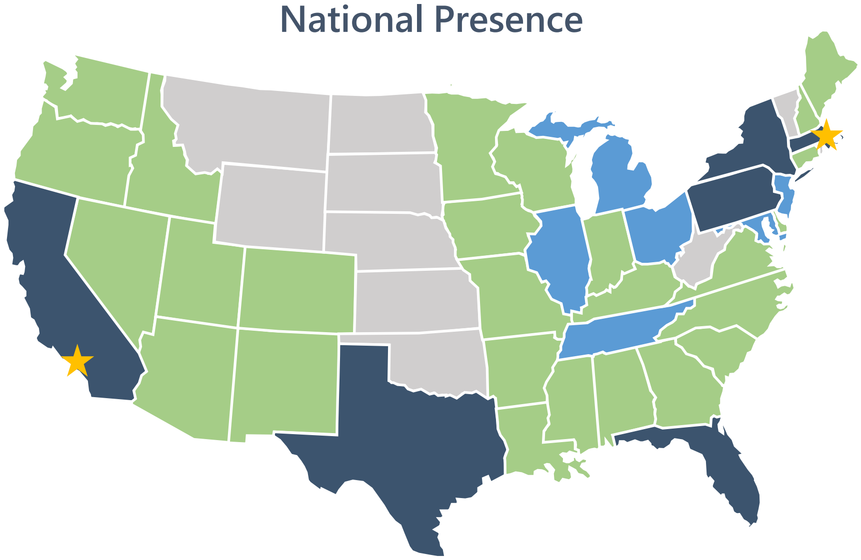
PROVIDENT HEALTHCARE PARTNERS

Provident Healthcare Partner's investment banking team works with privately owned healthcare companies to provide advisory services related to mergers and acquisitions. Prior to formal engagement, Provident works with companies to provide the upfront education to shareholders necessary to understand the economics, structure, and motivation of a transaction. Following the education process, if formally engaged, Provident leverages their extensive knowledge of the buyer universe to find the most compatible partner and drive valuations for a company's previously illiquid stock. Driving the entire transaction process, Provident facilitates and assists with deal structuring, negotiations, exit planning/processing, counseling amongst shareholders, and due diligence.

National Presence

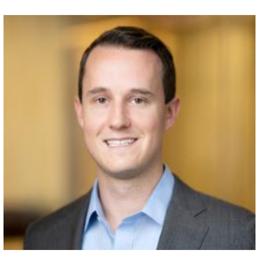


1-3 Transactions
4-6 Transactions
7+ Transactions
★ Provident Office

21+	Years of Healthcare Investment Banking
130+	Healthcare Deals Closed
12-15	Landmark Deals Per Year
25	Banking Professionals

Note: The above map represents states where Provident clients were headquartered. Provident has successfully closed transactions with clients operating in 45 states and Puerto Rico.

Provident Contacts:



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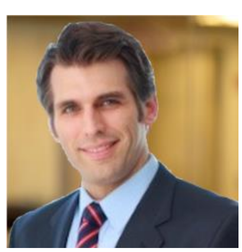

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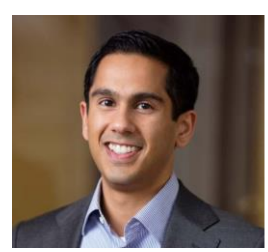

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Provident

Provident is the leading investment banking firm specializing in merger and acquisition advisory, strategic planning, and capital formation for middle-market and emerging growth healthcare companies.

The firm has a vast network of senior industry relationships, a thorough knowledge of market sectors and specialties, and unsurpassed experience and insight into the investment banking process.

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