UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2017
or
☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____to _____
Commission File Number 001-37751

American Renal Associates Holdings, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**27-2170749**
(State or other jurisdiction of incorporation or organization)	**(IRS Employer Identification Number)**
500 Cummings Center, Suite 6550 Beverly, Massachusetts	**01915**
(Address of principal executive offices)	**(Zip code)**

(978) 922-3080
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, $0.01 par value	**New York Stock Exchange**

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer	☐		Accelerated filer	☒
Non-accelerated filer	☐	(Do not check if a smaller reporting company)	Smaller reporting company	☐
			Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value on June 30, 2017 (the last business day of the Company's most recently completed second quarter), of the voting common stock held by non-affiliates of the registrant, computed by reference to the closing price of the stock on that date, was $ 218,972,084 . The registrant does not have non-voting common stock outstanding.

As of March 5, 2018 there were 32,049,839 shares of the registrant's common stock outstanding.

Documents incorporated by reference

Portions of the registrant's proxy statement for its 2018 annual meeting of stockholders are incorporated by reference in Part III of this Form 10 - K.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K ("Form 10-K") contains certain "forward-looking statements" and information relating to us that are based on the beliefs of our management as well as assumptions made by, and information currently available to, us. Forward-looking statements include, but are not limited to, those statements that are based upon management's current plans and expectations as opposed to historical and current facts and are often identified in this report by use of words including but not limited to "estimates," "expects," "contemplates," "anticipates," "projects," "plans," "intends," "believes," "forecasts," "may," "should" and variations of such words or similar expressions. These statements are based upon estimates and assumptions made by our management that, although believed to be reasonable, are subject to numerous factors, risks and uncertainties that could cause actual outcomes and results to be materially different from those projected. These and other important factors, including those discussed in "Item 1. Business," "Item 1A. Risk Factors" and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Form 10-K, as such risk factors may be updated from time to time in our periodic filings with the Securities and Exchange Commission, may cause our actual results, performance or achievements to differ materially from any future results, performance or achievements expressed or implied by these forward-looking statements. Some of the factors that could cause actual results to differ materially from those expressed or implied by the forward-looking statements include, among others, the following:

- continuing decline in the number of patients with commercial insurance, including as a result of changes to the healthcare exchanges or changes in regulations or enforcement of regulations regarding the healthcare exchanges and challenges from commercial payors or any regulatory or other changes leading to changes in the ability of patients with commercial insurance coverage to receive charitable premium support;
- decline in commercial payor reimbursement rates;
- the ultimate resolution of the Centers for Medicare and Medicaid Services ("CMS") Interim Final Rule published December 14, 2016 related to dialysis facilities Conditions for Coverage (CMS 3337-IFC), including an issuance of a different but related Final Rule;
- reduction of government-based payor reimbursement rates or insufficient rate increases or adjustments that do not cover all of our operating costs;
- our ability to successfully develop de novo clinics, acquire existing clinics and attract new physician partners;
- our ability to compete effectively in the dialysis services industry;
- the performance of our joint venture subsidiaries and their ability to make distributions to us;
- changes to the Medicare end-stage renal disease ("ESRD") program that could affect reimbursement rates and evaluation criteria, as well as changes in Medicaid or other non-Medicare government programs or payment rates, including the ESRD prospective payment rate system final rule for 2018 issued on October 27, 2017;
- federal or state healthcare laws that could adversely affect us;
- our ability to comply with all of the complex federal, state and local government regulations that apply to our business, including those in connection with federal and state anti-kickback laws and state laws prohibiting the corporate practice of medicine or fee-splitting;
- heightened federal and state investigations and enforcement efforts;
- the impact of the litigation by affiliates of UnitedHealth Group, Inc., the Department of Justice inquiry, securities and derivative litigation and related matters;
- changes in the availability and cost of erythropoietin-stimulating agents and other pharmaceuticals used in our business;
- development of new technologies that could decrease the need for dialysis services or decrease our in-center patient population;
- our ability to timely and accurately bill for our services and meet payor billing requirements;

- claims and losses relating to malpractice, professional liability and other matters; the sufficiency of our insurance coverage for those claims and rising insurances costs; and any negative publicity or reputational damage arising from such matters;
- loss of any members of our senior management;
- damage to our reputation or our brand and our ability to maintain brand recognition;
- our ability to maintain relationships with our medical directors and renew our medical director agreements;
- shortages of qualified skilled clinical personnel, or higher than normal turnover rates;
- competition and consolidation in the dialysis services industry;
- deteriorations in economic conditions, particularly in states where we operate a large number of clinics, or disruptions in the financial markets;
- the participation of our physician partners in material strategic and operating decisions and our ability to favorably resolve any disputes;
- our ability to honor obligations under the joint venture operating agreements with our physician partners were they to exercise certain put rights and other rights;
- unauthorized disclosure of personally identifiable, protected health or other sensitive or confidential information;
- our ability to meet our obligations and comply with restrictions under our substantial level of indebtedness; and
- the ability of our principal stockholder, whose interests may conflict with yours, to strongly influence or effectively control our corporate decisions.

You should evaluate all forward-looking statements made in this Form 10-K in the context of these risks and uncertainties.

We caution you that the risks, uncertainties and other factors referenced above, many of which are beyond our control, may not contain all of the risks, uncertainties and other factors that are important to you. In addition, we cannot assure you that we will realize the results, benefits or developments that we expect or anticipate or, even if substantially realized, that they will result in the consequences or affect us or our business in the way expected. All forward-looking statements in this Form 10-K apply only as of the date made and are expressly qualified in their entirety by the cautionary statements included in this Form 10-K. We undertake no obligation to publicly update or revise any forward-looking statements to reflect subsequent events or circumstances.

All subsequent written and oral forward-looking statements attributable to us, or persons acting on our behalf, are expressly qualified in their entirety by these cautionary statements.

PART I

Item 1. Business.

Overview

We are the largest dialysis services provider in the United States focused exclusively on joint venture ("JV") partnerships with physicians. As of December 31, 2017 , we owned and operated 228 dialysis clinics in partnership with 401 nephrologist partners treating over 15,600 patients in 26 states and the District of Columbia.

We operate our dialysis clinics principally through a JV model, in which we partner primarily with local nephrologists to develop, own and operate dialysis clinics, while the providers of the majority of dialysis services in the United States operate through a combination of wholly owned subsidiaries and joint ventures. Substantially all of our clinics are maintained as separate joint ventures in which generally we have the controlling interest and our nephrologist partners and other joint venture partners have a noncontrolling interest. As of December 31, 2017 , on average we held 54% of the interests in our joint venture clinics and our nephrologist partners held 46% of the interests. We believe our JV model, combined with a high-quality operational infrastructure, provides our physician partners the independence to make improved clinical decisions so they can focus on maximizing patient care and grow their clinical practices.

We provide high-quality patient care and clinical outcomes to patients suffering from end-stage renal disease ("ESRD"). The loss of kidney function is normally irreversible. Kidney failure is typically caused by Type I and Type II diabetes, high blood pressure, polycystic kidney disease, long-term autoimmune attack on the kidney and prolonged urinary tract obstruction. ESRD is the stage of advanced kidney impairment that requires continued dialysis treatments or a kidney transplant to sustain life. Dialysis is the removal of toxins, fluids and salt from the blood of patients by artificial means. Patients suffering from ESRD generally require dialysis at least three times a week for the rest of their lives, unless or until the patient receives a kidney transplant.

According to United States Renal Data System, there were approximately 493,500 ESRD dialysis patients in the U.S. in 2015. The ESRD dialysis patient population has grown at an approximate compound rate of 3.8% from 2000 to 2015, the latest period for which such data is available. The growth rate is attributable to the aging of the population, increased incidence rates for diseases that cause kidney failure such as diabetes and hypertension, lower mortality rates for dialysis patients and growth rates of minority populations with higher than average incidence rates of ESRD.

Our core values create a culture of clinical autonomy and operational accountability for our physician partners and staff members. We believe our joint venture model has helped us become one of the fastest-growing national dialysis services platforms, in terms of the growth rate of our non-acquired treatments since 2013. We believe our approach has attracted physician partners and facilitated the expansion of our platform through de novo clinics.

Since 2013, we have opened 15 or more de novo clinics each year. From 2013 to 2017 , our total number of treatments grew at a compound annual growth rate ("CAGR") of 12.2%, driven primarily by increases in non-acquired treatments, which grew at a CAGR of 11.4%. During the same period, our revenues and Adjusted EBITDA-NCI have grown at a CAGR of 10.8% and 2.5%, respectively. For the year ended December 31, 2017 , our revenues, Adjusted EBITDA-NCI and net income attributable to us reached $752.5 million , $105.5 million and $4.9 million , respectively.

For definitions of Adjusted EBITDA and Adjusted EBITDA-NCI and a reconciliation of Adjusted EBITDA and Adjusted EBITDA-NCI to net income (loss), see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Non-GAAP Financial Measures."

Our Core Values

Our business and operating model emphasize the following core values:

- Take good care of the patients and the financial success will follow.
- Enable the nephrologist to practice as he/she deems appropriate.
- Provide the nephrologist the autonomy to make operational decisions.

- Acknowledge that clinic staff members are a critical and valuable asset; do everything possible to hire and retain the best possible staff.
- Listen to the practitioners and provide the tools needed to take excellent care of their patients.
- The corporate office works for our staff, our doctors and our patients.

Our Competitive Strengths

Our competitive strengths are well-aligned with an evolving healthcare services market that demands high-quality patient care, physician-centered care management and continuous clinical and administrative improvement and efficiency.

Exclusive Focus on the JV Model Delivers Compelling Value Proposition for Patients, Physicians and Payors

We are the largest joint venture-focused dialysis services provider in the United States. As of December 31, 2017 , we owned 228 outpatient dialysis clinics across 26 states and the District of Columbia in JV partnerships with our nephrologist partners. We have grown our network of clinics in a disciplined manner while focusing on partnering with high-quality physicians and employing well-trained clinical staff members. None of our physician partners have voluntarily terminated their partnerships with us since our founding in 1999. We believe our results reflect the compelling value proposition of our JV model:

For Patients

- ***High-quality patient care:*** Provided by well-qualified nephrologists adhering to best practices
- ***Well-trained and professional staff:*** Focused on patient care and comfort
- ***Consistent clinical outcomes:*** Meet or exceed Centers for Medicare and Medicaid Services ("CMS") core measures
- ***Attractive and comfortable facilities:*** Conveniently located within communities and equipped with state-of-the-art amenities
- ***Flexible schedules:*** Treatment schedules that accommodate patients' convenience
- ***Continuity of care:*** Continuity of care and consistent experience supported by minimal voluntary turnover of nephrologists and clinicians

For Physicians

- ***Clinical and operational autonomy:*** To focus on delivering high-quality patient care
- ***Outstanding clinical support:*** From well-qualified and motivated clinical staff
- ***Experienced managerial and operational support*** : For key functions such as clinical and technical services, billing, collections, payor contracting, regulatory and compliance
- ***Proactive education to patients of physicians*** : On insurance coverage to help alleviate cost and scope of coverage concerns
- ***Attractive work environment*** : Empowerment through partnership model to maximize patient care while optimizing clinic operating efficiency and driving practice growth

For Payors

- ***Cost containment:*** Provide high-quality care in an outpatient setting
- ***Quality care:*** Consistent high-quality clinical outcomes
- ***Robust compliance:*** Adherence to stringent billing, reimbursement and compliance procedures

Effectiveness of our JV Model in Delivering High Performance

We meet or exceed the core measures established by CMS to promote high-quality services in outpatient dialysis facilities. As an example, we have demonstrated strong performance in the ESRD Quality Incentive Program ("QIP"), which changes the way CMS pays for the treatment of patients with ESRD by linking a portion of payment directly to facilities' performance on CMS core measures. The ESRD QIP reduces future payments to dialysis facilities that do not meet or exceed certain performance standards. The maximum payment reduction CMS can apply to any facility is 2% of all payments for services performed by the facility in a given year. Since the inception of the QIP program in 2010, the impact of payment reductions on our revenues has not exceeded 0.1% of our revenues in any year. According to data recently released by CMS, only 10.5% of ARA's dialysis facilities with a QIP score received payment reductions under the ESRD QIP for measurement year 2016 (payment year 2018) as compared to 14.2% for the industry overall. Based on our performance in measurement years 2016, 2015, 2014 and 2013, our clinics have consistently performed above national averages with our QIP Total Performance Score of 64 in measurement year 2016 compared to the national average of 62, our QIP Total Performance Score of 70 in measurement year 2015 compared to the national average of 68, our QIP Total Performance Score of 76 in measurement year 2014 compared to the national average of 75 and our QIP Total Performance Score of 85 in measurement year 2013 compared to the national average of 81. We believe our performance is driven by the advantages of our partnership model.

Premier Brand Recognition and Alignment of Interests Makes ARA a Preferred Partner for Nephrologists

We believe that the ARA brand has a strong reputation and widespread recognition in the industry. We believe that our premier brand has been and will continue to be a key factor in our success. This reputation has been built since our inception, backed by the performance and success of our nephrologists and clinical staff. Our brand is further associated with high-quality care as evidenced by our clinical outcomes, patient satisfaction levels and physician satisfaction scores. According to the most recent Press Ganey survey, 98% of the 133 physicians who responded to the survey agreed or strongly agreed that our clinics provide high-quality care and service (with the remaining 2% giving neutral responses). Our exclusive focus on the JV model combined with our premium brand recognition afford us high success rates in partnering with nephrologists interested in pursuing a JV model.

Our nephrologists appreciate the quality of our dialysis clinics, best practices management services and solid track record of clinical and regulatory compliance. To date, none of our physician partners has voluntarily left us to join a competitor or terminated a partnership. Further, by owning a portion of the clinics where their patients are treated, our physician partners have a vested stake in the quality, reputation and performance of the clinics.

We believe our JV model drives growth by enabling our physician partners to reinvest in their practices and develop their practices by adding new nephrologists, which provides us with the opportunity to expand existing clinics or add new clinics. According to the Press Ganey survey, 99% of the responding physicians agreed or strongly agreed that they have adequate input into clinic decisions that affect their practices and 99% agreed or strongly agreed that they had confidence in ARA leadership (with the remaining 1% giving neutral responses). Our physician partners' satisfaction leads to positive references and new physician recommendations within the broader nephrology community, thereby enhancing our ability to partner with leading, established nephrologists. According to the Press Ganey survey, 99% of the responding physicians agreed or strongly agreed that they would recommend our clinics to other physicians and medical staff as a good place to practice medicine (with the remaining 1% giving neutral responses).

Proven De Novo Clinic Model Drives Predictable Market Leading Organic Growth

We have primarily grown through de novo clinic development. We have developed a streamlined approach to opening clinics that results in competitive return on invested capital for both our company and our physician partners. As of December 31, 2017 , we had a portfolio of 177 clinics developed as de novo clinics. Since 2013, we have opened 15 or more de novo clinics each year.

Highly competitive de novo clinic economics. A typical de novo clinic is 8,000 to 9,000 square feet, has 15 to 20 dialysis stations (performing approximately 10,000 to 11,000 annual treatments on average) and requires approximately $1.5 to $1.9 million of capital for equipment purchases, leasehold improvements and initial working capital. A portion of this required capital is typically equity capital funded by us and our nephrologist partners in proportion to our respective ownership interests, and the balance of such development cost is typically funded through third-party loans that we and our nephrologist partners guarantee on a basis proportionate to our respective ownership interests.

We have a long track record of achieving positive clinic-level monthly EBITDA within, on average, six months after the first treatment at a clinic. The consistent historical growth of each year's class of de novo clinics attests to the success of our

de novo model. For example, eight de novo clinics opened in 2010 generated an average revenue of $2.3 million per clinic in their first year, which grew to $3.8 million per clinic in their second year and $4.4 million per clinic in their third year (a three-year CAGR of approximately 38%); 12 de novo clinics opened in 2011 generated an average revenue of $1.4 million per clinic in their first year, which grew to $2.8 million per clinic in their second year and $3.1 million per clinic in their third year (a three-year CAGR of approximately 47%); 16 de novo clinics opened in 2012 generated an average revenue of $1.7 million per clinic in their first year, which grew to $3.0 million per clinic in their second year and $3.4 million per clinic in their third year (a three-year CAGR of approximately 41%); 17 de novo clinics opened in 2013 generated an average revenue of $1.8 million per clinic in their first year, which grew to $2.9 million per clinic in their second year and $3.6 million per clinic in their third year (a three-year CAGR of approximately 41%); 15 de novo clinics opened in 2014 generated an average revenue of $1.6 million per clinic in their first year, which grew to $3.7 million per clinic in their second year and $4.6 million per clinic in their third year (a three-year CAGR of approximately 70%); 16 de novo clinics opened in 2015 generated an average revenue of $2.2 million per clinic in their first year which grew to $3.4 million in their second year; and 20 de novo clinics opened in 2016 generated an average revenue of $1.6 million per clinic in their first year.

Robust business development efforts to maintain momentum of signing de novo clinics. Our successful track record helps us attract new nephrologists and maintain an active pipeline of de novo clinics to be opened in the near future. We frequently receive inquiries from nephrologists seeking to partner with us as a result of recommendations from our existing nephrologist partners or based on our brand recognition and reputation in the nephrologist community. Our senior management consistently meets with high-quality lead nephrologists and engages them in discussions regarding the benefits of partnering with us. This affords us the opportunity to selectively partner with the most qualified and credentialed physicians. At any given time, we have an active roster of nephrologists, including existing physician partners, seeking to open clinics within the next twelve months.

We refer to clinics for which a medical director agreement, an operating agreement and a management services agreement have been signed as our "signed de novo clinics." On average, our signed de novo clinics begin serving patients within 15 months of signing of the agreements. From that point, a clinic may take approximately two to three years to achieve the stabilized revenue initially projected for that clinic. As of December 31, 2016 , we had 33 signed de novo clinics and 14 of such clinics were opened as of December 31, 2017 . As of December 31, 2017 , we had 25 signed de novo clinics, which are scheduled to be opened in 2018 and 2019.

Our track record of opening signed clinics within a predictable timeline and ability to maintain momentum of signing de novo clinics has helped us sustain our industry-leading growth rates in terms of percentage growth in non-acquired treatments.

Innovative and Experienced Management Team with a Proven Track Record

Our management team is among the most experienced in the dialysis services industry. Our executives, including our two founders, have on average 25 years of professional experience in the dialysis services industry while our two founding executives have on average 39 years of professional experience in the dialysis services industry. Our two founding executives and other senior management firmly believe in the advantages of the JV model and the importance of attracting, developing and retaining skilled staff at our clinics, and they endeavor to continue to build our company on these founding philosophies. Most of our executive and senior management have held multiple positions with one or more of our competitors and have contacts throughout the dialysis services industry with physicians, clinical staff, payors, vendors and other parties. Our executive leadership is supported by an experienced team of divisional vice presidents and regional vice presidents who maintain a hands-on approach and are focused on the success of each local clinic in their respective markets. This breadth and depth of experience gives our management team the knowledge and resources to more effectively manage relations with physician partners and other personnel, enhance operating results and promote growth.

Our Growth Strategy

We believe our focus on the JV model, our core values and the strength of our experienced management team have driven the growth in our patient population and physician relationships, and position us to execute on the following growth strategies.

Partner with High-Quality Nephrologists with Strong Local Market Reputation and Patient Relationships

We partner with nephrologists who are well-qualified and have strong reputations and patient relationships in the local market. We have a well-established protocol to evaluate the quality of a potential nephrologist partner. Our success to date, together with the opportunities provided by our JV model, make us an attractive partner for nephrologists, including those

nephrologists whose contractual relationships as medical directors at our competitors' clinics have expired. Further, our nephrologist partners also generate awareness and recognition of our company within the broader nephrology community and provide recommendations of potential new nephrologist partners. Consequently, we have the opportunity to be selective when choosing our future physician partners.

According to a report prepared for the American Society of Nephrology, there are over 10,000 full-time practicing nephrologists in the United States. We believe that many of these physicians treat their patients at clinics in which they have no ownership and may be interested in partnering with us in a JV model. As of December 31, 2017 , we have partnered with 401 of these nephrologists, or approximately 4% of all full-time practicing nephrologists, giving us significant opportunity to grow as a premier JV model operator within the nephrologist community.

Grow Organically Through De Novo Clinics in New and Existing Markets and Expansion of Existing Clinics

We intend to leverage our JV model and our reputation in the nephrology community to continue to develop de novo clinics in new as well as existing markets in the United States. Our nephrologist relationships and strong reputation in the industry allow us to maintain an active pipeline of de novo clinics to be opened in the near future, which we expect to drive continued growth in our non-acquired treatments and non-acquired revenues. As of December 31, 2017 , our portfolio included 177 clinics developed as de novo clinics.

De novo clinics with new physician partners. We believe our strong brand reputation and widespread recognition in the closely knit nephrologist community give us an opportunity to attract new nephrologists as our physician partners and staff. We believe that patients choose to have their dialysis services at one of our clinics due to their relationship with our physician partners and staff, consistent high-quality care, a comfortable patient care experience and convenience of location and available treatment times. Our de novo clinics showcase a core competence in building and operating de novo clinics that are supported by our best practice management services and grow predictably. The historical growth of these clinics provides evidence of the consistency and success of our de novo clinic model. Since 2013, we have opened 50 new clinics with new physician partners, representing approximately 60% of our de novo clinic openings.

Additional clinics with existing physician partners. Our JV model provides our physician partners with opportunities to grow their individual or group practices within their local markets. The growth of our partners' practices contributes to the development of additional clinics with existing partners as new JVs in the same geographic area. New clinics sometimes begin as smaller clinics under the common supervision of an existing clinic in the same market. Over time, these new clinics may grow to the same size as the original clinic, or they may continue to operate fewer shifts or otherwise offer services to a smaller patient base. In either case, new clinics allow us to increase our market share by serving new patients who may find the new clinic location more convenient, or by freeing up capacity at the larger clinic where existing patients may have previously sought treatment. Since 2013, we have opened 33 new clinics with existing physician partners in their respective local markets, representing approximately 40% of our de novo clinic openings.

Expansion of capacity in existing clinics. Depending on demand and capacity utilization, we may have space within our existing clinics to accommodate a greater number of dialysis stations or operate additional shifts in order to increase patient volume without compromising our quality standards. Such expansions offer patients more flexibility in scheduling and leverage the fixed cost infrastructure of our existing clinics, which in turn provides high incremental returns on capital invested. We intend to continue to work with our physician partners to broaden our market share in existing markets by seeking opportunities to expand our treatment volume through expansion of existing clinics. From 2013 to 2017 , we added 148 dialysis stations to our existing clinics, representing the equivalent of nearly nine de novo clinics or an average per year increase in capacity of 1.0%, which further enhance our non-acquired treatment growth rate profile.

Opportunistically Pursue Acquisitions

We currently operate 51 clinics that we acquired and integrated with our JV model. Because the acquisition cost for an existing dialysis clinic is typically higher than the cost to develop a de novo clinic, we have a disciplined approach to acquiring existing dialysis clinics. Our acquisition strategy is primarily driven by the quality of the nephrologist in the market. We pursue acquisitions in situations where we believe the nephrologist could be a potential partner and where there is an attractive opportunity to enter a new market or expand within an existing market.

Our disciplined acquisition strategy has yielded significant benefits. Since 2013, we have acquired 23 clinics, three of which were acquired in 2017 . Under our JV model, we provide best practices management services such as incorporating the clinic into our revenue cycle management, helping physician partners expand their practices and improving the acquired clinic's cost structure including for laboratory testing, medical supplies, medications and services. As a result, the profitability

of these clinics is typically improved. Clinics that we have acquired before 2017 (for which we have data and have no prior relationship) have, on average, increased revenue in the twelve months following acquisition by approximately 35% over the prior twelve-month period.

We intend to continue to opportunistically pursue acquisitions of clinics with reputations for quality and service. In making these acquisitions, we intend to integrate the ownership of the acquired clinic with our JV model. In addition, from time to time, we may evaluate the acquisition of existing dialysis clinic operators that have implemented a JV model similar to ours.

Deliver on Our Core Values with Best Practices Management Services

We intend to continue to focus on providing high-quality patient care, clinical autonomy to physicians and extensive professional, operational and managerial support to our clinics through management services arrangements. Based on our experience in the dialysis services industry, we will continue to follow a disciplined approach to enhancing performance in key areas such as: revenue cycle management; patient registration; facilitation and verification of insurance; payor interaction and arrangements; and billing and collection. We believe this has positively impacted our revenue per treatment and allowed us to maintain low levels of days' sales outstanding and bad debt expense. In addition, we believe our management services reduce the burden of back-office management responsibilities associated with the daily operations of a dialysis clinic and enable our physician partners to focus on providing high-quality patient care. As a result, we consistently deliver high-quality clinical outcomes.

Our management team adheres to several core values that foster best practices which we believe set us apart from other companies in our industry. Since our inception, we have placed a strong emphasis on attracting, developing and retaining skilled staff at our clinics. We provide our clinical staff with necessary resources, equipment and administrative support to perform their duties effectively, and we closely monitor our staff's satisfaction levels, responsibilities and workloads. We believe this emphasis promotes staff satisfaction and helps us attract and retain skilled clinical personnel. We believe our low employee turnover helps improve our operating efficiency and clinical outcomes.

As a result of our growth and the other competitive strengths outlined above, we are able to generate significant cash flows from the operation of our JV clinics. This cash flow enhances our financial flexibility and enables us to pursue our de novo clinic growth strategy. The cash flows generated by our JV clinics also enable us to make distributions to our physician partners so that they may reinvest in and continue to grow their practices.

Our Clinics and Services

We provide dialysis services for patients with ESRD, which is the end stage of advanced chronic kidney disease characterized by the irreversible loss of kidney function. ESRD patients require continued dialysis treatments or a kidney transplant to sustain life. Our clinics offer both in-center and home dialysis options to meet the needs of patients.

Our clinics primarily provide in-center hemodialysis treatments and ancillary items and services. Hemodialysis typically lasts approximately 3.5 hours per treatment and is usually performed at least three times per week. Many of our clinics also offer services for dialysis patients who prefer and are able to receive either hemodialysis or peritoneal dialysis in their homes. Home-based dialysis services consist of providing equipment and supplies, training, patient monitoring, on-call support services and follow-up assistance. Registered nurses train patients and their families or other caregivers to perform either hemodialysis or peritoneal dialysis at home.

We contract with third parties to provide ancillary services, such as laboratory testing and pharmacy services. We contract with a specialized laboratory to provide routine laboratory tests for dialysis and other physician-prescribed laboratory tests for ESRD patients. These tests are performed to monitor a patient's ESRD condition, including the adequacy of dialysis, as well as other medical conditions of the patient. We work with our laboratory partner to utilize information systems which provide information to physicians and staff members of the dialysis clinics regarding critical outcome indicators.

We equip our clinics with technologically advanced dialysis equipment and amenities. Our clinics generally contain between 15 and 20 dialysis stations, one or more nurses' stations, a patient waiting area, examination rooms, a supply room, a water treatment space to purify water used in hemodialysis treatments, staff work areas, offices and a staff lounge. Our clinics are also typically outfitted with amenities, including heated massaging chairs, wireless internet and individual television sets.

In addition to a medical director, each clinic has a clinic manager, typically a registered nurse, who supervises the day-to-day operations of the center and its staff. The staff of each clinic typically consists of registered nurses, patient care technicians, a social worker, a registered dietician, facility technical manager and other administrative and support personnel.

Local nephrologists are a key factor in the success of our clinics. Caring for ESRD patients is typically the primary clinical activity of a nephrologist, although a nephrologist may have other clinical activities including the post-surgical care of kidney transplant patients and the diagnosis, treatment and management of kidney disorders other than ESRD. An ESRD patient generally seeks treatment at a clinic where his or her nephrologist has privileges to admit patients. Nephrologists with privileges at our clinics typically include our nephrologist partners, as well as other nephrologists that apply for and receive practice privileges to treat their patients at our clinics. As of December 31, 2017 , there were over 401 nephrologists (including our nephrologist partners) with privileges to practice at one or more of our clinics.

Clinic Growth

The number of our clinics and patients has consistently increased since our inception. The following table sets forth the number of our clinics and patients as of the end of, as well as the number of de novo clinics and acquired clinics added during, each of the years indicated below.

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
Clinics	228	214	192	175	150	129	108	93	83	75	64	53	43	31	27	19
De Novo	15	20	16	15	17	16	12	8	7	12	11	5	9	5	3	7
Acquired	3	2	2	11	5	6	3	3	3	—	2	5	3	1	5	5
Sold, Merged or Closed	(4)	—	(1)	(1)	(1)	(1)	—	(1)	(2)	(1)	(2)	—	—	(2)	—	(1)
Patients	15,637	14,590	13,151	11,581	10,095	8,942	7,374	6,628	5,405	4,545	3,740	3,041	2,548	2,048	1,716	1,097

From our inception to December 31, 2017 , we have opened 184 de novo clinics, acquired 61 clinics, sold five clinics, closed four clinics and merged eight clinics, accounting for a total of 228 clinics as of December 31, 2017 .

Location and Capacity of Our Clinics

As of December 31, 2017 , we owned and operated 228 dialysis clinics treating patients in 26 states and the District of Columbia, each of which is consolidated in our financial statements. The locations of these clinics as of December 31, 2017 were as follows:

State	Clinics	State	Clinics	State	Clinics
Arizona	2	Indiana	5	Ohio	17
California	5	Kentucky	7	Oklahoma	2
Colorado	13	Louisiana	2	Pennsylvania	15
Connecticut	3	Maryland	5	Rhode Island	9
Delaware	2	Massachusetts	12	South Carolina	10
Florida	43	Michigan	5	Texas	22
Georgia	20	Missouri	2	Virginia	6
Idaho	1	New Jersey	5	Washington, D.C.	2
Illinois	3	New York	9	Wisconsin	1
				TOTAL	**228**

We have developed our clinics in a manner that we believe promotes high-quality patient care. We select the geographic area of the clinic locations based on the identification of well-qualified nephrologist partners with whom we are interested in developing a clinic. In cooperation with our nephrologist partners, we select a specific location to maximize convenience to the patients based on demographic and other factors. Other considerations in identifying geographic areas and specific locations include:

- the availability and cost of qualified and skilled personnel, particularly nursing and technical staff;
- the area’s demographics and population growth estimates; and
- state regulation of dialysis and healthcare services.

Some of our dialysis clinics may be operating at or near capacity. We continuously monitor our dialysis clinics as they are nearing capacity. If a clinic is approaching full capacity, we may accommodate additional patient volume through increased hours or days of operation, or, if additional space is available within an existing clinic, by adding dialysis stations, or we may open an additional clinic in that local area. Substantially all of our clinics lease their space on terms that we believe are customary in the industry. See "Item 2. Properties." Opening of de novo clinics or expansion of existing clinics may be subject to review for state regulatory compliance, as well as those conditions relating to participation in the Medicare ESRD program. In states that require a certificate of need or clinic license, additional approvals would generally be necessary for development or expansion.

Quality Care

Our corporate management team promotes a patient- and physician-focused corporate culture, among other founding philosophies. We believe our culture and founding principles improve the clinical outcomes and operating performance of our dialysis clinics and our clinics' compliance with applicable laws and regulations. For example, we believe that our culture of compliance, implemented by facilitating internal compliance audits, compliance hotlines, HIPAA compliance safeguards, as well as through management services such as manuals, policies and procedures and training, has contributed to our clinics' strong track record in regulatory matters.

On a monthly basis, our medical directors and our chief medical officers review clinical outcomes on a clinic-by-clinic basis and plan for continuous improvement. Our clinical team works routinely with individual physicians, clinic managers, and dieticians in an effort to optimize clinical outcomes such as anemia management, adequacy of the dialysis treatment (Kt/V), nutrition (albumin levels), arterial venous fistula (AV fistula) and other important indicators. Based on the review of outcomes data, action plans, including clinical programs and educational offerings, are developed and implemented. We have created a clinical ladder system that is used to track key performance data and effect improvement. We believe this system encourages our staff to strive for excellence, thereby enhancing quality of care and improving patient outcomes.

Erythropoietin-stimulating agents ("ESAs") and other pharmaceuticals

Patients receiving dialysis are also typically administered one or more pharmaceuticals and supplements. Patients are commonly treated with a genetically engineered form of erythropoietin, a naturally occurring protein that stimulates the production of red blood cells. ESAs are used in connection with all forms of dialysis to treat anemia, a medical complication most ESRD patients experience. Anemia involves a shortage of oxygen-carrying red blood cells. Because red blood cells bring oxygen to all the cells in the body, untreated anemia can cause severe fatigue, heart disorders, difficulty concentrating, reduced immune function and other problems. Anemia is common among renal patients, caused by insufficient erythropoietin, iron deficiency, repeated blood losses and other factors. Patients are also commonly treated with vitamin D analogs and iron supplements. There are a limited number of manufacturers of ESAs, and any interruption of supply or product cost increases could adversely affect our operations. See "Item 1A. Risk Factors—Risks Related to Our Business—Changes in the availability and cost of ESAs and other pharmaceuticals could adversely affect our operating results and financial condition as well as our ability to care for patients" and "Item 1A. Risk Factors—Risks Related to Our Business—If our suppliers are unable to meet our needs, if there are material price increases or if we are unable to effectively access new technology, our operating results and financial condition could be adversely affected."

Our Corporate Structure

American Renal Associates Holdings, Inc. ("Holdings" and together with its subsidiaries, the "Company," "we," "us," "its" and "our") conducts its business exclusively through its indirect wholly-owned subsidiary, American Renal Holdings Inc. ("ARH"), and its operating subsidiaries. ARH was originally incorporated in Delaware in July 1999. In May 2010, we were acquired by certain affiliates of Centerbridge Capital Partners, L.P. (together with such affiliates, "Centerbridge") and certain members of management in a series of transactions (the "Acquisition"). Holdings and its wholly-owned subsidiary, American Renal Holdings Intermediate Company, LLC, the direct parent of ARH, were incorporated and formed, respectively, in Delaware in March 2010 in anticipation of the Acquisition and to provide flexibility in structuring our debt financing in the future.

The primary asset of ARH is its ownership of 100% of the membership interests in American Renal Associates LLC ("ARA OpCo"). ARA OpCo's primary assets are its ownership interests in our operating clinic joint ventures. ARA OpCo is also the direct parent of American Renal Management LLC, the subsidiary through which we conduct our management services for our joint ventures, including revenue cycle management, compliance and other back-office operations.

Our Operating Structure

Substantially all of our clinics are maintained as separate joint ventures in which we have a controlling interest, and our nephrologist partners, who may be single practitioners, an affiliated group of nephrologists, hospitals or multi-practice institutions, have the noncontrolling interest. As of December 31, 2017 , on average we, through American Renal Associates LLC or another subsidiary, held 54% of the interests in our joint venture clinics and our nephrologist partners held 46% of the interests. Such noncontrolling interests may be held directly or indirectly through entities formed by affiliated groups of nephrologists. From time to time, we may purchase additional membership interests in our JVs. Some of our joint venture partners, in particular those partners consisting of affiliated groups of nephrologists, have interests in multiple clinics with us.

Each of our JVs is organized as a limited liability company or limited partnership (other than one JV, which is a corporation), typically organized in either the State of Delaware or the state in which the clinic is located. Although the terms on which each JV is owned and operated vary to some extent, our JV arrangements have many common features. Agreements that we typically enter into in connection with our clinics include joint venture operating agreements, medical director agreements and management services agreements pursuant to which we provide various support services to our clinics. See "—JV Operating Agreements," "—Medical Directors" and "—Management Services" below.

Our relationships with physicians and other sources of recommendations for our joint ventures are required to comply with the federal anti-kickback statute, among a variety of other state and federal laws and regulations. We believe our JV arrangements satisfy many but not all of the elements of the federal anti-kickback statute safe harbors and may not meet all of the elements of analogous state safe harbors. Arrangements that do not meet all of the elements of a safe harbor do not necessarily violate the federal anti-kickback statute but are susceptible to government scrutiny. We have endeavored to structure our JVs to satisfy as many safe harbor elements as reasonably possible. Investments in our JVs are offered on a fair market value basis and provide returns to the physician investors only in proportion to their actual investment in the venture. We believe that our agreements do not violate the federal anti-kickback statute; however, since the arrangements do not satisfy all of the elements for safe harbor protection, these arrangements could be challenged. See "Item 1A. Risk Factors—Risks Related to Our Business—Our arrangements and relationships with our physician partners and medical directors do not satisfy all of the elements of safe harbors to the federal anti-kickback statute and certain state anti-kickback laws and, as a result, may subject us to government scrutiny or civil or criminal monetary penalties or require us to restructure such arrangements." Additional risks relating to our JV operating model and the federal and state laws and regulations under which we operate are described under "Item 1A. Risk Factors."

JV Operating Agreements

We typically enter into a joint venture operating agreement with our nephrologist partners and a management services agreement with the joint venture pursuant to which we provide various support services to our clinics. See "—Management Services" below. The JV operating agreements allocate ownership, rights and responsibilities in our clinics and provide, among other things, for:

- allocation and distribution of profits and losses;
- procedures and conditions for the sale of membership interests;
- voting procedures; and
- establishment of a managing committee, in order to control the business and affairs of the clinic.

Typically, we are entitled to appoint a majority of the members of such managing committee.

Our JV operating agreements generally provide for unanimous or supermajority consent relating to certain major actions affecting the respective joint venture. Such actions typically include:

- a sale, transfer, liquidation or reorganization of all or substantially all of the clinic, or a merger or dissolution of the clinic;
- a lease of all or substantially all of the clinic;
- the admission of a new or substituted member;
- an amendment or modification of the applicable operating agreement or the constituent documents for the clinic;

- certain transactions with affiliates; and
- any capital calls except to the extent specifically provided.

Some of our JV operating agreements provide for our supermajority or unanimous consent for certain other significant actions. Additionally, some of our JV operating agreements provide that if we plan to establish a new dialysis clinic in a previously agreed to restricted area, the physician partners have the right to participate in the ownership and operation of such new dialysis clinic.

A substantial number of our JV operating agreements grant our physician partners rights to require us to purchase their ownership interests, at the estimated fair value as defined within the applicable JV operating agreement, at certain set times or upon the occurrence of certain triggering events. Our nephrologist partners in each JV are generally required to collectively maintain a minimum percentage, most commonly at least 20%, of the total outstanding membership interests in the clinic following the exercise of their put rights. Event-based triggers of these rights in various JV operating agreements may include the sale of all or substantially all of our assets, closure of the clinic, change of control, departure of key executives, third-party members' death, disability, bankruptcy, retirement, or if third-party members are dissolved and other events. Time-based triggers give physician partners at certain of our clinics the option to require us to purchase previously agreed upon percentages of their ownership interests at certain set dates. The time when some of the time-based put rights may be exercised was accelerated upon our initial public offering ("IPO") in 2016 and may be further accelerated upon the occurrence of certain events, such as those noted above.

In addition, if we sell all or a portion of our interest in certain of our JVs to a third party, some of the physician partners have the right to participate in the sale on the same terms and conditions applicable to us or may, in some instances, require us to first offer to sell our interest to the JV members before we may sell to a third party. Most of our JV operating agreements also grant the JV or its members a right of first refusal, such that the selling member must first offer its interest to the JV and then to the other members before it may sell its interest to a third party.

A limited number of our JV operating agreements do not exist in perpetuity, and give our physician partners the right to purchase all of the membership interests held by us, at fair market value, within a specified period before a previously agreed to termination date, generally over 20 years. If such physician partners do not exercise such call right, the JV will dissolve in accordance with the provisions in the JV operating agreement unless all partners agree to continue the JV. Also, some of our JV operating agreements grant our physician partners the right to purchase a portion or all of our membership interests in the JV upon the occurrence of certain triggering events, which may include sale or transfer of all or substantially all assets to a third party, merger and other change of control transactions, at a purchase price typically based, in part, on the transaction valuation.

Generally, the JV operating agreements also provide the JV with the option to redeem all of the membership interests of a member if such member, including our nephrologist partners and us, materially breaches the JV operating agreement, dissolves, files for bankruptcy or provides written notice of such member's withdrawal from the JV or upon the occurrence of such other events as provided in the operating agreement. If such redemption is pursuant to the member's withdrawal or breach of the JV operating agreement, the purchase price of such member's membership interest is calculated based on the book value; in all other cases, the purchase price is calculated based on the fair market value.

Under our JV operating agreements, the JV's net profits, if any, subject to the limitations described below, are typically distributed no less often than quarterly in proportion to holdings of membership interests. These distributions are made out of the JV's net cash flows as determined in accordance with the JV operating agreement, either by a majority in interest of the JV members or by the managing committee of the JV. As we hold the majority of membership interests in nearly all of our JV clinics, we generally have the right to determine distribution amounts and are not required to obtain the consent of our nephrologist partners prior to the making of distributions from our JVs so long as a pro rata distribution is made to our partners and consistent with the terms of the operating agreement. However, we routinely consult and work closely with our physician partners to determine the distribution amount. Because distributions are limited to net cash flow available, the JV clinics are generally unable to distribute amounts that would result in the JV having insufficient capital to pay debt, interest obligations or general operating expenses or have insufficient working capital reserves.

Our JV operating agreements typically require the members of a JV to make additional capital contributions when the managing committee determines that such financing is needed and the requisite member vote, which may be a majority, supermajority or unanimous vote depending on the agreement, is obtained. As we hold the majority of membership interests in nearly all of our JV clinics and are therefore entitled to appoint a majority of the managing committee in most cases, we generally have the power to initiate capital calls, and we exercise this power from time to time. Capital contributions are made in proportion to holdings of membership interests.

Medical Directors

In order for our clinics to be eligible to participate in the Medicare ESRD program, a qualified physician must act as medical director for each of our clinics. We generally engage practicing or board-certified nephrologists to serve as medical directors. In locations where an appropriately certified physician is not available to serve as a medical director, we seek waivers from CMS for a physician who has other qualifications to serve as our medical director. As of December 31, 2017 , three of our medical directors operated under such waivers. Medical directors also typically own a noncontrolling interest in the clinic as a result of our JV model. Medical directors are responsible for:

- supervising medical aspects of a clinic's operations;
- administering and monitoring patient care policies;
- administration of dialysis treatments, including medically necessary items and services;
- administration of staff development and training programs; and
- assessment of all patients.

Our medical directors play an important role in quality assurance activities at our clinics and in coordinating the delivery of care. Our medical directors receive compensation for their services subject to independent third-party valuations. Our medical director arrangements are typically for an initial ten-year term and provide for automatic renewals at the end of the term, typically for another five-year term, unless specified events occur or either we or the respective medical director provides prior written notice of intent not to renew for another term. Our medical director arrangements also include geographic restrictions similar to those of other dialysis service providers that restrict our medical directors from competing with us. These non-compete provisions restrict the physicians from competing with us by owning or providing medical director services to other dialysis clinics but do not prohibit our medical directors from providing direct patient care services at other locations. Such agreements do not require our medical directors to recommend our dialysis clinics to their patients or directly refer their patients to our dialysis clinics.

Management Services

Our executive and senior management team operates out of our Beverly, Massachusetts headquarters. Executive management located at our corporate headquarters includes our chairman and chief executive officer, chief operating officer, chief financial officer and general counsel. Other corporate staff includes personnel responsible for the management of operations, clinical and regulatory services, corporate compliance, technical services, project management and billing and collection specialists. Our chief medical officers, divisional vice presidents and regional vice presidents are dispersed geographically throughout the United States.

Our corporate management is focused on supporting the operation of our dialysis clinics and our nephrologist partners. We enter into agreements to provide management services to our clinics. For compensation for these services, we typically receive a percentage of the clinic's net revenues. Our management agreements are typically for an initial ten-year term and provide for automatic renewals at the end of the term, typically for another five-year term, unless specified events occur or either we or the clinic provides prior written notice of intent not to renew for another term.

Pursuant to these agreements, we provide our JV clinics with all of the managerial, accounting, financial, technological and administrative support necessary to operate our clinics, which enables our nephrologist partners to focus on delivering high-quality patient care. We strive to improve the clinical outcomes and operating and financial performance of our dialysis clinics, ensure compliance with applicable laws and regulations, and identify opportunities that are consistent with our growth strategy. The management services we provide to our clinics generally include:

- negotiating terms for pharmaceuticals and medical supplies;
- human resources functions;
- general accounting functions;
- clinical and technical services;
- supervising site searches and negotiating leases;
- obtaining and maintaining licenses, permits and certifications;

- providing manuals, policies and procedures;
- performing payroll processing, personnel and benefit administration;
- billing and collection and payment of accounts receivable;
- providing staff training programs;
- recommending and purchasing of equipment;
- preparing and filing cost reports;
- preparing annual operating budgets;
- administering financial and clinical information systems;
- procuring and maintaining insurance policies; and
- performing legal and compliance services.

Competition

The dialysis services industry is highly competitive. Because of the lack of barriers to entry into the dialysis services business and the ability of nephrologists to be medical directors for their own clinics, competition for growth in existing and expanding markets is not limited to large competitors with substantial financial resources. According to CMS data, there were more than 6,800 dialysis clinics in the United States as of November 1, 2017. We face competition from large and medium-sized providers for patients and for the acquisition of existing dialysis clinics. We face particularly intense competition for the identification of nephrologists, whether as attending physicians, medical directors or physician partners. In many instances, our competitors have taken steps to include comprehensive non-competition provisions within various agreements, thereby limiting the ability of physicians to serve as medical directors or potential joint venture partners for competing dialysis clinics. These non-competition provisions often contain both time and geographic limitations during the term of the agreement and for a period of years thereafter.

The dialysis services industry has undergone rapid consolidation. As of the end of 2014, according to the USRDS 2016 Annual Data Report, Fresenius Medical Care and DaVita together accounted for 68.9% of dialysis patients in the United States. The largest not-for-profit provider of dialysis services, Dialysis Clinic, Inc., accounted for 3.1% of dialysis patients in the United States. Hospital-based providers accounted for 4.0% of dialysis patients in the United States, while independent providers and small- and medium-sized dialysis organizations, including our company, collectively accounted for the remainder. Since the time of the data reported in the USRDS 2016 Annual Data Report, consolidation has increased due to recent acquisitions, intensifying competition in the dialysis services industry.

In addition, over the past few years, several dialysis companies, including some of our largest competitors, have adopted a JV model of dialysis clinic ownership resulting in increased competition in the development, acquisition and operation of JV dialysis clinics. Competition to develop clinics using a JV model could materially adversely affect our growth as well as our operating results and financial condition. Some of our competitors have significantly greater financial resources, more dialysis clinics, a significantly larger patient base and are vertically integrated and, accordingly, may be able to achieve better economies of scale by asserting leverage against their suppliers, payors and other commercial parties.

Reimbursement

We derive our revenues from providing outpatient and inpatient dialysis treatments. The sources of these revenues are principally government-based programs, including Medicare, the Department of Veteran Affairs, Medicaid and Medicare-certified health maintenance organization plans and commercial insurance plans. Accordingly, changes to reimbursement under these programs, as well as federal budgetary constraints, may adversely affect our revenues. As a result of the automatic budget reductions resulting from the Budget Control Act of 2011 (i.e., sequestration), since April 1, 2013, Medicare reimbursement has been subject to a 2% reduction, and this reduction has been extended through 2027. In addition, we are subject to a variety of billing and coding requirements, including the International Classification of Diseases, 10th Edition (“ICD - 10”). The adoption of ICD-10 could create claims processing issues for our clinics or our payors that could result in additional claims submission or payment delays or denials, and we may incur additional costs for computer system updates, training and other resources required to implement ICD-10.

Medicare Reimbursement

ESRD Prospective Payment Rate System

Prior to January 1, 2011, Medicare reimbursed outpatient dialysis centers using a composite payment rate methodology. Under that methodology, dialysis centers received a fixed per treatment rate for providing general dialysis services to a Medicare beneficiary and additional payments for ancillary services such as physician-ordered tests and certain pharmaceuticals, such as EPO. In July 2008, Congress enacted the Medicare Improvements for Patients and Providers Act ("MIPPA"). This legislation introduced a new payment system for dialysis services that began on January 1, 2011 whereby ESRD payments are made under the ESRD PPS, a bundled payment rate which provides a fixed rate for the dialysis treatment itself plus a majority of the renal-related items and services provided to a patient during the dialysis treatment, including laboratory services, pharmaceuticals, such as ESAs, and medication administration, which were historically billed separately under the composite rate system. This bundled payment rate is set by CMS each calendar year by (i) updating that base rate from the prior year by a market basket percentage factor (accounting for changes over time in the prices of the mix of goods and services included in dialysis) minus a productivity adjustment; and (ii) multiplying the resulting rate by a wage index budget neutrality adjustment factor.

To determine the payment rate for an adult, the bundled base rate payable by Medicare is then subject to: (i) facility-level adjustments; (ii) patient-level adjustments; (iii) a training add-on (if applicable); and (iv) an outlier adjustment. The facility level adjustments include modifications for geographic variations in wage rates using an area wage index (which applies to the labor-related share of the base rate) and an upward adjustment for facilities that furnish a low volume of dialysis treatments (i.e., fewer than 4,000 treatments per year) and apply for the adjustment. The patient level adjustments are patient-specific "case-mix" adjustments that accommodate variations in resources required for treatment due to patient age, body surface area, body mass index, time since onset of renal dialysis and the presence of certain co-morbidities. Facilities that are certified to furnish training services receive a training add-on payment for peritoneal dialysis and home dialysis training treatments that are adjusted by a geographic area wage index. If a facility treats patients who have high resource requirements in the following categories, an additional upward outlier adjustment is made to the payment rate: (i) ESRD-related drugs and biologicals that were separately billable prior to January 1, 2011; (ii) ESRD-related laboratory tests that were separately billable prior to January 1, 2011; (iii) ESRD-related medical/surgical supplies that were separately billable prior to January 1, 2011; and (iv) ESRD-related drugs that were covered under Medicare Part D prior to January 1, 2011, excluding oral-only drugs used in the treatment of ESRD. Finally, under MIPPA, CMS has the discretion to include such other payment adjustments to the applicable base rate as CMS deems appropriate. Since the introduction of the ESRD PPS, such adjustments have varied from year to year.

A majority of dialysis patients are covered under Medicare. Dialysis patients become eligible for primary Medicare coverage at various times, depending on their age or disability status, as well as whether they are covered by an employer group health plan. Generally, for a patient not covered by an employer group health plan, Medicare becomes the primary payor after a three-month waiting period, but this three-month waiting period may be partially or completely waived if the patient participates in a self-dialysis training program or has a kidney transplant. For a patient covered by an employer group health plan, Medicare generally becomes the primary payor after 33 months, which includes the three-month waiting period and a 30-month coordination of benefits period, or earlier if the patient's employer group health plan coverage terminates or the employer group health plan took into account the patient's age-based Medicare entitlement when he or she retired and is paying benefits secondary to Medicare. When Medicare becomes a patient's primary payor, the payment rate for that patient shifts from the employer group health plan rate to the Medicare payment rate.

For each covered treatment, Medicare pays 80% of the amount set by the Medicare program. The patient is responsible for the remaining 20%. In most cases, a secondary payor, such as Medicare supplemental insurance, a state Medicaid program or a commercial health plan, covers all or part of these balances. Some patients who do not qualify for Medicaid but otherwise cannot afford insurance can apply for premium payment assistance from charitable organizations. If a patient does not have secondary insurance coverage, we endeavor to collect payment from the patient using reasonable collection efforts consistent with federal and state law. However, in these cases we are generally unsuccessful in collecting from the patient the 20% portion of the bundled rate that Medicare does not pay.

During the years ended December 31, 2017 and 2016 , the Medicare ESRD PPS payment rates for our clinics were approximately $248 and $247, per treatment, respectively.

CMS issues annual updates to the ESRD PPS, which may impact the base rate as well as the various adjusters. The ESRD PPS Final Rule for 2018 was issued on October 27, 2017 (the "2018 Final Rule") and set the rates for calendar year 2018. According to CMS estimates, the 2018 Final Rule will result in an overall increase of payments to dialysis facilities of

0.5%, with freestanding dialysis facilities receiving an update of 0.5% and hospital-based dialysis facilities receiving an update of 0.7%. The finalized 2018 ESRD base rate of $232.37 is an increase of $0.82 from the calendar year base rate of $231.55. The 2018 Final Rule also outlines the coverage and payment policies for dialysis services furnished to individuals with acute kidney injury ("AKI"), in accordance with sections 1861(s)(2)(F) and 1834(r) of the Trade Preferences Extension Act of 2015, which requires Medicare to reimburse ESRD facilities for such services. Certain adjustment factors, including facility level and patient level adjustments, the training add-on and the outlier adjustment, could have the effect of increasing or decreasing the actual payment rate for some of our clinics at levels that are different than the overall national average update listed in the 2017 Final Rule's impact analysis tables. Future adjustments to the ESRD PPS implemented by CMS could have a negative impact upon our Medicare program revenues. See "Item 1A. Risk Factors—Risks Related to Our Business—The bundled payment system under the Medicare ESRD program may not reimburse us for all of our operating cost."

ESRD PPS Quality Incentive Program

The ESRD QIP affects Medicare payments based on performance of each facility on a set of quality measures. Dialysis facilities that fail to achieve the established quality standards have payments for a particular year reduced by up to 2%, based on a previous year's performance. CMS modifies the ESRD QIP each year, such that the quality measures selected, the performance scoring system and other factors that impact a dialysis facility's ESRD QIP performance will likely differ from year to year. As of December 31, 2017, CMS has established the ESRD QIP performance measures for payment years through 2021, but these measures may be subject to further change by CMS. The payment year 2018 ESRD QIP measure set contains eight clinical measures and three reporting measures, encompassing anemia management, dialysis adequacy, vascular access type, patient experience of care, infections, hospital readmissions and mineral metabolism management. For the payment year 2019 ESRD QIP, CMS created a new Safety Measure Domain as a third category of measures. CMS finalized the inclusion of the National Healthcare Safety Network Dialysis Event reporting measure into the ESRD QIP measure set for payment year 2019, and then combined this measure with the existing NHSN Bloodstream Infection clinical measure in a new NHSN BSI Measure Topic. Additionally, CMS finalized two substantive changes to the hypercalcemia clinical measure for payment year 2019. For the payment year 2020 ESRD QIP, CMS will use eight clinical measures and seven reporting measures, encompassing anemia management, dialysis adequacy, vascular access type, patient experience of care, infections, mineral metabolism management, safety, pain management, depression management and hospital readmissions. Also for payment year 2020, CMS added a Standardized Hospitalization Ratio clinical measure and adopted a new Ultrafiltration Rate reporting measure. The payment year 2021 ESRD QIP measures replace the two existing vascular access type measures with new standard fistula rate and long-term catheter rate clinical measures, and revises the standardized transfusion ratio clinical measure, but otherwise leaves the payment year 2020 ESRD QIP measures unchanged.

Medicaid Reimbursement

Medicaid programs are state-administered programs partially funded by the federal government. These programs are intended to provide health coverage for patients whose income and assets fall below state-defined levels and who are otherwise uninsured. These programs also serve as supplemental reimbursement sources for the co-insurance payments due from Medicaid-eligible patients with primary coverage under Medicare. Some Medicaid programs also pay for additional services, including some oral medications that are not covered by Medicare. We are an authorized Medicaid provider in all of the states in which our clinics are located.

Commercial Insurance

Before Medicare becomes the primary payor, a patient's employer group health plan or private insurance plan, if any, is generally responsible for payment for a 30-month coordination period. Although commercial payment rates vary, average commercial payment rates are generally higher than Medicare reimbursement rates. Commercial payment rates are either rates negotiated between us and insurers or third-party administrators or rates based on usual and customary fee schedule. We are continuously in the process of negotiating agreements with our commercial payors and if our negotiations result in overall commercial rate reductions in excess of our commercial rate increases, our revenues and operating results could be negatively impacted. See "Item 1A. Risk Factors—Risks Related to Our Business—If the rates paid by commercial payors decline, our operating results and cash flows would be adversely affected." Payment methods include a single lump-sum per treatment amount, referred to as bundled rates, and separate payments for treatments and pharmaceuticals used as part of the treatment, referred to as fee for service rates. In certain circumstances, we may bill commercial payors as non-contracted providers.

Government Regulation

Our dialysis operations are subject to extensive federal, state and local governmental laws and regulations, all of which are subject to change. These regulations require us to meet various standards relating to, among other things, government payment programs, operation of the clinics and equipment, management of clinics, personnel qualifications, maintenance of proper records, quality assurance programs and patient care. Achieving and sustaining compliance with these laws may prove costly, and the failure to comply with these laws and other laws can result in civil and criminal penalties such as fines, damages, penalties, overpayment recoupment, loss of enrollment status and exclusion from federal healthcare programs. See "Item 1A. Risk Factors—Risks Related to Our Business—Increased scrutiny in our industry and potential regulatory changes could adversely affect our operating results and financial condition" and "—If we fail to adhere to all of the complex federal, state and local government regulations that apply to our business, we could suffer severe consequences that could adversely affect our operating results and financial condition."

Licensure and Certification

Our clinics must obtain and maintain certification from CMS to participate in the Medicare and Medicaid programs. In some states, we are also required to secure additional state licenses and permits for our clinics. Governmental authorities inspect our clinics to determine if we satisfy applicable federal and state standards and requirements, including the conditions of participation for coverage in the Medicare and Medicaid programs, prior to initial operations and subsequently on a periodic basis. On occasion, these inspections result in deficiency findings, which we address on an expedited basis to ensure compliance with applicable rules and regulations. We do not generally experience significant difficulty in obtaining certifications or licenses or in maintaining our certification or licenses. However, we have experienced some delays in obtaining Medicare certifications from CMS. If CMS delays were to become widespread, it could have an adverse effect on our operating results and financial condition. Any adverse action relating to our certifications or licenses could adversely affect our operating results and financial condition. See "Item 1A. Risk Factors—Risks Related to Our Business—We are subject to CMS certification, claims processing requirements and audits, and any adverse findings in a CMS review could adversely affect our operating results and financial condition."

Professional Licensing Requirements

Our clinical personnel must satisfy professional licensing requirements and maintain their professional licenses in the states where they practice their professions. Activities that qualify as professional misconduct under state law may subject them to sanctions, including the loss of their licenses and could subject us to sanctions as well. Some state professional boards impose reciprocal discipline for violations and sanctions arising out of conduct in other states. Healthcare professionals licensed in multiple states could lose all their licenses due to conduct or sanctions in one state. Professional licensing sanctions may also result in overpayments or exclusion from participation in governmental healthcare programs, such as Medicare and Medicaid, as well as other third-party programs. We cannot employ or contract with excluded parties, and we therefore monitor the Office of Inspector General's list of excluded parties on a monthly basis.

Federal Anti-Kickback Statute

The federal anti-kickback statute imposes criminal and civil sanctions on persons who knowingly and willfully, directly or indirectly, solicit, receive, pay or offer remuneration in return for any of the following with respect to items or services that are paid for in whole or in part by Medicare, Medicaid or other federal healthcare programs:

- the referral of a patient to a person for an item or service or for arranging for an item or service;
- the purchasing, leasing, ordering or arranging for any good, facility, service or item; or
- recommending the purchasing, leasing, ordering or arranging for any good, facility, service or item.

Court decisions have held that the anti-kickback statute is violated whenever one of the purposes of remuneration is to induce referrals. The Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act, commonly and jointly referred to as the Affordable Care Act (the "ACA"), amended the federal anti-kickback statute to clarify that, in order to violate the anti-kickback statute, a defendant need not have known of the existence of the federal anti-kickback statute or had the specific intent to violate it. The ACA also amended the federal anti-kickback statute to provide that any claims submitted for items or services that result from an arrangement that violates the federal anti-kickback statute are false claims under the False Claims Act.

Violations of the federal anti-kickback statute are punishable by imprisonment for up to five years, fines of up to $25,000 per violation, or both. Larger fines can be imposed upon corporations under the provisions of the U.S. Sentencing Guidelines and the Alternate Fines Statute. Individuals and entities convicted of violating the federal anti-kickback statute are also subject to mandatory exclusion from participation in Medicare, Medicaid and other federal healthcare programs for a minimum of five years. Civil penalties for violations of these laws include up to $50,000 in monetary penalties per violation, repayments of up to three times the total payments between the parties and suspension from future participation in Medicare, Medicaid and other federal healthcare programs. Some state anti-kickback statutes also include criminal penalties.

Regulations issued by the Office of Inspector General of the Department of Health and Human Services ("HHS") create exceptions to the federal anti-kickback statute, known as safe harbors, for certain business transactions and arrangements. Transactions and arrangements that satisfy every element of a safe harbor are deemed not to violate the federal anti-kickback statute. Transactions and arrangements that do not satisfy all elements of a relevant safe harbor do not necessarily violate the federal anti-kickback statute but may be subject to greater scrutiny by enforcement agencies.

Our medical directors refer patients to our clinics. Accordingly, our agreements with our medical directors must be in compliance with the federal anti-kickback statute. The personal services safe harbor to the federal anti-kickback statute, which permits personal services furnished for fair market value, is the safe harbor most applicable to our medical director agreements. Although we endeavor to structure our medical director agreements to comply with the personal services safe harbor, most of our medical director agreements do not satisfy all elements of the personal services safe harbor. In particular, because of the nature of our medical directors' duties, we believe it is impossible to satisfy the safe-harbor requirement that if the services are provided on a part-time basis, as they are with our medical directors, the agreement must specify the schedule of intervals of service, their precise length and the exact charge for these intervals.

Accordingly, our medical director arrangements do not fully qualify for personal services safe harbor protection and may be subject to scrutiny by enforcement agencies.

We operate all of our clinics in accordance with our JV model under which we have a controlling interest in most of our clinics. Our relationships with our nephrologist partners and other referral sources relating to these JVs are required to comply with the federal anti-kickback statute. Although we endeavor to structure these relationships to comply with the applicable safe harbors to the federal anti-kickback statute, these relationships meet many, but not all, of the elements of the safe harbors. We believe that our JV investments are offered on a fair market value basis, and our JVs provide returns to our nephrologist partners only in proportion to their actual investment in the joint venture clinic. While we believe that our JVs do not violate the federal anti-kickback statute, our JVs may be subject to scrutiny by enforcement agencies.

In addition, a number of our physician partners own shares of ARA as a result of common stock offerings that we have made prior to our IPO. Although we endeavor to structure our relationships with these physician partners to comply with the applicable safe harbors to the federal anti-kickback statute, these relationships meet many, but not all, of the elements of the safe harbors. These investments were offered at a price equal to the fair market value of our common stock at the time of each such offering based on independent third-party valuations, and our common stock provides returns to our physician partners only in proportion to the number of shares they own. While we believe that these offerings do not violate the federal anti-kickback statute, they may be subject to scrutiny by enforcement agencies.

For our de novo clinics, part of the capital required to construct and operate the clinics is achieved through third-party loans and intercompany loans. In addition, once a clinic is operating, general working capital is provided to the clinic through a third-party loan or intercompany loan. As intercompany loans do not fall squarely within the scope of a safe harbor to the federal anti-kickback statute, they may be subject to greater scrutiny by enforcement agencies. See "Item 1A. Risk Factors—Risks Related to Our Business—Our arrangements and relationships with our physician partners and medical directors do not satisfy all of the elements of safe harbors to the federal anti-kickback statute and certain state anti-kickback laws and, as a result, may subject us to government scrutiny or civil or criminal monetary penalties or require us to restructure such arrangements."

For some of our clinics, we lease clinic space from entities in which physicians or other referral sources hold an ownership interest, and we sublease space to referring physicians. We endeavor to structure these relationships to comply with the space rental safe harbor to the federal anti-kickback statute and set rent on a fair market value basis. We believe that these arrangements satisfy the elements of the space rental safe harbor.

Because we purchase and sell items and services in the operation of our clinics that may be paid for, in whole or in part, by Medicare or other federal healthcare programs and because we acquire such items and services at a discount, we must structure our purchase arrangements to comply with the federal anti-kickback statute. We endeavor to structure our

relationships with our suppliers to comply with the discount safe harbor to the federal anti-kickback statute, which permits rebates and reductions in the amount a buyer is charged for an item or service based on an arm's-length transaction if, among other requirements, the discount is fully and accurately reported on the invoice or applicable cost report and, if a rebate, the terms are fixed and disclosed in writing to the buyer at the time of the initial purchase. We believe that our vendor contracts that contain discount or rebate provisions substantially comply with the discount safe harbor.

If any of our relationships with physicians or other referral sources are alleged to violate or found to violate the federal anti-kickback statute, we may be required to terminate or restructure some or all of our relationships with, purchase some or all of the ownership interests of, or refuse referrals from these referral sources and could be subject to civil and criminal sanctions and penalties, refund requirements and exclusion from government healthcare programs, including Medicare and Medicaid. See "Item 1A. Risk Factors—Risks Related to Our Business—If we fail to adhere to all of the complex federal, state and local government regulations that apply to our business, we could suffer severe consequences that could adversely affect our operating results and financial condition."

Corporate Practice of Medicine and Fee-Splitting

The laws and regulations relating to our operations vary from state to state, and many states prohibit general business corporations, as we are, from practicing medicine, controlling physicians' medical decisions or engaging in some practices such as splitting professional fees with physicians. Possible sanctions for violation of these restrictions include loss of license and civil and criminal penalties. In addition, agreements between the corporation and the physician may be considered void and unenforceable. Neither we nor the JVs directly employ physicians to practice medicine but rather establish relationships on an independent contractor basis through our medical director agreements. We have endeavored to structure our activities and operations to avoid conflict with state law restrictions on the corporate practice of medicine, and we have endeavored to structure all of our corporate and operational agreements to conform to any licensure requirements, fee-splitting and related corporate practice of medicine prohibitions. However, other parties may assert that we are engaged in the corporate practice of medicine or unlawful fee-splitting despite the way we are structured. See "Item 1A. Risk Factors—Risks Related to Our Business—If our arrangements are found to violate state laws prohibiting the corporate practice of medicine or fee-splitting, we may not be able to operate in those states."

Stark Law

The Stark Law is a federal civil statute which prohibits a physician who has a financial relationship (i.e., an ownership or compensation arrangement), or who has an immediate family member who has a financial relationship, with entities, including ESRD providers, from referring Medicare patients (and, as interpreted, Medicaid patients) to these entities for the furnishing of designated health services ("DHS"), subject to certain limited exceptions. Designated health services under the Stark Law include durable medical equipment and supplies, home health services, outpatient prescription drugs, inpatient and outpatient hospital services and clinical laboratory services. Relationships that would otherwise implicate the Stark Law may be protected by complying with certain exceptions to the Stark Law, such as the personal services, space rental, equipment rental and fair market value compensation exceptions. All of the requirements of a Stark Law exception must be met in order for referrals for DHS to an entity by a physician with a financial relationship with the entity to be compliant with the law.

Dialysis services are not included within the definition of DHS because they are reimbursed under the ESRD PPS bundle (a composite rate payment) and are therefore excepted from the definition of DHS. Similarly, all other services that are covered under the ESRD PPS bundle are not DHS. However, clinical laboratory services, outpatient prescription drugs and inpatient hospital services sometimes are rendered in connection with dialysis and are not reimbursed under the ESRD PPS bundle. Accordingly, depending on the relationships between physicians and the providers of these designated health services associated with dialysis, the Stark Law could apply.

The Stark Law also prohibits the entity receiving a prohibited referral from filing a claim or billing for the services arising out of the prohibited referral. Unlike the federal anti-kickback statute, the Stark Law is a strict liability statute, meaning that a violation does not require a particular mental state (e.g., knowledge of the prohibited nature of an arrangement or an intention to induce referrals). Accordingly, the prohibition applies regardless of the reasons for the financial relationship and the referral. Sanctions for violations of the Stark Law include denial of payment for the services provided in violation of the law, refunds of amounts collected in violation of the law, a civil penalty of up to $15,000 for each service arising out of the prohibited referral, exclusion from the federal healthcare programs, including Medicare and Medicaid, and a civil penalty of up to $100,000 against parties that enter into a scheme to circumvent the Stark Law. Violations of the Stark Law also can form the basis for False Claims Act liability if a person acts with the requisite intent under the False Claims Act. The types of financial arrangements between a physician and an entity that trigger the self-referral prohibitions of the Stark Law are broad and include direct and indirect ownership and investment interests and compensation arrangements.

Several of our JVs have agreements with acute care hospitals to provide dialysis services to the hospitals' inpatients. The Hospital Inpatient Prospective Payment Systems rules and Stark Law regulations contain an exception which allows JVs to provide such services under an agreement with the hospitals. Specifically, dialysis services furnished by a hospital that is not certified to provide ESRD services under applicable law are not considered DHS. Accordingly, the Stark Law prohibitions do not apply to these services. However, because these agreements establish a financial relationship between our clinics and these hospitals (and indirectly between our physician partners and these hospitals), any referrals from our physician partners to these hospitals for DHS implicate the Stark Law. Accordingly, we endeavor to structure these agreements to comply with the rental of office space, rental of equipment, personal service arrangements and/or fair market value compensation exceptions to the Stark Law.

We believe that various exceptions under the Stark Law and the definition of DHS apply to our provision of dialysis services in our clinics and under our agreements with hospitals. However, CMS could determine that the Stark Law requires us to restructure existing compensation agreements with our medical directors and to repurchase or to request the sale of ownership interests in our JVs held by referring physicians or, alternatively, to refuse to accept referrals for DHS from these physicians. If CMS were to interpret the Stark Law to apply to aspects of our operations and we were not able to achieve compliance, it could have a material adverse effect on our operations.

If any of our business transactions or arrangements including those described above were found to violate the federal anti-kickback statute or the Stark Law, we could face criminal, civil and administrative sanctions, including possible exclusion from participation in Medicare, Medicaid and other state and federal healthcare programs. Any findings that we have violated these laws could have a material adverse impact on our earnings. See "Item 1A. Risk Factors—Risks Related to Our Business—If we fail to adhere to all of the complex federal, state and local government regulations that apply to our business, we could suffer severe consequences that could adversely affect our operating results and financial condition."

Fraud and Abuse Under State Law

Many states in which we operate dialysis clinics have statutes prohibiting physicians from holding financial interests in various types of medical clinics to which they refer patients. Some states also have laws similar to the federal anti-kickback statute that may affect our ability to receive referrals from physicians with whom we have financial relationships, such as our medical directors or physician partners. Some of these statutes include exemptions applicable to our medical directors and other physician relationships. Some, however, include no explicit exemption for medical director services or other services for which we contract with and compensate referring physicians or for joint ownership interests of the type held by some of our referring physicians. If these laws change or are interpreted to apply to referring physicians with whom we contract or to our physician partners, we may be required to terminate or restructure some or all of our relationships with, purchase some or all of the ownership interests of, or refuse referrals from these referring physicians and could be subject to civil and administrative sanctions, refund requirements and exclusion from government healthcare programs, including Medicare and Medicaid. Such events could have a material adverse impact on our business.

Federal Laws Related to Fraud and False Statements Relating to Healthcare

Federal laws, including HIPAA and the False Claims Act, make it unlawful to make false statements or commit fraud in connection with a health benefit program, including Medicare, Medicaid and private third-party payors. These federal laws include prohibitions on (i) making false statements in connection with compliance with Medicare conditions for coverage, (ii) making false statements or submitting false documents or otherwise concealing or covering up a material fact in connection with the delivery of or payment for healthcare benefits, items or services, (iii) making or attempting to make a scheme or artifice to defraud any healthcare benefit program, (iv) knowingly and willfully embezzling or stealing from a healthcare benefit program, and (v) willfully obstructing a criminal investigation of a healthcare offense. Any violation of these laws may lead to significant penalties and may have a material adverse effect upon our business. See "Item 1A. Risk Factors—Risks Related to Our Business—If we fail to adhere to all of the complex federal, state and local government regulations that apply to our business, we could suffer severe consequences that could adversely affect our operating results and financial condition."

The False Claims Act

The federal False Claims Act ("FCA") prohibits presenting false claims, false statements and false requests for payment to the federal government. In part, the FCA authorizes the imposition of treble damages and civil penalties on any person who:

- knowingly presents or causes to be presented to the federal government, a false or fraudulent claim for payment or approval;
- knowingly makes, uses or causes to be made or used a false record or statement that is material to getting a false or fraudulent claim paid or approved by the federal government;
- has possession, custody or control of property or money used, or to be used, by the government and knowingly delivers, or causes to be delivered, less than all of that money or property;
- knowingly makes, uses or causes to be made or used, a false record or statement material to an obligation to pay or transmit money or property to the Government, or knowingly conceals or knowingly and improperly avoids or decreases an obligation to pay or transmit money or property to the government; or
- conspires to do any of the foregoing.

Actions under the FCA may be brought by the Attorney General or as a qui tam action by a private individual in the name of the government. Under the FCA, it is unlawful for healthcare providers to knowingly file a false claim for reimbursement with the federal government or with a government contractor. As a result of the ACA, any claim including items or services resulting from a violation of the federal anti-kickback statute constitutes a false or fraudulent claim under the FCA. The ACA also created a new obligation for healthcare providers to repay to the federal government any overpayments that they receive from the federal government within 60 days of identification. A provider may incur substantial penalties for knowingly failing to repay an overpayment to the federal government, and, under the ACA, if such overpayments are not disclosed and returned to the federal government within 60 days of identification, the overpayment becomes an obligation under the FCA. The FCA requires that providers allocate resources to identify overpayments and to train employees on the potential repercussions of filing false claims with the federal government or government contractors and to monitor employee actions to detect potential false claims.

The penalties for a violation of the FCA range from $11,181 to $22,363 for each false claim plus three times the amount of damages caused by each false claim. The federal government has used the False Claims Act to prosecute a wide variety of alleged false claims and fraud allegedly perpetrated against Medicare and other federal healthcare programs, including coding errors, billing for services not rendered, the submission of false cost reports, billing for services at a higher payment rate than appropriate, billing under a comprehensive code as well as under one or more component codes included in the comprehensive code and billing for care that is not considered medically necessary. Such prosecutions have resulted in substantial (multi-million and multi-billion dollar) settlements in addition to criminal convictions under applicable criminal statutes. In addition to the provisions of the FCA, which provide for civil enforcement, the federal government can use several criminal statutes to prosecute persons who are alleged to have submitted false or fraudulent claims for payment to the federal government.

We use an independent third-party accounting firm to perform annual billing, coding and payment audits, and when overpayments are identified, we endeavor to promptly return them to the applicable payor.

State False Claims Laws

Many states have adopted their own false claims laws, which generally mirror the federal False Claims Act and are designed to prevent false claims from being submitted to state healthcare programs and commercial insurers. Violations of these laws may result in monetary penalties or other sanctions for the violator. We believe that we are in material compliance with these laws and regulations. However, violation of these laws and the imposition of related consequences could have a materially adverse impact on our operations.

The Health Insurance Portability and Accountability Act of 1996

The Health Insurance Portability and Accountability Act of 1996, as amended by the federal Health Information Technology for Economic and Clinical Health Act ("HITECH Act"), and the privacy and security regulations implementing the statute (collectively referred to as "HIPAA"), requires us to provide certain protections to patients and their protected health information ("PHI"). HIPAA requires us to afford patients certain rights regarding their PHI and to limit uses and disclosure of their PHI existing in any form of media (electronic and hardcopy). HIPAA also implemented the use of standard transaction code sets and standard identifiers that covered entities like us must use when engaging in certain electronic healthcare transactions, including activities associated with billing and the collection of payment for healthcare services. HIPAA also requires that we enter into agreements with those entities that perform services on our behalf ("business associates") and who may have access to PHI. We have a well-established HIPAA compliance program, including a privacy officer, a security

officer, policies and procedures, HIPAA compliance Business Advocate Agreements with vendors and workforce training. In accordance with the requirements of HIPAA, we have implemented administrative, physical and technical safeguards, including safeguards applicable to electronic PHI. We perform periodic risk assessments with the assistance of a third party and in accordance with the requirements of HIPAA. We believe our HIPAA compliance program sufficiently addresses HIPAA requirements.

HIPAA requires the notification of patients, and other compliance actions, in the event of a breach with respect to the security of PHI. Certain guidance provided by HHS sets forth elective standards that provide for a "safe harbor" for rendering PHI secure such that an inappropriate use or disclosure involving such PHI would not be subject to the breach notification requirements. If notification to patients of a breach is required, such notification must be provided without unreasonable delay and in no event later than 60 calendar days after discovery of the breach. In addition, if PHI of 500 or more individuals is improperly used or disclosed, we would be required to report the improper use or disclosure to the HHS, which would post the violation on its website. If there was improper use or disclosure of PHI of more than 500 individuals in the same jurisdiction, we would be required to report the improper use or disclosure to the media. Penalties for impermissible use or disclosure of PHI were increased by the HITECH Act, resulting in tiered penalties starting at $100 per violation and increasing to $50,000 per violation and up to $1.5 million per year for the same type of violation.

In addition, HIPAA authorizes state attorneys general to file suit on behalf of their residents. Courts are able to award damages, costs and attorneys' fees related to violations of HIPAA in such cases. While HIPAA does not create a private right of action allowing individuals to file suit against us in civil court for violations of HIPAA, its standards have been used as the basis for duty of care cases in state civil suits such as those for negligence or recklessness in the misuse or breach of PHI. In addition, HIPAA mandates that the Secretary of HHS conduct periodic compliance audits of HIPAA covered entities and business associates for compliance with the HIPAA privacy and security standards. It also tasks HHS with establishing a methodology whereby harmed individuals who were the victims of breaches of unsecured PHI may receive a percentage of the civil monetary penalty paid by the violator.

Although we conduct HIPAA training for our employees and contractors, the improper use or disclosure of PHI by any of our clinics, employees or contractors could result in significant fines and reputational damage to us. See "Item 1A. Risk Factors—Risks Related to Our Business—If we fail to comply with current or future laws or regulations governing the collection, processing, storage, access, use, security and privacy of personally identifiable, protected health or other sensitive or confidential information, our business, reputation and profitability could suffer."

State Privacy and Medical Record Retention Laws

Many states in which we operate have state laws that protect the privacy and security of personally identifiable information, including PHI. State patient privacy and confidentiality laws generally require providers to keep confidential certain patient information, including information contained in medical records. Where state laws are more protective than HIPAA, we must comply with the stricter provisions. Violations of these laws could lead to monetary penalties against providers and sanctions against licensed individuals. Not only may some of these state laws impose fines and penalties upon violators, but some may afford private rights of action to individuals who believe their personal information has been misused. California's patient privacy laws, for example, provide for penalties of up to $250,000 and permit injured parties to sue for damages. The interplay of federal and state laws may be subject to varying interpretations by courts and government agencies, creating complex compliance issues for us and our clinics and potentially exposing us to additional expense, adverse publicity and liability.

Similarly, medical record retention laws place a duty on providers to retain medical records for certain periods of time and dispose of records in a certain manner. Violations of these duties may result in sanctions from state agencies or from the Medicare program. We believe that we are in material compliance with the above laws and regulations. However, violation of any such laws and the imposition of related consequences could have a materially adverse impact on our operations.

Other Regulations

Our operations are subject to various state hazardous waste and non-hazardous medical waste disposal laws and regulations. These laws and regulations do not classify as hazardous most of the waste produced from dialysis services, although we can be subject to liability under both federal and state laws, as well as under contracts with those who haul our wastes, with respect to our waste disposal. Occupational Safety and Health Administration laws and regulations also apply to us, including, for example, those that require employers to provide workers who are occupationally exposed to blood or other potentially infectious materials with prescribed protections. These requirements apply to all healthcare clinics, including dialysis clinics, and also require employers to determine which employees may be exposed to blood or other potentially

infectious materials and to have in effect a written exposure control plan. In addition, employers are required to provide or employ hepatitis B vaccinations, personal protective equipment and other safety devices, infection control training, post-exposure evaluation and follow-up, waste disposal techniques and procedures and work practice controls, as well as comply with various record-keeping requirements.

We lease many properties and own some properties in the United States. If contamination is discovered in our buildings or in the surface or subsurface or in the groundwater beneath any of our facilities, whether leased or owned, we may be liable for the investigation or cleanup of the contamination and for damages arising out it, pursuant to applicable state and/or federal law and/or under the terms of our leases. Such liability may arise even when we do not cause or contribute to the contamination (for example, where it is caused by a prior occupant or a neighbor). We take precautions to avoid contamination in or affecting our facilities. We cannot assure you, though, that such conditions will not affect us in the future.

Corporate Compliance Programs

We have adopted and maintain an active corporate compliance program, including a corporate compliance officer, compliance hotline, policies and procedures designed to ensure compliance with applicable healthcare laws and proper billing of claims and employee training regarding such policies and procedures.

In addition, we have adopted and maintain a HIPAA compliance program, including privacy and security officers, policies and procedures designed to ensure compliance with HIPAA and associated state laws relating to privacy and security and employee training regarding such policies and procedures.

Insurance

We maintain professional liability and general liability insurance in amounts that we believe are appropriate, based on our actual claims experience and expectations for future claims. Future claims could, however, exceed our applicable insurance coverage. Physicians practicing at our dialysis centers are required to maintain their own malpractice insurance, and our medical directors are required to maintain coverage for their individual private medical practices. Our liability policies cover our medical directors for the performance of their duties as medical directors at our outpatient dialysis centers. Coverage under certain of these policies is contingent upon the policy being in effect when a claim is made regardless of when the events that caused the claim occurred. The cost and availability of such coverage may change in the future. We also currently maintain property damage insurance and other types of insurance coverage we believe to be consistent with industry practice. In most states, we maintain private market coverage for our workers' compensation risk. The policy limits equal the minimum statutory requirements. In certain states, we procure comparable coverage through various state funds.

Information Systems

We have invested and will continue to invest in areas such as information systems and data analytics in an effort to become more efficient and meet the demands for improved clinical outcomes. We have selected an electronic medical record system for implementation at an increasing number of our facilities in the future. We address our information and data security needs by relying on applicable members of our staff and third parties, including auditors and third-party service providers. We have implemented administrative, physical and technical safeguards to ensure the security of personally identifiable, protected health and other sensitive or confidential information that we collect, process, store, access or use, and we take commercially reasonable actions to ensure that our third-party service providers are taking appropriate security measures to protect the data and information they access, use or collect on our behalf. However, there is no guarantee that these measures can provide absolute security with respect to such data and information.

Trademarks

We own certain trademarks and logos, including AmericanRenal, AmericanRenal Associates, The Nephrologist is the Center of Our Universe and the American Renal Associates logo. Each one of these trademarks or logos is registered with the U.S. Patent and Trademark Office. We consider these trademarks and the associated name recognition to be important to our business.

Employees

As of December 31, 2017 , we had 4,692 employees, consisting of 1,569 nurses, 1,969 patient care and equipment technicians and 1,154 other employees. Our 401 nephrologist partners are not our employees, nor are our medical directors, who are paid pursuant to their contractual arrangements. None of our employees are subject to collective bargaining

agreements. Although we do not currently directly employ personnel that are members of a union, we lease employees in New York and the District of Columbia that are members of unions. We consider our relationships with our employees to be good.

Item 1A. Risk Factors.

The occurrence of any of the events described below could materially adversely affect our business, financial condition, cash flows, results of operations and growth prospects. In such an event, the trading price of our common stock may decline, and you may lose all or part of your investment.

Risks Related to Our Business

We depend on commercial payors for reimbursement at rates that allow us to operate at a profit.

Commercial payors pay us at rates that are generally significantly higher than Medicare rates and the rates paid by other government-based payors such as state Medicaid programs. For the year ended December 31, 2017 , we derived on average approximately 36.7% of patient service operating revenues from commercial payors (and 41.0% for the three years ended December 31, 2017), including non-contracted providers, even though commercial payors were the source of reimbursement for 13.0% of the treatments performed during the year ended December 31, 2017 . This represents a decrease compared to 2016 in the proportion of commercial payors relative to government payors as a source of reimbursement. For the year ended December 31, 2017 , we derived approximately 1.5% of patient service operating revenues from ACA-compliant individual marketplace plans ("ACA plans"), both on-exchange and off-exchange, and these ACA plans were the source of reimbursement for approximately 1.2% of the treatments performed during the year ended December 31, 2017 . Medicare rates are generally insufficient to cover our total operating expenses allocable to providing dialysis treatments for Medicare patients. As a result, our ability to generate operating earnings is substantially dependent on revenues derived from commercial payors, some of which pay negotiated payment rates and others of which pay based on our usual and customary fee schedule. To the extent the proportion of commercial payors continues to decrease relative to government payors as a source of reimbursement for treatments, it could have a material adverse effect on our revenues, operating results and cash flows.

If the number of patients with commercial insurance declines, our operating results and cash flows would be adversely affected.

Our revenues are sensitive to the number of patients with commercial insurance coverage, including those with employer group health plans, as well as the number of patients who have chosen ACA plans and other non-employer-based plans. A patient's insurance coverage may change for a number of reasons, including as a result of changes in the patient's or a family member's employment status. Other factors that may cause an increase in the number of patients who have government-based programs as their primary payors include changes to terms or the availability of coverage from commercial payors, changes to the healthcare regulatory system, sustained or increased job losses and improved longevity and lower standard mortality rates for ESRD patients, resulting in a lower percentage of patients covered under commercial insurance plans. To the extent there are adverse changes in the unemployment rate in the United States, including a prolonged period of unfavorable employment conditions, we could experience a decrease in the number of patients under employer group health plans. We could also experience a further decrease if changes to the healthcare regulatory system, including as a result of healthcare reform laws, result in fewer patients covered under commercial insurance plans. In addition, our continued negotiations with existing and new commercial payors could result in a decrease in the number of patients under commercial insurance plans to the extent that we cannot reach agreement with these payors on rates and other terms.

During the year ended December 31, 2017 , we experienced an adverse change in the commercial treatment mix as compared to the year ended December 31, 2016, due primarily to a decline in ACA plans. In addition, for the year ended December 31, 2017 , the percentage of treatments accounted for by commercial payors and others, including the U.S. Department of Veterans Affairs (the "VA"), but not including ACA plans, averaged 11.8%, compared to 12.9% for the prior year, and we expect it to remain lower. If there is a significant additional reduction in the number of ESRD patients insured through commercial insurance plans, whether ACA plans or non-ACA commercial insurance plans, relative to patients insured through government-based programs, it would have a material adverse effect on our revenues, earnings and cash flows.

Patients with commercial insurance coverage commonly rely on financial assistance from charitable organizations, such as the American Kidney Fund ("AKF"). Certain commercial payors have challenged the availability and legitimacy of charitable support as a premium funding source for patients, including through litigation and other strategies. Regulators such as CMS have considered (and, in some instances, questioned) the use of charitable premium assistance for ESRD patients purchasing ACA plans. See "—If the rates paid by commercial payors decline, our operating results and cash flows would be adversely affected," "—Our ongoing dispute with United could adversely affect our reimbursement rates, operating results and

cash flows" and "—Increased scrutiny in our industry and potential regulatory changes could adversely affect our operating results and financial condition" below and "Item 3. Legal Proceedings." If any of these challenges to kidney patients' use of premium support are successful or restrictions are imposed on the use of financial assistance from such charitable organizations such that patients are unable to obtain or continue to receive, or receive only for a limited duration, such financial assistance, our revenues, earnings and cash flow could be substantially reduced.

In addition, AKF has in the past, and may in the future, suspend premium assistance payments from time to time and may experience decreases from time to time in the donations it receives. Any funding shortfall at a charity such as AKF or any other inability of such charity to make premium support payments could adversely affect patients' ability to afford commercial insurance coverage, which could materially adversely affect our operating results and cash flows.

If the rates paid by commercial payors decline, our operating results and cash flows would be adversely affected.

The dialysis services industry is subject to rate pressure from commercial payors, including employer group health plans, as well as ACA plans, as a result of general conditions in the market, recent and future consolidations among commercial payors and other factors. We are continuously in the process of negotiating agreements with our commercial payors. Commercial payors generally seek to limit their costs, which can manifest itself in actions such as downward pressure on contracted commercial payor rates (whether under ACA plans or otherwise), efforts to design and implement plans that limit access to coverage, and the duration and/or the breadth of benefits, or even litigation such as that described in the following risk factor, measures that may result in decreased payments and/or disruption to our business. In the event that our negotiations result in overall commercial rate reductions in excess of overall commercial rate increases and such changes are not offset by increases in the number of covered patients receiving our services, the net impact would have a material adverse effect on our revenues, results of operations and cash flows. In addition, consolidations in the healthcare sector, including mergers of healthcare insurers and acquisitions of healthcare providers by insurers, may significantly increase the negotiating leverage of commercial payors. Our negotiations with payors are influenced by competitive and other pressures exerted by such payors, which may result in decreases to some of our contracted rates or a termination of certain of our relationships with commercial payors.

In addition to downward pressure on contracted commercial payor rates, commercial payors have in some instances decreased, and may continue to decrease, payment rates for non-contracted providers. Commercial payors have been attempting to impose restrictions and limitations on patient access to ACA plans and non-contracted or out-of-network providers. Some of our clinics are currently designated as out-of-network providers by some of our current commercial payors. Commercial payors have restructured, and may continue to restructure, their benefits to create impediments for patients in selecting particular providers, including disincentives for patients to select or remain with out-of-network providers.

If commercial payors increase the restrictions and limitations they impose, our revenues derived from commercial payors could decline. Rates for some commercial exchange products and out-of-network providers are generally higher than rates for government products and in-network providers, respectively. In addition, a number of commercial payors have incorporated policies into their provider manuals limiting or refusing to accept charitable premium assistance from charitable organizations, such as the AKF, which may impact the number of patients who are able to afford commercial insurance coverage, including Medicare supplemental insurance policy coverage. Reductions in contracted commercial payor rates or rates received with respect to non-contracted providers, or any measures applied by commercial payors of the type described above or in the following risk factor, may make certain dialysis centers economically unviable and could result in a significant decrease in our overall revenues derived from commercial payors and a material adverse effect on our operating results and cash flows.

Our ongoing dispute with United could adversely affect our reimbursement rates, operating results and cash flows.

As previously disclosed, we and our wholly owned operating subsidiary American Renal Associates LLC are defendants in litigation initiated in 2016 by affiliates of UnitedHealth Group Incorporated ("United") that relates to 30 patients who have received, and some of whom continue to receive, dialysis at 12 clinics in Florida and Ohio and who obtained coverage under one of United's ACA plans. The plaintiffs assert various state law claims and allege violations of certain state laws that prohibit false insurance claims, healthcare kickbacks, patient brokering and violations of the applicable commercial plan agreements in connection with, among other things, premium payment assistance by the AKF. We are vigorously defending ourselves in this matter, and we expect to remain in active litigation during 2018. See "Item 3. Legal Proceedings."

As described in the preceding risk factor, we continue to experience rate pressure from commercial payors, and in particular from United, including reductions in reimbursement rates with respect to some patients and efforts to limit certain patients' access to our clinics. In addition to initiating the litigation described above, United has indicated that its disagreement

with us goes beyond those patients with ACA plans to other patients with commercial insurance from United. Although it has not initiated any claims against us with respect to those other patients to date, any such claims could involve material amounts. We do not have a contract with United, and for most patients covered by United, our clinics are out-of-network providers. As previously disclosed, United has sought to limit access to our clinics for all patients receiving charitable premium assistance and to renegotiate commercial reimbursement rates generally. We are aware that United has also exerted pressure on certain of our physician partners with respect to their referrals to our clinics of patients who have out-of-network benefits. Our treatment volume from patients covered by United decreased in 2017 compared to 2016, and this trend could continue in the future, whether as a result of these actions or otherwise. In addition, if a large commercial payor, such as United, for which we are an out-of-network provider were to reduce reimbursement rates for a significant portion of our patients covered by them, our profitability would be materially adversely affected. See "—If the rates paid by commercial payors decline, our operating results and cash flows would be adversely affected."

Our overall dispute with United is a source of continuing uncertainty in our business. An unfavorable decision or resolution of the United litigation could adversely affect our results of operations and cash flows as well as our relationships with other commercial payors. In addition, we may have limited ability to address actions of the type taken by United or may be unable to do so except in a manner that materially adversely affects our results of operations. In particular, we may determine that it is appropriate, as part of a broader resolution of our dispute with United or otherwise, to enter into a long-term contract with United or with other commercial payors for which we are an out-of-network provider even if the reimbursement rates under that contract are less favorable to us (and possibly materially so) than the rates we currently receive and even if they materially adversely affect our profitability in this and future years. Any of these circumstances could have a material adverse effect on our business, revenues, results of operations and cash flows

If we do not continuously obtain new patients covered by commercial insurance, our operating results and financial condition would be adversely affected.

Our revenues are sensitive to the number of new dialysis patients covered by commercial insurance. Medicare beneficiaries with ESRD generally become eligible for coverage on the first day of the third month after the month in which a course of regular dialysis begins, but this three-month waiting period may be partially or completely waived if the patient participates in a self-dialysis training program or has a kidney transplant. For a dialysis patient with commercial insurance coverage, the commercial insurance plan generally is the primary payor for a 30-month coordination period beginning on the first month that the individual would be entitled to Medicare on the basis of ESRD, regardless of whether the patient actually enrolls in Medicare. After the 30-month coordination period, Medicare becomes the primary payor as long as the individual retains eligibility based on ESRD and the part B premiums are timely paid. Medicare coverage ends if the patient has not received dialysis for 12 months, if 36 months have passed since the beneficiary had a successful kidney transplant or if the patient disenrolls from Medicare part B.

When Medicare becomes the primary payor, the payment rate we receive for that patient shifts from the commercial insurance rate to the Medicare payment rate, which is generally significantly lower than the commercial rate. For each covered treatment, Medicare pays 80% of the amount set by the Medicare program and the patient is responsible for the remaining 20%. In many cases, a secondary payor, such as Medicare supplemental insurance (offered by commercial payors), another commercial insurance plan or Medicaid, covers all or part of these balances. If dialysis patients who have Medicare as their primary payor do not have secondary insurance coverage, we must attempt to collect payment from the patient using reasonable collection efforts consistent with federal and state law, unless we are permitted by law to waive this 20% copayment. In those cases where we seek the copayment, we may not be successful in collecting it. If there is a significant reduction in the number of new dialysis patients covered by commercial insurance, we would not receive the benefit of the 30-month coordination period of higher reimbursement rates from commercial payors, which would materially adversely affect our operating results and cash flows.

The bundled payment system under the Medicare ESRD program may not reimburse us for all of our operating costs.

For the year ended December 31, 2017 , we derived 63.3% , of our revenues from reimbursement from government-based and other programs, including 44.9% from the Medicare ESRD program and 14.1% from Medicare-assigned insurance through the Medicare Advantage program. The reimbursement that we receive from Medicare under the ESRD prospective payment rate system (the "ESRD PPS"), generally described below, may be insufficient to cover our treatment costs.

For patients with Medicare coverage, all reimbursement of dialysis services is made using a bundled payment system. The bundled payment under the ESRD PPS covers both the dialysis treatment itself and the majority of the renal-related items and services provided to a patient during the dialysis treatment, including laboratory services, pharmaceuticals, such as

erythropoietin stimulating agents ("ESAs"), and medication administration, irrespective of the level of pharmaceuticals administered or additional services performed, with the exception of drugs that are reimbursed under the ESRD PPS Transitional Drug Add-On Payment Adjustment ("TDAPA"). TDAPA was established by CMS to facilitate beneficiary access to certain qualifying products by allowing payment for these drugs and biologicals during a transitional time period while the necessary utilization data is collected.

The ESRD PPS is built around a "base rate," which changes annually based on changes in the costs of a "market basket" of certain goods and services included in dialysis, minus a productivity adjustment. The base rate is then modified for certain patient characteristics, a geographic usage index and certain other factors to arrive at the actual payment rate. See "Business—Reimbursement—Medicare Reimbursement" for a more detailed description of the Medicare reimbursement rate determination.

CMS issues annual updates to the ESRD PPS, which may affect the base rate as well as the various adjusters. The ESRD PPS Final Rule for 2018 was released on October 27, 2017 (the "2018 Final Rule") and set the rates for calendar year 2018. The 2018 Final Rule will result in an overall increase of payments to U.S. dialysis facilities of 0.5%, with freestanding dialysis facilities receiving an update of 0.5% and hospital-based dialysis facilities receiving an update of 0.7%. The finalized 2018 ESRD base rate of $232.37 is an increase of $0.82 from the 2017 base rate of $231.55. The 2018 Final Rule also updates the reimbursement rate to ESRD facilities for dialysis services furnished to individuals with acute kidney injury. Certain adjustment factors applicable to the base rate could have the effect of increasing or decreasing the actual payment rate for some of our clinics at levels that are different than the overall national average update listed in the 2018 Final Rule's impact analysis tables. Future adjustments to the ESRD PPS implemented by CMS could have a negative impact upon our Medicare program revenues.

Our operating costs may outpace these and any future rate increases we receive under the ESRD PPS, and we may not be able to adjust our operations adequately to manage such costs. If drug or medical supply prices, for instance, increase beyond that contemplated when the bundled rate was set by CMS, the difference between the bundled rate and the drug or supply-related costs could have a significant adverse effect on a facility's profitability. Further, the bundled payment system requires dialysis facilities to provide new services within the payment bundle, unless designated under TDAPA, which may increase our operating costs. We may not recoup these costs, even with rate adjustments. Finally, the case-mix adjustment component of the ESRD PPS renders it difficult for us to predict the Medicare related revenues that we will receive, due to the number and variety of patient-level adjustment factors. We may not be able to make necessary adjustments in our operations to accommodate reductions in revenue that may result from case-mix variations.

Increased scrutiny in our industry and potential regulatory changes could adversely affect our operating results and financial condition.

Our dialysis operations are subject to extensive federal, state and local government regulations, all of which are subject to change. On August 18, 2016, CMS issued a request for information for public comment on concerns that some healthcare providers and provider-affiliated organizations may be steering patients eligible for, or receiving, Medicare and/or Medicaid benefits into ACA plans, including health insurance marketplace plans. The request also sought public comment about certain charities that provide assistance to patients seeking to enroll in private insurance coverage. CMS also sent letters to all Medicare-enrolled dialysis facilities and centers, including the Company's facilities, informing them of this request for information. The Company provided a response to the CMS request for information, which response is publicly available on the U.S. government's Regulations.gov website.

In December 2016, HHS issued an interim final rule ("IFR") that would have required dialysis facilities to make certain disclosures to insurers and patients in connection with ACA plans and would have effectively enabled insurers to reject charitable premium assistance payments. In January 2017, a federal district court issued a preliminary injunction, enjoining HHS from implementing the IFR, and in June 2017, at the request of the government, the court stayed the proceedings while HHS undertakes further rulemaking in order to replace the IFR with a new rule to be issued through a rule-making process. No such final rule is required to be issued, but if such a rule were issued and survived any potential court challenges, it could have a material adverse impact on the Company.

On January 3, 2017, the Company received a subpoena from the United States Attorney's Office, District of Massachusetts, requesting information relating to the Company's payments to and other interactions with the AKF and any efforts to educate patients qualified or enrolled in Medicare or Medicaid about enrollment in ACA plans, among other related matters under applicable healthcare laws, for the period from January 1, 2013 through the present. As it has done with the other regulators who have expressed interest in such matters, the Company has cooperated fully with the government and will continue to do so. If the United States Attorney's Office, District of Massachusetts, were to find violations of any federal

criminal or civil laws, our business, financial condition and results of operations could be materially adversely affected. Based on publicly available information, we believe that other dialysis companies also received subpoenas from the United States Attorney's Office, District of Massachusetts, which may be related to similar matters.

In recent years, some states have considered legislation, ballot initiatives or referendums, or policy changes that could, if implemented, impose additional requirements on our operations, including increases in the required staffing levels or staffing ratios for clinical personnel, minimum transition times between treatments and limits on how much patients may be charged for care. For example, a ballot initiative filed in California for the November 2018 election would limit the amount dialysis clinics could charge to 115% of the average treatment cost in California. Changes such as these mandated by future legislation, ballot initiatives or referendums, or policy changes could materially reduce our revenues and increase our operating expense and impact our ability to staff our clinics to the new, elevated staffing levels. Any of these events or circumstances could materially reduce our revenues and increase our operating and other costs, require us to close dialysis centers or reduce shifts, and could have a material adverse effect on our employee relations, treatment growth, productivity, business, results of operations and financial condition.

Furthermore, the Company has received letters from certain insurance companies indicating that they will not insure patients who receive premium payment assistance from third-party charitable organizations. In addition to charitable premium support for patients enrolled in ACA plans, the AKF provides charitable premium support to patients with other insurance coverage, including Medicare supplemental insurance and commercial insurance. If patients are unable to obtain or to continue to receive AKF charitable premium support due to insurance company challenges to covering patients receiving charitable premium support, including those described above under "—If the rates paid by commercial payors decline, our operating results and cash flows would be adversely affected"; legislative changes; rules or interpretations issued by HHS limiting such support; or other reasons, the financial impact on our company could be substantially greater than the financial impact we experienced in 2017 associated with the more restrictive environment for patients previously enrolled in ACA plans who relied on charitable premium assistance and could materially and adversely affect our results of operations.

The increased scrutiny from regulators and insurers could further adversely affect the enrollment of patients at our clinics in ACA plans and other individual commercial plans, cause additional reductions in our average reimbursement rates or result in additional limitations on our operations. In addition, the Company is unable to predict the contours of any new regulation that CMS has promised to issue following the entry of the preliminary injunction against the government. Such new regulation could adversely affect the Company by, among other things, restricting premium and cost-sharing assistance for patients from charitable organizations such as the AKF, or adopting other changes in the regulatory framework applicable to our dialysis operations. The government could seek to take other adverse action against the Company and other dialysis providers, including seeking to impose civil money penalties.

Our growth strategy depends in part on our ability to develop de novo clinics. Our attempt to expand through development of de novo clinics entails risks to our growth, as well as to our operating results and financial condition.

We have experienced rapid clinic growth since our inception. We have grown primarily through the development of de novo dialysis clinics as JVs with new and existing partner nephrologists or nephrologist groups. Growth through development places significant demands on our financial and management resources. Inability on our part to address these demands could adversely affect our growth, as well as our operating results and financial condition.

We generally expand by seeking appropriate locations for a dialysis clinic, taking into consideration the availability of a nephrologist to be our medical director and nephrologist partner, payor types and a skilled work force, including qualified nursing and technical personnel. The inability to identify suitable locations, suitable nephrologist partners and workforce personnel for our dialysis clinics could adversely affect our growth, as well as our operating results and financial condition.

The development of a de novo dialysis clinic can be expensive and may include costs related to construction, equipment and initial working capital. De novo dialysis clinics are subject to various risks, including risks associated with the availability and terms of financing for development, securing appropriate licenses and permits, achieving brand awareness in new markets, managing increases in costs, competing for appropriate sites in new markets and maintaining adequate information systems and other operational system capabilities. Our ability to develop additional clinics may be limited by state certificate of need programs and other regulatory restrictions on expansion. States without certificate of need programs may begin restricting the development of new clinics and states with existing programs may institute more restrictive measures.

Our de novo clinics may not become cash flow positive or profitable on a timely basis or at all. Although we may achieve positive clinic-level monthly EBITDA within six months after the first treatment at a clinic, approximately 24% of our de novo clinics have exceeded six months from first treatment to positive clinic-level monthly EBITDA, with these clinics

averaging approximately 12 months to positive clinic-level monthly EBITDA. Delays in the opening of de novo clinics, delays or costs resulting from a decrease in commercial development due to capital constraints, difficulties resulting from commercial, residential and infrastructure development (or lack thereof) near our de novo clinics, difficulties in staffing and operating new locations or lack of acceptance in new market areas may negatively impact our de novo clinic growth and the costs or the profitability associated with de novo clinics. Further, additional federal or state legislative or regulatory restrictions or licensure requirements could negatively impact our ability to operate both existing and de novo clinics.

The inability to develop de novo clinics with new or existing partner nephrologists or nephrologist groups on reasonable terms or in a cost-effective manner would adversely affect our growth as well as our operating results and financial condition. We may not be able to continue to successfully expand our business through establishing de novo clinics, and any new de novo clinics may not achieve profitability that is consistent with our past results or otherwise perform as planned. Failure to successfully implement any of our growth strategies, including developing de novo clinics, would likely have a material adverse impact on our operating results and financial condition.

Our growth strategy depends in part on our ability to attract new physician partners on terms favorable to us. If we are unable to do so, our future growth could be limited.

We believe that an important component of our financial performance and growth is our partnership with physicians that purchase ownership interests in our joint venture clinics. Our ability to partner with physicians may be inhibited in markets where a large portion of nephrologists are subject to covenants not to compete with our competitors. Based on competitive factors and market conditions, physicians may seek to negotiate relatively higher levels of equity ownership in our clinics, consequently limiting or reducing our share of the profits from these clinics. In addition, physician ownership in our clinics is subject to significant regulatory restrictions. See "—Our arrangements and relationships with our physician partners and medical directors do not satisfy all of the elements of safe harbors to the federal anti-kickback statute and certain state anti-kickback laws and, as a result, may subject us to government scrutiny or civil or criminal monetary penalties or require us to restructure such arrangements."

De novo clinics, once opened, may not be profitable initially or at all, and the comparable de novo revenue that we have experienced in the past may not be indicative of future results.

Our results have been, and in the future may continue to be, significantly impacted by a number of factors, including factors outside of our control related to the opening of de novo clinics, such as the timing of de novo clinic openings, associated de novo clinic preopening costs and operating inefficiencies. We typically incur the most significant portion of operating losses associated with a given de novo clinic within a relatively short amount of time preceding and following the opening of the de novo clinic. A de novo clinic builds its patient volumes over time and, as a result, generally has lower revenue than our existing clinics. Newly established dialysis clinics, although contributing to increased revenues, have adversely affected our results of operations in the short term due to a smaller patient base to absorb operating expenses. Any de novo clinics we open may not be profitable or achieve operating results similar to those of our existing de novo clinics. If our de novo clinics do not perform similar to de novo clinics we have opened in the past, then our business and future prospects could be harmed. In addition, if we are unable to achieve expected comparable de novo clinic revenues, our business, results of operations and financial condition could be adversely affected.

Our growth strategy depends in part on our ability to acquire existing dialysis clinics. If we are unable to successfully complete such acquisitions, our future growth could be limited.

Our business strategy includes the selective acquisition of existing dialysis clinics. In general, acquiring an existing dialysis clinic is more costly than developing a de novo dialysis clinic but has historically been a faster means for achieving profitability and entering a new market. If we are unable to successfully execute on this strategy in the future, our future growth could be limited. We may be unable to identify suitable acquisition opportunities or to complete acquisitions in a timely manner and on favorable terms. We may need to obtain additional capital or financing, from time to time, to fund these acquisitions. Sufficient capital or financing may not be available to us on satisfactory terms, if at all. In addition, our ability to acquire additional clinics may be limited by state certificate of need programs and other regulatory restrictions on expansion. Even if we are able to acquire additional clinics, there is no guarantee that we will be able to operate them successfully as stand-alone businesses, or that any such acquired clinic will operate profitably or will not otherwise adversely impact our results of operations. Further, we cannot be certain that key talented individuals at the acquired clinic will continue to work for us after the acquisition or that they will be able to continue to successfully manage any acquired clinic. We also face significant competition from local, regional and national dialysis operators and other owners of clinics in pursuing attractive acquisition candidates. See "—Our competitors have increasingly adopted a JV model and compete with us for establishing de novo clinics, acquiring existing dialysis clinics and engaging medical directors, which could materially adversely impact our growth

prospects." The inability to acquire existing clinics on reasonable terms or in a cost-effective manner could adversely affect our growth as well as our operating results and financial condition.

Acquisitions may subject us to unknown liabilities, and we may not be indemnified for all of these liabilities.

Businesses we acquire may have unknown or contingent liabilities or liabilities that are in excess of the amounts that we originally estimated. Although we generally seek indemnification from the sellers of businesses we acquire for matters that are not properly disclosed to us, we may not be successful in obtaining indemnification. In addition, even in cases where we are able to obtain indemnification, we may be subject to liabilities greater than the contractual limits of our indemnification or the financial resources of the indemnifying party. In the event that we are responsible for liabilities substantially in excess of any amounts recovered through rights to indemnification, we could suffer severe consequences that could adversely impact our operating results and financial condition.

Damage to our reputation or our brand in existing or new markets could negatively impact our business, financial condition and results of operations.

We believe we have built our reputation on the high quality of our dialysis clinic services, physicians and operating personnel, as well as on our culture and the experience of our patients in our clinics, and we must protect and grow the value of our brand to continue to be successful in the future. Our brand may be diminished if we do not continue to make the day-to-day investments required for clinic operations, equipment upgrades and staff training. Any incident, real or perceived, regardless of merit or outcome, that erodes our brand, such as, but not limited to, adverse patient outcomes due to medical malpractice or allegations of medical malpractice, failure to comply with federal, state or local regulations including allegations or perceptions of non-compliance or failure to comply with ethical and operating standards, could significantly reduce the value of our brand, expose us to adverse publicity and damage our overall business and reputation. Further, our brand value could suffer and our business could be adversely affected if patients perceive a reduction in the quality of service or staff, or an adverse change in our culture or otherwise believe we have failed to deliver a consistently positive patient experience.

Infringement of our trademarks and other proprietary rights or a finding that our services infringe the proprietary rights of others could impair our competitive position, require us to change our business practices or subject us to significant costs and monetary penalties.

Our ability to successfully grow our business depends in part on our ability to maintain brand recognition using our trademarks and logos. If our efforts to protect our trademarks are unsuccessful, and third parties are able to use the same or similar brand names in competitive business lines, the value of our business may be harmed. If we are found to infringe a third party's intellectual property rights, we could be liable for damages or be subject to an injunction that forces us to rebrand our services or replace certain technology or other intellectual property. If we are unable to protect our trademarks and other proprietary rights, or if we are found to infringe the proprietary rights of others, such events could have a material effect on our business, financial condition or results of operations.

Federal laws negatively impacting Medicare reimbursement to our dialysis facilities may have an adverse effect on our revenues.

Subsequent to the establishment of the ESRD PPS, Congress enacted legislation that has resulted in reductions to Medicare program reimbursement rates for dialysis services. Under the American Taxpayer Relief Act of 2012 ("ATRA") and the Protecting Access to Medicare Act of 2014 ("PAMA"), the market basket inflation adjustment to the ESRD PPS bundled rate was reduced by 1.25% for the 2016 and 2017 payment years and will be reduced by 1% for the 2018 payment year. According to the Congressional Budget Office, these adjustments will result in a reduction in payments to dialysis providers of $1.8 billion over ten years, and, thus, could have a material adverse effect on the financial performance of our dialysis facilities. The ATRA and PAMA legislation may also affect the bundle of items and services for which we are reimbursed. For example, the inclusion of oral-only ESRD-related drugs in the bundled payment was delayed by ATRA until 2016, was further delayed by PAMA until at least 2024 and was finally delayed by the Stephen Beck, Jr. Achieving a Better Life Experience Act of 2014 until January 1, 2025. CMS also adopted a Final Rule implementing this delay until January 1, 2025. The Final Rule also established TDAPA, a drug designation process for determining when a product is no longer an oral-only drug and for determining when new injectables and intravenous products will be included in the ESRD bundled payment, which could adversely affect our results of operations, cash flows and revenues as a result of being required to provide these drugs after the TDAPA period without adequate reimbursement.

Federal budget sequestration cuts, including a 2% reduction to Medicare payments, became effective in April 2013 and have been extended through 2027. These cuts have affected and will continue to affect our revenues, earnings and cash flows.

President Trump's 2019 budget proposal outlines additional spending cuts and tax reform initiatives, some of which would result in changes (including reductions in funding) to Medicare and Medicaid. These measures or any similar measures proposed by President Trump or Congress, if adopted, could affect our revenues, earnings and cash flows. Future federal legislation relating to the federal government's borrowing authority or deficit reduction may also have a negative impact on our financial performance.

The Trade Preferences Extension Act of 2015 (the "TPE Act") was enacted on June 29, 2015 and allows outpatient dialysis facilities to receive Medicare reimbursement for renal dialysis services furnished to individuals with acute kidney injury ("AKI") on or after January 1, 2017. The TPE Act allows our facilities to receive Medicare reimbursement for services furnished to individuals with acute kidney injuries, resulting in a potential new stream of revenue. However, there is no guarantee that the Medicare reimbursement rate for dialysis treatments for AKI will allow us to satisfy our related operating expenses or that we will otherwise generate revenue from the provision of AKI services in our facilities.

The ESRD Quality Incentive Program may adversely affect our business, results of operations, cash flows and revenues.

The ESRD Quality Incentive Program ("ESRD QIP"), which is administered by CMS, is designed to promote the provision of high-quality dialysis services in outpatient dialysis facilities. Under the ESRD QIP, a portion of the bundled per treatment payment that a dialysis facility receives from Medicare is tied to the facility's performance in a previous year on certain quality of care measures. These measures include anemia management, dialysis adequacy, and other measures that CMS may specify from time to time, including measurements relating to iron management, bone mineral metabolism, vascular access and patient satisfaction. If a dialysis facility does not meet or exceed certain performance standards related to these measures during a performance year, the facility will be subject to a reduction in payments of up to 2% for all services performed during a subsequent payment year. CMS modifies the ESRD QIP each year, such that the quality measures selected, the performance scoring system and other factors that impact a dialysis facility's ESRD QIP performance will likely differ from year to year. As of December 31, 2017, CMS has established the ESRD QIP performance measures for payment years through 2021, but these measures may be subject to further change by CMS. See "Item 1. Business—Reimbursement—Medicare Reimbursement" for a discussion of the currently established performance measures. Any changes to the ESRD QIP measures could have an adverse impact on our ability to avoid or minimize payment reductions under the ESRD QIP. Under the ESRD QIP, our dialysis facilities may be subject to downward Medicare program payment adjustments that could adversely affect our results of operations, cash flows and revenues.

The federal government publishes performance and quality data on dialysis facilities and recently added a star rating system. If our facilities receive low ratings or if the ratings and data published by CMS are inaccurate, our revenues could be materially and adversely affected by a loss of patients or lack of new patients.

CMS includes a star rating system on the Dialysis Facility Compare ("DFC") website, a portal that publishes qualitative and quantitative information regarding clinical outcomes and the efficacy of dialysis at Medicare certified dialysis facilities. The star rating system ranks facilities on a scale of 1 to 5 stars based on DFC quality measures and utilizes a normal distribution. Due to differences in patient populations and DFC quality measures, star ratings can vary significantly between dialysis facilities without reflecting actual differences in treatment quality. Although CMS has established the ESRD Star Rating Technical Experts Panel to review the methodology for producing the star ratings, there is no guarantee that star ratings will accurately reflect the quality of care provided at a dialysis facility. If our facilities receive low star ratings or if data published on the DFC website is inaccurate, it could adversely affect our ability to retain or attract new patients, and, accordingly, adversely affect our revenues.

Changes in VA, state Medicaid or other non-Medicare government programs or payment rates could adversely affect our operating results and financial condition.

For the year ended December 31, 2017 , we derived approximately 2% of our revenues from patients primarily insured through the VA. In December 2010, the VA adopted Medicare's bundled payment system, resulting in a reduction in payments for dialysis services at centers treating VA patients. To the extent payments are further reduced or to the extent we lose VA patients as a result of VA policies, our operating results and financial condition could be adversely affected

For the year ended December 31, 2017 , we derived approximately 4% of our revenues from patients who had Medicaid or Medicaid managed care as their primary insurer. As state governments face increasing budgetary pressure, they may propose reductions in payment rates, delays in the timing of payments, limitations on eligibility or other changes to Medicaid programs. Some states have already taken steps to reduce or delay payments. In addition, some states' Medicaid eligibility requirements mandate that enrollees in Medicaid programs provide documented proof of citizenship. More recently, several states have begun adopting work or similar requirements for many enrollees in Medicaid. Our revenues, earnings and

cash flows could be negatively affected to the extent that we are not paid by Medicaid or other state programs for services provided to patients who are unable to satisfy the eligibility requirements. If state governments reduce the rates paid by Medicaid programs for dialysis and related services, delay the timing of payment for services provided, further limit eligibility for Medicaid coverage or adopt changes to the Medicaid payment structure that reduce our overall payments from Medicaid, then our revenues, earnings, and cash flows could be adversely affected.

Changes in clinical practices, payment rates or regulations relating to ESAs and other pharmaceuticals could adversely affect our operating results and financial condition as well as our ability to care for patients.

The Medicare bundled payment system includes reimbursement for ESAs such that ESA dosing variations do not change the amount paid to a dialysis facility. Many commercial insurance programs have been moving towards a bundled payment system inclusive of ESAs, while some continue to pay for ESAs separately. Further increases in utilization of ESAs for patients for whom the cost of ESAs is included in a bundled reimbursement rate, further decreases in reimbursement for ESAs and other pharmaceuticals that are reimbursed in addition to the bundled rate, or changes to administration policies could have a material adverse effect on our revenues, earnings and cash flows. In addition, reductions in the frequency with which ESAs are administered by our facilities should reduce our facilities' operating costs. On the other hand, Medicare in the future may reduce the national base rate to take into account these lower costs. Any such reduction could have a negative impact on our revenues, earnings and cash flows.

We may be subject to inquiries or audits from a variety of governmental bodies or claims by third parties related to our medication administration and billing policies for ESAs and other pharmaceuticals. Inquiries or audits from governmental bodies or claims by third parties would require management's attention and could result in significant legal expense. Any negative findings could result in substantial financial penalties or repayment obligations, mandates to change our practices and procedures as well as the attendant financial burden on us to comply with the obligations, and exclusion from future participation in federal healthcare programs.

Changes in the availability and cost of ESAs and other pharmaceuticals could adversely affect our operating results and financial condition as well as our ability to care for patients.

The ESAs required for our clinics are supplied by Amgen Inc. ("Amgen"), with its drugs branded as EPOGEN ("EPO") and Aranesp and, since September 2017, Vifor International AG ("Vifor"), with the F. Hoffman-La Roche Ltd. drug branded as Mircera. Under our agreement with Amgen, Amgen may unilaterally decide to increase its prices for EPO and Aranesp at any time. In the event that it does so, Vifor may be unable to increase its supply of Mircera to us in an amount sufficient to enable us to avoid incurring such increased prices, and we may not have access to alternative ESAs that are both cost-effective and work as effectively as our current ESAs. Furthermore, we are committed to purchase certain minimum quantities of ESAs from Amgen through the end of 2018 and accordingly would be required to pay any increased price from Amgen on those committed amounts regardless of the availability of alternative ESAs. We do not have the ability to pass on any price increases to Medicare and Medicaid and may not have the ability to pass on price increases to commercial payors. Changes in the availability and cost of ESAs and other renal-related pharmaceuticals could have a material adverse effect on our earnings and cash flows and ultimately reduce our income.

If our suppliers are unable to meet our needs, if there are material price increases or if we are unable to effectively access new technology, our operating results and financial condition could be adversely affected.

The available supply of ESAs from Amgen and Vifor could be delayed or reduced, whether by one or both of them, through unforeseen circumstances or as a result of excessive demand. If Amgen or Vifor is unable to meet our needs for ESAs, including in the event of a product recall, and we are not able to find adequate alternative sources, it could adversely affect our operating results and financial condition. In addition, Amgen may terminate for convenience with 30 days' notice the group purchasing organization agreement through which we are supplied ESAs by them. If Amgen terminates the agreement for convenience, Vifor may be unable to timely increase, or increase at all, its supply of ESAs to cover any resulting shortfall, and we may not have access to alternative ESAs that are both cost-effective and work as effectively as our current ESAs.

In addition, the technology related to ESAs is subject to new developments that may result in superior products. If we are not able to access these superior products on a cost-effective basis or if suppliers are not able to fulfill our requirements for products, we could face patient attrition which could adversely affect our operating results and financial condition.

We monitor our relationships with suppliers to better anticipate any potential shortages and reduce the likelihood of the loss of a supplier. However, if we experience shortages or material price increases that we are unable to mitigate, this could adversely affect our operating results and financial condition.

The development of new technologies could adversely affect our revenues, earnings and cash flows.

The development of new kidney transplant technologies could decrease the need for dialysis services. Similarly, the development of new home dialysis technologies could decrease our in-center patient population and require us to refocus on providing home dialysis services in more of our markets. If new technologies are developed that require changes to our business structure or that otherwise decrease our in-center patient population, it could adversely affect our revenues, earnings, and cash flows.

There are significant risks associated with estimating the amount of revenues that we recognize that could impact the timing of our recognition of revenues or have a significant impact on our operating results and financial condition.

There are significant risks associated with estimating the amount of revenues that we recognize in a reporting period. Ongoing insurance coverage changes, geographic coverage differences, differing interpretations of contract coverage, uncertainty as to the amounts paid by various insurers with which we have no contracts and other payor issues complicate the billing and collection process. In addition, laws and regulations governing the Medicare and Medicaid programs are extremely complex, changing and subject to interpretation. Determining applicable primary and secondary coverage for an extensive number of patients at any point in time, together with the changes in patient coverage that occur each month, requires complex, resource-intensive processes. Errors in determining the correct coordination of benefits may result in refunds to payors. Revenues associated with federal health insurance programs are also subject to risk related to estimating amounts not paid by the primary government payor that will ultimately be collectible from a secondary payor or the patient. Collections, refunds and payor retractions typically continue to occur for up to three years or longer after services are provided. If our estimates of revenues are materially inaccurate, it could impact the timing and amount of our recognition of revenues and have a significant impact on our operating results and financial condition.

If we do not timely or accurately bill for our services, our revenues, bad debt expense and cash flows may be adversely affected.

We are subject to a number of complex billing requirements. The process of providing medical care prior to receiving payment or determining a patient's ability to pay carries risks which may adversely affect our revenues, bad debt expense and cash flows. Payor billing requirements may differ by the type of payor as well as by the individual payor contract. Reimbursement for services we provide may be conditioned upon, amongst other requirements, properly coding and documenting services. Further, payors may fail to pay or refuse to pay for services even when properly billed. Additional factors that may influence our ability to receive reimbursement include, but are not limited to:

- Payor disputes regarding which party is responsible for payment;
- Variations in the amount or type of coverage for similar services amongst various payors; and
- Implementation of new coding standards or requirements, including International Classification of Diseases, 10 th Edition, which may require more information or documentation.

If we are unable to meet payor billing requirements, reimbursement may be denied or delayed, which could adversely affect our revenues, bad debt expense and cash flows.

Federal or state healthcare reform laws could adversely affect our operating results and financial condition.

The Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act, commonly and jointly referred to as the Affordable Care Act (the "ACA"), among other things, increased the number of individuals with private insurance coverage and Medicaid, implemented reimbursement policies that tie payment to quality, facilitated the creation of accountable care organizations that may use capitation and other alternative payment methodologies, strengthened enforcement of fraud and abuse laws and encouraged the use of information technology.

The ACA remains subject to continuing legislative and regulatory scrutiny, including efforts by Congress to repeal the ACA in its entirety, or to repeal, amend and replace a number of its provisions, as well as administrative actions delaying the effectiveness of key provisions. In addition, there have been lawsuits filed by various stakeholders pertaining to certain portions of the ACA that may have the effect of modifying or altering various parts of the law. In December 2017, President Trump signed into law a provision which eliminates the tax penalty for those individuals without health insurance coverage effective for tax years after December 31, 2018. Further, in February 2018, Congress passed the Bipartisan Budget Act of 2018 (the "BBA"), which, among other things, repealed the Independent Payment Advisory Board that was established by the ACA to

develop strategies to control the rate of growth in Medicare spending. While the ultimate impact of these changes on the healthcare industry is unknown, it may be extensive and may have a materially adverse effect on our business, results of operations and financial condition .

President Trump has taken a number of actions that have the potential to significantly impact provisions of the ACA. On January 20, 2017, President Trump issued an Executive Order instructing the Secretary of Health and Human Services ("HHS") and the heads of other agencies that they should waive, defer, grant exemptions from or delay the implementation of any provision or requirement of the ACA that would impose a fiscal burden or cost, fee, tax or penalty on anyone. On October 12, 2017, President Trump signed an Executive Order to direct the Secretaries of HHS and other agencies to examine ways for trade associations and other groups to expand the use of association health plans, groups of small businesses that pool together to buy health insurance, and to broaden the definition of short-term insurance, which is exempt from the ACA's rules. The ultimate impact will depend on any new regulations written as a result of the order, but the Executive Order's goal has the potential to permit the sale of less expensive health insurance offerings that include fewer benefits than those covered by the ACA. The Executive Order also could potentially destabilize ACA individual insurance markets as a result of fewer healthier individuals enrolling in ACA-compliant plans. On October 12, 2017, President Trump took administrative action that immediately discontinued payment of cost-sharing reduction subsidies ("CSRs") to health insurers on the individual market that help insurers offer lower copays and deductibles to low-income individuals. Individuals choosing to purchase insurance through the ACA may face higher premiums or may have fewer insurance offerings to select from as a result, and significant uncertainty surrounds this issue.

Executive Orders and other administrative action by President Trump and HHS may significantly alter provisions of the ACA that may impact the trading price of our common stock. We are unable to predict the impact of any modification or delay in the implementation of the ACA on us at this time.

We expect that additional federal and state healthcare reform measures will be adopted in the future and cannot predict how employers, private payors or persons buying insurance might react to these changes. Full repeal or repeal of additional provisions of the ACA or any future healthcare reform legislation may increase our costs, limit the amounts that federal and state governments and other third-party payors will pay for healthcare products and services, expose us to expanded liability or require us to revise the ways in which we conduct our business, any of which could materially adversely affect our business, results of operations and financial condition.

If we fail to adhere to all of the complex federal, state and local government regulations that apply to our business, we could suffer severe consequences that could adversely affect our operating results and financial condition.

Our dialysis operations are subject to extensive federal, state and local government regulations, all of which are subject to change. These government regulations currently relate, among other things, to:

- government healthcare program participation requirements;
- requirements related to reimbursement for patient services, including Medicare and Medicaid reimbursement rules and regulations, rules addressing the priority of payors, signature and documentation requirements, and coding requirements;
- federal and state anti-kickback laws, the federal physician self-referral prohibition statute (the "Stark Law") and analogous state physician self-referral statutes;
- false claims prohibitions for healthcare reimbursement programs and other fraud and abuse laws and regulations, including the federal False Claims Act, a provision in the ACA extending the federal False Claims Act to include, under certain circumstances, claims based on violations of the federal anti-kickback law and other civil monetary penalty laws, including laws prohibiting offering or giving remuneration to any beneficiary of a federal healthcare program that such person knows or should know is likely to influence the beneficiary to order or receive any item or service reimbursable under such program;
- federal and state laws regarding record keeping requirements, privacy and security protections applicable to the collection, use and disclosure of protected health and other personally identifiable information, security breach notification requirements relating to protected health and other personally identifiable information, and standards for the exchange of electronic health information, electronic transactions and code sets and unique identifiers for providers;
- corporate practice of medicine;
- licensing and certification requirements applicable to our dialysis clinics;

- certificate of need laws and regulations; and
- regulation related to health, safety and environmental compliance, including medical waste disposal.

Because of the breadth of these laws and the strict requirements of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws. Achieving and sustaining compliance with these laws may prove costly. Failure to comply with these laws and other laws can result in civil and criminal penalties such as fines, damages, overpayment recoupment, loss of enrollment status and exclusion from federal healthcare programs. As many of these laws and regulations have not been fully interpreted by the regulatory authorities or the courts, and their provisions are sometimes open to a variety of interpretations, there is an increased risk that we may be found to have violated them. Our failure to accurately anticipate the application of these laws and regulations to our business or any other failure to comply with regulatory requirements could create liability for us and negatively affect our business. Any action against us for violation of these laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses, divert our management's attention from the operation of our business and result in adverse publicity.

In addition, the laws, regulations and standards governing the provision of healthcare services may change significantly in the future. Any new or changed healthcare laws, regulations or standards may not materially adversely affect our business.

We cannot assure you that a review of our business by judicial, law enforcement, regulatory or accreditation authorities under existing or new healthcare laws could result in a determination that could materially adversely affect our operations. If such a determination is made, we could suffer severe consequences that would have a material adverse effect on our revenues, earnings cash flows and financial condition including:

- suspension, exclusion or termination of our participation in government payment programs;
- refunds to the government and third-party payors of amounts received in violation of law or applicable program or contract requirements;
- loss of required government certifications or exclusion from government payment programs;
- loss of licenses or certificates of need required to operate healthcare clinics in some of the states in which we operate;
- reductions in payment rates or coverage for dialysis and ancillary services and related pharmaceuticals;
- fines, damages, monetary penalties, and civil or criminal liability for violations of anti-kickback laws, the Stark Law, state self-referral and anti-kickback prohibitions, and submission of false claims based on violations of law or other failures to meet regulatory requirements;
- becoming subject to a corporate integrity agreement and the retention of an independent monitor to monitor compliance with such an agreement;
- enforcement actions by governmental agencies or state claims for monetary damages by patients who believe their protected health information has been used, disclosed or not properly safeguarded in violation of federal or state patient privacy laws, including HIPAA;
- mandated changes to our practices or procedures, including with respect to our billing and business practices, that significantly increase operating expenses;
- termination of relationships with medical directors, joint venture partners or other healthcare providers; and
- harm to our reputation, which could impact our business relationships, affect our ability to obtain financing and decrease access to new business opportunities.

Heightened federal and state investigation and enforcement efforts could subject us to increased costs of compliance and material adverse consequences.

Both federal and state government agencies, as well as commercial payors, have heightened and coordinated audits and administrative, civil and criminal enforcement efforts as part of numerous ongoing investigations of healthcare organizations. These investigations relate to a wide variety of topics, including cost reporting and billing practices, quality of care, financial reporting, financial relationships with referral sources, and medical necessity of services provided.

To enforce compliance with the federal laws, the U.S. Department of Justice and the Department of Health and Human Services Office of Inspector General ("OIG") have increased their scrutiny of healthcare providers, which has led to a number

of investigations, prosecutions, convictions and settlements in the healthcare industry. Dealing with investigations can be time- and resource-consuming and can divert management's attention from the business. Any such investigation or settlement could increase our costs or otherwise have an adverse effect on our business. In addition, because of the potential for large monetary exposure under the federal False Claims Act, which provides for treble damages and mandatory minimum penalties of $10,781.40 to $21,562.80 per false claim or statement made after November 2, 2015 and $5,500 to $11,000 for claims or statements before that date, healthcare providers often resolve allegations without admissions of liability for significant and material amounts to avoid the uncertainty of treble damages that may be awarded in litigation proceedings, including *qui tam* or whistleblower suits brought by private individuals on behalf of the government. Such settlements often contain additional compliance and reporting requirements as part of a consent decree, settlement agreement or corporate integrity agreement. Given the significant size of actual and potential settlements, it is expected that the government will continue to devote substantial resources to investigating healthcare providers' compliance with the healthcare reimbursement rules and fraud and abuse laws.

State governments have also increased enforcement efforts against healthcare providers in connection with anti-fraud, physician self-referral and other laws. We may be especially susceptible to enforcement risks in states where we have large concentrations of business and in states in which we establish new JVs but in which we may be unfamiliar with the regulatory requirements. To the extent that we become the subject of such enforcement activities, in addition to any adverse legal consequences, such enforcement could cause us to incur significant legal expenses, divert our management's attention from the operation of our business and result in adverse publicity.

In particular, the dialysis services industry has been subject to scrutiny by the federal government, and some of our competitors have been or are currently under investigation. In 2015, one of our competitors paid the federal government a substantial amount to settle allegations of illegal kickbacks under the False Claims Act and was required to enter into a corporate integrity agreement with the OIG, under which an independent monitor was appointed to review and supervise certain aspects of its business. In January 2017, the Company and, we believe based on publicly available information, other dialysis companies received subpoenas from the United States Attorney's Office, District of Massachusetts, requesting information relating to payments to and other interactions with the AKF, any efforts to educate patients qualified or enrolled in Medicare or Medicaid about enrollment in ACA plans and other related matters under applicable healthcare laws. See "—Increased scrutiny in our industry and potential regulatory changes could adversely affect our operating results and financial condition" and "Item 3. Legal Proceedings." Certain proceedings against companies in our industry may be filed under seal, such as a whistleblower action under the federal False Claims Act. Although we cannot predict whether or when proceedings might be initiated or when these matters may be resolved, it is not unusual for these investigations to continue for a considerable period of time. Responding to these investigations can require substantial management attention and significant legal expense, which could materially adversely affect our operations. Further, in many cases the mere existence or announcement of any such inquiry could have a material adverse effect on our business. Any such investigation could cause us to incur significant legal expenses, divert our management's attention from the operation of our business or result in adverse publicity. Any negative findings could result in substantial financial penalties against us, exclusion from future participation in the Medicare, Medicaid and other federal healthcare programs, and, in some cases, criminal penalties, any of which could have a material adverse effect on our business, financial condition and results of operations.

Our arrangements and relationships with our physician partners and medical directors do not satisfy all of the elements of safe harbors to the federal anti-kickback statute and certain state anti-kickback laws and, as a result, may subject us to government scrutiny or civil or criminal monetary penalties or require us to restructure such arrangements.

We endeavor to structure our JV arrangements and medical director agreements, including agreements with our chief medical officers, to comply with applicable laws and government regulations and applicable safe harbors. Our business model is focused on JVs with nephrologist partners, and we endeavor to structure these JVs in compliance with the federal anti-kickback statute, the Stark Law and analogous state anti-kickback and self-referral laws, including the exceptions applicable to Medicare ESRD services. In addition, our chief medical officers have been granted stock options in ARA and a number of our physician partners own shares of ARA as a result of common stock offerings that we have made. Substantially all of our JVs with physicians or physician groups also involve the provision of medical director services by our nephrologist partners to those clinics. Under Medicare regulations, each of our dialysis clinics is required to have an active medical director who is responsible for decision-making in analyzing core processes and patient outcomes and in stimulating a team approach to continuous quality improvement and patient safety. For these services, we retain a physician on an independent contractor basis at an annual fixed fee to serve as the medical director.

We believe that our relationships with our physician partners, which include our medical directors, meet many but not all of the elements of the safe harbors to the federal anti-kickback statute and may not meet all of the elements of analogous state safe harbors. Arrangements that do not meet all of the elements of a safe harbor do not necessarily violate the applicable

anti-kickback statute but are susceptible to government scrutiny. The OIG has issued guidance expressing concerns about joint ventures with referring physicians and the Department of Justice has pursued actions relating to joint venture arrangements between physicians and other healthcare providers. Accordingly, there is some risk that the OIG, the Department of Justice or another government agency might investigate our JV arrangements and medical director contracts. In addition, if the government were to interpret the physician self-referral laws such that they viewed our operations to be in violation of such laws, it could have a material adverse effect on our business, prospects, results of operations and financial condition.

If our arrangements with our physician partners and medical directors were investigated and determined to violate the federal anti-kickback statute, Stark Law or analogous state laws, we could be required to restructure these relationships, which we may not be able to do successfully. We could become subject to a corporate integrity agreement, which requires costly external monitors and could require changes to our operations. We could also be subjected to civil and criminal penalties and severe monetary consequences that could adversely affect our operating results and financial condition, including, but not limited to, the repayment of amounts received from Medicare by the offending clinics and the payment of penalties and possible exclusion from federal healthcare programs. Additionally, new federal or state laws could be enacted that would construe our relationships with our physician partners as violating applicable law or result in the imposition of penalties against us or our facilities. If any of our business arrangements with physician partners were alleged or deemed to violate the federal anti-kickback statute or similar laws, or if new federal or state laws or regulations were enacted rendering these arrangements illegal, it could have a material adverse effect on our business, prospects, results of operations and financial condition.

If our arrangements are found to violate the Stark Law, it may subject us to government scrutiny or monetary penalties or require us to restructure such arrangements.

As the Stark Law prohibits physician self-referral for certain designated health services ("DHS") and is a strict liability statute, we may be subject to liability due to the referral practices of our physician partners. None of the Stark Law exceptions applicable to physician ownership interests in entities to which they make referrals for DHS apply to the kinds of ownership arrangements that our physician partners hold in our JVs. If a center bills for DHS referred by our physician partners, the claims would not be payable and the dialysis center could be subject to actions under the False Claims Act and the Stark Law penalties. See "Item 1. Business—Government Regulation—Stark Law."

If CMS determined that we have submitted claims in violation of the Stark Law, the claims would not be payable and we could be subject to penalties, some of which could be significant. In addition, it might be necessary to restructure existing compensation agreements with our medical directors and to repurchase or to request the sale of ownership interests in our JVs held by our physician partners or, alternatively, to refuse to accept referrals for DHS from these physicians. Any such penalties and restructuring could have a material adverse effect on our business, prospects, results of operations and financial condition.

If our arrangements are found to violate state laws prohibiting the corporate practice of medicine or fee-splitting, we may not be able to operate in those states.

The laws and regulations relating to our operations vary from state to state, and many states prohibit general business corporations, as we are, from practicing medicine, controlling physicians' medical decisions or engaging in some practices such as splitting professional fees with physicians. In some states, these prohibitions are expressly stated in a statute or regulation, while in other states the prohibition is a matter of judicial or regulatory interpretation. Possible sanctions for violation of these restrictions include loss of license and civil and criminal penalties. In addition, agreements between the corporation and the physician may be considered void and unenforceable. We have endeavored to structure our activities and operations to avoid conflict with state law restrictions on the corporate practice of medicine, and we have endeavored to structure all of our corporate and operational agreements to conform to any licensure requirements, fee-splitting and related corporate practice of medicine prohibitions. However, other parties may assert that we are engaged in the corporate practice of medicine or unlawful fee-splitting despite the way we are structured. Were such allegations to be asserted successfully before the appropriate judicial or administrative forums, we could be subject to adverse judicial or administrative penalties, certain contracts could be determined to be unenforceable and we may be required to restructure our contractual arrangements. We may not be able to operate in certain states, which would adversely impact our business, financial condition and results of operations.

We are subject to CMS certification, claims processing requirements and audits, and any adverse findings in a CMS review could adversely affect our operating results and financial condition.

The Medicare and Medicaid reimbursement rules related to claims submission, clinic and professional licensing requirements, cost reporting and payment processes impose complex and extensive requirements upon dialysis providers. A violation or departure from these requirements may result in government audits, lower reimbursements, overpayments,

recoupments or voluntary repayments, and the potential loss of certification to participate in the Medicare and Medicaid program. CMS has increased the frequency and intensity of its certification inspections of dialysis clinics.

We are also subject to prepayment and post-payment reviews. CMS relies on a network of multi-state, regional contractors to process Medicare claims and audit healthcare providers. In addition, CMS has established a network of privately contracted auditors, called Recovery Audit Contractors ("RACs"), which conduct post-payment reviews to identify improper payments made by Medicare to providers. RACs are paid on a contingency basis for all overpayments identified and recovered. CMS also has a network of Zone Program Integrity Contractors, which investigate instances of suspected fraud, waste and abuse, and may refer cases to CMS for administrative action or to law enforcement for civil or criminal prosecution. If such claims are pursued by CMS or law enforcement, the penalties may be severe and may include, but not be limited to, substantial fines and exclusion from government healthcare programs.

The ACA established a requirement for providers and suppliers to report and return any overpayments received from government payors under the Medicare and Medicaid programs within 60 days of identification and quantification. Failure to report and return such overpayments exposes the provider or supplier to False Claims Act liability. As set forth in the final rule issued by CMS on February 12, 2016, providers and suppliers have a duty to exercise reasonable diligence to determine whether a Medicare overpayment exists and the amount of the overpayment. If we fail to identify, process and refund overpayments to the government in a timely manner, or if any audit, enforcement action or payment review reveals any failure to report and return an identified overpayment or a suspected instance of fraud, waste or abuse, we could be subject to substantial costs and penalties, which could adversely affect our operating results and financial condition.

Delays in Medicare and state Medicaid certification of our dialysis clinics could adversely affect our operating results and financial condition.

We are required to obtain federal and state certification for participation in the Medicare and Medicaid programs before we can begin billing for patients treated in our clinics who are enrolled in government-based programs. Due to budgetary pressures and staffing limitations, significant delays in obtaining initial certification have occurred in some states, including for our clinics, and additional delays may occur in the future. Failures or delays in obtaining certification, particularly if they become more widespread, could cause significant delays in our ability to bill for services provided to patients covered under government programs, cause us to incur write-offs of investments or accelerate the recognition of lease obligations in the event we have to close clinics or our clinics' operating performance deteriorates. This could have an adverse effect on our growth and operating results. The BBA, enacted in February 2018, allows for organizations approved by HHS to accredit dialysis facilities and imposes certain timing requirements regarding the initiation of initial surveys to determine if certain conditions and requirements for payment have been satisfied, but the ultimate impact of these changes cannot be predicted.

We may be required, as a result of future changes in our ownership structure, to comply with notification and reapplication requirements in order to maintain our licenses, permits, certifications or other authorizations to operate, and failure to do so, or an allegation that we have failed to do so, could result in payment delays, forfeitures of payments or civil and criminal penalties.

We are subject to various federal, state and local licensing and certification laws with which we must comply in order to maintain authorization to provide, or receive payment for, our services. Compliance with such requirements is complicated by the fact that such requirements differ from jurisdiction to jurisdiction and in some cases are not uniformly applied or interpreted even within the same jurisdiction. Failure to comply with these requirements can lead to delays in payment and refund requests as well as civil or criminal penalties.

In certain jurisdictions, changes in our ownership structure, including changes in beneficial ownership of our company, require pre-transaction or post-transaction notification to state governmental licensing and certification agencies. Relevant laws in some jurisdictions may also require reapplication or reenrollment and approval to maintain or renew our licensure, certification, contracts or other operating authority. The extent of such notices and filings may vary in each jurisdiction in which we operate.

While we intend to comply with any notification, reenrollment or reapplication requirements that may result from future changes in our ownership structure, the agencies that administer these programs could find that we have failed to comply in some manner. A finding of non-compliance and any resulting payment delays, refund demands or other sanctions could have a material adverse effect on our business, financial condition or results of operations.

Because our senior management has been key to our growth and success, we may be materially adversely affected if we lose any member of our senior management.

We are highly dependent on our senior management. Although we have employment agreements with our chairman and chief executive officer, president, chief operating officer, chief financial officer and general counsel, we do not maintain "key man" life insurance policies on any of our officers. Because our senior management has contributed greatly to our growth since inception, the loss of key management personnel or our inability to attract, retain and motivate sufficient members of qualified management or other personnel could have a material adverse effect on us.

If patients no longer choose to use our dialysis clinics, or if a significant number of physicians or hospitals were to cease recommending our dialysis clinics to patients, our revenues would decrease.

Our business is dependent upon patients choosing our clinics as the location for their treatments. Patients may select a clinic based, in part, on the recommendation of their physician. We believe that physicians and other clinicians typically consider a number of factors when recommending a particular dialysis facility to an ESRD patient, including, but not limited to, the quality of care at a clinic, the competency of a clinic's staff, convenient scheduling and a clinic's location and physical condition. Physicians may change their facility recommendations at any time, which may result in the transfer of our existing patients to competing clinics, including clinics established by the physicians themselves. Our business also depends on recommendations by hospitals, managed care plans, other payors and other healthcare institutions. If a significant number of providers cease recommending their patients to our clinics, this would reduce our revenue and could materially adversely affect our overall operations.

We depend on our relationships with our medical directors. Our ability to provide medical services at our facilities would be impaired and our revenues reduced if we were not able to maintain these relationships.

Each of our clinics is required by applicable regulations to have a medical director. Our ability to attract physicians to become medical directors at our clinics is essential to the growth of our business. Our business depends, in part, on the strength of our relationships with these physicians. Our revenues would be reduced if we lost relationships with key medical directors or groups of medical directors. If we were not able to attract new medical directors or maintain existing medical director relationships, our ability to provide medical services at our facilities would be impaired. Our business also depends on the efforts and success of the physicians who are medical directors at our clinics. The efforts of these medical directors directly correlate to the patient satisfaction and operating metrics of our clinics. Any failure of these medical directors to maintain the quality of medical care provided or to otherwise adhere to professional guidelines at our clinics or any damage to the reputation of a key medical director or group of medical directors could damage our reputation, subject us to liability and significantly reduce our revenues.

The Medicare conditions for coverage for ESRD facilities require that our medical directors be board-certified in internal medicine or pediatrics by a professional board and complete a board-approved training program in nephrology. Where a physician is not available with these qualifications, we seek a waiver of this requirement for our medical director from CMS. For certain of our facilities, physicians with these qualifications are not available, and we have obtained waivers from CMS for the medical directors of these facilities. If we are unable to attract physicians with these qualifications to become our medical directors or are unable to obtain waivers of this requirement for our medical directors, it could result in the closure of facilities and have a material adverse effect on our business, prospects, results of operations and financial condition.

If we cannot renew our medical director agreements or enforce the noncompetition provisions of our medical director agreements, whether due to regulatory or other reasons, our operating results and financial condition could be materially and adversely affected.

Our medical director contracts are typically for fixed initial ten-year periods with automatic renewal options. Medical directors have no obligation to extend their agreements with us. We may take actions to restructure existing relationships or take positions in negotiating extensions of relationships in an effort to meet the safe harbor provisions of the anti-kickback statute, Stark Law and other similar laws. These actions could negatively impact the decision of physicians to extend their medical director agreements with us. If the terms of any existing agreement are found to violate applicable laws, we may not be successful in restructuring the relationship which could lead to the early termination of the agreement. If a medical director agreement terminates, whether before or at the end of its term, we may be unable to find a replacement medical director with comparable qualifications, and the business, results of operations, financial condition and quality of medical services of the facility may be adversely affected.

Our medical director agreements generally provide for noncompetition restrictions prohibiting the medical directors from owning an interest in or serving as a medical director of a competing facility within specified geographical areas for specified periods of time. If we are unable to enforce the noncompetition provisions contained in our medical director agreements, it is possible that these medical directors may choose to provide medical director services for competing providers or establish their own dialysis clinics in competition with ours. Our inability to enforce noncompetition provisions and related patient attrition could materially and adversely affect our operating results and financial condition.

Our business is subject to substantial competition and could be adversely affected if we are unable to compete effectively in the dialysis services industry.

The dialysis services industry is highly competitive. Because of the lack of barriers to entry into the dialysis services business and the ability of nephrologists to be medical directors for their own clinics, competition for growth in existing and expanding markets is not limited to large competitors with substantial financial resources. According to CMS data, there were more than 6,800 dialysis clinics in the United States as of November 1, 2017. We face competition from large and medium-sized providers for patients and for the acquisition of existing dialysis clinics. We face particularly intense competition for the identification of nephrologists, whether as attending physicians, medical directors or physician partners. In many instances, our competitors have taken steps to include comprehensive non-competition provisions within various agreements, thereby limiting the ability of physicians to serve as medical directors or potential joint venture partners for competing dialysis clinics. These non-competition provisions often contain both time and geographic limitations during the term of the agreement and for a period of years thereafter. Such non-competition provisions may limit our ability to compete effectively for nephrologists

In addition, the dialysis services industry has undergone rapid consolidation. As of the end of 2014, according to the USRDS 2016 Annual Data Report, Fresenius Medical Care and DaVita accounted for 68.9% of dialysis patients in the United States. The largest not-for-profit provider of dialysis services, Dialysis Clinic, Inc., accounted for 3.1% of dialysis patients in the United States. Hospital-based providers accounted for 4.0% of dialysis patients in the United States, while independent providers and small- and medium-sized dialysis organizations, including our company, collectively accounted for the remainder. Since the time of the data reported in the USRDS 2016 Annual Data Report, consolidation has increased due to recent acquisitions, intensifying competition in the dialysis services industry. If we are unable to compete effectively in the dialysis services industry, our business, prospects, results of operations and financial condition could be materially and adversely affected.

Our competitors have increasingly adopted a JV model and compete with us for establishing de novo clinics, acquiring existing dialysis clinics and engaging medical directors, which could materially adversely impact our growth prospects.

The development, acquisition and operation of dialysis clinics is highly competitive. Our competition comes from other dialysis clinics, many of which are owned by much larger public companies, small to mid-sized private companies, acute care hospitals, nursing homes and physician groups. The dialysis services industry is rapidly consolidating, resulting in several large dialysis services companies competing with us for the acquisition of existing dialysis clinics and the development of relationships with nephrologists to serve as medical directors for new clinics. Over the past few years, several dialysis companies, including some of our largest competitors, have adopted a JV model of dialysis clinic ownership, resulting in increased competition in the development, acquisition and operation of JV dialysis clinics. Competition to develop clinics using a JV model could materially adversely affect our growth as well as our operating results and financial condition. Some of our competitors have significantly greater financial resources, more dialysis clinics, a significantly larger patient base and are vertically integrated, and, accordingly may be able to achieve better economies of scale by asserting leverage against their suppliers, payors and other commercial parties. In addition, because of the ease of entry into the dialysis business and the ability of physicians to serve as medical directors for their own centers, competition for growth in existing and expanding markets is not limited to large competitors with substantial financial resources. We may experience competition from former medical directors or attending physicians who open their own dialysis centers. If we face a reduction in the number of our medical directors or physician partners, it could adversely affect our business.

Deteriorations in economic conditions, particularly in states where we operate a large number of clinics, as well as disruptions in the financial markets could adversely impact our operating results and financial condition.

Deteriorations in economic conditions could adversely affect our operating results and financial condition. Among other things, the potential decline in federal and state revenues that may result from these conditions may create additional pressures to contain or reduce reimbursements for our services from Medicare, Medicaid and other government sponsored programs. Our business may be particularly sensitive to economic conditions in certain states in which we operate a large number of clinics, such as Florida (43 clinics), Texas (22 clinics), Georgia (20 clinics), Ohio (17 clinics), Pennsylvania (15

clinics), Colorado (13 clinics), Massachusetts (12 clinics) and others. In addition, to the extent that commercial payors are adversely affected by a decline in the economy, we may experience further pressure on commercial rates, delays in fee collections and a reduction in the amounts we are able to collect. Any or all of these factors, as well as other consequences of a deterioration in economic conditions which currently cannot be anticipated, could adversely impact our operating results and financial condition.

If we fail to comply with current or future laws or regulations governing the collection, processing, storage, access, use, security and privacy of personally identifiable, protected health or other sensitive or confidential information, our business, reputation and profitability could suffer.

The privacy and security of personally identifiable, protected health and other sensitive or confidential information that is collected, stored, maintained, received or transmitted in any form or media is a major issue in the healthcare industry. Along with our own confidential data and information, we collect, process, use and store a large amount of such hard-copy and electronic data and information from our patients and employees. We must comply with numerous federal and state laws and regulations governing the collection, processing, sharing, access, use, security and privacy of personally identifiable information, including protected health information ("PHI"). Such laws and regulations include but are not limited to the Health Insurance Portability and Accountability Act of 1996 and its implementing regulations and the Health Information Technology for Economic and Clinical Health Act of 2009 and its implementing regulations (collectively, "HIPAA"), and state data breach disclosure laws. If we fail to comply with applicable privacy and security laws, regulations and standards, properly protect the integrity and security of our facilities and systems and the data located within them, protect our proprietary rights to our systems or defend against cybersecurity attacks, or if our third-party service providers fail to do any of the foregoing with respect to data and information accessed, used or collected on our behalf, our business, reputation, results of operations and cash flows could be materially and adversely affected.

Privacy laws, including those that specifically cover PHI, are changing rapidly and subject to differing interpretations. New laws, regulations and standards relating to privacy and security, whether implemented pursuant to HIPAA or otherwise, could have a significant effect on the manner in which we must handle healthcare-related data, and the cost of monitoring and complying with such laws, regulations and standards could be significant. In addition, governmental regulation and other legal obligations related to privacy and security could be interpreted, enforced or applied to our operations in a manner adverse to us. If we do not properly comply with existing or new laws and regulations related to PHI, we could be subject to threatened or actual civil or criminal proceedings, investigations, actions, monetary fines, civil penalties or sanctions by government entities, consumer advocacy groups, private individuals or others.

Information security risks have significantly increased in recent years in part because of the proliferation of new technologies, the use of the internet and telecommunications technologies to conduct our operations and the increased sophistication and activities of organized crime, hackers, terrorists and other external parties, including foreign state agents. Our business and operations rely on the secure processing, transmission and storage of confidential, proprietary and other information in our computer systems and networks, as well as those of our third-party service providers, including sensitive personal information, such as PHI, social security numbers and credit card information of our patients, physicians, business partners and others.

We address our information and data security needs by relying on applicable members of our staff and third parties, including auditors and third-party service providers. We have implemented administrative, physical and technical safeguards to ensure the security of personally identifiable, protected health and other sensitive or confidential information that we collect, process, store, access or use, and we take commercially reasonable actions to ensure that our third-party service providers are taking appropriate security measures to protect the data and information they access, use or collect on our behalf. However, these measures cannot provide absolute security. Despite these efforts, our facilities and systems and those of our third-party service providers, as well as the data that they hold, may be vulnerable to security attacks and breaches caused by acts of vandalism, fraud or theft, computer viruses, criminal activity, coordinated attacks by activist entities, programming and/or human errors or other similar events. Because the techniques used to obtain unauthorized access, disable services or sabotage systems change frequently, may originate from less regulated and remote areas around the world and generally are not recognized until launched against us, we may be unable to proactively address these techniques or to implement adequate preventative measures. Emerging and advanced security threats, including coordinated attacks, require additional layers of security that may disrupt or impact efficiency of operations.

Any security breach involving the misappropriation, loss, corruption or other unauthorized disclosure or use of personally identifiable, protected health or other sensitive or confidential information, including financial data, competitively sensitive information or other proprietary data, whether suffered by us or one of our third-party service providers, could have a material adverse effect on our business, reputation, financial condition, cash flows or results of operations. The occurrence of

any of the foregoing events to us or a third-party service provider could result in business interruptions and delays, cessations in the availability of systems and our ability to provide services, potential liability and regulatory action, harm or loss to our reputation and relationships with our patients and vendors, investigations, monetary fines, civil or criminal suits, civil penalties or criminal sanctions, as well as significant costs, including as they relate to legal requirements to disclose the breach publicly, repairing any system damage, incentives offered to patients or others to maintain business relationships after a breach and the implementation of measures to prevent future breaches. Any of the foregoing may result in a material adverse effect on our results of operations, financial position, cash flows and our business reputation. In addition, concerns about our practices with regard to the collection, use, disclosure or security of personally identifiable, protected health and other sensitive or confidential information, even if unfounded and even if we are in compliance with applicable laws, could damage our reputation and harm our business.

Complications associated with implementing an electronic medical records system could have a material adverse effect on our revenues, cash flows and operating results.

We have selected an electronic medical record ("EMR") system for implementation at an increasing number of our facilities in the future. The cost of implementing an EMR system at our facilities may be significant, and the system's launch may be unsuccessful or may result in inefficiencies. Defects or design issues with the EMR may increase costs and subject us to additional regulatory risks. For example, problems with system implementation and operation may increase the likelihood of or cause noncompliance with federal and state security and privacy laws such as HIPAA and with requirements imposed by third-party payors. If such issues were to arise, they could materially adversely affect our revenues, cash flows and operating results.

We may be subject to liability claims for malpractice, professional liability and other matters that could harm our reputation or result in damages and other expenses not covered by insurance that could adversely impact us.

Our business, and in particular the administration of dialysis services to patients subjects us to litigation and liability for damages based on an allegation of malpractice, professional negligence in the performance of our treatment and related services, the acts or omissions of our employees, or other matters. Our exposure to this litigation and liability for damages increases with growth in the number of our clinics and treatments performed. Potential judgments, settlements or costs relating to potential future claims, complaints or lawsuits could result in substantial damages and could subject us to the incurrence of significant fees and costs. In addition, our business, reputation profitability and growth prospects could suffer if we face negative publicity in connection with such claims, including claims related to adverse patient events, contractual disputes, professional and general liability, workplace behavior or other personnel matters and directors' and officers' duties. We maintain liability insurance in amounts that we believe are appropriate for our operations, including professional and general liability insurance. Our insurance coverage may not cover all claims against us, and insurance coverage may not continue to be available at a cost satisfactory to us to allow for the maintenance of adequate levels of insurance. If we incur damages or defense costs in connection with a claim that is outside the scope of any applicable insurance coverage or if one or more successful claims against us exceeds the coverage limit of our insurance, it could have a material adverse effect on our business, prospects, results of operations and financial condition.

Our insurance costs have been increasing substantially over the last several years, and our coverage may not be sufficient to cover claims and losses.

We maintain a program of insurance coverage against a broad range of risks in our business, including professional liability insurance, which is subject to deductibles. The premiums and deductibles under our insurance program have been increasing over the last several years as a result of general business rate increases. We are unable to predict further increases in premiums and deductibles, but based on recent experience, we expect further increases in premiums and deductibles, which could adversely impact our earnings. The liability exposure of operations in the healthcare services industry has increased, resulting not only in increased premiums but also in limitations on the liability covered by insurance carriers. We may not be able to obtain necessary or sufficient insurance coverage for our operations upon expiration of our insurance policies, or obtain any insurance on acceptable terms, if at all, which could materially and adversely affect our business, financial condition and results of operations. In addition, we could be materially and adversely affected by the collapse or insolvency of our insurance carriers.

Material decisions regarding our dialysis clinics may require the consent of our joint venture partners, and we may not be able to resolve disputes.

Our joint venture partners, who may be single practitioners, an affiliated group of nephrologists, hospitals or multi-practice institutions, participate in material strategic and operating decisions we make for our clinics. For example, we

generally must obtain the consent of our joint venture partners before making any material amendments to the operating agreement for the dialysis clinic or admitting additional members. The operating agreement for a clinic may provide that we cannot take certain specified actions affecting that clinic without the consent of the joint venture partner(s) for that clinic. Such actions may include (i) a sale, transfer, liquidation or reorganization of all or substantially all of the clinic, or a merger or dissolution of the clinic, (ii) a lease of all or substantially all of the clinic, (iii) the admission of a new or substituted member, (iv) an amendment or modification of the applicable operating agreement or the constituent documents for the clinic, (v) certain transactions with affiliates, (vi) any capital calls except to the extent specifically provided, (vii) any hiring or firing of certain key employees of the clinic, (viii) entering into borrowing arrangements on behalf of the clinic or incurring other liabilities, in each case, exceeding specified amounts, and (ix) entering into any material agreements on behalf of the clinic where annual payments exceed a specified amount. The rights of our joint venture partners to approve material decisions could limit our ability to take actions that we believe are in our best interest and the best interest of the dialysis clinic. Some of our joint venture partners may have interests in multiple clinics, and it may be more difficult for us to successfully negotiate or resolve disputes with such partners to the extent they have approval rights over material decisions for a number of clinics. We may not be able to resolve favorably, or at all, any dispute regarding material decisions with our joint venture partners.

We may be required to purchase the ownership interests of our physician partners, which may require additional debt or equity financing, and in certain limited circumstances some of our physician partners may have the right to purchase our JV ownership interests.

A substantial number of our JV operating agreements grant our physician partners rights to require us to purchase their ownership interests, at the estimated fair value as defined within the applicable JV operating agreement, at certain set times or upon the occurrence of certain triggering events. Our nephrologist partners in each JV are generally required to collectively maintain a minimum percentage, most commonly at least 20%, of the total outstanding membership interests in the clinic following the exercise of their put rights. Event-based triggers of these rights in various JV operating agreements may include the sale of all or substantially all of our assets, closure of the clinic, change of control, departure of key executives, third-party members' death, disability, bankruptcy, retirement, or if third-party members are dissolved and other events. Time-based triggers give physician partners at certain of our clinics the option to require us to purchase previously agreed upon percentages of their ownership interests at certain set dates. The time when some of the time-based put rights are exercisable may be accelerated upon the occurrence of certain events, such as those noted above.

The estimate of the fair values of the interests subject to these put provisions is a critical accounting estimate that involves significant judgments and assumptions and may not be indicative of the actual values at which these obligations may ultimately be settled in the future. The estimated fair values of the interests subject to these put provisions can also fluctuate, and the implicit multiple of earnings at which these obligations may be settled will vary depending upon clinic performance, market conditions and access to the credit and capital markets. As of December 31, 2017 , we had recorded liabilities of approximately $107.7 million for all existing time-based obligations, of which we have estimated approximately $12.2 million were accelerated as a result of physicians with IPO put rights having elected to exercise or may potentially exercise the puts, and approximately $32.2 million for all existing event-based obligations to our physician partners. The funds required to honor our put obligations may make it difficult for us to meet our other debt obligations, including obligations under our credit facilities or require us to incur additional indebtedness or issue additional common stock to fund such purchases.

In addition, in certain limited circumstances, some of our JV operating agreements grant our physician partners rights to purchase our JV ownership interests. A limited number of our JV operating agreements do not exist in perpetuity and give our physician partners the right to purchase all of our membership interests within a specified period, at fair market value or otherwise dissolve the JV. In the event of a change of control transaction, such as a merger or sale of all or substantially all of our assets or stock to a third party, some of our physician partners would have the right to purchase all of our JV ownership interests or require us to offer to sell our JV ownership interests to them, at a purchase price based on, in part, the transaction valuation. These provisions could adversely affect the value of our company to a potential acquirer and our ability to fully realize the value of a change of control transaction.

We may have a special legal responsibility to our physician partners, which may conflict with, and prevent us from acting solely in, our own best interests.

We generally hold our ownership interests in facilities through JVs in which we maintain an ownership interest along with physicians. As majority managing member of most of our JVs, we may have fiduciary duties under state laws to manage these entities in the best interests of the minority interest holders. We may encounter conflicts between our responsibility to further the interests of these physician partners and our own best interests. For example, we have entered into management agreements to provide management services to the dialysis clinics in exchange for a fee. Disputes may arise as to the nature of the services to be provided or the amount of the fee to be paid. Disputes may also arise between us and our physician partners

with respect to a particular business decision or regarding the interpretation of the provisions of the applicable JV operating agreement. In addition, disputes may arise as to the amounts and timing of distributions we make to our physician partners. In these cases, we may be obligated to exercise reasonable, good faith judgment to resolve the disputes and may not be free to act solely in our own best interests. We seek to avoid these disputes and have not implemented any measures to resolve these conflicts if they arise. If we are unable to resolve a dispute on terms favorable or satisfactory to us, it could have a material adverse effect on our business, prospects, results of operations and financial condition.

Shortages of qualified skilled clinical personnel, or higher than normal turnover rates, could affect our ability to grow and deliver quality, timely and cost-effective care services.

We depend on qualified nurses and other skilled clinical personnel to provide quality service to patients in our clinics. Competition is intense for qualified nurses, technical staff and nephrologists. We depend on our ability to attract and retain skilled clinical personnel to support our growth and generate revenues. There is currently a shortage of skilled clinical personnel in many of the markets in which we operate our clinics as well as markets in which we are considering opening new clinics. This nursing shortage may adversely affect our ability to grow or, in some cases, to replace existing staff, thereby leading to disruptions in our services. In addition, this shortage of skilled clinical personnel and the more stressful working conditions it creates for those remaining in the profession are increasingly viewed as a threat to patient safety and may trigger the adoption of state and federal laws and regulations intended to reduce that risk. For example, some states have adopted or are considering legislation that would prohibit forced overtime for nurses or establish mandatory staffing level requirements.

In response to the shortage of skilled clinical personnel, we have increased and are likely to have to continue to increase our wages and benefits to recruit and retain nurses or to engage contract nurses at a higher expense until we hire permanent staff nurses. We may not be able to increase the rates we charge to offset increased costs. The shortage of skilled clinical personnel may in the future delay our ability to achieve our operational goals at a dialysis clinic by limiting the number of patients we are able to service. The shortage of skilled clinical personnel also makes it difficult for us in some markets to reduce personnel expense at our clinics by implementing a temporary reduction in the size of the skilled clinical personnel staff during periods of reduced patient admissions and procedure volumes. In addition, we believe that retention of skilled clinical personnel is an important factor in a patient's decision to continue receiving treatment at one of our clinics. If we are unable to hire skilled clinical personnel when needed, or if we experience a higher than normal turnover rate for our skilled clinical personnel, our operations and treatment growth will be negatively impacted, which would result in reduced revenues, earnings and cash flows.

Growing numbers of skilled clinical personnel are also joining unions that threaten and sometimes call work stoppages. Although we do not currently directly employ personnel that are members of a union, we lease employees in New York and the District of Columbia that are members of unions. Accordingly, we are required to abide by certain laws, regulations and procedures in our interactions with these employees. Union organizing activities at our clinics could adversely affect our operating costs, our employee relations, productivity, earnings and cash flows. If union organizing activities or other national or local trends result in an increase in labor and employment costs or claims, including class action lawsuits, our operating costs, earnings and cash flows could be adversely affected.

Our substantial level of indebtedness could adversely affect our ability to raise additional capital to fund our operations, expose us to interest rate risk to the extent of our variable rate debt and prevent us from meeting our obligations under our indebtedness.

We have substantial indebtedness. As of December 31, 2017 , we had total consolidated long-term indebtedness of $515.6 million . Our high level of indebtedness could, among other consequences:

- make it more difficult for us to satisfy our obligations under our indebtedness, including our credit facilities, exposing us to the risk of default, which could result in a foreclosure on our assets, which, in turn, would negatively affect our ability to operate as a going concern;
- require us to dedicate a substantial portion of our cash flows from operations to interest and principal payments on our indebtedness, reducing the availability of our cash flows for other purposes, such as capital expenditures, acquisitions and working capital;
- limit our flexibility in planning for, or reacting to, changes in our business and the industries in which we operate;
- increase our vulnerability to general adverse economic and industry conditions;

- place us at a disadvantage compared to our competitors that have less debt;
- increase our cost of borrowing;
- limit our ability to borrow additional funds; and
- require us to sell assets to raise funds, if needed, for working capital, capital expenditures, acquisitions or other purposes.

Substantially all of our indebtedness is floating rate debt. We are exposed to interest rate volatility to the extent such interest rate risk is not hedged. We have and may continue to enter into swaps or other derivative financial instruments to reduce our exposure to floating interest rates as described under "—We utilize derivative financial instruments to reduce our exposure to market risks from changes in interest rates on our variable rate indebtedness and we will be exposed to risks related to counterparty creditworthiness or non-performance of these instruments."

Our debt agreements impose significant operating and financial restrictions on us and our subsidiaries, which may prevent us from capitalizing on business opportunities and taking some actions.

Our credit facilities impose significant operating and financial restrictions on us. These restrictions limit our ability to, among other things:

- incur additional indebtedness;
- incur liens;
- make investments and sell assets;
- pay dividends and make other distributions;
- purchase our stock;
- engage in business activities unrelated to our current business;
- enter into transactions with affiliates; or
- consolidate, merge or sell all or substantially all of our assets.

In addition, under our credit facilities, we are required to satisfy and maintain specified financial ratios and other financial condition tests. Our ability to meet those financial ratios and tests can be affected by events beyond our control, and we may be unable to meet those ratios and tests. A breach of any of those covenants could result in a default under our credit facilities. Upon the occurrence of an event of default under our credit facilities, our lenders could elect to declare all amounts outstanding under our credit facilities to be immediately due and payable and terminate all commitments to extend further credit.

As a result of these covenants and restrictions, we are limited in how we conduct our business, and we may be unable to raise additional debt or equity financing to compete effectively or to take advantage of new business opportunities. The terms of any future indebtedness we may incur could include more restrictive covenants. A breach of any of these covenants could result in a default in respect of the related indebtedness. If a default occurs, the relevant lenders could elect to declare the indebtedness, together with accrued interest and other fees, to be due and payable immediately.

This, in turn, could cause our other debt, including debt under our credit facilities, to become due and payable as a result of cross-default or acceleration provisions contained in the agreements governing such other debt. In the event that some or all of our debt is accelerated and becomes immediately due and payable, we may not have the funds to repay, or the ability to refinance, such debt.

Our ability to repay our indebtedness depends on the performance of our subsidiaries and their ability to make distributions to us.

We are a holding company. We have no operations of our own and derive all of our revenues and cash flow from our joint venture and other subsidiaries. We depend on our joint venture subsidiaries for dividends and other payments to generate the funds necessary to meet our financial obligations, including payments of principal and interest on our indebtedness. The earnings from, or other available assets of, our subsidiaries may not be sufficient to pay dividends or make distributions or

loans to enable us to make payments in respect of our indebtedness when such payments are due. Legal and contractual restrictions in agreements governing current and future indebtedness and our joint ventures, as well as the financial condition and operating requirements of our subsidiaries, limit our ability to obtain cash from our joint ventures. Such agreements, including the agreements governing our credit facilities and joint ventures, may restrict our subsidiaries from providing us with sufficient dividends, distributions or loans to fund interest and principal payments on our indebtedness when due. In addition, our operating agreements generally provide that distributions may only be made to us if at the same time we make pro rata distributions to our joint venture partners, and accordingly, a significant portion of our cash flows is used to make distributions to our joint venture partners and is not available to service our indebtedness. Further, if our subsidiaries' operating performance declines or if our subsidiaries are unable to generate sufficient cash flows or are otherwise unable to obtain funds necessary to meet required payments on indebtedness, or if our subsidiaries otherwise fail to comply with the various covenants, including financial and operating covenants, in the instruments governing their indebtedness, our subsidiaries could be in default under the terms of the agreements governing such indebtedness. Under such a scenario, our subsidiaries would need to seek to obtain waivers from their lenders to avoid being in default, which they may not be able to obtain. In the event of such default, the holders of such indebtedness could elect to declare all the funds borrowed thereunder to be due and payable, together with accrued and unpaid interest, could elect to terminate their commitments, cease making further loans and institute foreclosure proceedings against our subsidiaries' assets, and our subsidiaries could be forced into bankruptcy or liquidation.

We utilize derivative financial instruments to reduce our exposure to market risks from changes in interest rates on our variable rate indebtedness, and we will be exposed to risks related to counterparty creditworthiness or non-performance of these instruments.

In March 2017, we entered into a forward starting interest rate swap agreement with a notional amount of $133 million and two interest rate cap agreements with notional amounts totaling $147 million, as a means of reducing our exposure to the floating interest rate component on $440 million of our variable rate debt under our term loans. The swap and interest rate caps are designated as a cash flow hedge, with a termination date of March 31, 2021. We may enter into additional interest rate swaps or other derivative financial instruments to further limit our exposure to changes in variable interest rates. Such instruments may result in economic losses should interest rates decline to a point lower than our fixed rate commitments. We will be exposed to credit-related losses, which could impact our results of operations in the event of fluctuations in the fair value of the interest rate swaps due to a change in the creditworthiness or non-performance by the counterparties to our derivative financial instruments.

We are required to pay our pre-IPO stockholders for certain tax benefits, which amounts are expected to be material.

In connection with our initial public offering, we entered into an income tax receivable agreement (the "TRA") for the benefit of our pre-IPO stockholders that provides for the payment by us to our pre-IPO stockholders on a pro rata basis of 85% of the amount of cash savings, if any, in U.S. federal, state and local income tax that we actually realize as a result of any deductions (including net operating losses resulting from such deductions) attributable to the exercise of (or any payment, including any dividend equivalent right or payment, in respect of) any compensatory stock option issued by us that was outstanding (whether vested or unvested) as of the day before the date of our IPO prospectus (such stock options, "Relevant Stock Options" and such deductions, "Option Deductions").

These payment obligations are our obligations and not obligations of any of our subsidiaries. The actual amount and timing of any payments under the TRA will vary depending upon a number of factors, including the amount and timing of the taxable income we generate in the future, whether and when any Relevant Stock Options are exercised and the value of our common stock at the time of such exercise. We expect that during the term of the TRA the payments that we make will be material. Such payments will reduce the liquidity that would otherwise have been available to us. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Income Tax Receivable Agreement."

In addition, the TRA provides that upon certain mergers, consolidations, acquisitions, asset sales, other changes of control (including changes of continuing directors) or our complete liquidation, the TRA is terminable with respect to certain Relevant Stock Options at the election of Centerbridge Capital Partners, L.P. (together with its affiliates, "Centerbridge") (or its assignee). If Centerbridge (or its assignee) elects to terminate the TRA with respect to such Relevant Stock Options, we will be required to make a payment equal to the present value of future payments under the TRA with respect to such Relevant Stock Options, which payment would be based on certain assumptions, including those relating to our future taxable income. Upon such termination, our obligations under the TRA could have a substantial negative impact on our liquidity and could have the effect of reducing the amount otherwise payable to stockholders in a change of control transaction or delaying, deferring or preventing certain mergers, consolidations, acquisitions, asset sales or other changes of control. If Centerbridge (or its assignee) does not elect to terminate the TRA with respect to such Relevant Stock Options upon a change of control, subsequent

payments under the TRA will be calculated assuming that we have sufficient taxable income to utilize any available Option Deductions, in which case we may be required to make payments under the TRA that exceed our actual cash savings as a result of the Option Deductions in the taxable year.

The TRA provides that in the event that we breach any of our material obligations under it, whether as a result of our failure to make any payment when due (subject to a specified cure period), failure to honor any other material obligation under it or by operation of law as a result of the rejection of it in a case commenced under the United States Bankruptcy Code or otherwise, then all our payment and other obligations under the TRA could be accelerated and become due and payable applying the same assumptions described above. Such payments could be substantial and could exceed our actual cash tax savings under the TRA.

Additionally, we generally have the right to terminate the TRA upon certain changes of control or following December 31, 2018 (whether or not any change of control has occurred). If we terminate the TRA, our payment and other obligations under the TRA will be accelerated and will become due and payable, also applying assumptions similar to those described above, except that if we terminate the TRA at a time during which any Relevant Stock Options remain outstanding, the value of the common stock that would be delivered as a result of the exercise of such Relevant Stock Options will be assumed to be the value of our common stock at such time plus a premium on such value, determined as of the date the TRA is terminated (the "Applicable Premium"). The Applicable Premium is 40% if we terminate the TRA on or before the second anniversary of the date we enter into the TRA, 30% if we terminate the TRA after the second anniversary but on or before the third anniversary of such date, 20% if we terminate the TRA after the third anniversary but on or before the fourth anniversary of such date, 10% if we terminate the TRA after the fourth anniversary but on or before the fifth anniversary of such date and 0% if we terminate the TRA after the fifth anniversary of such date. Any such termination payments could be substantial and could exceed our actual cash tax savings under the TRA.

Our pre-IPO stockholders will not reimburse us for any payments previously made under the TRA if the tax benefits giving rise to any payments under the TRA are subsequently disallowed (although future payments would be adjusted to the extent possible to reflect the result of such disallowance). As a result, in certain circumstances, payments could be made under the TRA in excess of our cash tax savings.

Because we are a holding company with no operations of our own, our ability to make payments under the TRA is dependent on the ability of our subsidiaries to make distributions to us. To the extent that we are unable to make payments under the TRA, such payments will generally accrue interest at a rate equal to the London Interbank Offered Rate ("LIBOR") plus 500 basis points from the due date until paid; however, if we are unable to make payments under the TRA because we do not have sufficient cash to make such payments as a result of limitations imposed by existing credit agreements to which we or any of our subsidiaries is a party, such payments will accrue interest at a rate equal to LIBOR plus 100 basis points from the due date until paid.

Risks Related to the Ownership of Our Common Stock

Our stock price has been and will likely continue to be volatile and fluctuate substantially. As a result, you may not be able to resell your shares at or above your purchase price.

The market price of our common stock has been and will likely continue to fluctuate substantially as a result of many factors, some of which are beyond our control. For example, since January 1, 2017, the trading price of our common stock on the New York Stock Exchange has ranged from a low of $9.91 to a high of $23.30 through March 5, 2018. These fluctuations could cause you to lose all or part of the value of your investment in our common stock. Factors that could cause fluctuations in the market price of our common stock include the following:

- performance of third parties on whom we rely to operate our clinics, including their ability to comply with regulatory requirements;
- the success of, and fluctuation in, the revenue generated from our clinics;
- execution of our operations and other aspects of our business plan;
- results of operations that vary from those of our competitors and the expectations of securities analysts and investors;

- changes in expectations as to our future financial performance, including financial estimates by securities analysts and investors;
- investor perceptions of the investment opportunity associated with our common stock relative to other investment alternatives;
- our announcement of significant contracts, acquisitions, or capital commitments;
- announcements by our competitors of competing clinics;
- announcements by third parties of significant claims or proceedings against us;
- regulatory and reimbursement developments in the United States;
- future sales of our common stock;
- additions or departures of key personnel and physician partners; and
- disruptions in government operations or general domestic and international economic conditions unrelated to our performance.

In addition, the stock market in general has experienced significant price and volume fluctuations that have often been unrelated or disproportionate to operating performance of individual companies. These broad market factors may adversely affect the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted. Any securities class action suit against us could result in significant liabilities and, regardless of the outcome, could result in substantial costs and the diversion of our management's attention and resources.

Because we have no current plans to pay cash dividends on our common stock for the foreseeable future, you may not receive any return on investment unless you sell your common stock for a price greater than that which you paid for it.

We intend to retain future earnings, if any, for future operations, expansion, and debt repayment and have no current plans to pay any cash dividends for the foreseeable future. The declaration, amount and payment of any future dividends on shares of common stock will be at the sole discretion of our board of directors. Our board of directors may take into account general and economic conditions, our financial condition, and results of operations, our available cash and current and anticipated cash needs, capital requirements, contractual, legal, tax and regulatory restrictions, implications on the payment of dividends by us to our stockholders or by our subsidiaries to us, and such other factors as our board of directors may deem relevant. In addition, our ability to pay dividends is limited by covenants of our existing outstanding indebtedness and may be limited by covenants of any future indebtedness we or our subsidiaries incur, including pursuant to our credit agreement. As a result, you may not receive any return on an investment in our common stock unless you sell our common stock for a price greater than that which you paid for it.

Future sales, or the perception of future sales, of a substantial amount of our common shares could depress the trading price of our common stock.

As of December 31, 2017 , we have a total of 32,034,439 shares of common stock outstanding. Of those shares, 12,771,973 shares are freely tradable without restriction or further registration under the Securities Act, though certain shares remain subject to continued service vesting requirements. The remaining 19,262,466 shares are held by our affiliates, including our directors, executive officers and other affiliates (including Centerbridge) and are "restricted securities" within the meaning of Rule 144 of the Securities Act ("Rule 144") subject to certain restrictions on resale. Restricted securities may be sold in the public market only if they are registered under the Securities Act or are sold pursuant to an exemption from registration such as Rule 144. Pursuant to our amended and restated registration rights agreement, we have filed a registration statement with the Securities and Exchange Commission (the "SEC") for the resale of our common stock by Centerbridge, Joe Carlucci, our Chief Executive Officer, and Syed Kamal, our President. Shares covered by such registration statement represented approximately 59% of our outstanding common stock as of December 31, 2017 . These outstanding shares of common stock would become freely tradable without compliance with Rule 144 upon any sale pursuant to the registration statement following its effectiveness.

As restrictions on resale end or if these stockholders sell their shares pursuant to the registration statement, the market price of our shares of common stock could drop significantly if the holders of these shares sell them or are perceived by the market as intending to sell them. These factors could also make it more difficult for us to raise additional funds through future offerings of our shares of common stock or other securities.

As of December 31, 2017 , we have outstanding options to purchase 5,280,261 shares of our common stock. In addition, we have 3,043,222 shares reserved for future issuance under our 2016 Omnibus Incentive Plan. We have registered all of the common stock subject to outstanding stock options and other equity awards, as well as shares reserved for future issuance, under our 2016 Omnibus Incentive Plan. Accordingly, shares registered under such registration statements are generally available for sale in the open market, subject to our trading policies and, in the case of shares held by our officers and directors, to volume limits under Rule 144.

In the future, we may also issue our securities in connection with investments or acquisitions. The amount of shares of our common stock issued in connection with an investment or acquisition could constitute a material portion of our then-outstanding shares of our common stock. Any issuance of additional securities in connection with investments or acquisitions may result in additional dilution to you.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the analysts who covers us downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price and trading volume to decline.

Centerbridge controls us and its interests may conflict with ours or yours in the future.

As of December 31, 2017 , Centerbridge beneficially owns approximately 55% of our outstanding common stock. Investment funds associated with or designated by Centerbridge have the ability to elect a majority of the members of our board of directors and thereby control our policies and operations, including the appointment of management, future issuances of our common stock or other securities, the payment of dividends, if any, on our common stock, the incurrence or modification of debt by us, amendments to our amended and restated certificate of incorporation and amended and restated bylaws, and the entering into of extraordinary transactions, and their interests may not in all cases be aligned with your interests. In addition, Centerbridge may have an interest in pursuing acquisitions, divestitures, and other transactions that, in its judgment, could enhance its investment, even though such transactions might involve risks to you. For example, Centerbridge could cause us to make acquisitions that increase our indebtedness. Centerbridge may direct us to make significant changes to our business operations and strategy, including with respect to, among other things, clinic openings and closings, sales of other assets, employee headcount levels and initiatives to reduce costs and expenses.

Centerbridge is in the business of making investments in companies and may from time to time acquire and hold interests in businesses that compete directly or indirectly with us. Our amended and restated certificate of incorporation provides that neither Centerbridge nor any director who is not employed by us (including any non-employee director who serves as one of our officers in both his director and officer capacities) nor his or her affiliates have any duty to refrain from engaging, directly or indirectly, in the same business activities or similar business activities or lines of business in which we operate.

So long as Centerbridge continues to own a significant amount of the outstanding shares of our common stock, even if such amount is less than 50%, Centerbridge will continue to be able to strongly influence or effectively control our decisions. In addition, so long as Centerbridge continues to maintain this ownership, it will be able effectively to determine the outcome of all matters requiring stockholder approval and will be able to cause or prevent a change of control or a change in the composition of our board of directors and could preclude any unsolicited acquisition of our company. The concentration of ownership could deprive you of an opportunity to receive a premium for your shares of common stock as part of a sale of our company and ultimately might affect the market price of our common stock.

We are a "controlled company" within the meaning of the NYSE rules and the rules of the SEC. As a result, we qualify for, and intend to continue to rely on, exemptions from certain corporate governance requirements that provide protection to stockholders of other companies.

Centerbridge beneficially owns a majority of our outstanding common stock. As a result, we are a "controlled company" within the meaning of the corporate governance standards of the NYSE. Under these rules, a company of which more than 50% of the voting power is held by an individual, group or another company is a "controlled company" and may elect not to comply with certain corporate governance requirements, including:

- the requirement that a majority of its board of directors consist of "independent directors" as defined under the rules of the NYSE;
- the requirement that it have a compensation committee that is composed entirely of directors meeting the NYSE independence standards applicable to compensation committee members with a written charter addressing the committee's purpose and responsibilities;
- the requirement that its compensation committee be responsible for hiring and overseeing of persons acting as compensation consultants and be required to consider certain independence factors when engaging such persons;
- the requirement that it have a nominating and corporate governance committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities; and
- the requirement for an annual performance evaluation of the compensation and nominating and corporate governance committees.

We have elected to utilize certain of these exemptions, and we may continue to use some or all of these exemptions in the future. Accordingly, you may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of the NYSE.

Provisions in our amended and restated certificate of incorporation, amended and restated bylaws, amended and restated stockholders agreement and under Delaware law might discourage, delay or prevent a change of control of our company or changes in our management.

Our amended and restated certificate of incorporation, amended and restated bylaws and amended and restated stockholders agreement contain provisions that could depress the trading price of our common stock by discouraging, delaying or preventing a change of control of our company or changes in our management that the stockholders of our company may believe advantageous. These provisions include:

- establishing a classified board of directors so that not all members of our board of directors are elected at one time;
- authorizing "blank check" preferred stock that our board of directors could issue to increase the number of outstanding shares to discourage a takeover attempt;
- limiting the ability of stockholders to call a special stockholder meeting;
- limiting the ability of stockholders to act by written consent;
- establishing advance notice requirements for nominations for elections to our board of directors or for proposing matters that can be acted upon by stockholders at stockholder meetings;
- allowing the removal of directors only for cause and only upon the affirmative vote of the holders of at least 66 2/3 % in voting power of all the then-outstanding shares of our stock entitled to vote thereon, voting together as a single class, if Centerbridge holds less than 40% in voting power of the stock of our company; and
- specifying that certain provisions may be amended only by the affirmative vote of the holders of at least 66 2/3 % in voting power of all the then-outstanding shares of our stock entitled to vote thereon, voting together as a single class, if Centerbridge holds less than 40% in voting power of the stock of our company but still has the right to nominate directors to, or has its director nominees serving on, our board of directors.

Additionally, we have opted out of Section 203 of the Delaware General Corporation Law (the "DGCL"). Our amended and restated certificate of incorporation includes a similar provision, which, subject to certain exceptions, prohibits us from engaging in a business combination with an interested stockholder (generally a person that together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of which the person became an interested stockholder), unless the business combination is approved in a prescribed manner. Our amended and restated certificate of incorporation provides that Centerbridge and any of its respective direct or indirect transferees, and any group as to which such persons are party, do not constitute interested stockholders for purposes of this provision.

These anti-takeover provisions could make it more difficult for a third party to acquire us, even if the third party's offer may be considered beneficial by many of our stockholders. As a result, our stockholders may be limited in their ability to obtain a premium for their shares.

We are an emerging growth company and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.

We are an emerging growth company as defined in the Jumpstart Our Business Startups Act (the "JOBS Act"). For as long as we continue to be an emerging growth company, we may choose to take advantage of certain exemptions from various reporting requirements applicable to other public companies, including, among other things:

- exemption from the auditor attestation requirements under Section 404 of the Sarbanes-Oxley Act of 2002;
- reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements;
- exemption from the requirements of holding non-binding stockholder votes on executive compensation arrangements; and
- exemption from any rules requiring mandatory audit firm rotation and auditor discussion and analysis and, unless the SEC otherwise determines, any future audit rules that may be adopted by the Public Company Accounting Oversight Board.

We will be an emerging growth company until the earliest of (i) December 31, 2021, (ii) the last day of the fiscal year in which we have annual gross revenue of $1 billion or more, (iii) the date on which we have, during the previous three-year period, issued more than $1 billion in non-convertible debt or (iv) the first day of the first fiscal year after we have more than $700 million in aggregate market value of outstanding common equity held by our non-affiliates as of the last day of our second fiscal quarter.

We cannot predict if investors will find our common stock less attractive if we continue to rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

We incur significant increased costs as a result of operating as a public company, and our management will continue to be required to devote substantial time to comply with the laws and regulations affecting public companies, particularly after we are no longer an emerging growth company.

As a public company, we incur significant legal, accounting and other expenses that we did not incur as a private company, including costs associated with public company reporting and corporate governance requirements, in order to comply with the rules and regulations imposed by the Sarbanes-Oxley Act, as well as rules implemented by the SEC and the NYSE. These costs will further increase after we cease to qualify as an emerging growth company. Our management and other personnel devote a substantial amount of time to these compliance initiatives. It may become more difficult or more costly for us to obtain director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage when we renew our current policy.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective internal controls over financial reporting and disclosure controls and procedures. In particular, as a public company, we are required to perform system and process evaluations and testing of our internal control over financial reporting to allow management and in the future our independent registered public accounting firm to report on the effectiveness of our internal controls over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. As described above, as an emerging growth company, we may not need to comply with the auditor attestation provisions of Section 404 for several years. Our testing, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal control over financial reporting that are

deemed to be material weaknesses. Our compliance with Section 404 will require that we incur substantial accounting expense and that management expend time on compliance-related issues. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our independent registered public accounting firm identify deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, we could lose investor confidence in the accuracy and completeness of our financial reports, which could cause our stock price to decline.

When the available exemptions under the JOBS Act, as described above, cease to apply, we expect to incur additional expenses and devote increased management effort toward ensuring compliance with the applicable regulatory and corporate governance requirements. We cannot predict or estimate the amount of additional costs we may continue to incur as a result of becoming a public company or the timing of such costs.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Properties and Clinics

Our corporate headquarters are located at 500 Cummings Center, Suite 6550, Beverly, Massachusetts 01915 in an approximately 60,000 square foot leased portion of an office building. The lease for our headquarters expires on December 30, 2022 and includes one five-year renewal option.

As of December 31, 2017 , we had 228 dialysis clinics located in Arizona, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Missouri, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Texas, Virginia, Washington, D.C. and Wisconsin. Our dialysis clinics range in size from approximately 1,300 to 18,000 square feet. Substantially all of our dialysis clinics are located on premises that we lease under non-cancelable operating leases expiring in various years through 2033. Most clinic lease agreements have initial periods from 10 to 15 years. Some leases contain renewal options of five to ten years at the fair rental value at the time of renewal, while others have renewal terms at pre-set rates associated with the initial term. We also own the real estate for several clinic sites.

Location and Capacity of Our Clinics

As of December 31, 2017 , we owned and operated 228 dialysis clinics treating patients in 26 states and the District of Columbia, each of which is consolidated in our financial statements. The locations of these clinics as of December 31, 2017 were as follows:

State	Clinics	State	Clinics	State	Clinics
Arizona	2	Indiana	5	Ohio	17
California	5	Kentucky	7	Oklahoma	2
Colorado	13	Louisiana	2	Pennsylvania	15
Connecticut	3	Maryland	5	Rhode Island	9
Delaware	2	Massachusetts	12	South Carolina	10
Florida	43	Michigan	5	Texas	22
Georgia	20	Missouri	2	Virginia	6
Idaho	1	New Jersey	5	Washington, D.C.	2
Illinois	3	New York	9	Wisconsin	1
				TOTAL	**228**

We have developed our clinics in a manner that we believe promotes high-quality patient care. We select the geographic area of the clinic locations based on the identification of well-qualified nephrologist partners with whom we are interested in developing a clinic. In cooperation with our nephrologist partners, we select a specific location to maximize convenience to the patients based on demographic and other factors. Other considerations in identifying geographic areas and specific locations include:

- the availability and cost of qualified and skilled personnel, particularly nursing and technical staff;
- the area's demographics and population growth estimates; and
- state regulation of dialysis and healthcare services.

Some of our dialysis clinics may be operating at or near capacity. We continuously monitor our dialysis clinics as they are nearing capacity. If a clinic is approaching full capacity, we may accommodate additional patient volume through increased hours or days of operation or, if additional space is available within an existing clinic, by adding dialysis stations, or we may open an additional clinic in that local area. Substantially all of our clinics lease their space on terms that we believe are customary in the industry. Opening of de novo clinics or expansion of existing clinics may be subject to review for state regulatory compliance, as well as those conditions relating to participation in the Medicare ESRD program. In states that require a certificate of need or clinic license, additional approvals would generally be necessary for development or expansion.

Item 3. Legal Proceedings.

Certain Legal Matters

As previously disclosed, ARA and its wholly owned operating subsidiary American Renal Associates LLC ("ARA OpCo") were named as defendants in a complaint filed by three affiliates of UnitedHealth Group Incorporated ("United") in the United States District Court for the Southern District of Florida (the "Court") on July 1, 2016. On August 12, 2016, ARA and ARA OpCo each filed a motion to dismiss the action. On September 2, 2016, plaintiffs filed an amended complaint, dropping one of the United affiliates as a plaintiff. On September 30, 2016, ARA and ARA OpCo each filed a motion to dismiss the amended complaint. On January 17, 2017, plaintiffs filed a motion seeking to file a second amended complaint, which would add American Renal Management LLC ("ARM") as a defendant. On March 13, 2017, the Court granted leave to amend, and United filed its second amended complaint on the same day. On May 8, 2017, the Court granted ARA's motion to dismiss for lack of personal jurisdiction and dismissed ARA from the lawsuit without prejudice. The lawsuit remains pending against ARA OpCo and ARM. ARA OpCo and ARM moved to dismiss the second amended complaint on March 27, 2017. The Court held a hearing on ARA OpCo and ARM's motions to dismiss the second amended complaint on June 23, 2017. The second amended complaint relates to 30 patients who have received, and some of whom continue to receive, dialysis at 12 clinics in Florida and Ohio and who obtained coverage under one of United's ACA-compliant individual marketplace plans. The plaintiffs assert various state law claims and allege violations of certain state laws that prohibit false insurance claims, healthcare kickbacks, patient brokering, and violations of the applicable commercial plan agreements in connection with, among other things, premium payment assistance by the American Kidney Fund ("AKF"). The second amended complaint seeks unspecified actual, consequential and punitive monetary damages, together with interest and costs, and declaratory and injunctive relief, as well as attorney's fees and court costs. The Company has moved to dismiss the second amended complaint in full and is vigorously defending itself in this legal matter. Jurisdictional discovery was completed, and merits discovery has commenced and is continuing. We expect to remain in active litigation during 2018. See also "Item 1A. Risk Factors—If the rates paid by commercial payors decline, our operating results and cash flows would be adversely affected" and "—Our ongoing dispute with United could adversely affect our reimbursement rates, operating results and cash flows." The Company has received letters from other insurance companies seeking information regarding matters relating to the insurance companies' covered patients similar in nature to the matters underlying the United complaint.

On August 31, 2016 and September 2, 2016, putative shareholder class action complaints were filed in the United States District Court for the Southern District of New York and the United States District Court for the District of Massachusetts, respectively, against the Company and certain officers and directors of the Company. Both complaints asserted federal securities law claims against the Company and the individual defendants under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Rule 10b-5 promulgated thereunder by the SEC, and, in addition, the complaint filed in the United States District Court for the Southern District of New York asserted claims under Sections 11 and 15 of the Securities Act. The complaints alleged that the Company made material misstatements or omissions, including in connection with its initial public offering filings and other public filings. The complaints sought unspecified damages on behalf of the individuals or entities that purchased or otherwise acquired the Company's securities from April 20, 2016 to August 18, 2016. On October 26, 2016, the complaint filed in the Southern District of New York was voluntarily dismissed by the plaintiff without prejudice. On November 30, 2016, a Lead Plaintiff was appointed for the putative shareholder class action complaint pending in the United States District Court for the District of Massachusetts, captioned Esposito, et al. v. American Renal Associates Holdings, Inc., et al., No. 16-cv-11797 (the "Esposito Action"). On February 1, 2017, the Lead Plaintiff in the Esposito Action filed an amended complaint against the Company, certain former and current officers and directors of the Company, Centerbridge Capital Partners L.P., and certain of the underwriters in our initial public offering. The amended complaint asserts federal securities laws claims under Securities Act Sections 11 and 15, as well as Exchange Act Sections 10(b) and 20(a) and SEC Rule 10b-5. On May 18, 2017, the Company filed a motion to dismiss the

amended complaint. On July 17, 2017, the Lead Plaintiff filed a consolidated opposition to the motions to dismiss. On August 16, 2017, the Company filed a reply brief in further support of its motion to dismiss. On November 27, 2017, the Company and the Lead Plaintiff engaged in a mediation, following which the parties agreed in principle on the terms of a settlement. The parties thereafter engaged in negotiations regarding the final terms of such settlement and, on January 30, 2018, entered into a Stipulation of Settlement, which was filed with the Court on January 31, 2018. The Stipulation of Settlement, which is subject to Court approval, provides for a total settlement payment of $4.0 million, inclusive of administrative fees and fees for the Lead Plaintiff's counsel. The Company expects that substantially all of the settlement will be funded by insurance proceeds. The proposed settlement releases all claims asserted against the Company and the other named defendants in the Esposito Action without any liability or wrongdoing attributed to them.

In addition, the Company received a demand letter, dated January 27, 2017, from Stephen Bushansky, a shareholder, relating to the subject matter covered by the United complaint and the class action complaints described above. By letter dated May 8, 2017, attorneys for the shareholder were informed that the board of directors had determined not to pursue potential claims against individuals as set forth in the demand letter. On May 23, 2017, the board of directors received further correspondence from the shareholder requesting additional information concerning the board's determination not to pursue potential claims against individuals. On June 6, 2017, the board sent a response letter to the shareholder declining to provide additional information. On October 25, 2017, Mr. Bushansky filed a derivative lawsuit purportedly on behalf of us against the members of our board of directors. The lawsuit was filed in the United States District Court for the District of Massachusetts. The lawsuit asserts claims for violations of Section 14(a) of the Exchange Act, breach of fiduciary duty, gross mismanagement, unjust enrichment and indemnification based on, generally, the subject matter covered by the United complaint and related class action complaints, alleged misstatements and omissions in the Company's 2017 proxy statement, and the board of directors' conduct in responding to the January 2017 demand letter. The lawsuit seeks, among other things, recovery of damages sustained by the Company as a result of the individual defendants' alleged misconduct, reforms to the Company's compliance, internal control systems and corporate governance practices and procedures, restitution, disgorgement, and costs and attorney's fees. On January 26, 2018, the parties engaged in a mediation during which an agreement in principle to settle the case was reached. The principle terms agreed upon by the parties contemplate a settlement payment of $350,000, which will be made by the Company's insurer, and certain corporate governance changes. The settlement will resolve the claims currently asserted against all defendants in the action without any liability or wrongdoing attributed to them. The proposed settlement is subject to completion of formal documentation and approval by the Court.

On January 3, 2017, the Company received a subpoena from the United States Attorney's Office, District of Massachusetts, requesting information relating to the Company's payments and other interactions with the AKF and any efforts to educate patients qualified or enrolled in Medicare or Medicaid about enrollment in ACA-compliant individual marketplace plans, among other related matters under applicable healthcare laws, for the period from January 1, 2013 through the present. As it has done with the other regulators who have expressed interest in such matters, the Company has cooperated fully with the government and will continue to do so. In the event that the United States Attorney's Office, District of Massachusetts, were to find violations of any federal criminal or civil laws, our business, financial condition and results of operations could be materially adversely affected.

Other

From time to time, we are subject to various legal actions and proceedings involving claims incidental to the conduct of our business, including contractual disputes and professional and general liability claims, as well as audits and investigations by various government entities, in the ordinary course of business. Based on information currently available, established reserves, available insurance coverage and other resources, we do not believe that the outcomes of any such pending actions, proceedings or investigations are likely to be, individually or in the aggregate, material to our business, financial condition, results of operations or cash flows. However, legal actions and proceedings are subject to inherent uncertainties, and it is possible that the ultimate resolution of such matters, if unfavorable, may be materially adverse to our business, financial condition, results of operations or cash flows.

No assurance can be given as to the timing or outcome of the legal matters discussed above, nor can any assurance be given as to whether the filing of these lawsuits and any inquiries will affect the Company's other relationships, or the Company's business generally. We cannot predict the outcome of any of these matters and an adverse result in one or more of them could have a material adverse effect on our business, results of operations and financial condition.

Although we are not currently subject to any regulatory proceedings, in light of the heightened scrutiny with respect to the matters described above, there is no assurance that formal regulatory investigations or proceedings will not be commenced by any U.S. federal or state healthcare or other regulatory agencies. In addition, we may in the future be subject to additional inquiries, litigation or other proceedings or actions, regulatory or otherwise, arising in relation to the matters described above

and related litigation and investigative matters. An unfavorable outcome of any such litigation or regulatory proceeding or action could have a material adverse effect on our business, financial condition and results of operations .

Item 4. Mine Safety Disclosures.

None.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock began trading on the New York Stock Exchange (the "NYSE") under the symbol "ARA" on April 21, 2016. Prior to that, there was no public market for our common stock. The following table sets forth, for the periods indicated, the high and low sales prices for our common stock as reported by the NYSE.

	High	Low
Year ended December 31, 2016:		
2nd quarter (beginning April 21, 2016)	$ 29.65	$ 26.00
3rd quarter	29.05	17.64
4th quarter	25.42	16.86
Year ended December 31, 2017:		
1st quarter	$ 23.30	$ 15.47
2nd quarter	20.12	15.73
3rd quarter	19.13	13.48
4th quarter	17.93	9.91

On March 5, 2018, the closing price per share of our common stock as reported on the NYSE was $21.44 per share.

Stockholders

As of March 5, 2018, there were 209 holders of record of our common stock. This number does not include stockholders for whom shares were held in a "nominee" or "street" name.

Dividends

In connection with our initial public offering ("IPO"), on April 26, 2016, we declared and paid a cash dividend to our pre-IPO stockholders equal to $1.30 per share, or $28.9 million in the aggregate, as described under " Note 3 - Initial Public Offering " to the consolidated financial statements. We have not declared or paid any dividends on our common stock since consummation of the IPO.

We have no current plans to pay cash dividends in the future. Also, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources" and the notes to our consolidated financial statements. Any decision to declare and pay dividends in the future will be made at the sole discretion of our Board of Directors and will depend on, among other things, our results of operations, cash requirements, financial condition, contractual restrictions, and other factors that our Board of Directors may deem relevant. In addition, we are a holding company, and conduct our business exclusively through ARH and its operating subsidiaries. Under our credit agreement, ARH is currently restricted from paying cash dividends, which in turn limits our ability to pay dividends on our common stock.

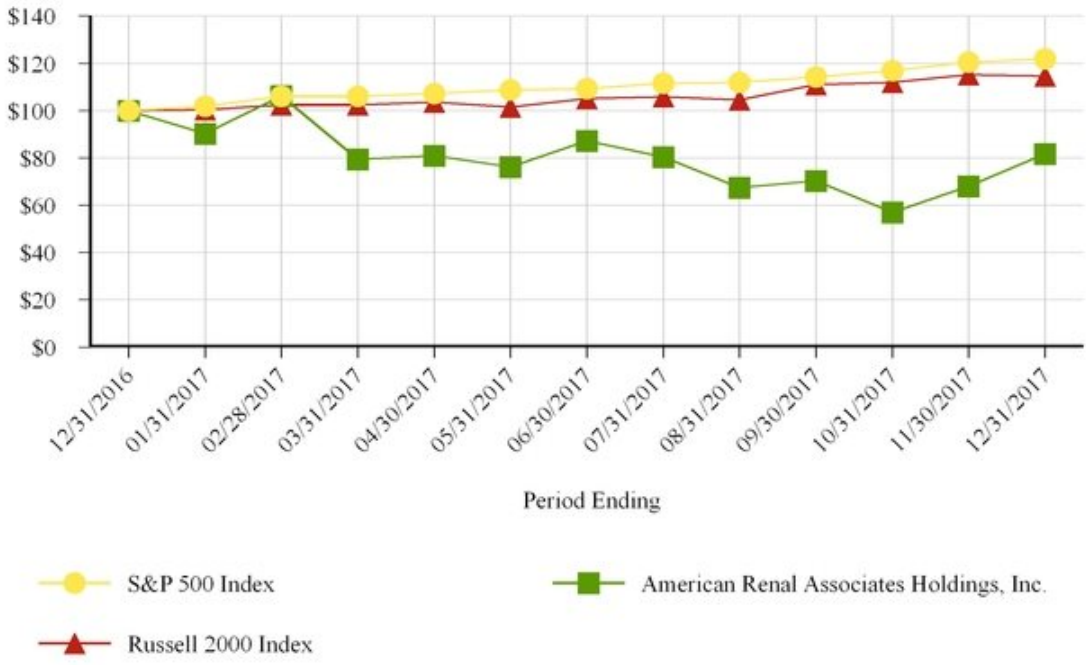
Stock Performance Graph

Our performance graph below compares the cumulative total stockholder return on our common stock from April 21, 2016, the date our common stock began trading on the NYSE, through December 31, 2017 with the cumulative total return of the Russell 2000 Index and the S&P 500 Composite Index. The graph assumes an investment of $100 in our common stock and

in each of the indices on April 21, 2016 and that all dividends were reinvested, and relative performance is tracked through December 31, 2017 . We declared no dividends on our common stock during the period covered by the graph. Measurement points are April 21, 2016 and the last trading day of each subsequent month-end through December 31, 2017 .

The comparisons in the graph below are based on historical data and are not intended to forecast the potential future performance of our common stock.

This graph is not deemed to be "filed" with the SEC or subject to the liabilities of Section 18 of the Exchange Act and the graph shall not be deemed to be incorporated by reference into any prior or subsequent filing by American Renal Associates Holdings, Inc. under the Securities Act of 1933, as amended, (the "Securities Act") or the Exchange Act.



Recent Sales of Unregistered Securities

During the year ended December 31, 2017 , we did not sell any equity securities that were not registered under the Securities Act.

Purchases of Equity Securities

No repurchases of our common stock were made by us during the fiscal year ended December 31, 2017 .

Item 6. Selected Financial Data.

The following tables set forth our selected historical consolidated financial data as of the dates and for the periods indicated. The selected historical consolidated financial data as of December 31, 2017 and 2016 and for the years ended December 31, 2017 , 2016 and 2015 has been derived from our audited consolidated financial statements included elsewhere in this Form 10-K. The selected historical consolidated financial data as of December 31, 2015, 2014 and 2013 and for the years ended December 31, 2014 and 2013, have been derived from our audited consolidated financial statements not included in this Form 10-K.

Our financial statements reflect 100% of the revenues and expenses for our joint ventures (after elimination of intercompany transactions and accounts) and 100% of the assets and liabilities of these joint ventures (after elimination of intercompany assets and liabilities), although we do not own 100% of the equity interests in these consolidated entities. The net income attributable to our joint venture partners is classified within the line item *Net income attributable to noncontrolling interests* . We generally make distributions to our joint venture partners at least on a quarterly basis in an amount approximating the noncontrolling interest. See also “Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates—Noncontrolling Interests.”

Historical results are not necessarily indicative of the results expected for any future period. You should read the information set forth below in conjunction with “Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and the related notes thereto included elsewhere in this Form 10-K.

(in thousands, except share data and operating data)	Year Ended December 31, 2017	2016	2015	2014	2013
Statement of Operations Data:					
Patient service operating revenues	$ 752,510	$ 756,329	$ 657,505	$ 563,550	$ 498,699
Provision for uncollectible accounts	(7,404)	(6,562)	(4,524)	(2,816)	(2,773)
Net patient service operating revenues	745,106	749,767	652,981	560,734	495,926
Operating expenses:					
Patient care costs	482,450	452,449	390,949	329,847	288,384
General and administrative	102,598	127,631	77,250	63,026	72,640
Transaction-related costs	717	2,239	2,086	—	533
Depreciation and amortization	37,634	33,862	31,846	28,527	23,707
Certain legal matters	15,249	6,779	—	—	—
Total operating expenses	638,648	622,960	502,131	421,400	385,264
Operating income	106,458	126,807	150,850	139,334	110,662
Interest expense, net	(29,289)	(35,933)	(45,400)	(44,070)	(43,314)
Loss on early extinguishment of debt	(526)	(4,708)	—	—	(33,921)
Income tax receivable agreement income	7,234	1,286	—	—	—
Income before income taxes	83,877	87,452	105,450	95,264	33,427
Income tax expense (benefit)	8,194	(753)	12,373	12,858	(8,200)
Net income	75,683	88,205	93,077	82,406	41,627
Less: Net income attributable to noncontrolling interests	(70,826)	(88,590)	(74,232)	(66,209)	(62,074)
Net income (loss) attributable to American Renal Associates Holdings, Inc.	4,857	(385)	18,845	16,197	(20,447)
Less: Change in the difference between the redemption value and estimated fair value for accounting purposes of the related noncontrolling interests	(12,276)	(7,404)	—	—	—
Net (loss) income attributable to common shareholders	$ (7,419)	$ (7,789)	$ 18,845	$ 16,197	$ (20,447)
(Loss) earnings per share:					
Basic	$ (0.24)	$ (0.28)	$ 0.85	$ 0.74	$ (0.94)
Diluted	$ (0.24)	$ (0.28)	$ 0.83	$ 0.73	$ (0.94)
Weighted average number of common shares outstanding:					
Basic	31,081,824	28,118,673	22,153,451	21,930,398	21,653,168
Diluted	31,081,824	28,118,673	22,707,874	22,332,887	21,653,168
Other Financial Data:					
Adjusted EBITDA (including noncontrolling interests)(1)	$ 176,357	$ 212,172	$ 188,055	$ 170,481	$ 157,682
Adjusted EBITDA-NCI(1)	$ 105,531	$ 123,582	$ 113,823	$ 104,272	$ 95,608
Development capital expenditures(2)	$ 29,696	$ 48,437	$ 35,313	$ 32,059	$ 30,558
Maintenance capital expenditures(3)	$ 6,377	$ 12,995	$ 10,960	$ 7,790	$ 7,194
Total capital expenditures	$ 36,073	$ 61,432	$ 46,273	$ 39,849	$ 37,752

	December 31,				
	2017	2016	2015	2014	2013
Operating Data:					
Number of clinics (as of end of period)	228	214	192	175	150
Number of de novo clinics opened (during period)	15	20	16	15	17
Number of acquired clinics (during period)	3	2	2	11	5
Number of sold or merged clinics (during period)	(4)	—	(1)	(1)	(1)
Patients (as of end of period)	15,637	14,590	13,151	11,581	10,095
Number of treatments	2,191,172	2,027,423	1,804,910	1,563,802	1,382,548
Non-acquired treatment growth(4)	7.9%	11.7%	11.7%	12.4%	14.8%
Patient service operating revenues per treatment(5)	$ 343	$ 373	$ 364	$ 360	$ 361
Patient care costs per treatment(5)	$ 220	$ 223	$ 217	$ 211	$ 209
Adjusted patient care costs per treatment(6)	$ 219	$ 221	$ 217	$ 211	$ 209
General and administrative expenses per treatment(5)(7)	$ 47	$ 63	$ 43	$ 40	$ 53
Adjusted general and administrative expenses per treatment(6)	$ 42	$ 46	$ 43	$ 40	$ 53
Provision for uncollectible accounts per treatment	$ 3	$ 3	$ 3	$ 2	$ 2

	As of December 31,				
(in thousands)	2017	2016	2015	2014	2013
Consolidated Balance Sheet Data:					
Cash	$ 71,521	$ 100,916	$ 90,988	$ 61,475	$ 32,870
Working capital(8)	30,688	56,590	96,274	70,660	52,267
Total assets	964,208	986,024	939,469	883,306	844,839
Total debt	560,088	570,332	684,173	662,600	648,054
Noncontrolling interests subject to put provisions	139,895	130,365	108,211	90,972	82,539
Accumulated deficit	(123,789)	(128,646)	(128,261)	(136,576)	(152,773)
Noncontrolling interests not subject to put provisions	177,263	179,707	179,903	178,091	173,959

(1) For definitions of Adjusted EBITDA and Adjusted EBITDA-NCI, see “Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Non-GAAP Financial Measures.”

(2) Capital expenditures primarily incurred in connection with development of our de novo clinics.

(3) Capital expenditures primarily incurred in connection with maintenance of our existing clinics, primarily capital improvements, including renovations and equipment replacement.

(4) We calculate non-acquired treatment growth by dividing the number of treatments performed during the applicable period by the number of treatments performed during the corresponding prior period, including the number of treatments performed at de novo clinics but excluding the number of treatments performed at clinics acquired during the applicable period, and expressing the resulting number as a percentage.

(5) We calculate patient service operating revenues per treatment, patient care costs per treatment and general and administrative expenses per treatment by dividing patient service operating revenues, patient care costs and general and administrative expenses, respectively, for the applicable period by the number of treatments performed in the applicable period.

(6) See “Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations” for discussion of the adjusted patient care costs per treatment and adjusted general and administrative expenses per treatment calculations.

(7) See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations” for discussion of our IPO, our debt refinancing, and other IPO-related transactions and their effect on our general and administrative expenses on an absolute and per treatment basis.

(8) Current assets minus current liabilities.

The following table presents the reconciliation from net income to Adjusted EBITDA and Adjusted EBITDA-NCI for the periods indicated:

	Year Ended December 31,				
(in thousands)	**2017**	**2016**	**2015**	**2014**	**2013**
Net income	$ 75,683	$ 88,205	$ 93,077	$ 82,406	$ 41,627
Add:					
Stock-based compensation(a)	16,359	40,298	1,451	1,047	21,342
Depreciation and amortization	37,634	33,862	31,846	28,527	23,707
Interest expense, net	29,289	35,933	45,400	44,070	43,314
Income tax expense (benefit) and other non-income based tax	8,474	(753)	12,373	12,858	(8,200)
Transaction-related costs(b)	717	2,239	2,086	—	533
Loss on early extinguishment of debt	526	4,708	—	—	33,921
Income tax receivable agreement income(c)	(7,234)	(1,286)	—	—	—
Certain legal matters(d)	15,249	6,779	—	—	—
Executive and management severance costs(e)	917	1,650	—	—	—
Gain on sale of assets(f)	(1,257)	—	—	—	—
Management fee(g)	—	537	1,822	1,573	1,438
Adjusted EBITDA (including noncontrolling interests)	176,357	212,172	188,055	170,481	157,682
Less: Net income attributable to noncontrolling interests	(70,826)	(88,590)	(74,232)	(66,209)	(62,074)
Adjusted EBITDA-NCI	$ 105,531	$ 123,582	$ 113,823	$ 104,272	$ 95,608

(a) For 2013, we recorded $20,664 of incremental stock-based compensation expense of which $19,747 related to the modification of certain stock options made in connection with the payment of a dividend to our stockholders and $917 was cash paid for employer payroll taxes. We also recorded $678 of stock-based compensation related to our periodic option grants. In addition, in connection with the dividend, we made a payment equal to $7.90 per share, or $30,056 in the aggregate, to option holders, and, in the case of some performance and market stock options, a later payment of $2,550 was paid upon vesting. For 2016 and 2017, we recorded $36,953 and $11,748 , respectively, of Modification Expense and other stock compensation expense related to the modification of options and other transactions at the time of the IPO. See " Note 3 - Initial Public Offering " of the notes to the consolidated financial statements. For all other periods, stock-based compensation related to our periodic option grants and cash paid for employer payroll taxes. All dollar amounts in this paragraph, other than per share amounts, are in thousands.

(b) For 2015, represents the forgiveness of all indebtedness and accrued interest under a revolving credit promissory note issued to an executive. See " Note 20 - Related Party Transactions " of the notes to the consolidated financial statements. For 2016, represents costs associated with our IPO and related transactions. See " Note 3 - Initial Public Offering " of the notes to the consolidated financial statements. For 2017, represents costs associated with our debt refinancing. See " Note 14 - Debt " of the notes to the consolidated financial statements.

(c) Represents income associated with the change in fair value of the income tax receivable agreement. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Components of Earnings" and " Note 3 - Initial Public Offering " of the notes to the consolidated financial statements.

(d) Represents costs related to the legal, regulatory and other matters described in "Item 3. Legal Proceedings," "Item 5. Management's Discussion and Analysis of Financial Condition and Results of Operations-Components of Earnings-Operating Expenses-Certain Legal Matters" and " Note 22 - Certain Legal Matters " of the notes to the consolidated financial statements.

(e) Represents executive and management severance costs primarily related to the departure of our former chief operating officer.

(f) Represents a gain on the sale of clinic assets.

(g) Represents management fees paid to Centerbridge. In connection with our IPO, we amended our transaction fee and advisory services agreement with Centerbridge to terminate our obligation to pay management fees thereunder upon the consummation of our IPO. No additional fees will be paid in connection with such termination (other than accrued

amounts as of the date of termination). See " Note 20 - Related Party Transactions " of the notes to the consolidated financial statements.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This discussion contains management's discussion and analysis of our financial condition and results of operations for the period covered by this Form 10-K and should be read in conjunction with the audited consolidated financial statements and related footnotes included in Item 8 of this Form 10-K.

The following discussion contains forward-looking statements that reflect our plans, estimates and beliefs and involve numerous risks and uncertainties. Actual results may differ materially from those contained in any forward-looking statement, due to a number of factors, including those discussed in the section of this Form 10-K entitled "Special Note Regarding Forward-Looking Statements" and "Item 1A. Risk Factors" in this Form 10-K. You should read these sections carefully.

Unless otherwise indicated or the context otherwise requires, references in this Form 10-K to "we," "our," "us" and the "Company" and similar terms refer to American Renal Associates Holdings, Inc. and its consolidated entities taken together as a whole, except where these terms refer to providers of dialysis services, in which case they refer to our dialysis clinic joint ventures, in which we have a controlling interest and our physician partners have the noncontrolling interest, or to the dialysis facilities owned by such joint venture companies, as applicable. References to "ARA" refer to American Renal Associates Holdings, Inc. and not any of its consolidated entities. References to "ARH" refer to American Renal Holdings Inc., an indirect wholly owned subsidiary of Holdings.

Executive Overview

We are the largest dialysis services provider in the United States focused exclusively on joint venture partnerships with physicians. We provide high-quality patient care and clinical outcomes through physicians, known as nephrologists, who specialize in treating patients suffering from end-stage renal disease ("ESRD"). Our core values create a culture of clinical autonomy and operational accountability for our physician partners and staff members. We believe our joint venture model has helped us become one of the fastest-growing national dialysis services platforms, in terms of the growth rate of our non-acquired treatments since 2013.

We derive our patient service operating revenues from providing outpatient and inpatient dialysis treatments. The sources of these patient service operating revenues are principally government-based programs, including Medicare and Medicaid plans, as well as commercial insurance plans. Substantially all of our payors (both government-based and commercial) have moved toward a bundled payment system of reimbursement, with a single lump-sum per treatment covering not only the dialysis treatment itself but also the ancillary items and services provided to a patient during the treatment, such as laboratory services and pharmaceuticals.

We operate our clinics principally through our JV model, in which we share the ownership and operational responsibility of our dialysis clinics with our nephrologist partners and other joint venture partners, while the providers of the majority of dialysis services in the United States operate through a combination of wholly owned subsidiaries and joint ventures. Substantially all of our clinics are maintained as separate joint ventures in which generally we have the controlling interest and our nephrologist partners and other joint venture partners have a noncontrolling interest. We believe that our exclusive focus on a JV model makes us well-positioned to increase our market share by attracting nephrologists who are not only interested in our service platform but also want greater clinical autonomy and a potential return on capital investment associated with ownership of a noncontrolling interest in a dialysis clinic. We believe our JV model best aligns our interests with those of our nephrologist partners and their patients. By owning a portion of the clinics where their patients are treated, our nephrologist partners have a vested stake in the quality, reputation and performance of the clinics. We believe that this enhances patient and staff satisfaction and retention, clinical outcomes, patient growth, and operational and financial performance.

On April 26, 2016, we completed the initial public offering (the "IPO") of 8,625,000 shares of the common stock, par value $0.01 per share, of the Company for cash consideration of $22.00 per share ($20.515 per share net of underwriting discounts).

Key Factors Affecting Our Results of Operations

Clinic Growth and Start-Up Clinic Costs

Our results of operations are dependent on increases in the number of, and growth at, our de novo clinics and acquired clinics as well as growth at our existing clinics. We have experienced significant growth since opening our first clinic in December 2000. As of December 31, 2017 , we had developed 177 de novo clinics and 51 acquired clinics. The following table shows the number of de novo and acquired clinics over the periods indicated:

	Year Ended December 31,		
	2017	2016	2015
De novo clinics(1)	15	20	16
Acquired clinics(2)	3	2	2
Sold or merged clinics(3)	(4)	—	(1)
Total new clinics	14	22	17

(1) Clinics formed by us which began to operate and dialyze patients in the applicable period.
(2) Clinics acquired by us in the applicable period.
(3) Clinics sold or merged by us in the applicable period.

De novo clinics. We have primarily grown through de novo clinic development. A typical de novo facility requires approximately $1.5 to $1.9 million of capital for equipment purchases, leasehold improvements and initial working capital. A portion of the total capital required to develop a de novo clinic may be equity capital funded by us and our nephrologist partners in proportion to our respective ownership interests. The balance of such development cost may be funded through third-party debt financing or through intercompany loans provided by one of our wholly owned subsidiaries to the joint venture entity that, in each case, we and our nephrologist partners generally guarantee on a basis proportionate to our respective ownership interests. For year ended December 31, 2017 and December 31, 2016 , our development capital expenditures were $29.7 million and $48.4 million , respectively, representing 4.0% and 6.5% of our net patient service operating revenues, respectively.

Our results of operations have been and will continue to be materially affected by the timing and number of openings, the timing of certifications of de novo clinic openings and the amount of de novo clinic opening costs incurred. In particular, our patient care costs on an absolute basis and as a percentage of our patient service operating revenues may fluctuate from quarter to quarter due to the timing and number of de novo clinic openings, which affect our operating income in a given quarter. Our patient care costs reflect pre-opening expenses, which primarily consist of staff expenses, including the costs of hiring and training new staff, as well as rent and utilities. In addition, a de novo clinic builds its patient volumes over time and, as a result, generally has lower revenue than our existing clinics. Newly established de novo clinics, although contributing to increased revenues, have adversely affected our results of operations in the short term due to a smaller patient base to absorb operating expenses. We consider a de novo clinic to be a “start-up clinic” until the first month it generates positive clinic-level EBITDA. We typically achieve positive clinic-level monthly EBITDA within, on average, six months after the first treatment at a clinic. However, approximately 24% of our de novo clinics have exceeded six months from first treatment to positive clinic-level monthly EBITDA, with these clinics averaging approximately 12 months to positive clinic-level monthly EBITDA. Clinic-level EBITDA differs from our consolidated EBITDA in that management fees, consisting of a percentage of the clinic’s net revenues paid to ARA for management services, are eliminated in consolidation but are reflected on a clinic-level basis.

Start-up clinic losses affect the comparability of our results from period to period and may disproportionately impact our operating margins in any given quarter, including quarters during which we have a significant number of clinics qualifying as start-up clinics. The following table sets forth the number of de novo clinics opened during the periods indicated.

	Three Months Ended				
	March 31,	June 30,	September 30,	December 31,	Total
2017	3	2	1	9	15
2016	2	6	5	7	20
2015	1	5	6	4	16
2014	2	4	3	6	15

Existing clinics. Depending on demand and capacity utilization, we may have space within our existing clinics to accommodate a greater number of dialysis stations or operate additional shifts in order to increase patient volume without compromising our quality standards. Such expansions leverage the fixed cost infrastructure of our existing clinics. From January 1, 2013 to December 31, 2017 , we added 148 dialysis stations to our existing clinics, representing the equivalent of nearly nine de novo clinics.

Acquired clinics. We have also grown through acquisitions of existing clinics, and our results of operations have been and will continue to be affected by the timing and number of our acquisitions. Our acquisition strategy is primarily driven by the quality of the nephrologist in the market. We opportunistically pursue select acquisitions in situations where we believe the clinic offers us an attractive opportunity to enter a new market or expand within an existing market. Acquiring an existing dialysis clinic requires a greater initial investment, but an acquired clinic contributes positively to our results of operations sooner than a de novo clinic. Acquisition integration costs are typically minimal compared with start-up costs in connection with opening de novo clinics.

Our clinic growth drives our treatment growth. The following table summarizes the sources of our treatment growth for the periods indicated:

	Year Ended December 31,		
Source of Treatment Growth:	**2017**	**2016**	**2015**
Non-acquired treatment growth(1)	7.9%	11.7%	11.7%
Acquired treatment growth(2)	0.2%	0.6%	3.7%
Total treatment growth	8.1%	12.3%	15.4%

(1) Represents net growth in treatments attributable to clinics operating at the end of the period that were also open at the end of the prior period and de novo clinics opened since the end of the prior period.
(2) Represents net growth in treatments attributable to clinics acquired since the end of the prior period.

Sources of Revenues by Payor

Our patient service operating revenues are principally driven by our mix of commercial and government payor patients and commercial and government payment rates. We are generally paid more for services provided to patients covered by commercial healthcare plans than we are for patients covered by Medicare or Medicaid. ESRD patients covered by employer group health plans generally transition to Medicare coverage after a maximum of 33 months. Medicare payment rates are determined under the Medicare ESRD program's bundled payment system, which sets a base rate on an annual basis that is subject to adjustments to arrive at the actual payment rate for individual clinics. During the years ending December 31 2017 , 2016 and 2015 , the Medicare ESRD PPS payment rates for our clinics were approximately $248, $247 and $247, respectively, per treatment. The ESRD PPS final rule for 2017, released on October 28, 2016, increased the base rate from $230.39 to $231.55. The Centers for Medicare and Medicaid Services (“CMS”) issues annual updates to the ESRD PPS, which may impact the base rate as well as the various adjusters. The ESRD PPS final rule for 2018 was released on October 27, 2017 by CMS (the “2018 Final Rule”). The 2018 Final Rule includes a base rate of $232.37, representing a $0.82 increase from the 2017 base rate of $231.55. CMS has estimated that the 2018 Final Rule will result in an overall increase of payments to ESRD facilities of 0.5%.

Medicare payment rates are generally insufficient to cover our total operating expenses allocable to providing dialysis treatments for Medicare patients. As a result, our ability to generate operating income is substantially dependent on revenues derived from commercial payors, which typically pay us either negotiated payment rates or at a discount to our usual and customary fee schedule. Many commercial insurance programs have been moving towards a bundled payment system, which may not reimburse us for all of our operating costs, such as the cost of ESA’s and other pharmaceuticals.

The following table summarizes our patient service operating revenues by source for the periods indicated.

	Year Ended December 31,		
Source of Revenues:	**2017**	**2016**	**2015**
Government-based and other(1)	63.3%	55.5%	58.3%
Commercial and other(2)	36.7%	44.5%	41.7%
	100.0%	100.0%	100.0%

(1) Principally Medicare and Medicaid and also includes hospitals and patient pay which we refer to collectively as “Government and other”. “Patient pay” revenues consist of payments received directly from patients who are either uninsured or self-pay a portion of the bill.
(2) Principally commercial insurance companies and also includes the VA, which we refer to collectively as “Commercial and other.”

The percentage of treatments by payor source does not necessarily correlate with our results of operations or margins in any given period because of a number of other factors, including the effect of the difference in rates per treatment associated with each commercial payor. For the three years and one year ended December 31, 2017 , commercial payors and others, including the VA, accounted for an average of approximately 14.8% and 13.0% , respectively, of the treatments we performed. The change in the mix of patients and treatments between the three-year average and the year ended December 31, 2017 was largely driven by enrollment in Affordable Care Act (“ACA”) - compliant plans (“ACA plans”), both on-exchange and off-exchange. For the year ended December 31, 2017 , we derived approximately 2% of patient service operating revenues from ACA plans, both on-exchange and off-exchange, and these ACA plans were the source of reimbursement for approximately 1% of the treatments performed. During the year ended December 31, 2017 , we experienced an adverse change in the commercial treatment mix as compared to the year ended December 31, 2016, due primarily to a decline in ACA plans, as discussed below. In addition, for the year ended December 31, 2017 , the percentage of treatments accounted for by commercial payors and others, including the VA, but not including ACA plans, was 11.8%. For the year ended December 31, 2017 , the percentage of treatments accounted for by commercial payors and others, including the VA, but not including ACA plans, was approximately 1% below the percentage for the year ended December 31, 2016, and we expect it to remain lower.

Effective in November 2016, for patients enrolled in minimum essential Medicaid coverage, we suspended assistance in the application process for charitable premium support from the American Kidney Fund ("AKF"), which caused an adverse change in the mix of patients and treatments in 2017. This change has not affected our provision of such assistance in the application process to other patients. Prior to the 2017 ACA open enrollment period, approximately 2% of our total patients chose to enhance their pre-existing minimum essential Medicaid coverage by electing to enroll in an ACA plan. Before we suspended assistance in the application process for charitable premium support from the AKF, this percentage had been growing. Virtually all of these low-income patients have relied on charitable premium assistance because they were ineligible for federal premium tax credits. Due to the suspension of assistance in the application process for charitable premium support from the AKF, virtually all of our patients with ACA primary insurance coverage and secondary minimum essential Medicaid coverage reverted back to Medicaid-only coverage during 2017.

In addition, prior to the 2017 ACA open enrollment period, approximately 2% of our total patients were enrolled in an ACA plan and not enrolled in the Medicaid program. Approximately 85% of these patients relied on charitable premium assistance. These patients chose ACA plans for a variety of reasons, including ineligibility for government programs, the shift of coverage options from the individual and/or small group markets to ACA exchanges, lack of requisite work credits to be eligible for Medicare coverage, the opportunity to consolidate family coverage under one insurance plan and the lack of Medicare supplemental insurance policy coverage due to certain state insurance department restrictions, among other reasons. These patients enrolled in ACA plans and not enrolled in the Medicaid program have experienced insurance coverage disruptions due to payors disallowing charitable premium assistance, the lack of availability of viable ACA insurance products in some markets, and a more uncertain regulatory environment. The average revenue per treatment for ACA plans is below that of our overall average commercial revenue per treatment but above our Medicare rate.

In 2016, following an internal review, in addition to the suspension described above, the Company adopted policies and procedures to ensure that its patient insurance education program meets robust certification standards to provide broad-based information to patients about their insurance options, so that the patients are in the best possible position to choose coverage based on their own best interests. Under this program, the Company informs patients, when appropriate, about insurance plans available under the ACA and other individual marketplace plans as alternatives or supplements to coverage under Medicare or Medicaid. The Company will continue to advise its patients about the potential availability of assistance

with the payment of premiums from the AKF under the AKF Health Insurance Premium Program ("HIPP"), subject to the suspension described above, and compliance with the AKF's policies and procedures and approved regulatory guidance from CMS.

In addition, recently there have been other significant developments in the market that may affect our business, including the withdrawal of some insurers from offering ACA and individual marketplace plans in certain states, increases in premiums for ACA plans, and continuing efforts on the part of insurers to reduce the amount paid to dialysis providers per treatment. Further, there could be additional changes in our business in the future resulting from potential regulatory actions and other third-party practices following the 2016 CMS request for information seeking public comment on concerns relating to steering of patients eligible for Medicare and Medicaid into ACA plans, and the recent changes to the AKF HIPP program announced by the AKF, including the expansion of funding for patients under age 65 who must pay higher premiums for Medicare supplemental insurance.

The suspension has adversely impacted, and any CMS action relating to establishing policies to restrict or limit charitable assistance for ACA plans or other individual marketplace plans could adversely impact, the number of patients covered by ACA plans and other individual marketplace plans, the Company's average reimbursement rate and its results of operations and cash flows, which impact has been and may continue to be material. Further, the other changes to the Company's patient insurance education program, whether or not the suspension continues or CMS restricts charitable premium assistance, together with the other developments in the market, including the impact of such changes on enrollment in ACA plans and other individual marketplace plans, other insurance coverage, and/or potential regulatory changes in the future, have adversely impacted, and are expected to continue to adversely impact, the number of the Company's patients covered by insurance, as well as the Company's average reimbursement rate in the future.

During 2017, the Company received letters from certain insurance companies indicating that they will not insure patients who receive premium payment assistance from third-party charitable organizations. In addition to charitable premium support for patients enrolled in ACA plans, the AKF provides charitable premium support to patients with other insurance coverage, including Medicare supplemental insurance and commercial insurance. If patients are unable to obtain or to continue to receive AKF charitable premium support due to insurance company challenges to covering patients receiving charitable premium support, legislative changes, rules or interpretations issued by HHS limiting such support or other reasons, the financial impact on our company could be substantially greater than the estimated annual financial impact described above relating to patients previously enrolled in ACA plans and, accordingly, could materially and adversely affect our results of operations. See "Item 1A. Risk Factors—Risks Related to Our Business—If the number of patients with commercial insurance declines, our operating results and cash flows would be adversely affected" and "Item 1A. Risk Factors—Risks Related to Our Business—Increased scrutiny in our industry and potential regulatory changes could adversely affect our operating results and financial condition."

We believe that the operating environment will continue to be challenging due to the uncertainty around the ACA and the ability of our patients overall to access charitable premium assistance from non-profit organizations such as the AKF. We also believe that pressure on commercial mix and commercial rates due to more restrictive health plan benefit design will continue to create additional challenges. In addition, actions by the current Administration and Congress have caused the future state of the exchanges and other ACA reforms to be less certain. We are unable to predict the full effect of the foregoing factors on our business, results of operations and cash flows. See also "Item 1A. Risk Factors—Risks Related to Our Business—If the rates paid by commercial payors decline, our operating results and cash flow would be adversely affected."

Clinical Staff, Pharmaceutical and Medical Supply Costs

Because our ability to influence the pricing of our services is limited, our profitability depends not only on our ability to grow but also on our ability to manage patient care costs, including clinical staff, pharmaceutical and medical supply costs. The principal drivers of our patient care costs are clinical staff hours per treatment, salary rates and vendor pricing and utilization of pharmaceuticals, including ESAs such as Aranesp®, EPOGEN® ("EPO") and Mircera®, and medical supplies. The Company has entered into a rebate agreement with Amgen Inc. ("Amgen") for Aranesp and EPO, which, under certain circumstances, limits the supplier's ability to increase the net price it charges the Company, and requires certain volume commitments by the Company, for these drugs through December 31, 2018. In September 2017, the Company entered into a purchase agreement with Vifor International AG ("Vifor") that expires on December 31, 2022, pursuant to which it will provide our clinics with Mircera. The use of Mircera by our clinics could potentially reduce our ESA cost per treatment. Increased utilization of ESAs for patients for whom the cost of ESAs is included in a bundled reimbursement rate, including Medicare patients, could increase our operating costs without any increase in revenue. In addition, shortage of supplies could have a negative impact on our revenues, earnings and cash flows. Other cost categories, such as employee benefit costs and insurance costs, can also result in significant cost changes from period to period. Our results of operations are also affected by the start-up

clinic costs described above. See also “Item 1A. Risk Factors—Risks Related to Our Business—Changes in the availability and cost of ESAs and other pharmaceuticals could adversely affect our operating results and financial condition as well as our ability to care for patients” and “—If our suppliers are unable to meet our needs, if there are material price increases or if we are unable to effectively access new technology, our operating results and financial condition could be adversely affected.”

Seasonality

Our treatment volumes are sensitive to seasonal fluctuations due to generally fewer treatment days during the first quarter of the calendar year. Additionally, our patients are generally responsible for a greater percentage of the cost of their treatments during the early months of the year due to co-insurance, co-payments and deductibles, which may lead to lower total net revenues and lower net revenues per treatment during the early months of the year. Our quarterly operating results may fluctuate significantly in the future depending on these and other factors.

Impact of the IPO and Future Charges

The completion of the IPO has had effects on our results of operations and financial conditions. In connection with the IPO, our results of operations are affected by one-time costs and recurring costs of being a public company, including increases in executive and board compensation (including equity-based compensation), increased insurance, accounting, legal and investor relations costs and the costs of compliance with the Sarbanes-Oxley Act of 2002 and other rules and regulations of the SEC and the NYSE. In addition, when the available exemptions under the JOBS Act cease to apply, we expect to incur additional expenses and devote increased management effort toward ensuring compliance with the applicable regulatory and corporate governance requirements. In addition, we have incurred and expect to incur additional legal expenses in connection with various legal and regulatory matters described below and related matters. See “—Operating Expenses—Certain Legal Matters” and “Item 3. Legal Proceedings.”

As a result of certain modifications made to our outstanding market and performance-based stock options at the time of the IPO, the amount of the unrecognized non-cash compensation costs increased by approximately $38.9 million (the "Modification Expense"). The Modification Expense was recognized over a period of approximately 12 months from the date of the IPO.

In addition, in connection with the distribution (the “Term Loan Holdings Distributions”) of membership interests in an entity holding assigned clinic loans (the “Assigned Clinic Loans”), described in “ Note 14 - Debt ” of the notes to the consolidated financial statements, since the interest on these loans is no longer be eliminated in consolidation, we now incur additional interest expense.

On April 26, 2016, we entered into an income tax receivable agreement (the “TRA”) for the benefit of our pre-IPO stockholders, which provides for the payment by us to our pre-IPO stockholders on a pro rata basis of 85% of the amount of cash savings, if any, in U.S. federal, state and local income tax that we actually realize as a result of the option deductions (as defined in the TRA). While the actual amount and timing of any payments under the TRA will vary depending upon a number of factors, including the amount and timing of the taxable income we generate in the future and whether and when any relevant stock options, as defined in the TRA, are exercised and the value of our common stock at such time, we expect that during the term of the TRA the payments that we make will be material. We recorded a liability for the value of the TRA at the time of the IPO. We calculated fair value of the TRA by using a Monte Carlo simulation-based approach that relies on significant assumptions about our stock price, stock volatility and risk-free rate as well as the timing and amounts of options exercised. Changes in assumptions based on future events, including changes in the price of our common stock from our IPO price and changes to the income tax rate, will change the amount of the liability for the TRA, and such changes may be material. Any changes to the TRA liability will be recognized in our statement of operations as Income tax receivable agreement income (expense) in future periods. See “ Note 7 - Fair Value Measurements ” of the notes to the consolidated financial statements.

Key Performance Indicators

We use a variety of financial and other information to evaluate our financial condition and operating performance. Some of this information is financial information that is prepared in accordance with GAAP, while other financial information, such as Adjusted EBITDA and Adjusted EBITDA-NCI, is not prepared in accordance with GAAP. The following table presents certain operating data, which we monitor as key performance indicators, for the periods indicated.

Operating Data and Other Non-GAAP Financial Data:	Year Ended December 31, 2017	2016	2015
Number of clinics (as of end of period)	228	214	192
Number of de novo clinics opened (during period)	15	20	16
Patients (as of end of period)	15,637	14,590	13,151
Number of treatments	2,191,172	2,027,423	1,804,910
Non-acquired treatment growth	7.9%	11.7%	11.7%
Patient service operating revenues per treatment	$ 343	$ 373	$ 364
Patient care costs per treatment	$ 220	$ 223	$ 217
Adjusted patient care costs per treatment (1)	$ 219	$ 221	$ 217
General and administrative expenses per treatment	$ 47	$ 63	$ 43
Adjusted general and administrative expenses per treatment (2)	$ 42	$ 46	$ 43
Provision for uncollectible accounts per treatment	$ 3	$ 3	$ 3
Adjusted EBITDA (including noncontrolling interests)(3)	$ 176,357	$ 212,172	$ 188,055
Adjusted EBITDA-NCI (3)	$ 105,531	$ 123,582	$ 113,823

(1) Adjusted patient care costs per treatment excludes $2.2 million of Modification Expense, $0.1 million of severance expense and $0.6 million gain on sale of assets during the year ended December 31, 2017 . The year ended December 31, 2016 excludes $5.2 million of Modification Expense and $0.1 million of stock compensation expense as a result of early adoption of ASU 2016-09, as it relates to the modified options. See " Note 2 - Summary of Significant Accounting Policies —Recent Accounting Pronouncements" of the notes to the consolidated financial statements.

(2) Adjusted general and administrative expenses per treatment excludes $9.5 million of Modification Expense, $0.8 million of severance expense and $0.7 million gain on sale of assets during the year ended December 31, 2017 . The year ended December 31, 2016 excludes $31.7 million of Modification Expense and other stock compensation expense related to the modification of options and other transactions at the time of the IPO (together with the Modification Expense, the "Modification and Other Stock Compensation Expense"), $1.7 million of severance expense, and $0.3 million of stock compensation expense as a result of early adoption of ASU 2016-09, as it relates to the modified options. See " Note 2 - Summary of Significant Accounting Policies —Recent Accounting Pronouncements" of the notes to the consolidated financial statements.

(3) See "Non-GAAP Financial Measures" below.

Number of Clinics

We track our number of clinics as an indicator of growth. The number of clinics as of the end of the period includes all opened de novo clinics, acquired clinics and existing clinics. See "—Key Factors Affecting Our Results of Operations—Clinic Growth and Start-Up Clinic Costs" for a discussion of clinic growth and start-up costs as a factor affecting our operating performance.

Patient Volume

The number of patients as of the end of the period is an indicator we use to assess our performance. Our patient volumes are correlated with our de novo clinic openings, and to a lesser extent, our marketing efforts and certain external factors, such as the overall economic environment. We believe that patients choose to get their dialysis services at one of our clinics due to their relationship with our physicians, as well as the quality of care, comfort and amenities and convenience of location and clinic hours.

Non-Acquired Treatments

We evaluate our operating performance based on the growth in number of non-acquired treatments, or treatments performed at our existing and de novo clinics, including those de novo clinics opened during the applicable period. Accordingly, our non-acquired treatment growth rate is affected by the timing and number of de novo clinic openings. We calculate non-acquired treatment growth by dividing the number of treatments performed during the applicable period by the

number of treatments performed during the corresponding prior period, excluding the number of treatments performed at clinics acquired during the applicable period, and expressing the resulting number as a percentage.

Per Treatment Metrics

We evaluate our patient service operating revenues, patient care costs, general and administrative expenses and provision for uncollectible accounts on a per treatment basis to assess our operational efficiency. We believe our disciplined revenue cycle management has contributed to the consistency of our historical results.

Non-GAAP Financial Measures

This Form 10-K makes reference to certain non-GAAP financial measures. These non-GAAP financial measures are not recognized measures under U.S. GAAP and do not have a standardized meaning prescribed by U.S. GAAP. When used, these measures are defined in such terms as to allow the reconciliation to the closest U.S. GAAP measure. These measures are therefore unlikely to be comparable to similar measures presented by other companies. Rather, these measures are provided as additional information to complement those U.S. GAAP measures by providing further understanding of the Company's results of operations from management's perspective. Accordingly, they should not be considered in isolation nor as a substitute for analysis of the Company's financial information reported under U.S. GAAP. We use non-GAAP financial measures, such as Adjusted EBITDA and Adjusted EBITDA-NCI, to provide investors with a supplemental measure of our operating performance and thus highlight trends in our core business that may not otherwise be apparent when relying solely on U.S. GAAP financial measures.

Adjusted EBITDA

We use Adjusted EBITDA and Adjusted EBITDA-NCI to track our performance. "Adjusted EBITDA" is defined as net income before income taxes and other non-income based tax, interest expense, net, depreciation and amortization, as adjusted for stock-based compensation and associated payroll taxes, loss on early extinguishment of debt, transaction-related costs, certain legal matters costs, executive and management severance costs, income tax receivable agreement income and expense, gain on sale of assets and management fees. "Adjusted EBITDA-NCI" is defined as Adjusted EBITDA less net income attributable to noncontrolling interests. We believe Adjusted EBITDA and Adjusted EBITDA-NCI provide information useful for evaluating our business and a further understanding of the Company's results of operations from management's perspective. We believe Adjusted EBITDA is helpful in highlighting trends because Adjusted EBITDA excludes the results of actions that are outside the operational control of management, but can differ significantly from company to company depending on long-term strategic decisions regarding capital structure, the tax jurisdictions in which companies operate and capital investments. We believe Adjusted EBITDA-NCI is helpful in highlighting the amount of Adjusted EBITDA that is available to us after reflecting the interests of our joint venture partners. Adjusted EBITDA and Adjusted EBITDA-NCI are not measures of operating performance computed in accordance with GAAP and should not be considered as a substitute for operating income, net income, cash flows from operations, or other statement of operations or cash flow data prepared in conformity with GAAP, or as measures of profitability or liquidity. In addition, Adjusted EBITDA and Adjusted EBITDA-NCI may not be comparable to similarly titled measures of other companies. Adjusted EBITDA and Adjusted EBITDA-NCI may not be indicative of historical operating results, and we do not mean for these items to be predictive of future results of operations or cash flows. Adjusted EBITDA and Adjusted EBITDA-NCI have limitations as analytical tools, and you should not consider these items in isolation, or as substitutes for an analysis of our results as reported under GAAP. Some of these limitations are that Adjusted EBITDA and Adjusted EBITDA-NCI:

- do not include stock-based compensation expense, and beginning with the quarter ended June 30, 2017, do not include associated payroll taxes;
- do not include transaction-related costs;
- do not include depreciation and amortization—because construction and operation of our dialysis clinics requires significant capital expenditures, depreciation and amortization are a necessary element of our costs and ability to generate profits;
- do not include interest expense—as we have borrowed money for general corporate purposes, interest expense is a necessary element of our costs and ability to generate profits and cash flows;
- do not include income tax receivable agreement income and expense;

- do not include loss on early extinguishment of debt;
- do not include costs related to certain legal matters;
- beginning with the quarter ended December 31, 2016, do not include executive and management severance costs;
- do not include management fees;
- do not include certain income tax payments that represent a reduction in cash available to us and other non-income based taxes; and
- do not reflect the gain on sale of assets.

You should not consider Adjusted EBITDA and Adjusted EBITDA-NCI as alternatives to income from operations or net income, determined in accordance with GAAP, as an indicator of our operating performance, or as alternatives to cash flows from operating activities, determined in accordance with GAAP, as an indicator of cash flows or as a measure of liquidity. This presentation of Adjusted EBITDA and Adjusted EBITDA-NCI may not be directly comparable to similarly titled measures of other companies, since not all companies use identical calculations.

The following table presents Adjusted EBITDA and Adjusted EBITDA-NCI for the periods indicated and the reconciliation from net income to such amounts:

	Year Ended December 31,		
(in thousands)	**2017**	**2016**	**2015**
Net Income	$ 75,683	$ 88,205	$ 93,077
Add:			
Stock-based compensation	16,359	40,298	1,451
Depreciation and amortization	37,634	33,862	31,846
Interest expense, net	29,289	35,933	45,400
Income tax expense (benefit) and other non-income based tax	8,474	(753)	12,373
Transaction-related costs(a)	717	2,239	2,086
Loss on early extinguishment of debt(b)	526	4,708	—
Income tax receivable agreement income(c)	(7,234)	(1,286)	—
Certain legal matters(d)	15,249	6,779	—
Executive and management severance costs(e)	917	1,650	—
Gain on sale of assets (f)	(1,257)	—	—
Management fees(g)	—	537	1,822
Adjusted EBITDA (including noncontrolling interests)	$ 176,357	$ 212,172	$ 188,055
Less: Net income attributable to noncontrolling interests	(70,826)	(88,590)	(74,232)
Adjusted EBITDA –NCI	$ 105,531	$ 123,582	$ 113,823

(a) Represents costs related to debt refinancing and other transactions. See “ Note 14 - Debt ” and “ Note 20 - Related Party Transactions ” of the notes to the consolidated financial statements.

(b) Represents costs related to debt refinancing. See “ Note 14 - Debt ” of the notes to the consolidated financial statements.

(c) Represents income associated with the change in fair value of the TRA. See “—Components of Earnings—Interest, Loss on Early Extinguishment of Debt, and Taxes” and “ Note 7 - Fair Value Measurements ” of the notes to the consolidated financial statements.

(d) Certain legal matters costs include legal fees and other expenses associated with matters outside the ordinary course of our business, including, but not limited to, our handling of, and response to, the UnitedHealth litigation, a now-concluded SEC inquiry, the CMS request for information, the securities and derivative litigation, and the Company’s

internal review and analysis of factual and legal issues relating to the aforementioned matters. See “Item 3. Legal Proceedings” and “ Note 22 - Certain Legal Matters ” of the notes to the consolidated financial statements.

(e) Represents executive and management severance costs.

(f) Represents a gain on the sale of clinic assets.

(g) Represents management fees paid to Centerbridge. See “ Note 20 - Related Party Transactions ” of the notes to the consolidated financial statements.

Components of Earnings

Net Patient Service Operating Revenues

Patient service operating revenues. The major component of our revenues, which we refer to as patient service operating revenues, is derived from dialysis services. Our patient service operating revenues primarily consist of reimbursement from government-based programs and other (Medicare, Medicaid, state workers’ compensation programs and hospitals) and commercial insurance payors and other (including the VA) for dialysis treatments and related services at our clinics. Patient service operating revenues are recognized as services are provided to patients. We maintain a usual and customary fee schedule for dialysis treatment and other patient services; however, actual collectible revenues are normally at a discount to the fee schedule. Medicare and Medicaid programs are billed at predetermined net realizable rates per treatment that are established by statute or regulation. Revenue for contracted payors is recorded at contracted rates and other payors are billed at usual and customary rates, and a contractual allowance is recorded to reflect the expected net realizable revenue for services provided.

Provision for uncollectible accounts. Patient service operating revenues are reduced by the provision for uncollectible revenues to arrive at net patient service operating revenues. Provision for uncollectible accounts represents reserves established for amounts for which patients are primarily responsible that we believe will not be collectible.

Contractual allowances, along with provisions for uncollectible amounts, are estimated based upon contractual terms, regulatory compliance and historical collection experience. Net revenue recognition and allowances for uncollectible billings require the use of estimates of the amounts that will actually be realized. Changes in estimates are reflected in the then-current financial statements based on on-going actual experience trends, or subsequent settlements and realizations depending on the nature and predictability of the estimates and contingencies.

Operating Expenses

Patient care costs. Patient care costs are those costs directly associated with operating and supporting our dialysis clinics. Patient care costs consist principally of salaries, wages and benefits, pharmaceuticals, medical supplies, facility costs and laboratory testing. Salaries, wages and benefits consist of compensation and benefits to staff at our clinics, including stock-based compensation expense. Salaries, wages and benefits also include certain labor costs associated with de novo clinic openings. Facility costs consist of rent and utilities and also include rent in connection with de novo clinic openings. Patient care costs also include medical director fees and insurance costs.

General and administrative expenses. General and administrative expenses generally consist of compensation and benefits to personnel at our corporate office for clinic and corporate administration, including accounting, billing and cash collection functions, as well as regulatory compliance and legal oversight; charitable contributions; and professional fees. General and administrative expenses also include stock-based compensation expense in connection with stock awards to our corporate officers and employees.

Transaction-related costs. Transaction-related costs represent costs associated with our debt refinancing and other IPO-related transactions. These costs include legal, accounting, valuation and other professional or consulting fees.

Depreciation and amortization. Depreciation and amortization expense is primarily attributable to our clinics’ equipment and leasehold improvements and amortizing intangible assets. We calculate depreciation and amortization expense using a straight-line method over the assets’ estimated useful lives.

Certain legal matters. Certain legal matters cost includes legal fees and other expenses associated with matters outside the ordinary course of our business, including, but not limited to, our handling of, and response to, the UnitedHealth

Group litigation, a now-concluded SEC inquiry, the CMS request for information, the securities and derivative litigation, the subpoena from the United States Attorney's Office, District of Massachusetts, and our internal review and analysis of factual and legal issues relating to the aforementioned matters. See “Item 3. Legal Proceedings” and “ Note 22 - Certain Legal Matters ” of the notes to the consolidated financial statements.

Operating Income

Operating income is equal to our net patient service operating revenues minus our operating expenses. Our operating income is impacted by the factors described above and reflects the effects of losses relating to our start-up clinics.

Interest, Loss on Early Extinguishment of Debt, and Taxes

Interest expense, net. Interest expense represents charges for interest associated with our corporate level debt and credit facilities entered into by our dialysis clinics.

Loss on early extinguishment of debt. Loss on early extinguishment of debt represents the write-off of unamortized debt issuance costs.

Income tax receivable agreement income/expense. Income tax receivable agreement income/expense is the income/expense associated with the change in the fair value of the TRA from the prior year end.

Income tax expense (benefit). Income tax expense (benefit) relates to our share of pre-tax income from our wholly owned subsidiaries and joint ventures as these entities are pass-through entities for tax purposes. We are not taxed on the share of pre-tax income attributable to noncontrolling interests, and net income attributable to noncontrolling interests in our financial statements has not been presented net of income taxes attributable to these noncontrolling interests.

Net Income Attributable to Noncontrolling Interests

Noncontrolling interests represent the equity interests in our consolidated entities that we do not wholly own, which is primarily the equity interests of our nephrologist partners in our JV clinics. Our financial statements reflect 100% of the revenues and expenses for our joint ventures (after elimination of intercompany transactions and accounts) and 100% of the assets and liabilities of these joint ventures (after elimination of intercompany assets and liabilities), although we do not own 100% of the equity interests in these consolidated entities. Our net income attributable to noncontrolling interests may fluctuate in future periods depending on the purchases or sales by us of non-controlling interests in our clinics from our nephrologist partners, including pursuant to put obligations as described below under “—Liquidity and Capital Resources—Put Obligations.” The net income attributable to owners of our consolidated entities, other than us, is classified within the line item *Net income attributable to noncontrolling interests* . See also “—Critical Accounting Policies and Estimates—Noncontrolling Interests” and “ Note 12 - Noncontrolling Interests Subject to Put Provisions ” of the notes to the consolidated financial statements.

Results of Operations

Year Ended December 31, 2017 Compared With Year Ended December 31, 2016

The following table summarizes our results of operations for the years ended December 31, 2017 and 2016 .

	Year Ended December 31,		Increase (Decrease)	
(in thousands)	2017	2016	Amount	Percentage Change
Patient service operating revenues	$ 752,510	$ 756,329	$ (3,819)	(0.5)%
Provision for uncollectible accounts	(7,404)	(6,562)	(842)	12.8 %
Net patient service operating revenues	745,106	749,767	(4,661)	(0.6)%
Operating expenses:				
Patient care costs	482,450	452,449	30,001	6.6 %
General and administrative	102,598	127,631	(25,033)	(19.6)%
Transaction-related costs	717	2,239	(1,522)	(68.0)%
Depreciation and amortization	37,634	33,862	3,772	11.1 %
Certain legal matters	15,249	6,779	8,470	124.9 %
Total operating expenses	638,648	622,960	15,688	2.5 %
Operating income	106,458	126,807	(20,349)	(16.0)%
Interest expense, net	(29,289)	(35,933)	6,644	(18.5)%
Loss on early extinguishment of debt	(526)	(4,708)	4,182	(88.8)%
Income tax receivable agreement income	7,234	1,286	5,948	NM
Income before income taxes	83,877	87,452	(3,575)	(4.1)%
Income tax expense (benefit)	8,194	(753)	8,947	NM
Net income	75,683	88,205	(12,522)	(14.2)%
Less: Net income attributable to noncontrolling interests	(70,826)	(88,590)	17,764	(20.1)%
Net income (loss) attributable to American Renal Associates Holdings, Inc.	$ 4,857	$ (385)	$ 5,242	NM
Less: Change in the difference between the redemption value and estimated fair value for accounting purposes of the related noncontrolling interests	$ (12,276)	$ (7,404)	$ (4,872)	65.8 %
Net loss attributable to common shareholders	$ (7,419)	$ (7,789)	$ 370	(4.8)%

NM – Not Meaningful

Net Patient Service Operating Revenues

Patient service operating revenues . Patient service operating revenues for the year ended December 31, 2017 were $752.5 million , a decrease of 0.5% from $756.3 million for the year ended December 31, 2016 . The decrease in patient service operating revenues was primarily due to adverse changes in payor mix, partially offset by an increase of approximately 8.1% in the number of dialysis treatments. Patient service operating revenues per treatment for the year ended December 31, 2017 was $343 compared with $373 for the year ended December 31, 2016 driven by changes in commercial and other mix, primarily related to a decrease in patients covered by ACA and other individual marketplace plans. As a source of revenue by payor type, government-based and other payors accounted for 63.3% and 55.5% , respectively, of our revenues for the year ended December 31, 2017 and 2016 . The increase in treatments resulted principally from non-acquired treatment growth of 7.9% from existing clinics and de novo clinics. Patient service operating revenues relating to start-up clinics for the year ended December 31, 2017 were $11.4 million compared to $13.2 million for the year ended December 31, 2016 , a decrease of $1.8 million due to the timing of opening and certification of de novo clinics, as described under “Key Factors Affecting our Results of Operations – Clinic Growth and Start-Up Clinic Costs.”

Provision for uncollectible accounts. Provision for uncollectible accounts for the year ended December 31, 2017 was $7.4 million or 1.0% of net patient service operating revenues, as compared to $6.6 million , or 0.9% of net patient service operating revenues, for the same period in 2016 . Our accounts receivable, net of the bad debt allowance, represented approximately 37 days of patient service operating revenues as of December 31, 2017 and 2016 , respectively.

Operating Expenses

Patient care costs. Patient care costs for the year ended December 31, 2017 were $482.5 million , an increase of 6.6% from $452.4 million for the year ended December 31, 2016 . This increase was primarily due to an increase in the number of treatments. As a percentage of net patient service operating revenues, patient care costs were approximately 64.7% for the year ended December 31, 2017 compared to 60.3% for the year ended December 31, 2016 . Excluding the Modification and Other Stock Compensation Expense, severance expense and gain on sale of assets, patient care costs were approximately 64.5% and 59.6% of net patient service operating revenues for the year ended December 31, 2017 and 2016 , respectively. Excluding the Modification and Other Stock Compensation Expense, severance expense and gain on sale of assets, the change was primarily attributable to lower revenues per treatment described above and increases in start-up clinic expenses related to our de novo development program, including expenses incurred due to delays in certifications. Patient care costs per treatment for the year ended December 31, 2017 were $220 , compared to $223 for the year ended December 31, 2016 . Patient care costs per treatment excluding the Modification and Other Stock Compensation Expense, severance expense and gain on sale of assets were $219 for the year ended December 31, 2017 , compared to $221 for the year ended December 31, 2016 .

General and administrative expenses. General and administrative expenses for the year ended December 31, 2017 were $102.6 million , a decrease of 19.6% from $127.6 million for the year ended December 31, 2016 , primarily due to a decrease of $22.2 million in Modification and Other Stock Compensation Expense described above, offset by corporate costs associated with becoming a public company and increased legal costs in addition to the legal costs described below in “-Certain legal matters.” As a percentage of net patient service operating revenues, general and administrative expenses were approximately 13.8% (or 12.5% excluding the Modification and Other Stock Compensation Expense, executive severance costs, and gain on sale of assets) for the year ended December 31, 2017 compared to 17.0% (or 12.5% excluding the Modification and Other Stock Compensation Expense and executive severance costs) for the year ended December 31, 2016 . General and administrative expenses per treatment for the year ended December 31, 2017 were $47 , compared to $63 for the year ended December 31, 2016 . General and administrative expenses per treatment excluding the Modification and Other Stock Compensation Expense, executive severance costs, and gain on sale of assets were $42 for the year ended December 31, 2017 , compared to $46 for the year ended December 31, 2016 .

Transaction-related costs. Transaction related costs for the year ended December 31, 2017 were $0.7 million associated with our 2017 debt refinancing described below. Transaction-related costs for the year ended December 31, 2016 were $2.2 million related to our debt refinancing and other transactions associated with our IPO.

Depreciation and amortization. Depreciation and amortization expense for the year ended December 31, 2017 was $37.6 million , compared to $33.9 million for the year ended December 31, 2016 . As a percentage of net patient service operating revenues, depreciation and amortization were approximately 5.1% for the year ended December 31, 2017 compared to 4.5% for the year ended December 31, 2016 .

Certain legal matters. Certain legal matter costs for the year ended December 31, 2017 was $15.2 million , compared to $6.8 million for the year ended December 31, 2016 . See “Item 3. Legal Proceedings” and “ Note 22 - Certain Legal Matters ” of the notes to the consolidated financial statements.

Operating Income

Operating income for the year ended December 31, 2017 was $106.5 million , a decrease of $20.3 million , or 16.0% , from $126.8 million for the year ended December 31, 2016 . The decrease was primarily due to the factors described above under "-Net Patient Service Operating Revenues" and "Operating Expenses" and includes the impact of the rebasing reimbursement environment for Medicare, in which Medicare rate updates are not keeping pace with annual increases to our operating costs. In addition, for the year ended December 31, 2017 and 2016 , start-up clinics reduced operating income by $10.4 million and $14.6 million , respectively, an increase of $4.2 million reflecting the timing of opening and certification of de novo clinics each year as described under “—Key Factors Affecting our Results of Operations—Clinic Growth and Start-Up Clinic Costs.” As a percentage of net patient service operating revenues, operating income was 14.3% for the year ended December 31, 2017 , compared to 16.9% for the year ended December 31, 2016 , reflecting the factors described above. Excluding the impact of the Modification and Other Stock Compensation Expense of $11.7 million , executive severance costs of $0.9 million and gain on sale of asset of $1.3 million , as a percentage of net patient service operating revenues, operating income was 15.8% for the year ended December 31, 2017 , compared to 22.1% for the year ended December 31, 2016.

Interest and Taxes

Interest expense, net. Interest expense, net for the year ended December 31, 2017 was $29.3 million , compared to $35.9 million for the year ended December 31, 2016 , a decrease of 18.5% , primarily due to our debt refinancing, partially offset by an increase in third-party clinic debt, including the Assigned Clinic Loans.

Loss on early extinguishment of debt. Loss on early extinguishment of debt for the year ended December 31, 2017 was $0.5 million as a result of our debt refinancing in June 2017. Loss on early extinguishment of debt for the year ended December 31, 2016 was $4.7 million as a result of the write-off of unamortized debt issuance costs in connection with our debt refinancing activities associated with our IPO.

Income tax receivable agreement income. Income tax receivable agreement income for the year ended December 31, 2017 was $7.2 million , compared to $1.3 million for the year ended December 31, 2016 . This income represents the change in the estimated fair value of the TRA liability during the period.

Income tax expense (benefit) The provision (benefit) for income taxes for the year ended December 31, 2017 and December 31, 2016 represented an effective tax rate of 9.8% and (0.9)% , respectively. The variation from the statutory federal rate of 35% on our share of pre-tax income during the year ended December 31, 2017 and 2016 is primarily due to the tax impact of the noncontrolling interest in the clinics as a result of our joint venture model and the change in fair value of the TRA liability, which is not deductible for income tax purposes. The effective tax rate in 2017 was higher primarily due to increases in the valuation allowance.

Net Income Attributable to Noncontrolling Interests

Net income attributable to noncontrolling interests for the year ended December 31, 2017 was $70.8 million , representing a decrease of 20.1% from $88.6 million for the year ended December 31, 2016 . The decrease was primarily due to an increase in our ownership interest in existing clinics, partially offset by growth in the earnings of our existing joint ventures.

Year Ended December 31, 2016 Compared With Year Ended December 31, 2015

The following table summarizes our results of operations for the periods indicated.

	Year Ended December 31,		Increase (Decrease)	
(in thousands)	2016	2015	Amount	Percentage Change
Patient service operating revenues	$ 756,329	$ 657,505	$ 98,824	15.0 %
Provision for uncollectible accounts	(6,562)	(4,524)	(2,038)	45.0 %
Net patient service operating revenues	749,767	652,981	96,786	14.8 %
Operating expenses:				
Patient care costs	452,449	390,949	61,500	15.7 %
General and administrative	127,631	77,250	50,381	65.2 %
Transaction-related costs	2,239	2,086	153	7.3 %
Depreciation and amortization	33,862	31,846	2,016	6.3 %
Certain legal matters	6,779	—	6,779	NM
Total operating expenses	622,960	502,131	120,829	24.1 %
Operating income	126,807	150,850	(24,043)	(15.9)%
Interest expense, net	(35,933)	(45,400)	(9,467)	(20.9)%
Loss on early extinguishment of debt	(4,708)	—	4,708	NM
Income tax receivable agreement income	1,286	—	1,286	NM
Income before income taxes	87,452	105,450	(17,998)	(17.1)%
Income tax (benefit) expense	(753)	12,373	(13,126)	NM
Net income	88,205	93,077	(4,872)	(5.2)%
Less: Net income attributable to noncontrolling interests	(88,590)	(74,232)	(14,358)	19.3 %
Net (loss) income attributable to American Renal Associates Holdings, Inc.	$ (385)	$ 18,845	$ (19,230)	NM
Less: Change in the difference between the redemption value and estimated fair value for accounting purposes of the related noncontrolling interests	(7,404)	—	(7,404)	NM
Net (loss) income attributable to common shareholders	$ (7,789)	$ 18,845	$ (26,634)	NM

NM – Not Meaningful

Net Patient Service Operating Revenues

Patient service operating revenues . Patient service operating revenues for the year ended December 31, 2016 were $756.3 million, an increase of 15.0% from $657.5 million for the year ended December 31, 2015. The increase in patient service operating revenues was primarily due to an increase of approximately 12.3% in the number of dialysis treatments. The increase in treatments resulted principally from non-acquired treatment growth of 11.7% from existing clinics and de novo clinics. Patient service operating revenues relating to start-up clinics for the year ended December 31, 2016 were $13.2 million compared to $10.1 million for the year ended December 31, 2015, an increase of $3.1 million due to the timing of opening and certification of de novo clinics, as described under “Key Factors Affecting our Results of Operations – Clinic Growth and Start-Up Clinic Costs”. Patient service operating revenues per treatment for the year ended December 31, 2016 was $373 compared with $364 for the year ended December 31, 2015 driven by changes in commercial and other mix, primarily related to an increase in patients covered by ACA and other individual marketplace plans. As a source of revenue by payor type, government-based and other payors accounted for 55.5% and 58.3%, respectively, of our revenues for the year ended December 31, 2016 and 2015.

Provision for uncollectible accounts . Provision for uncollectible accounts for the year ended December 31, 2016 was $6.6 million, or 0.9% of net patient service operating revenues, as compared to $4.5 million, or 0.7% of net patient service operating revenues, for the same period in 2015. Our accounts receivable, net of the bad debt allowance, represented approximately 37 and 40 days of patient service operating revenues as of December 31, 2016 and 2015, respectively.

Operating Expenses

Patient care costs . Patient care costs for the year ended December 31, 2016 were $452.4 million, an increase of 15.7% from $390.9 million for the year ended December 31, 2015. This increase was primarily due to an increase in the number of treatments as well as the $5.3 million of Modification and Other Stock Compensation Expense described above. As a percentage of net patient service operating revenues, patient care costs were approximately 60.3% (or 59.6% excluding the Modification and Other Stock Compensation Expense) for the year ended December 31, 2016, compared to 59.9% for the year ended December 31, 2015. Excluding the Modification and Other Stock Compensation Expense, the change was primarily attributable to higher revenues per treatment described above and lower ancillary and pharmaceutical costs as a percentage of net patient service operating revenues, offset by increases in start-up clinic expenses related to our de novo development program, including expenses incurred due to delays in certifications. Patient care costs per treatment for the year ended December 31, 2016 were $223, compared to $217 for the year ended December 31, 2015. Patient care costs per treatment excluding the Modification and Other Stock Compensation Expense were $221 for the year ended December 31, 2016.

General and administrative expenses . General and administrative expenses for the year ended December 31, 2016 were $127.6 million, an increase of 65.2% from $77.3 million for the year ended December 31, 2015, primarily due to corporate costs associated with becoming a public company, including the $32.0 million of Modification and Other Stock Compensation Expense described above. Also contributing to the increase was $1.7 million of executive severance costs, an increase in the number of treatments and increased legal costs in addition to the legal costs described below in "-Certain legal matters." As a percentage of net patient service operating revenues, general and administrative expenses were approximately 17.0% (or 12.5% excluding the Modification and Other Stock Compensation Expense and executive severance costs) for the year ended December 31, 2016 compared to 11.8% for the year ended December 31, 2015. General and administrative expenses per treatment for the year ended December 31, 2016 were $63, compared to $43 for the year ended December 31, 2015. General and administrative expenses per treatment excluding the Modification and Other Stock Compensation Expense and executive severance costs were $46 for the year ended December 31, 2016.

Transaction-related costs . Transaction related costs for the year ended December 31, 2016 were $2.2 million. These costs are associated with our debt refinancing and other transactions associated with our IPO. Transaction-related costs for the year ended December 31, 2015 were $2.1 million, which were costs associated with the forgiveness of indebtedness and accrued interest under a line of credit extended to an executive.

Depreciation and amortization . Depreciation and amortization expense for the year ended December 31, 2016 was $33.9 million, compared to $31.8 million for the year ended December 31, 2015. As a percentage of net patient service operating revenues, depreciation and amortization were approximately 4.5% for the year ended December 31, 2016 compared to 4.9% for the year ended December 31, 2015.

Certain legal matters . Certain legal matter costs for the year ended December 31, 2016 was $6.8 million. See “Item 3. Legal Proceedings” and “ Note 22 - Certain Legal Matters ” of the notes to the consolidated financial statements.

Operating Income

Operating income for the year ended December 31, 2016 was $126.8 million, a decrease of $24.0 million, or 15.9%, from $150.9 million for the year ended December 31, 2015. The decrease was primarily due to the increase in operating expenses described above but was partially offset by the impact of the rebasing reimbursement environment for Medicare. In addition, for the year ended December 31, 2016 and 2015, start-up clinics reduced operating income by $14.6 million and $7.9 million, respectively, an increase of $6.7 million reflecting the timing of opening and certification of de novo clinics each year as described under “—Key Factors Affecting our Results of Operations—Clinic Growth and Start-Up Clinic Costs.” As a percentage of net patient service operating revenues, operating income was 16.9% for the year ended December 31, 2016 compared to 23.1% for the year ended December 31, 2015, reflecting the factors described above. Excluding the impact of the Modification and Other Stock Compensation Expense of $37.3 million and executive severance costs of $1.7 million, as a percentage of net patient service operating revenues, operating income was 22.1% for the year ended December 31, 2016.

Interest and Taxes

Interest expense, net . Interest expense, net for the year ended December 31, 2016 was $35.9 million, compared to $45.4 million for the year ended December 31, 2015, a decrease of 20.9%, primarily due to our debt refinancing associated with the IPO, partially offset by an increase in third-party clinic debt, including the Assigned Clinic Loans.

Loss on early extinguishment of debt . Loss on early extinguishment of debt for the year ended December 31, 2016 was $4.7 million as a result of the write-off of unamortized debt issuance costs in connection with our debt refinancing activities.

Income tax receivable agreement income . Income tax receivable agreement income for the year ended December 31, 2016 was $1.3 million. This income represents the change in the estimated fair value of the TRA liability during the period.

Income tax expense (benefit) . The provision (benefit) for income taxes for the year ended December 31, 2016 and December 31, 2015 represented an effective tax rate of (0.9)% and 11.7%, respectively. The variation from the statutory federal rate of 35% on our share of pre-tax income during the years ended December 31, 2016 and 2015 is primarily due to the tax impact of the noncontrolling interest in the clinics as a result of our joint venture model and the change in fair value of the TRA liability, which is not deductible for income tax purposes.

Net Income Attributable to Noncontrolling Interests

Net income attributable to noncontrolling interests for the year ended December 31, 2016 was $88.6 million, representing an increase of 19.3% from $74.2 million for the year ended December 31, 2015. The increase was primarily due to growth in the earnings of our existing joint ventures, offset by an increase in our ownership interest in an existing clinic.

Quarterly Results of Operations

The following tables set forth our unaudited quarterly consolidated financial data for each of the eight quarters in the 24 month period ended December 31, 2017 . We have prepared the quarterly data on a basis consistent with our audited consolidated financial statements included in this Form 10-K and include, in our opinion, all normal recurring adjustments necessary for a fair statement of the financial information contained in those statements. This information should be read in conjunction with the audited consolidated financial statements and related notes included elsewhere in this Form 10-K. The results of historical periods are not necessarily indicative of the results of operations for a full year or any future period.

(in thousands, except operating data)	Three Months Ended							
	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016
Statement of Operations Data:								
Patient service operating revenues	$ 196,779	$ 189,497	$ 187,602	$ 178,632	$ 200,980	$ 194,857	$ 186,938	$ 173,554
Provision for uncollectible accounts	(2,401)	(1,786)	(1,610)	(1,607)	(1,866)	(1,902)	(1,371)	(1,423)
Net patient service operating revenues	194,378	187,711	185,992	177,025	199,114	192,955	185,567	172,131
Operating expenses:								
Patient care costs	124,491	119,599	118,059	120,301	121,100	116,115	109,779	105,455
General and administrative	22,681	22,292	26,381	31,244	40,831	33,359	31,942	21,499
Transaction-related costs	—	—	717	—	—	—	2,215	24
Depreciation and amortization	9,740	9,438	9,382	9,074	9,246	8,687	8,252	7,677
Certain legal matters	3,535	3,481	4,297	3,936	2,737	4,042	—	—
Total operating expenses	160,447	154,810	158,836	164,555	173,914	162,203	152,188	134,655
Operating Income	33,931	32,901	27,156	12,470	25,200	30,752	33,379	37,476
Interest expense, net	(7,237)	(7,255)	(7,188)	(7,609)	(7,362)	(7,372)	(8,941)	(12,258)
Loss on early extinguishment of debt	—	—	(526)	—	—	—	(4,708)	—
Income tax receivable agreement income (expense)	1,773	3,585	(2,641)	4,517	(3,444)	12,565	(7,835)	—
Income before income taxes	28,467	29,231	16,801	9,378	14,394	35,945	11,895	25,218
Income tax expense (benefit)	8,749	2,559	410	(3,524)	(2,166)	(101)	(1,147)	2,661
Net income	19,718	26,672	16,391	12,902	16,560	36,046	13,042	22,557
Less: Net income attributable to noncontrolling interest	(19,487)	(18,689)	(18,497)	(14,153)	(23,679)	(23,622)	(22,488)	(18,801)
Net income (loss) attributable to American Renal Associates Holdings, Inc.	$ 231	$ 7,983	$ (2,106)	$ (1,251)	$ (7,119)	$ 12,424	$ (9,446)	$ 3,756
Less: Change in the difference between the redemption value and estimated fair value for accounting purposes of the related noncontrolling interests	1,329	5	(2,527)	(11,083)	6,481	(1,752)	(12,133)	
Net income (loss) attributed to common shareholders	$ 1,560	$ 7,988	$ (4,633)	$ (12,334)	$ (638)	$ 10,672	$ (21,579)	$ 3,756
Other Financial Data:								
Adjusted EBITDA (including noncontrolling interests)(1)	$ 48,051	$ 46,838	$ 45,900	$ 35,568	$ 55,880	$ 56,154	$ 54,118	$ 46,020
Adjusted EBITDA-NCI(1)	28,564	28,149	27,403	21,415	32,201	32,532	31,630	27,219
Capital Expenditures	11,293	10,727	7,647	6,406	14,773	12,438	17,825	16,396
Development capital expenditures	10,352	9,205	5,651	4,488	10,238	9,726	14,935	13,538
Maintenance capital expenditures	941	1,522	1,996	1,918	4,535	2,712	2,890	2,858
Operating Data								
Number of clinics (as of end of period)	228	217	218	216	214	207	201	194
Number of de novo clinics opened (during period)	9	1	2	3	7	5	6	2
Patients (as of end of period)	15,637	15,237	15,023	14,735	14,590	14,166	13,755	13,420
Number of treatments	565,945	551,258	542,749	531,220	530,346	516,043	498,368	482,666
Non-acquired treatment growth	6.1%	6.8%	8.6%	9.2%	10.3%	10.2%	10.8%	14.4%
Patient service operating revenues per treatment	$ 348	$ 344	$ 346	$ 336	$ 379	$ 378	$ 375	$ 360
Patient care costs per treatment	$ 220	$ 217	$ 218	$ 226	$ 228	$ 225	$ 220	$ 218
Adjusted Patient care costs per treatment (2)	$ 220	$ 217	$ 217	$ 223	$ 225	$ 221	$ 217	$ 218
General and administrative per treatment	$ 40	$ 40	$ 49	$ 59	$ 77	$ 65	$ 64	$ 45
Adjusted General and administrative per treatment (2)	$ 41	$ 40	$ 43	$ 45	$ 49	$ 45	$ 47	$ 45

(1) The following table represents the reconciliation from net income to Adjusted EBITDA and Adjusted EBITDA-NCI for the periods indicated:

	Three Months Ended							
(in thousands)	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016
Net Income	$ 19,718	$ 26,672	$ 16,391	$ 12,902	$ 16,560	$ 36,046	$ 13,042	$ 22,557
Add:								
Stock-based compensation	1,269	1,054	3,948	10,088	17,047	12,673	10,192	386
Depreciation and amortization	9,740	9,438	9,382	9,074	9,246	8,687	8,252	7,677
Interest expense, net	7,237	7,255	7,188	7,609	7,362	7,372	8,941	12,258
Income tax expense (benefit) and other non-income related tax	9,029	2,559	410	(3,524)	(2,166)	(101)	(1,147)	2,661
Transaction-related costs	—	—	717	—	—	—	2,215	24
Loss on early extinguishment of debt	—	—	526	—	—	—	4,708	—
Income tax receivable agreement expense (income)	(1,773)	(3,585)	2,641	(4,517)	3,444	(12,565)	7,835	—
Certain legal matters	3,535	3,481	4,297	3,936	2,737	4,042	—	—
Executive and management severance costs	—	—	917	—	1,650	—	—	—
Gain on sale of assets	(704)	(36)	(517)	—	—	—	—	—
Management fees	—	—	—	—	—	—	80	457
Adjusted EBITDA (including noncontrolling interests)	48,051	46,838	45,900	35,568	55,880	56,154	54,118	46,020
Less: Net income attributable to noncontrolling interests	(19,487)	(18,689)	(18,497)	(14,153)	(23,679)	(23,622)	(22,488)	(18,801)
Adjusted EBITDA –NCI	$ 28,564	$ 28,149	$ 27,403	$ 21,415	$— $ 32,201	$ 32,532	$ 31,630	$ 27,219

For information about the nature of the adjustments set forth above, see "—Non-GAAP Financial Measures" above.

(2) See "-Key Performance Indicators" for discussion of the adjusted patient care costs per treatment and adjusted general and administrative per treatment calculations.

Liquidity and Capital Resources

Our primary sources of liquidity are funds generated from our operations, short-term borrowings under our revolving credit facility and borrowings of long-term debt. Our principal needs for liquidity are to pay our operating expenses, to fund the development and acquisition of new clinics, to fund capital expenditures, to service our debt to fund purchases of put rights held by our physician partners. In addition, a significant portion of our cash flows is used to make distributions to the noncontrolling equity interests held by our nephrologist partners in our joint venture clinics. Except as otherwise indicated, the following discussion of our liquidity and capital resources presents information on a consolidated basis, without adjusting for the effect of noncontrolling interests.

We believe our cash flows from operations, combined with availability under our revolving credit facility, provide sufficient liquidity to fund our current obligations, projected working capital requirements and capital spending for a period that includes the next 12 months. If existing cash and cash generated from operations and borrowings under our revolving credit facility are insufficient to satisfy our liquidity requirements, we may seek to obtain additional debt or equity financing. If additional funds are raised through the issuance of debt, this debt could contain covenants that would restrict our operations. Any financing may not be available in amounts or on terms acceptable to us. If we are unable to obtain required financing, we may be required to reduce the scope of our planned growth efforts, which could harm our financial condition and operating results.

If we decide to pursue one or more acquisitions, we may incur additional debt or sell additional equity to finance such acquisitions.

Cash Flows

The following table shows a summary of our cash flows for the periods indicated.

	Year Ended December 31,		
(in thousands)	**2017**	**2016**	**2015**
Net cash provided by operating activities	$ 128,547	$ 172,211	$ 133,595
Net cash used in investing activities	(35,303)	(65,939)	(48,915)
Net cash used in financing activities	(122,539)	(96,344)	(55,167)
Net (decrease) increase in cash	$ (29,295)	$ 9,928	$ 29,513

Cash Flows from Operations

Net cash provided by operating activities for the year ended December 31, 2017 was $128.5 million compared to $172.2 million for the same period in 2016 , a decrease of $43.7 million , or 25.4% , primarily attributable to a decrease in net income, partially offset by a decrease in stock compensation expense, including the impact of the change in non-cash Modification and Other Stock Compensation Expense.

Net cash provided by operating activities in 2016 was $172.2 million compared to $133.6 million in 2015 , an increase of $38.6 million , or 28.9% , primarily attributable to an increase in net income excluding the impact of the non-cash Modification and Other Stock Compensation Expense as well as an increase in the payor refund liability included in accrued expenses, partially offset by a decrease in the deferred tax liability.

Days sales outstanding was 37 days as of December 31, 2017 and 2016 and 40 days as of December 31, 2015 .

Cash Flows from Investing Activities

Net cash used in investing activities for the year ended December 31, 2017 was $35.3 million compared to $65.9 million for the same period in 2016 , a decrease of $30.6 million , or 46.5% , due to fluctuations in the timing and number of our de novo clinic openings, as well as the timing of acquisitions.

Net cash used in investing activities in 2016 was $65.9 million compared to $48.9 million in 2015 , an increase of $17.0 million , or 34.8%, due to fluctuations in the timing and number of our de novo clinic openings, as well as the timing of acquisitions.

Cash Flows from Financing Activities

Net cash used in financing activities for the year ended December 31, 2017 was $122.5 million compared to $96.3 million for the same period in 2016 , an increase of $26.2 million , or 27.2%. Our distributions to our partners were $79.5 million for the year ended December 31, 2017 compared to $94.5 million for the same period in 2016 . Additionally, our purchases of noncontrolling interests in existing clinics were $29.5 million for the year ended December 31, 2017 , compared to $8.4 million for the same period in 2016 . Proceeds from issuance of common stock sold in our initial public offering, net of underwriting discounts and offering expenses, was $175.3 million in 2016.

Net cash used in financing activities in 2016 was $96.3 million compared to $55.2 million in 2015 , an increase of $41.2 million , or 74.6% . This increase was primarily attributable to an increase in distributions to noncontrolling interests and purchases of noncontrolling interests.

The following table displays the factors impacting cash from financing activities during the year ended December 31, 2017 , 2016 and 2015 ,:

	Year Ended December 31,		
(in thousands)	**2017**	**2016**	**2015**
Proceeds from issuance of common stock sold in initial public offering, net of underwriting discounts and offering expense	$ —	$ 175,254	$ —
Dividends and dividend equivalents paid	(8,729)	(30,241)	—
Proceeds from term loans, net of deferred financing costs	49,921	70,590	44,163
Net cash paid due to debt refinancing	(63,681)	(216,593)	(24,891)
Distributions to noncontrolling interests	(79,478)	(94,468)	(79,125)
Purchases of noncontrolling interests	(29,540)	(8,397)	(4,159)

Capital Expenditures

For the years ended December 31, 2017 , 2016 and 2015 , we made capital expenditures of $36.1 million , $61.4 million and $46.3 million, respectively, of which $29.7 million , $48.4 million and $35.3 million, respectively, were development capital expenditures primarily incurred in connection with de novo clinic development and $6.4 million , $13.0 million and $11.0 million, respectively, were maintenance capital expenditures, primarily consisting of capital improvements at our existing clinics, including renovations and equipment replacement. For 2018 , we expect to spend approximately 4% to 5% of total annual revenues for development capital expenditures and 1% to 2% of total annual revenues on maintenance capital expenditures.

Debt Facilities

As of December 31, 2017 , we had outstanding $569.6 million in aggregate principal amount of indebtedness, with an additional $100.0 million of borrowing capacity available under our 2017 Revolving Credit Facility (as defined below) and no outstanding letters of credit. Our outstanding indebtedness included $437.8 million of term B loans under our 2017 Credit Agreement (as defined below) as of December 31, 2017 . Our outstanding indebtedness included $2.6 million of other corporate debt as of December 31, 2017 . Our outstanding indebtedness also included our third-party clinic-level debt, which includes term loans and lines of credit (other than Assigned Clinic Loans (as defined below)) totaling $118.1 million as of December 31, 2017 with maturities ranging from January 2018 to November 2024 and interest rates ranging from 3.31% to 7.06% . In addition, our clinic level debt includes our assigned clinic loans (the “Assigned Clinic Loans”) held by Term Loan Holdings of $11.1 million as of December 31, 2017 with maturities ranging from September 2018 to July 2020 and interest rates ranging from 4.15% to 8.08% . See “ Note 14 - Debt of the notes to the consolidated financial statements for further information about our debt and “ Note 3 - Initial Public Offering ” and “ Note 20 - Related Party Transactions ” of the notes to the consolidated financial statements for a description of the Assigned Clinic Loans.

On June 22, 2017, ARH and American Renal Holdings Intermediate Company, LLC (“ARHIC”) entered into a new credit agreement (the “2017 Credit Agreement”) to refinance the credit facilities under ARH’s then existing prior first lien credit agreement. The 2017 Credit Agreement provides for (i) a $100 million senior secured revolving credit facility (the “2017 Revolving Credit Facility”) and (ii) a $440 million senior secured term B loan facility (the “2017 Term B Loan Facility” and, together with the 2017 Revolving Credit Facility, the “2017 Facilities”). In addition, the 2017 Credit Agreement includes a feature under which maximum borrowings under the 2017 Facilities may be increased by an amount in the aggregate equal to the sum of (i) the greater of $125 million and 100% of Consolidated EBITDA (as defined in the 2017 Credit Agreement) plus (ii) an amount such that certain leverage ratios will not be exceeded after giving pro forma effect to the increase.

On June 22, 2017, ARH borrowed the full amount of the 2017 Term B Loan Facility and used such borrowings to repay outstanding balances under the then existing prior first lien credit agreement and the payment of customary fees and expenses incurred in connection with the foregoing.The 2017 Revolving Credit Facility is scheduled to mature in June 2022 and the 2017 Term B Loan Facility is scheduled to mature in June 2024. The principal amount of the term B loans under the 2017 Term B Loan Facility amortize in equal quarterly installments in an aggregate annual amount of 1.00% of the original principal amount of such term B loans. The maturity dates under the 2017 Revolving Credit Facility and the 2017 Term Loan Facility are subject to extension with lender consent according to the terms of the 2017 Credit Agreement. The 2017 Credit Agreement includes provisions requiring ARH to offer to prepay term B loans in an amount equal to (i) the net cash proceeds above certain thresholds received from (a) asset sales and (b) casualty events resulting in the receipt of insurance proceeds, subject to customary provisions for the reinvestment of such proceeds, (ii) the net cash proceeds from the incurrence of debt not

otherwise permitted under the 2017 Credit Agreement, and (iii) a percentage of consolidated excess cash flow retained in the business from the preceding fiscal year minus voluntary prepayments.

The term B loans under the 2017 Term B Loan Facility bear interest at a rate equal to, at ARH's option, either (a) an alternate base rate equal to the higher of (1) the prime rate in effect on such day, (2) the federal funds effective rate plus 0.5% and (3) the Eurodollar rate applicable for a one-month interest period plus 1.0%, plus an applicable margin of 2.25%, (collectively, the "ABR Rate") or (b) LIBOR, adjusted for changes in Eurodollar reserves, plus a margin of 3.25%. As of December 31, 2017, the interest payable quarterly was 4.82%.

Any outstanding loans under the 2017 Revolving Credit Facility will bear interest at a rate equal to, at ARH's option, the ABR Rate or LIBOR, plus, in each case, an applicable margin priced off a grid based upon the consolidated total net leverage ratio of ARH and its restricted subsidiaries. There were no borrowings outstanding under the 2017 Revolving Credit Facility as of December 31, 2017. The commitment fee applicable to undrawn revolving commitments under the 2017 Revolving Credit Facility is also priced off a grid based upon the consolidated total net leverage ratio of ARH and its restricted subsidiaries an, as of December 31, 2017, was 0.50%.

The 2017 Credit Agreement contains customary events of default, the occurrence of which would permit the lenders to accelerate payment of the full amounts outstanding. Additionally, the 2017 Credit Agreement contains customary representations and warranties, affirmative covenants and negative covenants, including restrictive financial and operating covenants. As of December 31, 2017, the Company is in compliance with these covenants.

The obligations of ARH under the 2017 Credit Agreement are guaranteed by ARHIC and all of its existing and future wholly owned domestic subsidiaries (collectively, the "Guarantors") and secured by a pledge of all of ARH's capital stock and substantially all of the assets of ARH and the Guarantors, including their respective interests in their joint ventures.

Initial Public Offering

On April 26, 2016, the Company completed its initial public offering of 8,625,000 shares of common stock for cash consideration of $22.00 per share ($20.515 per share net of underwriting discounts). Net proceeds of $176.9 million from the initial public offering, together with borrowings under our then existing first lien credit facility and cash on hand, were used in the Refinancing to repay in full, all outstanding amounts under our then existing second lien credit facility and to pay related expenses.

Tax Cuts and Jobs Act

On December 22, 2017, the United States enacted tax reform legislation commonly known as the Tax Cuts and Jobs Act (the "2017 Tax Act"), resulting in significant modifications to existing law. Our financial statements for the year ended December 31, 2017 reflect certain effects of the 2017 Tax Act, which includes a reduction in the corporate tax rate from 35% to 21%. Consistent with Staff Accounting Bulletin No. 118 issued by the Securities and Exchange Commission ("SEC"), which provides for a measurement period of one year from the enactment date to finalize the accounting for effects of the 2017 Tax Act, we provisionally recorded an income tax benefit of $1.5 million related to the 2017 Tax Act. In accordance with SEC guidance, provisional amounts may be refined as a result of additional guidance from, and interpretations by, U.S. regulatory and standard-setting bodies, and changes in assumptions. In subsequent periods, provisional amounts will be adjusted for the effects, if any, of interpretative guidance issued after December 31, 2017 by the U.S. Department of the Treasury. The effects of the 2017 Tax Act may be subject to changes for items that were previously reported as provisional amounts, as well as any element of the 2017 Tax Act for which a provisional estimate could not be made, and such changes could be material.

Contractual Obligations and Commitments

The following is a summary of contractual obligations and commitments as of December 31, 2017 (excluding put obligations relating to our joint ventures, dividend equivalent payments due to our pre-IPO option holders and obligations under our TRA, which are described separately below):

Scheduled payments under contractual obligations (in thousands)	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Third-party clinic-level debt	$ 129,219	$ 39,728	$ 57,780	$ 24,780	$ 6,931
Term B loans(1)	437,800	4,400	8,800	8,800	415,800
Other corporate debt	2,601	560	1,191	850	—
Operating leases(2)	183,449	28,362	50,075	41,918	63,094
Interest payments(3)	150,168	26,864	48,514	43,884	30,906
Purchase obligations(4)	135,367	31,742	52,325	51,300	—
Total	$ 1,038,604	$ 131,656	$ 218,685	$ 171,532	$ 516,731

(1) Bear interest at a variable rate, with principal payments of $1.1 million and interest payments due quarterly.

(2) Net of estimated sublease proceeds of approximately $1.3 million per year from 2018 through 2023 and approximately $0.5 million or less thereafter.

(3) Represents interest payments on debt obligations, including the term B loans under the first lien credit agreement. To project interest payments on floating rate debt, we have used the rate as of December 31, 2017 .

(4) Purchase obligations reflects amounts payable pursuant to minimum purchase commitments under our agreements with Amgen and Vifor for the purchase of certain ESAs and with Baxter Healthcare Corporation for the purchase of non-equipment product supplies primarily related to peritoneal dialysis. In the event of a shortfall, we are required to pay in cash a portion or all of the amount of such shortfall or may, under certain circumstances, be subject to a price increase or other fee.

Put Obligations

We also have potential obligations with respect to some of our non-wholly owned subsidiaries in the form of put provisions, which are exercisable at our nephrologist partners' future discretion at certain time periods ("time-based puts"). Additionally, we have certain put agreements that are exercisable upon the occurrence of certain events ("event-based puts") including the sale of all or substantially all of our assets, closure of the clinic, change of control, departure of key executives, third-party members' death, disability, bankruptcy, retirement, or if third-party members are dissolved and other events, which could accelerate time-based vesting. Some of these puts accelerated as a result of the Company's IPO, of which some were exercised during the year ended December 31, 2017. If the put obligations are exercised by a physician partner, we are required to purchase, at the estimated fair value calculated as set forth in the applicable joint venture agreements, a previously agreed upon percentage of such physician partner's ownership interest. See " Note 12 - Noncontrolling Interests Subject to Put Provisions " in the notes to the consolidated financial statements for discussion of these put provisions. The table below summarizes our potential obligations as of December 31, 2017 .

Noncontrolling interest subject to put provisions (dollars in thousands)	As of December 31, 2017
Time-based puts	$ 107,695
Event-based puts	32,200
Total Obligation	$ 139,895

As of December 31, 2017 , $31.8 million of time-based put obligations were exercisable by our nephrologist partners, including those accelerated as a result of physician IPO put rights. The following is a summary of the estimated potential cash payments in each of the specified years under all time-based puts existing as of December 31, 2017 and reflects the payments that would be made, assuming (a) all vested puts as of December 31, 2017 were exercised on January 1, 2018 and paid according to the applicable agreement and (b) all puts exercisable thereafter were exercised as soon as they vest and are paid accordingly.

(dollars in thousands) Year	Amount Exercisable
2018	35,625
2019	9,779
2020	20,925
2021	20,418
2022	12,823
Thereafter	8,125
Total	$ 107,695

The estimated fair values of the interests subject to these put provisions can also fluctuate, and the implicit multiple of earnings at which these obligations may be settled will vary depending upon clinic performance, market conditions and access to the credit and capital markets. In addition, our estimates are in two instances being challenged by physician partners which, if successful, could cause an increase to the amount we owe. As of December 31, 2017 , we had recorded liabilities of approximately $107.7 million for all existing time-based obligations, of which we have estimated approximately $12.2 million were accelerated as a result of physicians with IPO put rights having elected to potentially exercise the puts. The physician partners have the right to decide how much, up to specified limits, of their put rights, if any, they will exercise. In addition, as of December 31, 2017 , we had $32.2 million of event-based put obligations.

Dividend Equivalent Payments

On April 26, 2016, the Company declared and paid a cash dividend to our pre-IPO stockholders equal to $1.30 per share, or $28.9 million in the aggregate. In connection with the dividend, all employees with outstanding options had their option exercise price reduced and in some cases were awarded future dividend equivalent payment, which were paid on vested options and become due upon vesting for unvested options. Additionally, in connection with the cash dividend, the Company has made payments to date equal to $1.30 per share, or $5.0 million in the aggregate, to option holders, and, in the case of some performance and market options, as of December 31, 2017 a future payment will be due upon vesting totaling $1.9 million .

In connection with the Term Loan Holdings Distribution, as described in " Note 3 - Initial Public Offering " of the notes to the consolidated financial statements, the Company also equitably adjusted the outstanding stock options by reducing exercise prices and making cash dividend equivalent payments of $2.5 million , all of which were paid to vested option holders as of December 31, 2017 .

In March 2013, the Company declared and paid a dividend to holders of the Company's common stock equal to $7.90 per share. In connection with the dividend, all employees with outstanding 2010 Stock Incentive Plan options had their option exercise price reduced and in some cases were awarded a future dividend equivalent payment, which becomes due upon vesting, of $2.6 million , all of which were paid to vested option holders as of December 31, 2017 .

Income Tax Receivable Agreement

On April 26, 2016, upon the completion of the IPO, we entered into the TRA, which provides for the payment by us to our pre-IPO stockholders on a pro rata basis of 85% of the amount of cash savings, if any, in U.S. federal, state and local income tax that we actually realize as a result of any deductions (including net operating losses resulting from such deductions) attributable to the exercise of (or any payment, including any dividend equivalent right or payment, in respect of) any compensatory stock option issued by us that was outstanding (whether vested or unvested) as of the day before the date of our IPO prospectus (such stock options, "Relevant Stock Options" and such deductions, "Option Deductions"). We plan to fund the payments under the TRA with cash flows from operations and, to the extent necessary, the proceeds of borrowings under our credit facilities. The amounts and timing of our obligations under the TRA are subject to a number of factors, including the amount and timing of the taxable income we generate in the future, whether and when any Relevant Stock Options are exercised and the value of our common stock at the time of such exercise, and to uncertainty relating to the future events that could impact such obligations. Estimating the amount of payments that may be made under the TRA is by its nature imprecise given such uncertainty. However, we expect that during the term of the TRA the payments that we make will be material. Such payments will reduce the liquidity that would otherwise have been available to us. The amount of cash savings for 2017 is estimated to be $7.6 million as of December 31, 2017 .

Off Balance Sheet Arrangements

We have no off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that would be material to investors.

Recent Accounting Pronouncements

See “ Note 2 - Summary of Significant Accounting Policies ” of the notes to the consolidated financial statements.

Critical Accounting Policies and Estimates

We believe that the accounting policies described below are critical to understanding our business, results of operations and financial condition because they involve significant judgments and estimates used in the preparation of our consolidated financial statements. An accounting policy is deemed to be critical if it requires a judgment or accounting estimate to be made based on assumptions about matters that are highly uncertain, and if different estimates that could have been used, or if changes in the accounting estimates that are reasonably likely to occur periodically, could materially impact our consolidated financial statements. Other significant accounting policies, primarily those with lower levels of uncertainty than those discussed below, are also critical to understanding our consolidated financial statements. The notes to our consolidated financial statements contain additional information related to our accounting policies and should be read in conjunction with this discussion.

Contingencies

The Company and its subsidiaries are defendants in various legal actions in the normal course of business. We record a liability when we believe that it is probable that a loss has been incurred, and the amount can be reasonably estimated. If we determine that a loss is reasonably possible and the loss or range of loss can be estimated, we disclose the possible loss in the Notes to the Consolidated Financial Statements.

We evaluate, on a monthly basis, developments in our legal matters that could affect the amount of liability that has been previously accrued, and the matters and related reasonably possible losses disclosed, and make adjustments and changes to our disclosures as appropriate. Significant judgment is required to determine both likelihood of there being and the estimated amount of a loss related to such matters. Until the final resolution of such matters, there may be an exposure to loss in excess of the amount recorded, and such amounts could be material. Should any of our estimates and assumptions change or prove to have been incorrect, it could have a material impact on our business, consolidated financial position, results of operations, or cash flows. See " Note 21 - Commitments and Contingencies " and “ Note 22 - Certain Legal Matters ” for additional information.

Fair Value Measurements

The Company measures the fair value of certain assets, liabilities and noncontrolling interests subject to put provisions based upon certain valuation techniques that include observable or unobservable inputs and assumptions that market participants would use in pricing these assets, liabilities and noncontrolling interests. The Company also has classified certain assets, liabilities and noncontrolling interests subject to put provisions that are measured at fair value into the appropriate fair value hierarchy levels. The determination of the fair value of these assets and liabilities is a critical accounting estimate that involves significant judgements and assumptions and may not be indicative of the actual values at which these assets could be sold to a third party or at which these obligations could be settled. For more information on our noncontrolling interests, see "-Noncontrolling Interests" below.

Accounts Receivable

Accounts receivable are reduced by an allowance for doubtful accounts. In evaluating the ultimate collectability and net realizable value of the Company’s accounts receivable, the Company analyzes its historical cash collection experience and trends for each of its government payors and commercial payors to estimate the adequacy of the allowance for doubtful accounts and the amount of the provision for bad debts. Management regularly updates its analysis based upon the most recent information available to determine its current provision for bad debts and the adequacy of its allowance for doubtful accounts. For receivables associated with services provided to patients covered by government payors, like Medicare, the Company receives 80% of the payment directly from Medicare as established under the government’s bundled payment system and determines an appropriate allowance for doubtful accounts and provision for bad debts on the remaining balance due depending upon the Company’s estimate of the amounts ultimately collectible from other secondary coverage sources or from the patients.

For receivables associated with services to patients covered by commercial payors that are either based upon contractual terms or for non-contracted health plan coverage, the Company provides an allowance for doubtful accounts and a provision for bad debts based upon its historical collection experience and potential inefficiencies in its billing processes and for which collectability is determined to be unlikely. Receivables where the patient is the primary payor make up less than 2% of the Company's accounts receivable. It is the Company's policy to reserve for a portion of these outstanding accounts receivable balances based on historical collection experience and for which collectability is determined to be unlikely.

Patient accounts receivable from the Medicare and Medicaid programs were $97,594 and $91,967 at December 31, 2017 and 2016 , respectively, which does not include reductions due to contractual allowances and bad debts. No other single payor accounted for more than 10% of total patient accounts receivable.

Property and Equipment

We account for property and equipment at cost less accumulated depreciation and amortization. Depreciation is being recorded over the remaining useful lives. Property and equipment acquired as part of an acquisition are recorded at fair value and other purchases are stated at cost with depreciation calculated using the straight-line method over their estimated useful lives as follows:

Buildings	39 years
Leasehold improvements	Shorter of lease term or useful lives
Equipment and information systems	3 to 10 years

Upon retirement or sale, the cost and related accumulated depreciation are removed from the accounts, and any resulting gain or loss is credited or charged to income. Maintenance and repairs are charged to expense as incurred.

Amortizable Intangible Assets

Amortizable intangible assets include noncompete agreements, certificates of need and right of first refusal waivers. Each of these assets is amortized on a straight-line basis over the term of the agreement, which is generally 5 to 10 years.

Identified Non-Amortizable Intangible Assets and Goodwill

Goodwill represents the excess cost of a business acquisition over the fair value of the net assets acquired. Indefinite-life identifiable intangible assets and goodwill are not amortized but are tested for impairment at least annually. The Company performs its annual review in the fourth quarter of each year, or more frequently if indicators of potential impairment exist, to determine if the carrying value of the recorded goodwill or indefinite lived intangible assets is impaired. If an asset is impaired, the difference between the value of the asset reflected on the financial statements and its current fair value is recognized as an expense in the period in which the impairment occurs.

Each period, the Company can elect to initially perform a qualitative assessment to determine whether it is necessary to perform the quantitative goodwill impairment test. If we believe, as a result of our qualitative assessment, that it is not more likely than not that the fair value of a reporting unit containing goodwill is less than its carrying amount, then the quantitative goodwill impairment test is unnecessary. If we elect to bypass the qualitative assessment option, or if the qualitative assessment was performed and resulted in our being unable to conclude that it is not more likely than not that the fair value of a reporting unit containing goodwill is less than its carrying amount, we will perform the quantitative goodwill impairment test. We perform the quantitative goodwill impairment test by calculating the fair value of the reporting unit using a discounted cash flow method, and then comparing the fair value with the carrying amount of the reporting unit. If the carrying amount of the reporting unit exceeds its fair value, we record the difference as an impairment loss, if any. Such analysis is based on macro-economic factors and research, current financial information such as current results of operations and balance sheets, and projected financial results which included only anticipated growth from current operations. The weighted average cost of capital method was used to determine the discount rate and the Gordon Growth Model was used to determine the residual value necessary for the discounted cash flow method. Changes in the estimates or assumptions used in these models could impact the results of the valuations. Based on these assessments and tests, we have concluded there was no impairment for the years ended December 31, 2017 and 2016 .

The Company has elected to early adopt Accounting Standards Update ("ASU") 2017-04, *Intangibles - Goodwill and Other (Topic 350) - Simplifying the Test for Goodwill Impairment* , effective with the annual review performed in the fourth

quarter of 2017. These amendments eliminate Step 2 from the goodwill impairment test in order to simply the subsequent measurement of goodwill and are adopted on a prospective basis. Prior to our adoption of ASU 2017-04, if the first step of the quantitative goodwill impairment test described above indicated that the carrying amount of the reporting unit exceed its fair value, we were required to perform a second step to measure the amount of the impairment loss, if any.

Impairment of Long-Lived Assets

Long-lived assets include property and equipment and finite-lived intangibles. In the event that facts and circumstances indicate that these assets may be impaired, an evaluation of recoverability at the lowest asset group level would be performed. If an evaluation is required, the estimated future undiscounted cash flows associated with the asset would be compared to the asset's carrying amount to determine if a write-down to fair value is required. The lowest level for which identifiable cash flows exist is the operating clinic level. A triggering event was not identified, and as such there was no impairment charge recorded for the years ended 2017 and 2016 .

Net Patient Service Operating Revenues

Patient service operating revenues are recognized as services are provided to patients and consist primarily of reimbursement for dialysis. A fee schedule is maintained for dialysis treatment and other patient services; however, actual collectible revenue is normally at a discount to the fee schedule. Medicare and Medicaid programs are billed at predetermined net realizable rates per treatment that are established by statute or regulation. Revenue for contracted payors is recorded at contracted rates and other payors are billed at usual and customary rates, and a contractual allowance is recorded to reflect the expected net realizable revenue for services provided. Contractual allowances, along with provisions for uncollectible amounts, are estimated based upon contractual terms, regulatory compliance, and historical collection experience. Net revenue recognition and allowances for uncollectible billings require the use of estimates of the amounts that will actually be realized.

Patient service operating revenues may be subject to adjustment as a result of (i) examinations of the Company or Medicare or Medicaid Managed Care programs that the Company serves, by government agencies or contractors, for which the resolution of any matters raised may take extended periods of time to finalize; (ii) differing interpretations of government regulations by different fiscal intermediaries or regulatory authorities; (iii) differing opinions regarding a patient's medical diagnosis or the medical necessity of service provided; (iv) retroactive applications or interpretations of governmental requirements; and (v) claims for refund from private payors, including as the result of government actions. Changes in estimates are reflected in the then current financial statements based on on-going actual experience trends, or subsequent settlements and realizations depending on the nature and predictability of the estimates and contingencies.

Patient service operating revenues associated with patients whose primary coverage is under governmental programs, including Medicare and Medicaid, and Medicare or Medicaid Managed Care programs, accounted for approximately 63% , 56% and 58% of total patient service operating revenues for the years ended December 31, 2017 , 2016 and 2015 , respectively.

Patient service operating revenues are reduced by the provision for uncollectible accounts to arrive at net patient service operating revenues. With our adoption of ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* , effective January 1, 2018, the majority of our provision for collectible accounts will be recognized as a direct reduction to patient service operating revenues instead of separately as a deduction to arrive at net patient service operating revenues. See " Note 2 - Summary of Significant Accounting Policies - Recent Accounting Pronouncements" in the notes to the consolidated financial statements.

Income Taxes

The Company accounts for income taxes under the liability approach. Under this approach, deferred tax assets and liabilities are recognized based upon temporary differences between the financial statement and tax bases of assets and liabilities, as measured by the enacted tax rates, which will be in effect when these differences reverse. Deferred tax expense or benefit is the result of changes in deferred tax assets and liabilities between reporting periods. A valuation allowance is established when, based on an evaluation of objectively verifiable evidence, there is a likelihood that some portion or all of the deferred tax assets will not be realized.

The Company's income tax provision (benefit) relates to its share of pre-tax income (losses) from its ownership interest in its subsidiaries as these entities are pass-through entities for tax purposes. Accordingly, the Company is not taxed on the share of pre-tax income attributable to noncontrolling interests, and net income attributable to noncontrolling interests in our consolidated financial statements has not been presented net of income taxes attributable to these noncontrolling interests.

The Company recognizes a tax position in its financial statements when that tax position, based solely upon its technical merits, is more likely than not to be sustained upon examination by the relevant taxing authority. Once the recognition threshold is met, the tax position is then measured to determine the actual amount of benefit to recognize in the financial statements. In addition, the recognition threshold of more-likely-than-not must continue to be met in each reporting period to support continued recognition of the tax benefit. Tax positions that previously failed to meet the more-likely-than-not recognition threshold are recognized in the first financial reporting period in which that threshold is met. Previously recognized tax positions that no longer meet the more-likely-than-not recognition threshold are derecognized in the financial reporting period in which that threshold is no longer met. The Company recognizes interest and penalties related to unrecorded tax positions in its income tax expense.

Noncontrolling Interests

Noncontrolling interests represent the proportionate equity interests of other partners in the Company's consolidated subsidiaries, which are not wholly owned. The Company classifies noncontrolling interests not subject to put provisions as a separate component of equity, but apart from the Company's equity. The Company presents consolidated net income (loss) and comprehensive income (loss) attributable to the Company and to noncontrolling interests on the face of the consolidated statements of operations and statements of comprehensive income (loss), respectively. In addition, changes in the Company's ownership interest while the Company retains a controlling financial interest are accounted for as equity transactions.

Member interests with redemption features that are not solely within the Company's control, such as the Company's noncontrolling interests that are subject to put provisions, are presented outside of permanent equity and are measured at the greater of the noncontrolling interest balance determined pursuant to ASC 810-10, *Consolidation* , or the redemption value. Changes in the fair value of noncontrolling interests subject to put provisions are accounted for as equity transactions. Subsequent measurements are accounted for under the guidance set forth in ASC 480, *Distinguishing Liabilities from Equity* . Equity instruments that are currently redeemable are adjusted to the maximum redemption amount at the balance sheet date and are presented in temporary equity based on the conditions that exist as of the balance sheet date. In instances where the equity instrument is not currently redeemable and the Company has determined that it is probable that the equity instrument may become redeemable, the Company recognizes the change in the redemption value immediately as it occurs and adjusts the carrying amount of the instrument to equal the redemption value as of the balance sheet date. Changes in the redemption value over fair value are recognized as reductions of earnings available to shareholders of the Company. The Company does not have any instruments that are not currently redeemable in which it is probable that the instrument may become redeemable. At the balance sheet date, the amount presented in temporary equity is no less than the initial amount reported in temporary equity for the instrument. We estimate the fair value of the noncontrolling interests subject to these put provisions using an average multiple of earnings, based on historical earnings and other factors. The estimate of the fair values of the interests subject to these put provisions is a critical accounting estimate that involves significant judgments and assumptions and may not be indicative of the actual values at which these obligations may ultimately be settled in the future. The estimated fair values of the interests subject to these put provisions can also fluctuate and the implicit multiple of earnings at which these obligations may be settled will vary depending upon market conditions and access to the credit and capital markets, which can impact the level of competition for dialysis and non-dialysis related businesses and the economic performance of these businesses. See " Note 12 - Noncontrolling Interests Subject to Put Provisions " for further details.

Stock-Based Compensation

The Company measures and recognizes compensation expense for all share-based payment awards based on estimated fair values at the date of grant. Determining the fair value of share-based awards requires judgment in developing assumptions, which involve a number of variables. We calculate fair value by using a Monte Carlo simulation-based approach for the portion of the option that contain both a market and performance condition and the Black-Scholes valuation model for the portion of the option that contains a performance or a service-based condition. Key inputs used to estimate the fair value of stock options include the exercise price of the award, the expected term of the option, the expected volatility of the common stock over the option's expected terms, the risk-free interest rate over the option's expected term and the Company's expected annual dividend yield. Since we have limited history as a public company and do not yet have sufficient trading history for our common stock, the expected volatility was estimated based on the historical equity volatility of common stock of comparable publicly traded entities over a period equal to the expected term of the stock option grants. For each of the comparable publicly traded entities, the historical equity volatility and the capital structure of the entity were used to calculate the implied stock volatility. The average implied stock volatility of the comparable publicly traded entities was then used to calculate a relevered equity volatility for the Company based on the Company's own capital structure. The comparable entities from the healthcare sector were chosen based on area of specialty. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available. Stock-based compensation expense for performance or service-based stock awards is recognized over the requisite service period using the straight-line method,

which is generally the vesting period of the equity award, and is adjusted each period for actual forfeitures. The Company adopted the provision of ASU 2016-9, *Compensation – Stock Compensation (Topic 718) – Improvements to Employee Share-Based Payment Accounting* as of July 1, 2016. Upon early adoption, the Company elected to change its accounting policy to recognize forfeitures as they occur. The change was applied on a modified retrospective basis. See " Note 19 - Stock-Based Compensation " for additional discussion. For market and performance awards whose vesting is contingent upon a specified event, we recognize stock compensation expense over the derived service period.

Interest Rate Swap and Cap Agreements

The Company carries a combination of interest rate caps and forward interest rate swaps as a means of hedging its exposure to and volatility from variable-based interest rate changes as part of its overall interest rate risk management strategy. The agreements are not held for trading or speculative purposes and have the economic effect of converting the LIBOR variable component of the Company's interest rate to a fixed rate. These agreements are designated as cash flow hedges, and as a result, hedge-effective gains or losses resulting from changes in fair values of these instruments are reported in other comprehensive income until such time as each swap or cap is realized, at which time the amounts are classified as net income. The instruments are perfectly effective. In the event the critical terms of the agreements no longer match the Company's exposure, we will measure the ineffectiveness and record those cumulative measurements in the noncash component of interest expense. Net amounts paid or received for each swap or cap that has settled has been reflected as adjustments to interest expense. These instruments do not contain credit risk contingent features. See " Note 14 - Debt " for additional discussion.

Emerging Growth Company

We qualify as an "emerging growth company" pursuant to the provisions of the JOBS Act. For as long as we are an emerging growth company, we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in our annual reports and proxy statements.

Item 7A. Quantitative and Qualitative Disclosure About Market Risk

Our investments include cash. The primary objective of our investment activities is to preserve principal while maximizing income without significantly increasing risk. We do not enter into investments for trading or speculative purposes.

Interest Rate Risk

We enter into interest swap agreements from time to time as a means of hedging exposure to, and volatility from, variable-based interest rate changes as part of an overall interest rate risk management strategy. These swap agreements are not held for trading or speculative purposes and have the economic effect of converting the LIBOR variable component of our interest rate to a fixed rate.

In March 2017, the Company entered into a forward starting interest rate swap agreement and two interest rate cap agreements ("the agreements") with notional amounts totaling $280 million, as a means of fixing the floating interest rate component on $440 million of our variable rate debt under our 2017 Term B Loan Facility. The agreements are designated as cash flow hedges, with a termination date of March 31, 2021. Because these agreements are designated as cash flow hedges, hedge-effective gains or losses resulting from changes in fair values of these agreements are reported in accumulated other comprehensive income (loss) until such time as each agreement is realized, at which time the amounts are classified as net income. The instruments are perfectly effective. In the event the critical terms of the agreements no longer match the Company's exposure, we will measure the ineffectiveness, and record those cumulative measurements in the noncash component of interest expense. Net amounts paid or received for each swap or cap that has settled has been reflected as adjustments to interest expense. These instruments do not contain credit risk contingent features. Based on the Company's interest rate swap and caps outstanding as of December 31, 2017, a 1 percentage point increase in interest rates would have increased interest expense by $1.0 million in 2017. See " Note 14 - Debt " of the notes to the consolidated financial statements for further discussion of these interest rate swaps.

Inflation Risk

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations.

Item 8. Financial Statements and Supplementary Data.

See the Index to Financial Statements and Index to Financial Statement Schedules included at "Item 15. Exhibits and Financial Statement Schedules."

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

(a) Evaluation of Disclosure Controls and Procedures.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 31, 2017 . In designing and evaluating our disclosure controls and procedures, our management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and our management necessarily applied its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2017 .

(b) Management's Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with general accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of our internal control over financial reporting as of December 31, 2017 . In making this assessment, our management used the criteria set forth in the *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on its assessment, management concluded that our internal control over financial reporting was effective as of December 31, 2017 .

This Annual Report on Form 10-K does not include an attestation report of our independent registered public accounting firm due to a transition period established by rules of the SEC for "emerging growth companies."

(c) Changes in Internal Control over Financial Reporting.

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item will be included in our definitive proxy statement for the 2018 Annual Meeting of Stockholders and is incorporated herein by reference. We will file such definitive proxy statement with the SEC pursuant to Regulation 14A within 120 days after our fiscal year ended December 31, 2017.

We have adopted a written code of ethics and conduct (the "Code of Ethics and Conduct") that applies to all of our directors, officers and employees, including our Chairman and Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and other senior executive officers, as well as our physician and institutional partners. The Code of Ethics and Conduct sets forth our policies and expectations on a number of topics, including our obligations to our patients and relations with referral and other courses, other conflicts of interest, compliance with laws, use of our assets, our business practices, protecting our shareholders and our compliance program. A current copy of the code is posted on our website, which is located at www.americanrenal.com. If we ever were to amend or waive any provision of our code of ethics and conduct that applies to our principal executive officer, principal financial officer, principal accounting officer or any person performing similar functions, we intend to satisfy our disclosure obligations, if any, with respect to any such waiver or amendment by posting such information on our website at www.americanrenal.com rather than by filing a Form 8-K.

Item 11. Executive Compensation.

The information required by this item will be included in our definitive proxy statement for the 2018 Annual Meeting of Stockholders and is incorporated herein by reference. We will file such definitive proxy statement with the SEC pursuant to Regulation 14A within 120 days after our fiscal year ended December 31, 2017.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item will be included in our definitive proxy statement for the 2018 Annual Meeting of Stockholders and is incorporated herein by reference. We will file such definitive proxy statement with the SEC pursuant to Regulation 14A within 120 days after our fiscal year ended December 31, 2017.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this item will be included in our definitive proxy statement for the 2018 Annual Meeting of Stockholders and is incorporated herein by reference. We will file such definitive proxy statement with the SEC pursuant to Regulation 14A within 120 days after our fiscal year ended December 31, 2017.

Item 14. Principal Accounting Fees and Services.

The information required by this item will be included in our definitive proxy statement for the 2018 Annual Meeting of Stockholders and is incorporated herein by reference. We will file such definitive proxy statement with the SEC pursuant to Regulation 14A within 120 days after our fiscal year ended December 31, 2017.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) Documents filed as part of this report:

(1) Index to Financial Statements:

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Consolidated Balance Sheets as of December 31, 2017 and 2016	F-3
Consolidated Statements of Operations for the years ended December 31, 2017, 2016, and 2015	F-4
Consolidated Statements of Comprehensive Income for the years ended December 31, 2017, 2016, and 2015	F-5
Consolidated Statements of Changes in Equity for the years ended December 31, 2017, 2016, and 2015	F-6
Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016, and 2015	F-7
Notes to Consolidated Financial Statements	F-8

(2) Financial Statement Schedules:

Schedule II – Valuation and Qualifying Accounts

All other schedules have been omitted because they are not required, not applicable, or the required information is otherwise included.

(3) Exhibits:

See Exhibit Index.

Item 16. Form 10-K Summary

None.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders

American Renal Associates Holdings, Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of American Renal Associates Holdings, Inc. (a Delaware corporation) and subsidiaries (the "Company") as of December 31, 2017 and 2016, the related consolidated statements of operations, comprehensive income, changes in equity, and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and schedule (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

Basis for opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ GRANT THORNTON LLP

We have served as the Company's auditor since 2009.

Boston, Massachusetts

March 6, 2018

AMERICAN RENAL ASSOCIATES HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(dollars in thousands, except for share data)

	As of December 31, 2017	As of December 31, 2016
Assets		
Cash	$ 71,521	$ 100,916
Accounts receivable, less allowance for doubtful accounts of $6,757 and $8,726 at December 31, 2017 and 2016, respectively	79,662	81,127
Inventories	4,665	4,676
Prepaid expenses and other current assets	24,998	18,498
Income tax receivable	6,745	5,163
Total current assets	187,591	210,380
Property and equipment, net	168,537	170,118
Intangible assets, net	25,368	25,626
Other long-term assets	9,285	6,753
Goodwill	573,427	573,147
Total assets	$ 964,208	$ 986,024
Liabilities and Equity		
Accounts payable	$ 33,421	$ 31,127
Accrued compensation and benefits	28,985	29,103
Accrued expenses and other current liabilities	49,963	45,286
Current portion of long-term debt	44,534	48,274
Total current liabilities	156,903	153,790
Long-term debt, less current portion	515,554	522,058
Income tax receivable agreement payable	7,500	21,200
Other long-term liabilities	14,880	11,670
Deferred tax liabilities	8,991	1,278
Total liabilities	703,828	709,996
Commitments and contingencies (Notes 21 and 22)		
Noncontrolling interests subject to put provisions	139,895	130,365
Equity:		
Preferred stock, $0.01 par value, 1,000,000 shares authorized; none issued		
Common stock, $0.01 par value, 300,000,000 shares authorized, 32,034,439 and 30,894,962 issued and outstanding at December 31, 2017 and 2016, respectively	193	184
Additional paid-in capital	67,853	95,062
Receivable from noncontrolling interests	(358)	(544)
Accumulated deficit	(123,789)	(128,646)
Accumulated other comprehensive loss, net of tax	(677)	(100)
Total American Renal Associates Holdings, Inc. deficit	(56,778)	(34,044)
Noncontrolling interests not subject to put provisions	177,263	179,707
Total equity	120,485	145,663
Total liabilities and equity	$ 964,208	$ 986,024

The accompanying notes are an integral part of these consolidated financial statements.

AMERICAN RENAL ASSOCIATES HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(dollars in thousands, except for share data)

	For the Years Ended December 31,		
	2017	2016	2015
Patient service operating revenues	$ 752,510	$ 756,329	$ 657,505
Provision for uncollectible accounts	(7,404)	(6,562)	(4,524)
Net patient service operating revenues	745,106	749,767	652,981
Operating expenses:			
Patient care costs	482,450	452,449	390,949
General and administrative	102,598	127,631	77,250
Transaction-related costs (Notes 3 and 14)	717	2,239	2,086
Depreciation and amortization	37,634	33,862	31,846
Certain legal matters (Note 22)	15,249	6,779	—
Total operating expenses	638,648	622,960	502,131
Operating income	106,458	126,807	150,850
Interest expense, net	(29,289)	(35,933)	(45,400)
Loss on early extinguishment of debt	(526)	(4,708)	—
Income tax receivable agreement income	7,234	1,286	—
Income before income taxes	83,877	87,452	105,450
Income tax expense (benefit)	8,194	(753)	12,373
Net income	75,683	88,205	93,077
Less: Net income attributable to noncontrolling interests	(70,826)	(88,590)	(74,232)
Net income (loss) attributable to American Renal Associates Holdings, Inc.	4,857	(385)	18,845
Less: Change in the difference between the redemption value and estimated fair value for accounting purposes of the related noncontrolling interests	(12,276)	(7,404)	—
Net (loss) income attributable to common shareholders	$ (7,419)	$ (7,789)	$ 18,845
(Loss) earnings per share (Note 17):			
Basic	$ (0.24)	$ (0.28)	$ 0.85
Diluted	$ (0.24)	$ (0.28)	$ 0.83
Weighted-average number of common shares outstanding			
Basic	31,081,824	28,118,673	22,153,451
Diluted	31,081,824	28,118,673	22,707,874
Cash dividends declared per share	$ —	$ 1.30	$ —

The accompanying notes are an integral part of these consolidated financial statements.

AMERICAN RENAL ASSOCIATES HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in thousands)

	For the Years Ended December 31,		
	2017	2016	2015
Net income	$ 75,683	$ 88,205	$ 93,077
Unrealized (loss) gain on derivative agreements, net of tax	(577)	401	(777)
Total comprehensive income	75,106	88,606	92,300
Less: Comprehensive income attributable to noncontrolling interests	(70,826)	(88,590)	(74,232)
Total comprehensive income attributable to American Renal Associates Holdings, Inc.	$ 4,280	$ 16	$ 18,068

The accompanying notes are an integral part of these consolidated financial statements.

AMERICAN RENAL ASSOCIATES HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(in thousands, except for share data)

	Noncontrolling Interests subject to put provisions	Total American Renal Associates Holdings, Inc. Equity (Deficit) for the Years Ended							Noncontrolling Interests not subject to put provisions
		Common Stock		Additional Paid-in Capital	Receivable from Noncontrolling Interest Holders	Retained Earnings (Deficit)	Accumulated Other Comprehensive Income (loss)	Total	
		Shares	Par Value						
Balance at December 31, 2014	**$ 90,972**	**22,097,344**	**$ 97**	**$ 2,426**	**$ (657)**	**$ (136,576)**	**$ 276**	**$ (134,434)**	**$ 178,091**
Net income	18,419	—	—	—	—	18,845	—	18,845	55,813
Stock-based compensation	—	—	—	1,400	—	—	—	1,400	—
Exercise of stock option	—	88,146	1	(70)	—	—	—	(69)	—
Issuance of common stock	—	28,477	—	727	—	—	—	727	—
Excess tax benefits from stock option exercises	—	—	—	4,147	—	—	—	4,147	—
Distributions to noncontrolling interests	(20,290)	—	—	—	—	—	—	—	(58,835)
Contributions from noncontrolling interests	2,432	—	—	—	128	—	—	128	4,675
Purchases of noncontrolling interests	(2,465)	—	—	(1,620)	—	—	—	(1,620)	(74)
Sales of noncontrolling interests	279	—	—	954	—	—	—	954	603
Reclassification and other adjustments	370	—	—	—	—	—	—	—	(370)
Change in fair value of interest rate swaps, net of tax	—	—	—	—	—	—	(777)	(777)	—
Change in fair value of noncontrolling interests	18,494	—	—	(7,964)	—	(10,530)	—	(18,494)	—
Balance at December 31, 2015	**$ 108,211**	**22,213,967**	**$ 98**	**$ —**	**$ (529)**	**$ (128,261)**	**$ (501)**	**$ (129,193)**	**$ 179,903**
Net income (loss)	22,066	—	—	—	—	(385)	—	(385)	66,524
Stock-based compensation	—	—	—	40,285	—	—	—	40,285	—
Exercise of stock option	—	55,995	—	(186)	—	—	—	(186)	—
Issuance of common stock sold in initial public offering, net of offering expense of $19,619	—	8,625,000	86	170,045	—	—	—	170,131	—
Cash dividends, $1.30 per common share	—	—	—	(28,886)	—	—	—	(28,886)	—
Cash dividend equivalents paid on share-based payments	—	—	—	(1,355)	—	—	—	(1,355)	—
Cash dividend equivalents accrued on share-based payments	—	—	—	(6,688)	—	—	—	(6,688)	—
Non-cash dividends	—	—	—	(26,232)	—	—	—	(26,232)	—
Income tax receivable agreement dividend	—	—	—	(23,400)	—	—	—	(23,400)	—
Distributions to noncontrolling interests	(26,373)	—	—	—	—	—	—	—	(68,095)
Contributions from noncontrolling interests	3,295	—	—	—	(15)	—	—	(15)	4,190
Purchases of noncontrolling interests	—	—	—	(7,680)	—	—	—	(7,680)	(717)
Sales of noncontrolling interests	128	—	—	99	—	—	—	99	—
Reclassification and other adjustments	2,098	—	—	—	—	—	—	—	(2,098)
Change in fair value of interest rate swaps, net of tax	—	—	—	—	—	—	401	401	—
Change in fair value of noncontrolling interests	20,940	—	—	(20,940)	—	—	—	(20,940)	—
Balance at December 31, 2016	**$ 130,365**	**30,894,962**	**$ 184**	**$ 95,062**	**$ (544)**	**$ (128,646)**	**$ (100)**	**$ (34,044)**	**$ 179,707**
Net income	21,107	—	—	—	—	4,857	—	4,857	49,719
Stock-based compensation	—	—	—	15,872	—	—	—	15,872	—
Exercise of stock option	—	861,866	9	2,371	—	—	—	2,380	—
Issuance of restricted stock	—	277,611	—	—	—	—	—	—	—
Cash dividend equivalents accrued on share-based payments	—	—	—	(2,880)	—	—	—	(2,880)	—
Distributions to noncontrolling interests	(23,328)	—	—	—	—	—	—	—	(56,150)
Contributions from noncontrolling interests	3,015	—	—	—	186	—	—	186	3,321
Purchases of noncontrolling interests	(25,317)	—	—	(7,566)	—	—	—	(7,566)	(353)
Sales of noncontrolling interests	32	—	—	34	—	—	—	34	—
Reclassification and other adjustments	(1,019)	—	—	—	—	—	—	—	1,019
Change in fair value of derivative agreements, net of tax	—	—	—	—	—	—	(577)	(577)	—
Change in fair value of noncontrolling interests	35,040	—	—	(35,040)	—	—	—	(35,040)	—
Balance at December 31, 2017	**$ 139,895**	**32,034,439**	**$ 193**	**$ 67,853**	**$ (358)**	**$ (123,789)**	**$ (677)**	**$ (56,778)**	**$ 177,263**

The accompanying notes are an integral part of these consolidated financial statements.

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AMERICAN RENAL ASSOCIATES HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	For the Years Ended December 31,		
	2017	2016	2015
Operating activities			
Net income	$ 75,683	$ 88,205	$ 93,077
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	37,634	33,862	31,846
Amortization of discounts, fees and deferred financing costs	2,031	2,595	2,888
Noncash loss on early extinguishment of debt	526	4,708	—
Stock-based compensation	15,872	40,285	1,400
Premium paid for interest rate cap agreement	(1,186)	—	—
Excess tax benefits from stock option exercises	—	—	(4,147)
Deferred taxes	8,455	(14,018)	5,003
Income tax receivable agreement income	(7,234)	(1,286)	—
Payment related to income tax receivable agreement	(878)	—	—
Non-cash charge related to interest rate swap	173	473	86
Non-cash rent charges	1,044	2,191	917
Loss on disposal of assets	485	857	—
Gain on sale of assets	(1,257)	—	—
Change in operating assets and liabilities, net of acquisitions:			
Accounts receivable	1,465	(4,208)	(5,987)
Inventories	11	(385)	538
Prepaid expenses and other current assets	(7,936)	(7,226)	(843)
Other assets	(1,325)	(219)	(966)
Accounts payable	2,294	8,556	519
Accrued compensation and benefits	(118)	6,599	4,032
Accrued expenses and other liabilities	2,808	11,222	5,232
Cash provided by operating activities	128,547	172,211	133,595
Investing activities			
Purchases of property and equipment	(36,073)	(61,432)	(46,273)
Proceeds from asset and business sales	2,325	—	—
Cash paid for acquisitions	(1,555)	(4,507)	(2,642)
Cash used in investing activities	(35,303)	(65,939)	(48,915)
Financing activities			
Proceeds from issuance of common stock sold in initial public offering, net of underwriting discounts and offering expense	—	175,254	—
Net proceeds from issuance of long-term debt	267,564	60,000	—
Cash paid for financing costs	(3,914)	(1,350)	—
Net proceeds from term loans	49,921	70,590	44,163
Payments on long-term debt	(327,331)	(275,243)	(24,891)
Payments on capital lease obligations	—	—	(5)
Dividends and dividend equivalents paid	(8,729)	(30,241)	—
Proceeds from exercise of stock options	2,380	170	124
Proceeds from issuance of common stock	—	—	727
Common stock repurchases for tax withholdings of net settlement equity awards	—	(356)	(193)
Excess tax benefits from stock option exercises	—	—	4,147
Payments of deferred offering costs	—	—	(5,026)
Distributions to noncontrolling interests	(79,478)	(94,468)	(79,125)
Contributions from noncontrolling interests	6,522	7,470	7,235
Purchases of noncontrolling interests	(29,540)	(8,397)	(4,159)
Proceeds from sales of additional noncontrolling interests	66	227	1,836
Cash used in financing activities	(122,539)	(96,344)	(55,167)
(Decrease) increase in cash and restricted cash	(29,295)	9,928	29,513

Cash and restricted cash at beginning of year	100,916	90,988	61,475
Cash and restricted cash at end of year	$ 71,621	$ 100,916	$ 90,988
Supplemental Disclosure of Cash Flow Information			
Cash paid for income taxes	$ 1,885	$ 16,095	$ 6,915
Cash paid for interest	26,812	32,499	42,339
Supplemental Disclosure of Non-Cash Flow Information			
Tax Receivable Agreement	—	23,400	—
Non-Cash dividend	—	26,232	—
Liability for accrued dividend equivalent payments	2,880	6,688	—
Contributions from noncontrolling interests in the form of a receivable	—	544	529
Deferred offering costs	—	—	509
Accrued purchases of noncontrolling interests	3,696	—	—
Non-cash portion of long-term debt refinancing	167,808	—	—

The accompanying notes are an integral part of these consolidated financial statements.

Note 1. Basis of Presentation and Organization

Business

American Renal Associates Holdings, Inc. ("ARAH" or "the Company") owns 100% of the membership units of its subsidiary American Renal Holdings Intermediate Company, LLC, which itself has no assets other than 100% of the shares of capital stock of American Renal Holdings Inc. All of our operating activities are conducted through American Renal Holdings Inc. and its operating subsidiaries ("the subsidiary" or "ARH").

The Company is a national provider of kidney dialysis services for patients suffering from chronic kidney failure, also known as end stage renal disease ("ESRD"). As of December 31, 2017 , the Company owned and operated 228 dialysis clinics treating 15,637 patients in 26 states and the District of Columbia. As of December 31, 2016 , the Company owned and operated 214 dialysis clinics treating 14,590 patients in 25 states and the District of Columbia. The Company's operating model is based on shared ownership of its facilities with physicians, known as nephrologists, who specialize in treating kidney-related diseases in the local market served by the clinic. Each clinic is maintained as a separate joint venture in which the Company has a controlling interest and its local nephrologist partners and other joint venture partners have noncontrolling interests.

Note 2. Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"). Our consolidated financial statements include the accounts of the Company, its wholly owned subsidiaries and variable interest entities that operate its clinics ("joint ventures"). For its joint ventures, the Company has determined that a majority voting interest and/or contractual rights granted to it provides the Company with the ability to direct the activities of these entities, and therefore the Company has determined that it is the primary beneficiary of these entities. Accordingly, the financial results of these joint ventures are fully consolidated into the Company's operating results. The equity interests of the outside investors in the equity and results of operations of these consolidated entities are accounted for and presented as noncontrolling interests. All significant intercompany balances and transactions of our wholly owned subsidiaries and joint ventures, including management fees from subsidiaries, are eliminated in consolidation.

For the year ended December 31, 2017, certain amounts within the Financing Activities section of the Statements of Cash Flows are shown gross to reflect the debt refinancing that was completed during the year. This presentation differs from previously filed quarterly reports for the interim periods ended June 30, 2017 and September 30, 2017, which were shown on a net cash basis. We concluded that the change in the presentation is immaterial to these interim financial statements as there is no impact on net cash used in financing activities.

Use of Estimates

The preparation of financial statements in conformity with U.S GAAP requires the use of estimates and assumptions that affect the reported amounts of revenues, expenses, assets, liabilities, and contingencies. Although actual results in subsequent periods will differ from these estimates, such estimates are developed based on the best information available to management and management's best judgments at the time made. All significant assumptions and estimates underlying the reported amounts in the consolidated financial statements and accompanying notes are regularly reviewed and updated. Changes in estimates are reflected in the financial statements based upon ongoing actual experience, trends, or subsequent settlements and realizations, depending on the nature and predictability of the estimates and contingencies.

The most significant assumptions and estimates underlying these financial statements and accompanying notes involve revenue recognition and provisions for uncollectible accounts, impairments and valuation adjustments, the useful lives of property and equipment, fair value measurements, accounting for income taxes, acquisition accounting valuation estimates, commitments and contingencies and stock-based compensation. Specific risks and contingencies related to these estimates are further addressed within the notes to the consolidated financial statements.

Segment Information

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision-maker, or decision-making group, in making decisions how to allocate resources and assess performance. The Company views its operations and manages its business as one reportable business segment, the ownership and operation of dialysis clinics, all of which are located in the United States.

Contingencies

The Company and its subsidiaries are defendants in various legal actions in the normal course of business. We record a liability when we believe that it is probable that a loss has been incurred, and the amount can be reasonably estimated. If we determine that a loss is reasonably possible and the loss or range of loss can be estimated, we disclose the possible loss in the Notes to the Consolidated Financial Statements.

We evaluate, on a quarterly basis, developments in our legal matters that could affect the amount of liability that has been previously accrued, and the matters and related reasonably possible losses disclosed, and make adjustments and changes to our disclosures as appropriate. Significant judgment is required to determine both likelihood of there being and the estimated amount of a loss related to such matters. Until the final resolution of such matters, there may be an exposure to loss in excess of the amount recorded, and such amounts could be material. Should any of our estimates and assumptions change or prove to have been incorrect, it could have a material impact on our business, consolidated financial position, results of operations, or cash flows. See “ Note 21 - Commitments and Contingencies ” and “ Note 22 - Certain Legal Matters ” for additional information.

Fair Value Measurements

The Company measures the fair value of certain assets, liabilities and noncontrolling interests subject to put provisions based upon certain valuation techniques that include observable or unobservable inputs and assumptions that market participants would use in pricing these assets, liabilities and noncontrolling interests. The Company also has classified certain assets, liabilities and noncontrolling interests subject to put provisions that are measured at fair value into the appropriate fair value hierarchy levels. The determination of the fair value of these assets and liabilities is a critical accounting estimate that involves significant judgements and assumptions and may not be indicative of the actual values at which these assets could be sold to a third party or at which these obligations could be settled. For more information on our noncontrolling interests, see "-Noncontrolling interests" below.

Accounts Receivable

Accounts receivable are reduced by an allowance for doubtful accounts. In evaluating the ultimate collectability and net realizable value of the Company’s accounts receivable, the Company analyzes its historical cash collection experience and trends for each of its government payors and commercial payors to estimate the adequacy of the allowance for doubtful accounts and the amount of the provision for bad debts. Management regularly updates its analysis based upon the most recent information available to determine its current provision for bad debts and the adequacy of its allowance for doubtful accounts. For receivables associated with services provided to patients covered by government payors, like Medicare, the Company receives 80% of the payment directly from Medicare as established under the government’s bundled payment system and determines an appropriate allowance for doubtful accounts and provision for bad debts on the remaining balance due depending upon the Company’s estimate of the amounts ultimately collectible from other secondary coverage sources or from the patients. For receivables associated with services to patients covered by commercial payors that are either based upon contractual terms or for non-contracted health plan coverage, the Company provides an allowance for doubtful accounts and a provision for bad debts based upon its historical collection experience and potential inefficiencies in its billing processes and for which collectability is determined to be unlikely. Receivables where the patient is the primary payor make up less than 2% of the Company’s accounts receivable. It is the Company’s policy to reserve for a portion of these outstanding accounts receivable balances based on historical collection experience and for which collectability is determined to be unlikely.

Patient accounts receivable from the Medicare and Medicaid programs were $97,594 and $91,967 at December 31, 2017 and 2016 , respectively, which does not include reductions due to contractual allowances and bad debts. No other single payor accounted for more than 10% of total patient accounts receivable.

(dollars in thousands, except per share amounts)

Inventories

Inventories are stated at the lower of cost (first-in, first-out method) or market, and consist principally of pharmaceuticals and dialysis-related consumable supplies.

Property and Equipment

We account for property and equipment at cost less accumulated depreciation and amortization. Depreciation is being recorded over the remaining useful lives. Property and equipment acquired as part of an acquisition are recorded at fair value and other purchases are stated at cost with depreciation calculated using the straight-line method over their estimated useful lives as follows:

Buildings	39 years
Leasehold improvements	Shorter of lease term or useful lives
Equipment and information systems	3 to 10 years

Upon retirement or sale, the cost and related accumulated depreciation are removed from the accounts, and any resulting gain or loss is credited or charged to income. Maintenance and repairs are charged to expense as incurred.

Amortizable Intangible Assets

Amortizable intangible assets include noncompete agreements, certificates of need and right of first refusal waivers. Each of these assets is amortized on a straight-line basis over the term of the agreement, which is generally 5 to 10 years.

Identified Non-Amortizable Intangible Assets and Goodwill

Goodwill represents the excess cost of a business acquisition over the fair value of the net assets acquired. Indefinite-life identifiable intangible assets and goodwill are not amortized but are tested for impairment at least annually. The Company performs its annual review in the fourth quarter of each year, or more frequently if indicators of potential impairment exist, to determine if the carrying value of the recorded goodwill or indefinite lived intangible assets is impaired. If an asset is impaired, the difference between the value of the asset reflected on the financial statements and its current fair value is recognized as an expense in the period in which the impairment occurs.

Each reporting period, the Company can elect to initially perform a qualitative assessment to determine whether it is necessary to perform the quantitative goodwill impairment test. If the Company believes, as a result of its qualitative assessment, that it is not more likely than not that the fair value of a reporting unit containing goodwill is less than its carrying amount, then the quantitative goodwill impairment test is unnecessary. If the Company elects to bypass the qualitative assessment option, or if the qualitative assessment was performed and resulted in the Company being unable to conclude that it is not more likely than not that the fair value of a reporting unit containing goodwill is less than its carrying amount, the Company will perform the quantitative goodwill impairment test. The Company performs the quantitative goodwill impairment test by calculating the fair value of the reporting unit using a discounted cash flow method, and then comparing the fair value with the carrying amount of the reporting unit. If the carrying amount of the reporting unit exceeds its fair value, the Company records the difference as an impairment loss, if any. Such analysis is based on macro-economic factors and research, current financial information such as current results of operations and balance sheets, and projected financial results,which include only anticipated growth from current operations. The weighted average cost of capital method is used to determine the discount rate and the Gordon Growth Model is used to determine the residual value necessary for the discounted cash flow method. Changes in the estimates or assumptions used in these models could impact the results of the valuations. Based on these assessments and tests, we have concluded there was no impairment for the years ended December 31, 2017 and 2016 .

The Company has elected to early adopt Accounting Standards Update ("ASU") 2017-04, *Intangibles - Goodwill and Other (Topic 350) - Simplifying the Test for Goodwill Impairment* , effective with the annual review performed in the fourth quarter of 2017. These amendments eliminate Step 2 from the goodwill impairment test in order to simplify the subsequent measurement of goodwill and are adopted on a prospective basis.

Impairment of Long-Lived Assets

Long-lived assets include property and equipment and finite-lived intangibles. In the event that facts and circumstances indicate that these assets may be impaired, an evaluation of recoverability at the lowest asset group level would be performed. If an evaluation is required, the estimated future undiscounted cash flows associated with the asset would be compared to the asset's carrying amount to determine if a write-down to fair value is required. The lowest level for which identifiable cash flows exist is the operating clinic level. A triggering event was not identified, and as such there was no impairment charge recorded for the years ended 2017 and 2016 .

Net Patient Service Operating Revenues

Patient service operating revenues are recognized as services are provided to patients and consist primarily of reimbursement for dialysis. A fee schedule is maintained for dialysis treatment and other patient services; however, actual collectible revenue is normally at a discount to the fee schedule. Medicare and Medicaid programs are billed at predetermined net realizable rates per treatment that are established by statute or regulation. Revenue for contracted payors is recorded at contracted rates and other payors are billed at usual and customary rates, and a contractual allowance is recorded to reflect the expected net realizable revenue for services provided. Contractual allowances, along with provisions for uncollectible amounts, are estimated based upon contractual terms, regulatory compliance, and historical collection experience. Net revenue recognition and allowances for uncollectible billings require the use of estimates of the amounts that will actually be realized.

Patient service operating revenues may be subject to adjustment as a result of (i) examinations of the Company or Medicare or Medicaid Managed Care programs that the Company serves, by government agencies or contractors, for which the resolution of any matters raised may take extended periods of time to finalize; (ii) differing interpretations of government regulations by different fiscal intermediaries or regulatory authorities; (iii) differing opinions regarding a patient's medical diagnosis or the medical necessity of service provided; (iv) retroactive applications or interpretations of governmental requirements; and (v) claims for refund from private payors, including as the result of government actions.

Patient service operating revenues associated with patients whose primary coverage is under governmental programs, including Medicare and Medicaid, and Medicare or Medicaid Managed Care programs, accounted for approximately 63% , 56% and 58% of total patient service operating revenues for the years ended December 31, 2017 , 2016 and 2015 , respectively.

Patient service operating revenues are reduced by the provision for uncollectible accounts to arrive at net patient service operating revenues. With our adoption of ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* , effective January 1, 2018, the majority of our provision for collectible accounts will be recognized as a direct reduction to patient service operating revenues instead of separately as a deduction to arrive at net patient service operating revenues.

Income Taxes

The Company accounts for income taxes under the liability approach. Under this approach, deferred tax assets and liabilities are recognized based upon temporary differences between the financial statement and tax bases of assets and liabilities, as measured by the enacted tax rates, which will be in effect when these differences reverse. Deferred tax expense or benefit is the result of changes in deferred tax assets and liabilities between reporting periods. A valuation allowance is established when, based on an evaluation of objectively verifiable evidence, there is a likelihood that some portion or all of the deferred tax assets will not be realized.

The Company's income tax provision (benefit) relates to its share of pre-tax income (losses) from its ownership interest in its subsidiaries as these entities are pass-through entities for tax purposes. Accordingly, the Company is not taxed on the share of pre-tax income attributable to noncontrolling interests, and net income attributable to noncontrolling interests in our consolidated financial statements has not been presented net of income taxes attributable to these noncontrolling interests.

The Company recognizes a tax position in its financial statements when that tax position, based solely upon its technical merits, is more likely than not to be sustained upon examination by the relevant taxing authority. Once the recognition threshold is met, the tax position is then measured to determine the actual amount of benefit to recognize in the financial statements. In addition, the recognition threshold of more-likely-than-not must continue to be met in each reporting period to

support continued recognition of the tax benefit. Tax positions that previously failed to meet the more-likely-than-not recognition threshold are recognized in the first financial reporting period in which that threshold is met. Previously recognized tax positions that no longer meet the more-likely-than-not recognition threshold are derecognized in the financial reporting period in which that threshold is no longer met. The Company recognizes interest and penalties related to unrecorded tax positions in its income tax expense.

Noncontrolling Interests

Noncontrolling interests represent the proportionate equity interests of other partners in the Company's consolidated subsidiaries, which are not wholly owned. The Company classifies noncontrolling interests not subject to put provisions as a separate component of equity, but apart from the Company's equity. The Company presents consolidated net income (loss) and comprehensive income attributable to the Company and to noncontrolling interests on the face of the consolidated statements of operations and statements of comprehensive income, respectively. In addition, changes in the Company's ownership interest while the Company retains a controlling financial interest are accounted for as equity transactions.

Member interests with redemption features that are not solely within the Company's control, such as the Company's noncontrolling interests that are subject to put provisions, are presented outside of permanent equity and are measured at the greater of the noncontrolling interest balance determined pursuant to ASC 810-10, *Consolidation* , or the redemption value. Changes in the fair value of noncontrolling interests subject to put provisions are accounted for as equity transactions. Subsequent measurements are accounted for under the guidance set forth in ASC 480, *Distinguishing Liabilities from Equity* . Equity instruments that are currently redeemable are adjusted to the maximum redemption amount at the balance sheet date and are presented in temporary equity based on the conditions that exist as of the balance sheet date. In instances where the equity instrument is not currently redeemable and the Company has determined that it is probable that the equity instrument may become redeemable, the Company recognizes the change in the redemption value immediately as it occurs and adjusts the carrying amount of the instrument to equal the redemption value as of the balance sheet date. Changes in the redemption value over fair value are recognized as reductions of earnings available to shareholders of the Company. The Company does not have any instruments that are not currently redeemable in which it is probable that the instrument may become redeemable. At the balance sheet date, the amount presented in temporary equity is no less than the initial amount reported in temporary equity for the instrument. We estimate the fair value of the noncontrolling interests subject to these put provisions using an average multiple of earnings, based on historical earnings and other factors. The estimate of the fair values of the interests subject to these put provisions is a critical accounting estimate that involves significant judgments and assumptions and may not be indicative of the actual values at which these obligations may ultimately be settled in the future. The estimated fair values of the interests subject to these put provisions can also fluctuate and the implicit multiple of earnings at which these obligations may be settled will vary depending upon market conditions and access to the credit and capital markets, which can impact the level of competition for dialysis and non-dialysis related businesses and the economic performance of these businesses. See " Note 12 - Noncontrolling Interests Subject to Put Provisions " for further details.

Stock-Based Compensation

The Company measures and recognizes compensation expense for all share-based payment awards based on estimated fair values at the date of grant. Determining the fair value of share-based awards requires judgment in developing assumptions, which involve a number of variables. We calculate fair value by using a Monte Carlo simulation-based approach for the portion of the option that contain both a market and performance condition and the Black-Scholes valuation model for the portion of the option that contains a performance or a service-based condition. The fair value of restricted stock awards is equal to the closing sale price of the Company's common stock on the date of grant.

Key inputs used to estimate the fair value of stock options include the exercise price of the award, the expected term of the option, the expected volatility of the common stock over the option's expected terms, the risk-free interest rate over the option's expected term and the Company's expected annual dividend yield. Since we have limited history as a public company and do not yet have sufficient trading history for our common stock, the expected volatility was estimated based on the historical equity volatility of common stock of comparable publicly traded entities over a period equal to the expected term of the stock option grants. For each of the comparable publicly traded entities, the historical equity volatility and the capital structure of the entity were used to calculate the implied stock volatility. The average implied stock volatility of the comparable publicly traded entities was then used to calculate a relevered equity volatility for the Company based on the Company's own capital structure. The comparable entities from the healthcare sector were chosen based on area of specialty. We will continue to

apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available. Stock-based compensation expense for performance or service-based stock awards is recognized over the requisite service period using the straight-line method, which is generally the vesting period of the equity award, and is adjusted each period for actual forfeitures. The Company adopted the provision of ASU 2016-9, *Compensation – Stock Compensation (Topic 718) – Improvements to Employee Share-Based Payment Accounting* as of July 1, 2016. Upon early adoption, the Company elected to change its accounting policy to recognize forfeitures as they occur. The change was applied on a modified retrospective basis. See " Note 19 - Stock-Based Compensation " for additional discussion. For market and performance awards whose vesting is contingent upon a specified event, we recognize stock compensation expense over the derived service period.

Interest Rate Swap and Cap Agreements

The Company carries a combination of interest rate caps and forward interest rate swap as a means of hedging its exposure to and volatility from variable-based interest rate changes as part of its overall interest rate risk management strategy. The agreements are not held for trading or speculative purposes and have the economic effect of converting the LIBOR variable component of the Company's interest rate to a fixed rate. These agreements are designated as cash flow hedges, and as a result, hedge-effective gains or losses resulting from changes in fair values of these instruments are reported in other comprehensive income until such time as each swap or cap is realized, at which time the amounts are reclassified to other income (expense). The instruments are perfectly effective. In the event the critical terms of the agreements no longer match the Company's exposure, we will measure the ineffectiveness, and record those cumulative measurements in the noncash component of interest expense. Net amounts paid or received for each swap or cap that has settled has been reflected as adjustments to interest expense. These instruments do not contain credit risk contingent features. See " Note 14 - Debt " for additional discussion.

Recent Accounting Pronouncements

In February 2018, the Financial Accounting Standards Board ("FASB") issued ASU 2018-02 " *Income Statement-Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income."* This amendment provides for the reclassification of the effect of remeasuring deferred tax balances related to items within accumulated other comprehensive income ("AOCI") to retained earnings resulting from the Tax Cuts and Jobs Act of 2017. For public business entities, the ASU is effective for fiscal years beginning after December 15, 2018, and interim periods within those years, with early adoption permitted. Adoption of this ASU is to be applied either in the period of adoption or retrospectively to each period in which the effect of the change in the tax laws or rates were recognized. The Company is currently assessing the impact of the new standard on its financial statements.

In August 2017, the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities* , which amends and simplifies existing guidance in order to allow companies to more accurately present the economic effects of risk management activities in the financial statements. For public business entities, the ASU is effective for fiscal years beginning after December 15, 2018, and interim periods therein; however, early adoption by all entities is permitted upon its issuance. The Company does not believe this ASU will have a material impact on its financial statements.

In January 2017, the FASB issued ASU 2017-04 " *Intangibles - Goodwill and Other (Topic 350) - Simplifying the Test for Goodwill Impairment."* These amendments eliminate Step 2 from the goodwill impairment test. The amendments also eliminate the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails that qualitative test, to perform Step 2 of the goodwill impairment test. An entity still has the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. The guidance is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. ASU 2017-04 should be adopted on a prospective basis. The Company adopted the guidance as of October 1, 2017, which did not have a material impact on the Company's financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230)* . The objective of this update is to provide additional guidance and reduce diversity in practice when classifying certain transactions within the statement of cash flows. In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash* . The new standard requires that the statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. These standards are effective for

financial statements issued for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early application is permitted for all organizations. The Company adopted the provisions of ASU 2016-18 as of January 1, 2017 and applied it retrospectively for all periods presented, which did not have a material impact on the Company's financial statements.

In March 2016, the FASB issued ASU 2016-09, *Compensation – Stock Compensation (Topic 718) – Improvements to Employee Share-Based Payment Accounting.* The ASU identifies areas for simplification involving several aspects of share-based payment transactions, including the income tax consequences, classification of awards as equity or liabilities, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the statement of cash flows. ASU 2016-09 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Early application is permitted for all organizations, and the Company adopted the provisions of ASU 2016-09 as of July 1, 2016. Upon early adoption, the Company elected to change its accounting policy to account for forfeitures as they occur. The change was applied on a modified retrospective basis resulting in an increase to stock compensation expense for the year ended December 31, 2016 of $354 . Amendments related to accounting for excess tax benefits have been adopted prospectively, resulting in recognition of excess tax benefits against income tax expenses rather than additional paid-in capital of $225 for the year ended December 31, 2016. Excess tax benefits for share-based payments are now included in net operating cash rather than net financing cash. The changes have been applied prospectively in accordance with the ASU and prior periods have not been adjusted.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842) – Leases: Amendments to the FASB Accounting Standards Codification* . The amendments are expected to increase transparency and comparability by recognizing lease assets and liabilities from lessees on the balance sheet and disclosing key information about leasing arrangements in the financial statements. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early application is permitted for all organizations. The Company has engaged a professional services firm to assist in the implementation of ASU 2016-02. The Company expects a balance sheet extension due to the “on balance sheet” recognition of right of use assets and liabilities for agreed lease payment obligations related to certain leased clinics and buildings which are currently classified as operating leases. The impact on the Company will depend on the contract portfolio at the effective date, as well as the transition method. The Company does not expect any impact on the current debt covenants, as described in Note 14 - Debt . The Company expects to apply the modified retrospective method after review of the analysis is performed. The Company is currently assessing the impact the adoption of ASU 2016-02 will have on the consolidated financial statements, and has implemented significant lease accounting systems which will ultimately assist in the application of the new standard.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* , which requires companies to recognize revenue when a customer obtains control rather than when companies have transferred substantially all risks and rewards of a good or service. The FASB has issued additional updates to serve as clarification to the original standard update. The new standard also requires entities to enhance disclosures about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The new standard allows for either a full retrospective or a modified retrospective transition method and is effective for fiscal years beginning after December 15, 2017.

The Company engaged a professional services firm and formed a revenue steering committee to assess the impact from the implementation of ASU 2014-09. The Company analyzed the impact of the standard by gaining an understanding of our service offerings, and reviewed contracts to identify potential differences that may result from applying the requirements of the new standard. Based on the procedures performed, there will not be a material change in the timing of revenue recognition; however, the Company notes that a majority of its provision for uncollectible accounts will be recognized as a direct reduction to patient service operating revenues, instead of separately as a deduction to arrive at net patient service operating revenue. The Company has adopted the standard as of January 1, 2018 using the modified retrospective method and will apply this guidance to any new contracts as well as contracts that are not completed contracts as of that date with no cumulative effect adjustment. The Company has also made progress on evaluating new disclosure requirements.

Note 3. Initial Public Offering

On April 26, 2016, the Company completed an initial public offering (the “IPO”) pursuant to which the Company sold an aggregate of 8,625,000 shares of common stock at a public offering price of $22.00 per share. The net proceeds to the

Company from its sale of shares of common stock in the IPO, after deducting underwriting discounts and before deducting offering expenses, amounted to $176,942 . The Company applied $165,635 of the net proceeds from the IPO toward repayment of outstanding amounts under its second lien credit facility, and funded the repayment in full of the outstanding balance with borrowings from its first lien credit facility, as amended, and cash on hand. In connection to the IPO and the debt repayment, the Company incurred $2,239 of transaction-related costs for various legal, accounting, valuation and other professional and consulting services during the twelve months ended December 31, 2016.

Amendment of Certificate of Incorporation

On April 7, 2016, the Company's board of directors authorized the amendment of its certificate of incorporation to increase the number of shares that the Company is authorized to issue to 300,000,000 shares of common stock, par value $0.01 per share. In addition, the amendment of the certificate of incorporation authorized the Company to effect a 2.29 -for-one stock split of its outstanding common stock. The amendment became effective on April 26, 2016. Accordingly, all common share and per share amounts in these consolidated financial statements have been adjusted to reflect the 2.29 -for-one stock split as though it had occurred at the beginning of the initial period presented.

Clinic Loan Assignment and Term Loan Holdings LLC Distribution

We partly finance the de novo clinic development costs of some of our joint venture subsidiaries by providing intercompany term loans and revolving loans through our wholly owned operating subsidiary American Renal Associates LLC ("ARA OpCo"). On April 26, 2016, the Company transferred substantially all of the then existing intercompany term loans ("assigned clinic loans") provided to our joint venture subsidiaries by ARA OpCo to a newly formed entity, Term Loan Holdings LLC ("Term Loan Holdings"), which ownership interest was distributed to our pre-IPO stockholders pro rata in accordance with their ownership in the Company (the "Term Loan Holdings Distribution"). As a result of the distribution of membership interests in Term Loan Holdings, the balance of such assigned clinic loans is reflected on our consolidated balance sheet. The balance of such assigned clinic loans was $11,082 as of December 31, 2017 . Each assigned clinic loan is and will continue to be guaranteed by us and the applicable joint venture partner or partners in proportion to our respective ownership interests in the applicable joint venture. We guaranteed $5,854 of such assigned clinic loans as of December 31, 2017 .

Amendments to and Repayment of Credit Facility

On April 26, 2016, the Company entered into the first amendment (the "Amendment") to the First Lien Credit Agreement. The Amendment increased the borrowing capacity under the first lien revolving credit facility by $50,000 to an aggregate amount of $100,000 , increased the interest rate margin by 0.25% on the first lien term loans, and provided for additional borrowings of $60,000 of incremental first lien term loans. The Company incurred $2,700 of costs associated with these refinancing activities, of which $1,350 were charged as transaction costs and $1,350 were deferred upon execution of the Amendment.

The Company also applied $165,635 of the net proceeds from the IPO and cash on hand to repay the outstanding balance on the second lien term loans. The write-off of deferred financing fees and discounts in the amount of $4,708 were charged as early extinguishment of debt upon repayment.

Income Tax Receivable Agreement

On April 26, 2016, the Company entered into the Income Tax Receivable Agreement ("TRA") for the benefit of our pre-IPO stockholders, including Centerbridge and our executive officers. The TRA provides for the payment by us to our pre-IPO stockholders on a pro rata basis of 85% of the amount of cash savings, if any, in U.S. federal, state and local income tax that we actually realize as a result of any deductions (including net operating losses resulting from such deductions) attributable to the exercise of (or any payment, including any dividend equivalent right or payment, in respect of) any compensatory stock option issued by us that is outstanding (whether vested or unvested) as of April 20, 2016, which is the record date set by the board of directors of the Company for this distribution. The Company recorded an estimated liability of $23,400 based on the fair value of the TRA as of April 20, 2016. As of December 31, 2017 , the Company's total liability under the TRA is estimated to be $14,001 , of which $6,501 is included as a component of other accrued expenses on the consolidated balance sheet. During the year ended December 31, 2017 the Company paid $878 relating to the TRA.

(dollars in thousands, except per share amounts)

Special Dividends and Stock Option Modification

On April 26, 2016, the Company declared and paid a cash dividend to our pre-IPO stockholders equal to $1.30 per share, or $28,886 in the aggregate. In connection with the dividend, all employees with outstanding options had their option exercise price reduced and in some cases were awarded a future dividend equivalent payment, which were paid on vested options and become due upon vesting for unvested options. This resulted in a modification. Additionally, in connection with the cash dividend, as of December 31, 2017 the Company has made payments equal to $1.30 per share, or $5,011 in the aggregate, to option holders, and, in the case of some performance and market options, a future payment will be due upon vesting totaling $1,885 .

In connection with the Term Loan Holdings Distribution, as described above, the Company also equitably adjusted the outstanding stock options by reducing exercise prices and making cash dividend equivalent payments, of which $2,522 was paid to vested option holders as of December 31, 2017 and an immaterial amount is payable to unvested option holders only if such unvested options become vested. Options were also equitably adjusted for the TRA, as described above. Options were adjusted by reducing exercise prices and, if necessary, increasing the number of shares subject to such stock options.

In connection with these dividends, equitable adjustments are required by the terms of some of the Company's equity incentive plans and for other plans were modified at the discretion of its Board of Directors. The Company also elected to modify the vesting conditions of certain market and performance-based stock options. These modifications are treated as an option modification and the Company accounted for the option modification under ASC Topic 718, *Compensation – Stock Compensation.* As a result of these modifications made to the Company's outstanding market and performance-based stock options at the time of the IPO, the amount of the unrecognized non-cash compensation costs increased by approximately $38,877 . These compensation costs, after giving effect to the modifications, were recognized over a period of approximately 12 months from the time of the IPO. As a result, the Company recognized $11,749 and $ 36,368 in incremental compensation expense during the year ended December 31, 2017 and 2016, respectively. The Company also incurred $ 586 of stock compensation expense due to transactions at the time of the IPO during the year ended December 31, 2016.

Note 4 . Cash

The following table provides a reconciliation of cash and restricted cash reported within the balance sheet to the total shown in the statement of cash flows.

	December 31, 2017
Cash	$ 71,521
Restricted cash included in prepaid expenses and other current assets	100
Total cash and restricted cash shown in the statement of cash flows	$ 71,621

Restricted cash included in prepaid expenses and other current assets on the balance sheet represent those amounts required to be set aside by contractual agreement with a financial institution.

Note 5. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consist of the following at December 31 :

	2017	2016
Medicare bad debt claims	$ 10,744	$ 9,224
Other	14,254	9,274
	$ 24,998	$ 18,498

(dollars in thousands, except per share amounts)

Note 6. Acquisitions

The Company periodically acquires the operating assets and liabilities of dialysis centers. The results of operations for these acquisitions are included in the Company's consolidated statements of operations from their respective acquisition consummation dates.

Fiscal Year 2017

On November 1, 2017, the Company acquired the assets of two separate dialysis centers in Oklahoma. The Company has a controlling interest in these joint ventures.

On December 1, 2017, the Company acquired the assets of a dialysis center in Georgia. The Company has a controlling interest in the joint venture.

The cash consideration paid, on a combined basis for all acquisitions consummated during 2017 , was allocated preliminarily based on the estimated fair value, as follows:

Property and equipment	$	737
Noncompete agreements		93
Goodwill		725
Cash consideration paid	$	1,555

These acquisitions were made to expand the Company's market presence in certain locations. The goodwill arising from these acquisitions consists largely of synergies expected from combining the individual dialysis center's operations with the Company, and $418 of the goodwill is expected to be deductible for tax purposes. These acquisitions, individually and in the aggregate, had an immaterial impact on the results of operations in the year of acquisition. Pro forma information is not presented because such amounts are not significant.

Fiscal Year 2016

On April 11, 2016, the Company acquired the assets of a dialysis center in New York. The Company has a controlling interest in the joint venture.

On September 1, 2016, the Company acquired the assets of two separate dialysis centers in Pennsylvania. The Company has a controlling interest in these joint ventures. One of the Pennsylvania dialysis centers was not in operation immediately prior to the acquisition, and therefore required a new Medicare license to restart operations. As such, this dialysis center has been classified as a de novo clinic in the Company's operating data for 2016.

The cash consideration paid, on a combined basis for all acquisitions consummated during 2016 , was allocated based on the estimated fair value, as follows:

Property and equipment	$	400
Noncompete agreements and other intangible assets		268
Goodwill		3,839
Cash consideration paid	$	4,507

These acquisitions were made to expand the Company's market presence in certain locations. The goodwill arising from these acquisitions consists largely of synergies expected from combining the individual dialysis center's operations with the Company, and $3,723 of the goodwill is expected to be deductible for tax purposes. These acquisitions, individually and in the aggregate, had an immaterial impact on the results of operations in the year of acquisition. Pro forma information is not presented because such amounts are not significant.

(dollars in thousands, except per share amounts)

Note 7. Fair Value Measurements

The Company's interest rate swap and interest rate cap agreements, TRA and noncontrolling interests subject to put provisions are accounted for at fair value on a recurring basis and are classified and disclosed in one of the following three categories:

Level 1: Financial instruments with unadjusted, quoted prices listed on active market exchanges.

Level 2: Financial instruments determined using prices for recently traded financial instruments with similar underlying terms, as well as directly or indirectly observable inputs, such as interest rates and yield curves that are observable at commonly quoted intervals.

Level 3: Financial instruments not actively traded on a market exchange. This category includes situations where there is little, if any, market activity for the financial instrument. The prices are determined using significant unobservable inputs or valuation techniques.

The asset or liability fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. There were no changes in the methodologies used at December 31, 2017 .

Noncontrolling interests subject to put provisions — See " Note 12 - Noncontrolling Interests Subject to Put Provisions ."

Derivative agreements — See " Note 14 - Debt " for a discussion of the Company's methodology for estimating fair value of interest rate swap and interest rate cap agreements.

Tax Receivable Agreement —The fair value of the TRA relied upon both Level 2 data and Level 3 data. The liability is remeasured at fair value each reporting period with the change in fair value recognized as Income tax receivable agreement income or expense in the Company's Consolidated Statements of Operations. The fair value is calculated using a Monte Carlo simulation-based approach that relies on significant assumptions about our stock price, stock volatility and risk-free rate as well as the timing and amounts of options exercised. Changes in assumptions based on future events, including the price of our common stock and changes in the tax rate, will impact the fair value for the TRA. See " Note 3 - Initial Public Offering " for further discussion of the TRA.

Transfers are calculated on values as of the transfer date. There were no transfers between Levels 1, 2 and 3 during the years ended December 31, 2017 and 2016 .

	December 31, 2017			
	Total	Level 1	Level 2	Level 3
Assets				
Interest rate derivative agreements (included in Prepaid expenses and other current assets)	$ 46	$ —	$ 46	$ —
Interest rate derivative agreements (included in Other long-term assets)	255	—	255	—
Total Assets	$ 301	$ —	$ 301	$ —
Liabilities				
Tax Receivable Agreement Liability (included in Income tax receivable agreement payable)	$ 7,500	$ —	$ —	$ 7,500
Interest rate swap agreement (included in Accrued expense and other current liabilities)	403	—	403	—
Interest rate swap agreement (included in Other long-term liabilities)	198	—	198	—
Total Liabilities	$ 8,101	$ —	$ 601	$ 7,500
Temporary Equity				
Noncontrolling interests subject to put provisions	$ 139,895	$ —	$ —	$ 139,895

(dollars in thousands, except per share amounts)

	December 31, 2016			
	Total	Level 1	Level 2	Level 3
Assets				
Interest rate swap agreements (included in Prepaid expenses and other current assets)	$ 7	$ —	$ 7	$ —
Liabilities				
Tax Receivable Agreement Liability (included in Income tax receivable agreement payable)	$ 21,200	$ —	$ —	$ 21,200
Temporary Equity				
Noncontrolling interests subject to put provisions	$ 130,365	$ —	$ —	$ 130,365

The following table provides the fair value rollforward for the year ended December 31, 2017 for the Tax receivable agreement liability, which is classified as a Level 3 financial instrument.

Balance at December 31, 2016	$ 21,200
Options exercised and dividend equivalent payment vesting	(6,466)
Total realized/unrealized gains:	
Included in earnings and reported as Income tax receivable agreement income	(7,234)
Balance at December 31, 2017	$ 7,500

The carrying amounts reported in the accompanying consolidated balance sheets for cash, accounts receivable, accounts payable and accrued liabilities approximate fair value because of their short-term nature. The fair value of the Company's debt is estimated using Level 2 inputs based on the quoted market prices for the same or similar issues or on the current rates offered to the Company for debt of the same remaining maturities. The Company estimates the fair value of its outstanding term B loans at $436,158 as of December 31, 2017 compared to the carrying amount of $437,800 . The Company estimates the fair value of its then-outstanding first lien term loans approximated the carrying value at $433,758 as of December 31, 2016 .

Note 8. Property and Equipment

Property and equipment consist of the following at December 31 :

	2017	2016
Land	$ 2,030	$ 2,203
Buildings and improvements	2,904	3,425
Leasehold improvements	178,569	154,783
Equipment and information systems	145,514	125,813
Construction in progress	6,910	5,136
	335,927	291,360
Less accumulated depreciation	(167,390)	(121,242)
	$ 168,537	$ 170,118

Depreciation of property and equipment totaled $37,045 in 2017 and $32,837 in 2016 . Included in construction in progress are amounts expended for leasehold improvement costs incurred for new dialysis clinics and clinic expansions, in each case, that are not in service as of December 31 of the applicable year.

(dollars in thousands, except per share amounts)

Note 9. Intangible Assets and Goodwill

Intangible assets consist of the following at December 31 :

	2017	2016
Noncompete agreements	$ 24,380	$ 24,928
Other intangible assets	3,073	2,853
	27,453	27,781
Less accumulated amortization	(23,419)	(23,489)
Net intangible assets subject to amortization	4,034	4,292
Indefinite-lived trademarks and trade name	21,334	21,334
	$ 25,368	$ 25,626

Amortization of intangible assets totaled $589 in 2017 and $1,089 in 2016 .

The estimated annual amortization expense related to amortizable intangible assets is as follows for the years ending December 31 :

2018	$ 815
2019	729
2020	649
2021	598
2022	462
Thereafter	781
	$ 4,034

Changes in the value of goodwill:

Balance at January 1, 2016	$ 569,318
Acquisitions	3,839
Subsequent adjustment for prior year acquisition	(10)
Balance at December 31, 2016	$ 573,147
Acquisitions	725
Divestitures	(445)
Balance at December 31, 2017	$ 573,427

Note 10. Accrued Expenses and Other Current Liabilities

Accrued compensation and benefits consist of the following at December 31 :

	2017	2016
Accrued compensation	$ 17,987	$ 18,077
Accrued vacation	10,998	11,026
	$ 28,985	$ 29,103

(dollars in thousands, except per share amounts)

Accrued expenses and other current liabilities consist of the following at December 31 :

	2017	2016
Payor refunds and retractions	$ 28,935	$ 32,902
Other	21,028	12,384
	$ 49,963	$ 45,286

Note 11. Variable Interest Entities

The Company relies on the operating activities of certain entities of which it does not have the majority voting interest, but over which it has indirect influence and of which it is considered the primary beneficiary. These entities are subject to the consolidation guidance applicable to variable interest entities ("VIEs").

Under U.S GAAP, VIEs typically include entities for which (i) the entity's equity is not sufficient to finance its activities without additional subordinated financial support; (ii) the equity holders as a group lack the power to direct the activities that most significantly influence the entity's economic performance, the obligation to absorb the entity's expected losses, or the right to receive the entity's expected returns; or (iii) the voting rights of some investors are not proportional to their obligations to absorb the entity's losses.

The Company has determined that substantially all of the entities it is associated with that qualify as VIEs must be included in its consolidated financial statements. For its joint ventures, the Company has determined that contractual rights granted to it provide the Company with the ability to direct the most significant activities of these entities, including development, administrative and management services. In some cases, the contractual agreements include financial terms that may result in the Company absorbing more than an insignificant amount of the entities expected losses. Therefore, the Company has determined that it is the primary beneficiary of these entities. Accordingly, the financial results of these joint ventures are fully consolidated into the Company's operating results. The equity interests of the outside investors in the equity and results of operations of these consolidated entities are accounted for and presented as noncontrolling interests.

The analyses upon which these consolidation determinations rest are complex, involve uncertainties, and require significant judgment on various matters, some of which could be subject to different interpretations. As of December 31, 2017 , these consolidated financial statements include total assets of VIEs of $15,668 and total liabilities of VIEs of $11,377 .

Term Loan Holdings

The Company has determined that it is not the primary beneficiary under VIE accounting guidance for Term Loan Holdings, as discussed in "Note 3—Initial Public Offering." Based on the Company's involvement with Term Loan Holdings, it does not have the power to direct the activities which most significantly impact Term Loan Holding's economic performance, and therefore this entity is not included in the Company's consolidated financials. The Company's financial responsibility to repay the loans under its guarantee of a proportionate share of each clinic's borrowing was not a factor in the Company's assessment of the power criterion. The maximum exposure to loss with respect to Term Loan Holdings is limited to the proportion of the assigned clinic loans which we guarantee. See " Note 20 - Related Party Transactions ."

Note 12. Noncontrolling Interests Subject to Put Provisions

The Company has potential obligations to purchase a portion or all of the noncontrolling interests held by third parties in certain of its consolidated subsidiaries. These obligations are in the form of put provisions and are exercisable at the third-party owners' discretion within specified periods as outlined in each specific put provision. Additionally, the Company has certain put agreements which are exercisable upon the occurrence of specific events, including the sale of all or substantially all of our assets, closure of the clinic, change of control, departure of key executives, third-party members' death, disability, bankruptcy, retirement, or if third-party members are dissolved and other events, which could accelerate time-based vesting. The Company has evaluated the applicable terms and determined that the put provisions are not mandatorily redeemable. Some of these puts accelerated as a result of the Company's IPO, of which some were exercised during the year ended December 31, 2017 . If the remaining unexercised put provisions are exercised, the Company would be required to purchase all or a portion of

(dollars in thousands, except per share amounts)

the third-party owners' noncontrolling interests at the estimated fair value as defined within the put provisions. The majority of the put provisions are reported at the estimated fair value for accounting purposes, while some put provisions are stated at the contractual estimated fair value or redemption value, as outlined in each specific put provision. The put options of such noncontrolling interest holders were determined based on inputs that were not readily available in public markets or able to be derived from information available in publicly quoted markets.

As such, the Company categorized the put options of the noncontrolling interest holders as Level 3. The fair value of noncontrolling interests subject to puts is arrived at based on the respective merits of the Income, Market and Asset Based Approaches. The primary inputs associated with these valuation methods are Clinic forecasts, Weighted Average Cost of Capital (15.00% - 20.50%), Revenue multiples and EBITDA multiples. The estimated fair values of the noncontrolling interests subject to put provisions can also fluctuate, and the implicit multiple of earnings at which these noncontrolling interest obligations may ultimately be settled could vary significantly from the Company's current estimates depending upon market conditions including potential purchasers' access to the credit and capital markets, which can impact the level of competition for dialysis and non-dialysis related businesses, the economic performance of these businesses and the restricted marketability of the third-party owners' noncontrolling interests.

As of December 31, 2017 and 2016 , the Company's potential obligations under time-based put provisions totaled approximately $107,695 and $95,932 , respectively. As of December 31, 2017 and 2016 , the Company's potential additional obligations under event-based put provisions were approximately $32,200 and $34,433 , respectively. The Company's potential obligations for all of these put provisions are included in noncontrolling interests subject to put provisions in the accompanying consolidated balance sheets.

The Company's computation of the difference between the redemption value and estimated fair values for accounting purposes of the related noncontrolling interests as of December 31, 2017 and 2016 is set forth below.

	December 31, 2017	December 31, 2016
Redemption value	$ 12,211	$ 24,239
Estimated fair values for accounting purposes	6,550	16,835
Difference between the redemption value and estimated fair value for accounting purposes of the related noncontrolling interests	$ 5,661	$ 7,404

In addition, the tables below set forth a reconciliation of noncontrolling interests subject to put provisions.

	December 31, 2017	December 31, 2016
Noncontrolling interest subject to put provisions - estimated fair values	$ 134,234	$ 122,961
Difference between the redemption value and estimated fair value for accounting purposes of the related noncontrolling interests	5,661	7,404
Noncontrolling interests subject to put provisions - maximum redemption value	$ 139,895	$ 130,365

	Year ended December 31, 2017	Year ended December 31, 2016
Change in estimated fair values for accounting purposes	$ 22,764	$ 13,536
Change in the difference between the redemption value and estimated fair value for accounting purposes of the related noncontrolling interests	12,276	7,404
Total change in fair value of noncontrolling interests subject to put provisions - maximum redemption	$ 35,040	$ 20,940

(dollars in thousands, except per share amounts)

Note 13. Changes in Ownership Interest in Consolidated Subsidiaries

The effects of changes in the Company's ownership interests in its consolidated subsidiaries on the Company's equity are as follows:

	Year ended December 31,		
	2017	2016	2015
Net income (loss) attributable to American Renal Associates Holdings, Inc.	$ 4,857	$ (385)	$ 18,845
Increase in paid-in capital for the sales of noncontrolling interest	34	99	954
Decrease in paid-in capital for the purchase of noncontrolling interest and adjustments to ownership interest	(7,566)	(7,680)	(1,620)
Net transfers to noncontrolling interests	(7,532)	(7,581)	(666)
Net (loss) income attributable to American Renal Associates Holdings, Inc., net of transfers to noncontrolling interests	$ (2,675)	$ (7,966)	$ 18,179

Note 14. Debt

Long-term debt consists of the following at December 31 :

	2017	2016
2017 Credit Agreement and First Lien Credit Agreement	$ 437,800	$ 433,758
Term Loans (1)	125,619	118,503
Lines of Credit (2)	3,600	19,360
Other (3)	2,601	3,041
	569,620	574,662
Less: discounts and fees, net of accumulated amortization	(9,532)	(4,330)
Less: current maturities	(44,534)	(48,274)
	$ 515,554	$ 522,058

(1) Includes assigned clinic loans, see Note 20 - Related Party Transactions . Excluding the assigned clinic loans, principal and interest is payable monthly at rates between 3.31% and 6.55% over varying periods through November 2024.

(2) The interest on the lines of credit is payable monthly at rates between 4.62% and 7.06% and convert to term loans at various maturity dates through August 2018.

(3) Principal and interest of the other corporate debt is payable monthly at a rate of 4.07% maturing in April 2022.

Scheduled maturities of long-term debt as of December 31, 2017 are as follows:

2018	44,689
2019	38,579
2020	29,192
2021	21,580
2022	12,849
Thereafter	422,731
	$ 569,620

2017 Credit Agreement and Repayment of First Lien Credit Agreement

On June 22, 2017, the Company entered into a new credit agreement (the "2017 Credit Agreement") to refinance the credit facilities under the Company's existing First Lien Credit Agreement. The 2017 Credit Agreement provides the Company with (a) a $100,000 senior secured revolving credit facility (the "2017 Revolving Credit Facility"); (b) a $440,000 senior secured term B loan facility (the "2017 Term B Loan Facility"), and (c) an uncommitted incremental accordion facility equal to the sum of (A) the greater of (i) $125,000 and (ii) 100% of Consolidated EBITDA (as defined in the 2017 Credit Agreement) plus (B) an amount such that certain leverage ratios will not be exceeded after giving pro forma effect to the increase. The Company borrowed the full amount of the 2017 Term B Loan Facility and used such borrowings to repay the outstanding balances under the First Lien Credit Agreement and to pay a portion of the transaction costs and expenses. The obligations of the Company under the 2017 Credit Agreement are guaranteed by American Renal Holdings Intermediate Company, LLC and all of its existing and future wholly owned domestic subsidiaries (collectively, the "Guarantors") and secured by a pledge of all of the Company's capital stock and substantially all of the assets of the Company and the Guarantors, including their respective interests in their joint ventures.

The 2017 Credit Agreement contains customary events of default, the occurrence of which would permit the lenders to accelerate payment of the full amounts outstanding. Additionally, the 2017 Credit Agreement contains customary representations and warranties, affirmative covenants and negative covenants, including restrictive financial and operating covenants. These include covenants that restrict the Company's and its restricted subsidiaries' ability to complete acquisitions, pay cash dividends, incur indebtedness, make investments, sell assets and take certain other corporate actions. The 2017 Credit Agreement events of default, representations and warranties, mandatory prepayments and affirmative and negative covenants are substantially the same as those under the prior first lien credit agreement; provided that the 2017 Credit Agreement contains additional exceptions to the negative covenants that increase the amount the Company and its restricted subsidiaries can use to make restricted payments and increases the flexibility for the Company and its restricted subsidiaries to undertake permitted acquisitions. As of December 31, 2017, the Company is in compliance with these covenants.

The Company incurred $9,259 of costs and debt discounts associated with these refinancing activities, of which $717 were charged as transactions costs, $4,628 represents debt discounts and $3,914 were deferred as financing costs upon the execution of the 2017 Credit Agreement. The write-off of deferred financing fees and discounts in the amount of $526 was charged as early extinguishment of debt.

Prior to these refinancing activities, the First Lien Credit Agreement had an interest rate of 4.75% per annum as of December 31, 2016 and was scheduled to mature in September 2019.

2017 Term B Loan Facility

The term B loans under the 2017 Term B Loan Facility bear interest at a rate equal to, at the Company's option, either (a) an alternate base rate equal to the higher of (1) the prime rate in effect on such day, (2) the federal funds effective rate plus 0.5% and (3) the Eurodollar rate applicable for a one-month interest period plus 1.0% , plus an applicable margin of 2.25% , (collectively, the "ABR Rate") or (b) LIBOR, adjusted for changes in Eurodollar reserves, plus a margin of 3.25% . As of December 31, 2017, interest payable quarterly was 4.82% . The 2017 Term B Loan Facility matures in June 2024.

The 2017 Credit Agreement includes provisions requiring ARH to offer to prepay term B loans in an amount equal to (i) the net cash proceeds above certain thresholds received from (a) asset sales and (b) casualty events resulting in the receipt of insurance proceeds, subject to customary provisions for the reinvestment of such proceeds, (ii) the net cash proceeds from the incurrence of debt not otherwise permitted under the 2017 Credit Agreement, and (iii) a percentage of consolidated excess cash flow retained in the business from the preceding fiscal year minus voluntary prepayments. There is no prepayment required as of December 31, 2017 .

The Company is required to make amortization payments on the term B loans under the 2017 Term B Loan Facility in equal quarterly installments of $1,100 .

2017 Revolving Credit Facility

The 2017 Revolving Credit Facility of $100,000 is available through its maturity date of June 2022. Any outstanding loans under the 2017 Revolving Credit Facility bear interest at a rate equal to, at the Company's option, the ABR Rate or LIBOR, adjusted for changes in Eurodollar reserves, plus, in each case, an applicable margin priced off a grid based upon the consolidated total net leverage ratio of the Company and its restricted subsidiaries. There were no borrowings outstanding under the 2017 Revolving Credit Facility as of December 31, 2017 . The commitment fee applicable to undrawn revolving commitments under the 2017 Revolving Credit Facility is also priced off a grid based upon the consolidated total net leverage ratio of the Company and its restricted subsidiaries, and as of December 31, 2017 , the fee was 0.50% .

Interest Rate Swap Agreements

In May 2013, the Company entered into two interest rate swap agreements (the "2013 Swaps") with notional amounts totaling $320,000 , as a means of fixing the floating interest rate component on $400,000 of its variable-rate debt under the Term B Loans of the First Lien Credit Agreement. The 2013 Swaps were designated as cash flow hedges, and terminated on March 31, 2017.

In March 2017, the Company entered into a forward starting interest rate swap agreement (the "2017 Swap") with a notional amount of $133,000 , as a means of fixing the floating interest rate component on $440,000 of its variable-rate debt under the 2017 Term B Loan Facility, with an effective date of March 31, 2018. The 2017 Swap is designated as a cash flow hedge, with a termination date of March 31, 2021.

As a result of the application of hedge accounting treatment, to the extent the 2013 Swaps and 2017 Swap are effective, the unrealized gains and losses related to the derivative instrument are recorded in accumulated other comprehensive income and are reclassified into operations in the same period in which the hedged transaction affects earnings, and to the extent the swaps are ineffective and produce gains and losses differently from the losses or gains being hedged, the ineffectiveness portion is recognized in earnings, immediately. Hedge effectiveness is tested quarterly. The Company does not use derivative instruments for trading or speculative purposes.

During the year ended December 31, 2017 , amounts previously recorded in accumulated other comprehensive loss related to the 2013 Swaps, totaling $401 , have been reclassified into earnings over the term of the previously hedged borrowing using the swaplet method. The Company reclassified $100 previously recorded in accumulated other comprehensive loss into interest expense during the year ended December 31, 2017 . The 2013 Swaps terminated on March 31, 2017.

Interest Rate Cap Agreements

In March 2017, the Company entered into two interest rate cap agreements (the "Caps") with notional amounts totaling $147,000 , as a means of capping the floating interest rate component on $440,000 of its variable-rate debt under the 2017 Term B Loan Facility. The Caps are designated as cash flow hedges, with a termination date of March 31, 2021. As a result of the application of hedge accounting treatment, to the extent the Caps are effective, the unrealized gains and losses related to the derivative instrument are recorded in accumulated other comprehensive income and are reclassified into operations in the same period in which the hedged transaction affects earnings and to the extent the Caps are ineffective and produce gains and losses differently from the losses or gains being hedged, the ineffective portion is recognized in earnings, immediately. Hedge effectiveness is tested quarterly. The Company does not use derivative instruments for trading or speculative purposes.

As more fully described within " Note 7 - Fair Value Measurements ", the Company uses a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. The fair value of the interest rate swap agreements and Caps are recorded at fair value based upon valuation models utilizing the income approach and commonly accepted valuation techniques that use inputs from closing prices for similar assets and liabilities in active markets as well as other relevant observable market inputs at quoted intervals such as current interest rates, forward yield curves, and implied volatility. The Company does not believe the ultimate amount that could be realized upon settlement of these interest rate swaps would be materially different from the fair values currently reported. The associated unrealized pre-tax (gain) loss of $884 and $(668) was recorded in accumulated other comprehensive income during the years ended December 31, 2017 and 2016 , respectively. See " Note 7 - Fair

(dollars in thousands, except per share amounts)

Value Measurements ” for the fair value of the derivative instruments and location on the balance sheet as of December 31, 2017 and 2016.

Note 15. Leases

Substantially all of the Company’s facilities are leased under noncancelable operating leases expiring in various years through 2033. Most lease agreements cover periods from five to fifteen years and contain renewal options of five to ten years at the fair rental value at the time of renewal. Certain leases are subject to rent holidays and/or escalation clauses. The Company expenses rent using the straight-line method over the initial lease term starting from date of possession. Tenant allowances received from lessors are capitalized and amortized over the initial term of the lease. Rental expense under all operating leases was $28,546 in 2017 , $25,346 in 2016 and $22,136 in 2015 .

The Company has lease agreements for dialysis clinics with noncontrolling interest members or entities under the control of noncontrolling interest members. The Company subleases space to physician partners at fair values under non-cancelable operating leases expiring in various years through 2032. Rental income under all subleases was $1,515 in 2017 , $1,439 in 2016 and $1,408 in 2015 . The amount of rent expense under these lease arrangements was approximately $11,878 , $8,156 and $6,958 in 2017 , 2016 and 2015 , respectively. In addition, in 2008, the Company subleased space at one of its dialysis clinics to the noncontrolling interest member. Rental income under this sub-lease arrangement, which extends to 2023, amounted to $546 , $560 and $517 in 2017 , 2016 and 2015 , respectively. Future rental receipts of $3,309 due from this related party are included in total sublease receipts as presented below.

Future minimum lease payments under noncancelable operating leases, net of sublease receipts as of December 31, 2017 , are as follows:

Year Ended December 31,	Operating Leases	Less: Sublease Receipts	Net Lease
2018	$ 29,678	$ 1,317	$ 28,361
2019	27,388	1,237	26,151
2020	25,156	1,232	23,924
2021	23,241	1,247	21,994
2022	21,187	1,263	19,924
Thereafter	65,421	2,326	63,095
	$ 192,071	$ 8,622	$ 183,449

Note 16. Income Taxes

The provision (benefit) for income taxes consisted of the following for the years ended December 31 :

	2017	2016	2015
Current:			
Federal	$ (92)	$ 10,316	$ 5,277
State	45	2,950	2,093
	$ (47)	$ 13,266	$ 7,370
Deferred:			
Federal	$ 6,168	$ (11,561)	$ 5,258
State	2,073	(2,458)	(255)
	$ 8,241	$ (14,019)	$ 5,003
Total provision (benefit) for income taxes	$ 8,194	$ (753)	$ 12,373

(dollars in thousands, except per share amounts)

The significant components of deferred tax assets and liabilities are as follows at December 31 :

	2017	2016
Net operating loss and contribution carryforwards	$ 6,216	$ 7,314
Leases	—	521
Accrued expenses	357	550
Stock-based compensation	9,061	16,911
Other	165	256
Interest rate swap	379	66
Deferred tax assets:	16,178	25,618
Valuation Allowance	(6,063)	(135)
Total deferred tax assets	10,115	25,483
Investment in Joint Ventures	(14,484)	(20,596)
Goodwill and intangible amortization	(3,327)	(4,848)
Depreciation	(1,257)	(1,317)
Interest rate swap	(38)	—
Total deferred tax liabilities	(19,106)	(26,761)
Net deferred tax liabilities	$ (8,991)	$ (1,278)

As of December 31, 2017 , the Company has $153 in state loss carryforwards which expire at various dates ending 2033 and $6,063 in charitable contribution carryforwards which expire at various dates ending in 2021. The Company has established a $6,063 valuation allowance for its contributions that are expiring in 2017 as well as all future charitable contributions. The Company believes that future taxable income levels would not be sufficient to realize these charitable contribution tax benefits.

On December 22, 2017, the United States enacted tax reform legislation commonly known as the Tax Cuts and Jobs Act (the “2017 Tax Act”), resulting in significant modifications to existing law. Our financial statements for the year ended December 31, 2017, reflect certain effects of the 2017 Tax Act, which includes a reduction in the corporate tax rate from 35% to 21%. Consistent with Staff Accounting Bulletin No. 118 issued by the Securities and Exchange Commission (“SEC”), which provides for a measurement period of one year from the enactment date to finalize the accounting for effects of the 2017 Tax Act, the Company provisionally recorded an income tax benefit of $1.5 million related to the 2017 Tax Act. In accordance with SEC guidance, provisional amounts may be refined as a result of additional guidance from, and interpretations by, U.S. regulatory and standard-setting bodies, and changes in assumptions. In the subsequent period, provisional amounts will be adjusted for the effects, if any, of interpretative guidance issued after December 31, 2017, by the U.S. Department of the Treasury. The effects of the 2017 Tax Act may be subject to changes for items that were previously reported as provisional amounts, as well as any element of the 2017 Tax Act for which a provisional estimate could not be made, and such changes could be material.

The Company has made provisional computations of the impact of the Tax Cuts and Jobs Act as provided for under SAB 118, including remeasurement of its deferred tax assets and liabilities, and executive compensation limitations under Internal Revenue Code Section 162(m), among others. The Internal Revenue Service is expected to issue additional guidance clarifying provisions of the Act. As additional guidance is issued one or more of the provisional amounts may change.

The income tax expense (benefit) included in the accompanying consolidated statements of operations principally relates to the Company’s proportionate share of the pre-tax income or loss from its ownership in joint venture subsidiaries. A reconciliation of the federal statutory rate to the Company’s effective tax rate is as follows for the years ended December 31 :

(dollars in thousands, except per share amounts)

	2017	2016	2015
Income tax provision at federal statutory rate	35 %	35 %	35 %
Increase (decrease) in tax resulting from:			
State taxes, net of federal benefit	0.1 %	(0.2)%	1.8 %
Noncontrolling interests in passthrough entities	(29.7)%	(35.5)%	(24.6)%
Valuation allowance	7.1 %	0.2 %	— %
Other permanent items, net	(2.7)%	(0.4)%	(0.5)%
Effective income tax rate	9.8 %	(0.9)%	11.7 %

The Company and its subsidiaries file U.S. federal income tax returns and various state returns. The Company is no longer subject to U.S. federal, state and local examinations by tax authorities for years before 2011. The Company is currently under audit by the state of Louisiana for the 2013-2015 tax years with no proposed audit adjustments as of December 31, 2017 .

Note 17. Earnings (Loss) Per Share

Basic earnings (loss) per share is computed by dividing net income (loss) attributable to American Renal Associates Holdings, Inc., net of the change in the difference between the redemption value and estimated fair values of contractual noncontrolling interest put provisions, by the weighted-average number of common shares outstanding during the applicable period, less unvested restricted stock. Diluted earnings (loss) per share is computed using the weighted-average number of common shares outstanding during the applicable period, plus the dilutive effect of outstanding options, using the treasury stock method and the average market price of the Company's common stock during the applicable period. Certain shares related to some of the Company's outstanding stock options were excluded from the computation of diluted earnings per share because they were anti-dilutive in the periods presented, but could be dilutive in the future.

	Year ended December 31,		
	2017	2016	2015
Basic			
Net income (loss)	$ 4,857	$ (385)	$ 18,845
Change in the difference between the redemption values and estimated fair values for accounting purposes of the related noncontrolling interests	(12,276)	(7,404)	—
Net income (loss) attributable to American Renal Associates Holdings, Inc. for basic earnings per share calculation	(7,419)	(7,789)	18,845
Weighted-average common shares outstanding	31,081,824	28,118,673	22,153,451
Earnings (loss) per share, basic	$ (0.24)	$ (0.28)	$ 0.85
Diluted			
Net income (loss)	$ 4,857	$ (385)	$ 18,845
Change in the difference between the redemption values and estimated fair values for accounting purposes of the related noncontrolling interests	(12,276)	(7,404)	—
Net income (loss) attributable to American Renal Associates Holdings, Inc. for diluted earnings per share calculation	(7,419)	(7,789)	18,845
Weighted-average common shares outstanding	31,081,824	28,118,673	22,153,451
Weighted-average effect of dilutive securities:			
Effect of assumed exercise of stock options	—	—	554,423
Weighted-average common shares outstanding, assuming dilution	31,081,824	28,118,673	22,707,874
Earnings (loss) per share, diluted	$ (0.24)	$ (0.28)	$ 0.83
Outstanding options excluded as impact would be antidilutive	1,894,340	572,097	58,899

Note 18. Equity

Preferred Stock

The Company has 1,000,000 authorized shares of preferred stock, $0.01 par value per share, of which no shares were issued and outstanding as of December 31, 2017 and December 31, 2016 .

Common Stock

In April 2016, the Company's Board of Directors authorized the amendment of its certificate of incorporation to increase the number of shares that the Company is authorized to issue to 300,000,000 shares of common stock, par value $0.01 per share. As of December 31, 2017 and 2016 , 32,034,439 shares and 30,894,962 shares were issued and outstanding, respectively.

Common Stock Split

On April 7, 2016, the Company effected a 2.29 -for-one stock split of its shares of common stock to shareholders of record as of April 7, 2016. All shares and per share information has been retroactively adjusted to reflect the stock split.

Note 19. Stock-Based Compensation

The majority of the Company's stock-based compensation arrangements consist of options having a ten -year term and either vest over a three or five year vesting schedule (service-based), on the occurrence of an event (market-based) or upon the achievement of certain performance conditions (performance-based).

The Company's stock-based compensation awards are measured at their estimated grant-date fair value. For the performance or service-based stock awards, compensation expense is recognized on the straight-line method over their requisite service periods, and is adjusted each period for actual forfeitures. For market and performance based awards, the Company defers all stock-based compensation until it is probable that the event, as defined, will occur.

The Company grants options that allow for the settlement of vested stock options on a net share basis ("net settled stock options"), instead of settlement with a cash payment. With net settled stock options, the employee does not surrender any cash or shares upon exercise. Rather, the Company withholds the number of shares to cover the option exercise price and the minimum statutory tax withholding obligations from the shares that would otherwise be issued upon exercise. The settlement of vested stock options on a net share basis results in fewer shares issued by the Company.

Share-Based Compensation Plans:

(a) American Renal Holdings Inc. 2005 Equity Incentive Plan

In December 2005, the Company established the American Renal Holdings Inc. 2005 Equity Incentive Plan (the "2005 Plan"), under which common stock were reserved for issuance to employees, directors, and consultants. Options granted under the 2005 Plan may be incentive stock options or nonstatutory stock options. As of December 31, 2017 , options to purchase an aggregate of 40,554 shares of common stock were outstanding under the 2005 Plan.

(b) American Renal Associates Holdings, Inc. 2010 Stock Incentive Plan

In May 2010, the Company adopted the American Renal Associates Holdings, Inc. 2010 Stock Incentive Plan (the "2010 Plan") under which 3,606,251 shares of the Company's common stock were reserved for issuance to the Company's employees, directors and consultants. In March 2014, the Company's Board of Directors approved authorizing the issuance of an additional 1,627,258 shares under the plan. Options granted under the 2010 Plan must be nonstatutory stock options. Stock appreciation rights may also be granted under the 2010 Plan. As of December 31, 2017 , options to purchase an aggregate of 4,259,866 shares of common stock were outstanding under the 2010 Plan.

(dollars in thousands, except per share amounts)

(c) American Renal Associates Holdings, Inc. 2011 Stock Option Plan for Nonemployee Directors

In January 2011, the Company adopted the American Renal Associates Holdings, Inc. 2011 Stock Option Plan for Nonemployee Directors (the "2011 Director's Plan") under which 100,000 shares of the Company's common stock were reserved for issuance to the Company's directors and consultants. Options granted under the 2011 Director's Plan must be nonstatutory stock options. Stock appreciation rights may also be granted under the 2011 Director's Plan. As of December 31, 2017 , options to purchase an aggregate of 34,350 shares of common stock were outstanding under the 2011 Director's Plan.

(d) American Renal Associates Holdings, Inc. 2016 Omnibus Plan

In April 2016, the Company approved the 2016 Omnibus Incentive Plan (the "2016 Plan"). The 2016 Plan authorizes the Company to issue options and other awards to directors, officers, employees, consultants and advisors to purchase up to a total of 4,000,000 shares of common stock. As of December 31, 2017 , options to purchase an aggregate of 945,491 shares of common stock, and 252,307 unvested restricted stock awards, were outstanding under the 2016 Plan.

Shares reserved

As of December 31, 2017 , there were 3,043,222 shares remaining for issuance for future equity grants under the Company's 2016 Plan. There were no shares available for future equity grants under the 2005 Plan, 2010 Plan and 2011 Director's Plan.

Equity Grants, Assumptions and Activity

The following table presents the stock-based compensation expense and related income tax benefit included in the Company's consolidated statements of operations for the years ended December 31 :

	2017	2016	2015
Patient care costs	$ 2,773	$ 5,720	$ 295
General and administrative	13,099	34,578	1,156
Total stock-based compensation	$ 15,872	$ 40,298	$ 1,451
Income tax benefit	$ 6,349	$ 16,119	$ 580

Stock Options

The Company estimates the grant-date fair value of stock options by using a Monte Carlo simulation-based approach for the portion of the option that contains both a market and performance condition and the Black-Scholes valuation model for the portion of the option that contains a performance or service-based condition. Key inputs used to estimate the fair value of stock options include the exercise price of the award, the expected term of the option, the expected volatility of the Company's common stock over the option's expected terms, the risk-free interest rate over the option's expected term and the Company's expected annual dividend yield.

The weighted-average assumptions used in the option valuation models for awards granted in 2017 , 2016 and 2015 are as follows.

	2017	2016	2015
Expected volatility(1)	30 - 35%	25%	25 - 30%
Expected term in years(2)	6.0	6.0 - 6.5	1.0 - 6.5
Risk-free interest rate(3)	1.92 - 2.26%	1.20 - 1.58%	1.79 - 2.47%
Expected annual dividend yield(4)	—%	—%	—%
Weighted-average grant-date fair value	$ 5.52	$ 6.24	$ 8.37

(dollars in thousands, except per share amounts)

(1) Since the Company does not have sufficient history as a public company and does not have sufficient trading history for its common stock, the expected volatility was estimated based on the historical equity volatility of common stock of comparable publicly traded entities over a period equal to the expected term of the stock option grants. For each of the comparable publicly traded entities, the historical equity volatility and the capital structure of the entity were used to calculate the implied stock volatility. The average implied stock volatility of the comparable publicly traded entities was then used to calculate a relevered equity volatility for the Company based on the Company's own capital structure. The comparable entities from the healthcare sector were chosen based on area of specialty. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available.

(2) Expected term of 6.0 years for a service-based option is based on the "short-cut method" as prescribed by Securities and Exchange Commission's Staff Accounting Bulletin No. 110.

(3) The risk-free interest rate is based on the yield of zero-coupon U.S. Treasury securities for a period that is commensurate with the expected option term at the time of grant.

(4) Expected dividend yield is based on management's expectations.

The following table summarizes the combined stock option activity under the Company's stock option plans for the year ended December 31, 2017 :

	Number of Shares	Weighted - average exercise price	Weighted - average remaining contractual term (in years)	Aggregate intrinsic value
Options outstanding as of January 1, 2017	5,632,952	$ 10.01		
Granted	677,585	16.18		
Exercised	(861,866)	2.76		
Forfeited/Cancelled	(168,410)	16.08		
Options outstanding as of December 31, 2017	5,280,261	$ 11.79	5.71	$ 36,429
Vested and expected to vest as of December 31, 2017	5,280,261	$ 11.79	5.71	$ 36,429
Exercisable as of December 31, 2017	3,022,414	$ 7.06	4.44	$ 33,290

The aggregate intrinsic value of stock options exercised (i.e., the difference between the market price at exercise and the price paid by the employee at exercise) in 2017 , 2016 and 2015 was $10,974 , $1,299 and $3,407 , respectively.

As of December 31, 2017 , the Company had approximately $7,449 of unrecognized compensation costs related to unvested share-based compensation arrangements of which $652 is attributable to share-based awards with market and performance conditions and $6,797 is attributable to time-based vesting. The compensation cost associated with unvested awards is expected to be recognized as expense over a weighted-average period of approximately 3.6 years.

Restricted Stock Awards

Employees and directors are eligible to receive grants of restricted stock, which entitle the holder to shares of common stock as the awards vest over time. The Company determines stock-based compensation expense using the fair value method. The fair value of restricted stock is equal to the closing sale price of the Company's common stock on the date of grant. As of December 31, 2017 , there was approximately $2,905 of unrecognized compensation costs related to unvested restricted stock awards, which is expected to be recognized over a remaining weighted-average vesting period of 1.2 years.

(dollars in thousands, except per share amounts)

A summary of restricted stock award activity is as follows:

	Number of Shares	Weighted - average grant date fair value
Unvested as of January 1, 2017	—	$ —
Granted	279,193	16.77
Vested	(25,304)	17.39
Forfeited/Cancelled	(1,582)	17.39
Unvested as of December 31, 2017	252,307	$ 16.70

The total fair value of restricted stock vested during the year ended December 31, 2017 was approximately $440 .

Stock Option Modification

In connection with the dividends paid at the time of the IPO, equitable adjustments are required by the terms of some of our equity incentive plans and for other plans were modified at the discretion of our Board of Directors. See " Note 3 - Initial Public Offering ".

In December 2016 the Company entered into a Separation Agreement with an executive, which included terms to modify the vesting conditions of outstanding awards. These modifications are treated as an option modification and the Company accounted for the option modification under ASC Topic 718, *Compensation – Stock Compensation.* As a result of these modifications, we recognized approximately $1,499 of additional stock compensation expense during the year ended December 31, 2016.

Note 20. Related Party Transactions

Term Loan Holdings

In 2016, the Company transferred substantially all of the assigned clinic loans provided to our joint venture subsidiaries to Term Loan Holdings, as described in " Note 3 - Initial Public Offering ". A Centerbridge entity, which does not hold any economic interest in Term Loan Holdings, is the manager of Term Loan Holdings, and affiliates of Centerbridge and our executive officers own economic interests in Term Loan Holdings. As of December 31, 2017 , such assigned clinic loans aggregated $11,082 , had maturities ranging from September 2018 to July 2020 , with a weighted average maturity of approximately 1.9 years (November 2019), and interest rates ranging from 4.15% to 8.08% , with a weighted average interest rate of 5.1% . Fixed principal and interest payments with respect to such assigned clinic loans are payable monthly. The Company will continue to administer and manage the assigned clinic loans as servicer pursuant to the terms of a loan servicing agreement as entered into between the Company and Term Loan Holdings (the "Loan Servicing Agreement"). The Company is paid a quarterly fee for its services based on its reasonable costs and expenses, plus a specified percentage of such costs and expenses, which may be adjusted annually based on negotiations between the Company and Term Loan Holdings. The quarterly fee charged for the year ended December 31, 2017 is immaterial. Each assigned clinic loan is and will continue to be guaranteed by us and the applicable joint venture partner or partners in proportion to our respective ownership interests in the applicable joint venture. Our maximum potential liability for future payments, not including interest, is $11,082 , of which we guaranteed $5,854 as of December 31, 2017 . These guarantees would become payable if the joint venture fails to meet its obligations under the applicable assigned clinic loan.

Income Tax Receivable Agreement

On April 26, 2016, the Company entered into the TRA for the benefit of its pre-IPO stockholders, including Centerbridge and its executive officers. The TRA provides for the payment by the Company to its pre-IPO stockholders on a pro rata basis of 85% of the amount of cash savings, if any, in U.S. federal, state and local income tax that the Company actually realizes as a result of any deductions (including net operating losses resulting from such deductions) attributable to the exercise of (or any payment, including any dividend equivalent right or payment, in respect of) any compensatory stock option

issued by us that is outstanding (whether vested or unvested) as of April 20, 2016, which is the record date set by the board of directors of the Company for this distribution. See " Note 3 - Initial Public Offering ".

Transaction Fee and Advisory Services Agreement

The Company entered into a transaction fee and advisory services agreement, dated as of May 7, 2010 (the "Advisory Services Agreement"), with Centerbridge Advisors, LLC (together with its affiliates, "Centerbridge"). Under the Advisory Services Agreement, Centerbridge agreed to provide certain investment banking, management, consulting, and financing planning services on an ongoing basis. In consideration for these services, the Company paid Centerbridge an annual advisory services fee (payable quarterly) equal to the greater of (i) an amount equal to the greater of (x) $550 or (y) the advisory services fee of the previous fiscal year or (ii) an amount equal to 1.25% of EBITDA (as defined in the agreement), minus a personnel expense deduction, if applicable. During the years ended December 31, 2017 , 2016 and 2015 , the Company recorded $0 , $537 and $1,800 , respectively, of expense related to this agreement. Centerbridge was also entitled to receive an additional fee equal to 1.0% of the enterprise value and/or aggregate value, as applicable, for any future fundamental or significant transactions, both as defined in the Advisory Services Agreement, in which Centerbridge is involved. In connection with the IPO, the Advisory Services Agreement was terminated as of April 26, 2016 (other than the expense reimbursement and indemnification provisions).

Due from Related Party

In 2016 and 2017, the Company entered into a sublease agreement with a clinic group, who are also noncontrolling interest shareholders, to provide financing for various facility buildouts. The total amount of initial financing provided by the Company was $1,760 . As of December 31, 2017 the loans had an interest rate of 6% with maturities ranging from March 2026 through September 2032. Fixed principal and interest payments with respect to such loans are payable monthly. As of December 31, 2017 the remaining balance to be paid to the Company was $1,669 .

Software Services

Kinetic, a company from which the Company licenses software relating to electronic medical record solutions, is owned 51% by an executive officer of the Company, and 2.5% by his spouse. The executive is also Co-Founder, Chief Executive Officer and Managing Partner of Kinetic. Under the terms of this arrangement, the Company paid to Kinetic $310 and $334 during the year ended December 31, 2017 and 2016, respectively.

Financing Transactions with Executive Officer

An executive officer and his spouse, through a trust in which the executive officer's spouse is trustee and beneficiary, are partners in certain of the Company's clinic joint ventures. The clinics in which the executive officer and/or his spousal trust have an ownership interest all receive intercompany revolving loans made through the Company, and have a portion of their financing in the form of term loans held by Term Loan Holdings. As of December 31, 2017 and 2016, the aggregate principal amount outstanding of the intercompany revolving loans and assigned clinic loans made to our joint ventures in which the executive officer and/or his spousal trust have an ownership interest was approximately $6,027 and $7,213 , respectively. As of December 31, 2017, such loans had maturities ranging from February 2019 to August 2024, with a weighted average maturity of approximately 3.7 years (September 2021), and interest rates ranging from 3.31% to 6.30% , with a weighted average interest rate of 4.70% . Fixed principal and interest payments with respect to such loans are payable monthly. Each loan is secured by the assets of the applicable joint venture clinic and is, and will continue to be, guaranteed by us and the executive officer and/or his spousal trust in proportion to each party's ownership interests in the applicable joint venture. Based on their proportionate ownership interest in such joint ventures, the executive officer and/or his spousal trust guaranteed approximately $917 of such outstanding loans as of December 31, 2017.

Note 21. Commitments and Contingencies

The Company had future obligations under contracts related to the construction of clinics totaling $6,419 as of December 31, 2017 which are expected to be paid in 2018 .

The Company has aggregate additional purchase obligations of $135,367 for minimum purchase commitments over a period of five years under its agreements with Amgen and Vifor for the purchase of certain ESAs and with Baxter Healthcare Corporation for the purchase of non-equipment product supplies primarily related to peritoneal dialysis. In the event of a shortfall, the Company is required to pay in cash a portion or all of the amount of such shortfall or may, under certain circumstances, be subject to a price increase or other fee.

Income Tax Receivable Agreement

As described in " Note 3 - Initial Public Offering ", the Company is a party under the TRA which we are contractually committed to pay our pre-IPO stockholders on a pro rata basis 85% of the amount of cash savings, if any, in U.S. federal, state and local income tax that we actually realize (or are deemed to realize in the case of an early termination payment by us, or a change of control, as discussed below) as a result of any option deductions (as defined in the TRA). The actual amount and timing of any payments under the TRA will vary depending upon a number of factors, including the amount and timing of taxable income we generate in the future, changes in the income tax rate, whether and when any Relevant Stock Options are exercised and the value of our common stock at the time of such exercise.

Litigation

The Company and its subsidiaries are defendants in various legal actions in the ordinary course of business. In the opinion of the Company's management, based in part on the advice of outside counsel, the resolution of these matters are not expected to have a material effect on the Company's financial position, results of operations or cash flows. In addition to these matters, see " Note 22 - Certain Legal Matters ."

Regulatory

The healthcare industry is subject to numerous laws and regulations of federal, state, and local governments. Government activity has increased with respect to investigations and allegations concerning possible violations by healthcare providers of fraud and abuse statutes and regulations, which could result in the imposition of significant fines and penalties, as well as significant repayments for patient services previously billed. Compliance with such laws and regulations are subject to government review and interpretations, as well as regulatory actions unknown or unasserted at this time.

Note 22. Certain Legal Matters

As previously disclosed, ARA and its wholly owned operating subsidiary American Renal Associates LLC ("ARA OpCo") were named as defendants in a complaint filed by three affiliates of UnitedHealth Group Inc. ("United") in the United States District Court for the Southern District of Florida (the "Court") on July 1, 2016. On August 12, 2016, ARA and ARA OpCo each filed a motion to dismiss the action. On September 2, 2016, plaintiffs filed an amended complaint, dropping one of the United affiliates as a plaintiff. On September 30, 2016, ARA and ARA OpCo each filed a motion to dismiss the amended complaint. On January 17, 2017, plaintiffs filed a motion seeking to file a second amended complaint, which would add American Renal Management LLC ("ARM") as a defendant. On March 13, 2017, the Court granted leave to amend, and United filed its second amended complaint on the same day. On May 8, 2017, the Court granted ARA's motion to dismiss for lack of personal jurisdiction and dismissed ARA from the lawsuit without prejudice. The lawsuit remains pending against ARA OpCo and ARM. ARA OpCo and ARM moved to dismiss the second amended complaint on March 27, 2017. The Court held a hearing on ARA OpCo and ARM's motions to dismiss the second amended complaint on June 23, 2017. The second amended complaint relates to 30 patients who have received, and some of whom continue to receive, dialysis at 12 clinics in Florida and Ohio and who obtained coverage under one of United's ACA-compliant individual marketplace plans. The plaintiffs assert various state law claims and allege violations of certain state laws that prohibit false insurance claims, healthcare kickbacks, patient brokering, and violations of the applicable commercial plan agreements in connection with, among other things, premium payment assistance by the American Kidney Fund ("AKF"). The second amended complaint seeks unspecified actual, consequential and punitive monetary damages, together with interest and costs, and declaratory and injunctive relief, as well as attorney's fees and court costs. The Company has moved to dismiss the second amended complaint in full and is vigorously defending itself in this legal matter. Jurisdictional discovery was completed and merits discovery was completed and merits discovery has commenced and is continuing. The Company expects to remain in active litigation during 2018. The Company has received letters from other insurance companies seeking information regarding matters relating to the insurance companies' covered patients similar in nature to the matters underlying the United complaint.

On August 31, 2016 and September 2, 2016, putative shareholder class action complaints were filed in the United States District Court for the Southern District of New York and the United States District Court for the District of Massachusetts, respectively, against the Company and certain officers and directors of the Company. Both complaints asserted federal securities law claims against the Company and the individual defendants under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Rule 10b-5 promulgated thereunder by the SEC, and, in addition, the complaint filed in the United States District Court for the Southern District of New York asserted claims under Sections 11 and 15 of the Securities Act. The complaints alleged that the Company made material misstatements or omissions, including in connection with its initial public offering filings and other public filings. The complaints sought unspecified damages on behalf of the individuals or entities that purchased or otherwise acquired the Company's securities from April 20, 2016 to August 18, 2016. On October 26, 2016, the complaint filed in the Southern District of New York was voluntarily dismissed by the plaintiff without prejudice. On November 30, 2016, Lead Plaintiff was appointed for the putative shareholder class action complaint pending in the United States District Court for the District of Massachusetts, captioned *Esposito, et al. v. American Renal Associates Holdings, Inc., et al.* , No. 16-cv-11797 (the "Esposito Action"). On February 1, 2017, the Lead Plaintiff in the Esposito Action filed an amended complaint against the Company, certain former and current officers and directors of the Company, Centerbridge Capital Partners L.P., and certain of the underwriters in our initial public offering. The amended complaint asserts federal securities laws claims under Securities Act Sections 11 and 15, as well as Exchange Act Sections 10(b) and 20(a) and SEC Rule 10b-5. On May 18, 2017, the Company filed a motion to dismiss the amended complaint. On July 17, 2017, the Lead Plaintiff filed a consolidated opposition to the motions to dismiss. On August 16, 2017, the Company filed a reply brief in further support of its motion to dismiss. On November 27, 2017, the Company and the Lead Plaintiff engaged in a mediation, following which the parties agreed in principle on the terms of a settlement. The parties thereafter engaged in negotiations regarding the final terms of such settlement and, on January 30, 2018, entered into a Stipulation of Settlement, which was filed with the Court on January 31, 2018. The Stipulation of Settlement, which is subject to Court approval, provides for a total settlement payment of $4,000 , inclusive of administrative fees and fees for the Lead Plaintiff's counsel. The Company expects that substantially all of the settlement will be funded by insurance proceeds. The proposed settlement releases all claims asserted against the Company and the other named defendants in the Esposito Action without any liability or wrongdoing attributed to them.

In addition, the Company received a demand letter, dated January 27, 2017, from Stephen Bushansky, a shareholder, relating to the subject matter covered by the United complaint and the class action complaints described above. By letter dated May 8, 2017, attorneys for the shareholder were informed that the board of directors had determined not to pursue potential claims against individuals as set forth in the demand letter. On May 23, 2017, the board of directors received further correspondence from the shareholder requesting additional information concerning the board's determination not to pursue potential claims against individuals. On June 6, 2017, the board sent a response letter to the shareholder declining to provide additional information. On October 25, 2017, Mr. Bushansky filed a derivative lawsuit purportedly on behalf of us against the members of our board of directors. The lawsuit was filed in the United States District Court for the District of Massachusetts. The lawsuit asserts claims for violations of Section 14(a) of the Exchange Act, breach of fiduciary duty, gross mismanagement, unjust enrichment and indemnification based on, generally, the subject matter covered by the United complaint and related class action complaints, alleged misstatements and omissions in the Company's 2017 proxy statement, and the board of directors' conduct in responding to the January 2017 demand letter. The lawsuit seeks, among other things, recovery of damages sustained by the Company as a result of the individual defendants' alleged misconduct, reforms to the Company's compliance, internal control systems and corporate governance practices and procedures, restitution, disgorgement, and costs and attorney's fees. On January 26, 2018, the parties engaged in a mediation during which an agreement in principle to settle the case was reached. The principle terms agreed upon by the parties contemplate a settlement payment of $350 which will be made by the Company's insurer, and certain corporate governance changes. The settlement will resolve the claims currently asserted against all defendants in the action without any liability or wrongdoing attributed to them. The proposed settlement is subject to completion of formal documentation and approval by the Court.

On January 3, 2017, the Company received a subpoena from the United States Attorney's Office, District of Massachusetts, requesting information relating to the Company's payments and other interactions with the AKF and any efforts to educate patients qualified or enrolled in Medicare or Medicaid about enrollment in ACA-compliant individual marketplace plans, among other related matters under applicable healthcare laws, for the period from January 1, 2013 through the present. As it has done with the other regulators who have expressed interest in such matters, the Company has cooperated fully with the government and will continue to do so. In the event that the United States Attorney's Office, District of Massachusetts, were to find violations of any federal criminal or civil laws, our business, financial condition and results of operations could be materially adversely affected.

As of December 31, 2017 an aggregate accrual of $3,500 was recognized for the Esposito Action and derivative lawsuit filed by Mr. Bushansky, and a receivable was established for the insurance recoveries accordingly. While the Company and its legal counsel intend to challenge the remaining cases vigorously, there can be no assurances regarding the ultimate resolution of these matters. Since the amount of any potential losses from the remaining cases currently cannot be reasonably estimated, no accrual has been established.

We also record in Certain legal matters legal fees and other expenses relating to other matters outside the ordinary course of our business.

Note 23. Employee Benefit Plan

In 2017 , the Company sponsored a 401(k) defined contribution retirement plan for qualifying employees. The Company made no contributions to the plan in 2017 , 2016 and 2015 .

Note 24. Concentrations

The Company holds cash at several major financial institutions, which are insured by the Federal Deposit Insurance Corporation up to $250,000 . The Company maintains balances in excess of these limits, but does not believe that such deposits with its banks are subject to any unusual risk.

EPOGEN ® and Aranesp ® are significant physician-prescribed pharmaceuticals that are commonly administered during dialysis and are provided by a sole supplier, Amgen. The Company has entered into a rebate agreement with this supplier which under certain circumstances, limits the supplier's ability to increase the net price it charges the Company, and expires on December 31, 2018. Additionally, in September 2017, the Company entered into a purchase agreement with Vifor International AG that expires on December 31, 2022, pursuant to which it will provide our clinics with Mircera ®, an alternative to EPOGEN and Aranesp.

Note 25. Selected Quarterly Financial Data (Unaudited)

	Three Months Ended							
(in thousands, except for share data)	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016
Net patient service operating revenues	$ 194,378	$ 187,711	$ 185,992	$ 177,025	$ 199,114	$ 192,955	$ 185,567	$ 172,131
Operating Income	$ 33,931	$ 32,901	$ 27,156	$ 12,470	$ 25,200	$ 30,752	$ 33,379	$ 37,476
Income before income taxes	$ 28,467	$ 29,231	$ 16,801	$ 9,378	$ 14,394	$ 35,945	$ 11,895	$ 25,218
Net income (loss) attributable to American Renal Associates Holdings, Inc.	$ 231	$ 7,983	$ (2,106)	$ (1,251)	$ (7,119)	$ 12,424	$ (9,446)	$ 3,756
Basic income (loss) per share attributable to American Renal Associates Holdings, Inc.	$ 0.05	$ 0.26	$ (0.15)	$ (0.40)	$ (0.02)	$ 0.35	$ (0.76)	$ 0.17
Diluted income (loss) per share attributable to American Renal Associates Holdings, Inc.	$ 0.05	$ 0.24	$ (0.15)	$ (0.40)	$ (0.02)	$ 0.34	$ (0.76)	$ 0.16

The Company’s second quarter 2016 results were impacted by the adoption of ASU 2016-09, *Compensation - Stock Compensation (Topic 718) - Improvements to Employee Share-Based Payment Accounting* . See “ Note 2 - Summary of Significant Accounting Policies .”

Note 26. Subsequent Event

Other than as noted in Note 22 - Certain Legal Matters , no additional subsequent events were identified.

AMERICAN RENAL ASSOCIATES HOLDINGS, INC. AND SUBSIDIARIES

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

(in thousands)	Balance at Beginning of the Year	Amounts charged to income	Amounts written off	Balance at End of Year
Allowance for uncollectible accounts:				
Year ended December 31, 2015	$ 6,648	$ 13,888	$ (13,101)	$ 7,435
Year ended December 31, 2016	$ 7,435	$ 18,865	$ (17,574)	$ 8,726
Year ended December 31, 2017	$ 8,726	$ 18,592	$ (20,561)	$ 6,757

EXHIBIT INDEX

The following is a list of all exhibits filed or furnished as part of this Report:

EXHIBIT NUMBER	EXHIBIT DESCRIPTION
3.1	Amended and Restated Certificate of Incorporation of American Renal Associates Holdings, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on April 26, 2016)
3.2	Amended and Restated Bylaws of American Renal Associates Holdings, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed on April 26, 2016)
10.1	Credit Agreement, dated as of June 22, 2017, by and among American Renal Holdings Inc., as the Borrower, American Renal Holdings Intermediate Company, LLC, the lenders party thereto; SunTrust Bank, as Administrative Agent, Swing Line Lender, and L/C Issuer; SunTrust Robinson Humphrey, Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated, Wells Fargo Securities, LLC, Barclays Bank PLC, and JPMorgan Chase Bank, N.A., as joint lead arrangers and book managers; Merrill Lynch and Wells Fargo, as Co-Syndication Agents; and Barclays and JPM as Co-Documentation Agents. (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on August 8, 2017)
10.2†	Employment Agreement, dated as of March 22, 2010, by and among American Renal Management LLC, American Renal Holdings, Inc. and Joseph A. Carlucci (incorporated by reference to Exhibit 10.4 to the September 30, 2015 Form S-1)
10.3†	Second Amendment to Employment Agreement, dated as of April 26, 2016, by and among American Renal Management LLC, American Renal Holdings, Inc. and Joseph A. Carlucci (incorporated by reference to Exhibit 10.9 to the Registrant's Quarterly Report on Form 10-Q filed on May 16, 2016)
10.4†	Third Amendment to Employment Agreement, dated as of November 14, 2017, by and among American Renal Management LLC, American Renal Holdings, Inc. and Joseph A. Carlucci (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 14, 2017)
10.5†	Employment Agreement, dated as of March 22, 2010, by and among American Renal Management LLC, American Renal Holdings, Inc. and Syed T. Kamal (incorporated by reference to Exhibit 10.7 to the September 30, 2015 Form S-1)
10.6†	First Amendment to Employment Agreement, dated as of April 26, 2016, by and among American Renal Management LLC, American Renal Holdings, Inc. and Syed T. Kamal (incorporated by reference to Exhibit 10.10 to the Registrant's Quarterly Report on Form 10-Q filed on May 16, 2016)
10.7†	Second Amendment to Employment Agreement, dated as of November 14, 2017, by and among American Renal Management LLC, American Renal Holdings, Inc. and Syed T. Kamal (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on November 14, 2017)
10.8†	Employment Agreement, dated as of September 18, 2017, by and among American Renal Management LLC, American Renal Holdings, Inc. and Don E. Williamson (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on November 14, 2017)
10.9†	Employment Agreement, dated as of June 19, 2017, by and among American Renal Management LLC and Jonathan L. Wilcox (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 8, 2017)
10.10†	First Amendment to Employment Agreement, dated as of December 13, 2017, by and among American Renal Management LLC and Jonathan L. Wilcox (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on December 15, 2017)
10.11†*	Vice Presidents, Regional Directors, Directors & Officers Non-Solicitation, Non-Competition and Confidentiality Agreement, dated as of March 5, 2018, by and between American Renal Associates LLC and Jonathan L. Wilcox
10.12†	Form of 2010 Nonqualified Stock Option Agreement (incorporated by reference to Exhibit 10.12 to the September 30, 2015 Form S-1)
10.13†	2010 Stock Incentive Plan (incorporated by reference to Exhibit 10.13 to the September 30, 2015 Form S-1)
10.14†	2011 Stock Option Plan for Nonemployee Directors (incorporated by reference to Exhibit 10.14 to the September 30, 2015 Form S-1)

10.15†	Form of Nonqualified Stock Option Agreement for Non-Employee Directors (incorporated by reference to Exhibit 10.18 to the September 30, 2015 Form S-1)
10.16†	Form of 2013 Stock Option Exchange Agreement (incorporated by reference to Exhibit 10.15 to the September 30, 2015 Form S-1)
10.17†	Form of 2014 Incremental Nonqualified Stock Option Agreement (incorporated by reference to Exhibit 10.16 to the September 30, 2015 Form S-1)
10.18†	Form of Amendment to Option Agreement (incorporated by reference to Exhibit 10.6 to the Registrant's Current Report on Form 8-K filed on April 26, 2016)
10.19†	American Renal Associates Holdings, Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K filed on April 26, 2016)
10.20†	Form of Option Agreement under the American Renal Associates Holdings, Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on May 9, 2017)
10.21†	Form of Restricted Stock Agreement under the American Renal Associates Holdings, Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on May 9, 2017)
10.22†	Form of Restricted Stock Agreement for Non-Employee Directors under the American Renal Associates Holdings, Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on May 9, 2017)
10.23†	Form of Restricted Stock Unit Agreement under the American Renal Associates Holdings, Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q filed on May 9, 2017)
10.24	Amended and Restated Stockholders Agreement, dated as of June 28, 2010, by and among American Renal Associates Holdings, Inc. and the stockholders party thereto (incorporated by reference to Exhibit 10.20 to the September 30, 2015 Form S-1)
10.25	Amendment No. 1, dated as of April 21, 2016, to the Amended and Restated Stockholders Agreement, dated as of June 28, 2010, by and among American Renal Associates Holdings, Inc. and the other parties thereto (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on April 26, 2016)
10.26	Amended and Restated Registration Rights Agreement, dated as of May 7, 2010, by and among American Renal Associates Holdings, Inc. and the stockholders party thereto (incorporated by reference to Exhibit 10.22 to the September 30, 2015 Form S-1)
10.27	Amendment No. 1, dated as of April 26, 2016, to the Amended and Restated Registration Rights Agreement, dated as of May 7, 2010, by and among American Renal Associates Holdings, Inc. and the other parties thereto (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on April 26, 2016)
10.28	Tax Receivable Agreement between American Renal Associates Holdings, Inc. and Centerbridge Capital Partners, L.P., dated as of April 26, 2016 (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed on April 26, 2016)
10.29	Loan Servicing Agreement between American Renal Associates LLC, as Servicer, and Term Loan Holdings LLC, as Lender, dated as of April 26, 2016 (incorporated by reference to Exhibit 10.8 to the Registrant's Current Report on Form 8-K filed on April 26, 2016)
21.1*	List of Subsidiaries
23.1*	Consent of Independent Registered Public Accounting Firm
31.1*	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

101* The following financial information from the Annual Report on Form 10-K for the fiscal year ended December 31, 2017, formatted in XBRL (Extensible Business Reporting Language) and furnished electronically herewith: (i) the Consolidated Balance Sheets; (ii) the Consolidated Statements of Operations ; (iii) the Consolidated Statements of Cash Flows; and (iv) the Notes to the Consolidated Financial Statements.

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* Filed herewith

† Identifies exhibits that consist of a management contract or compensatory plan or arrangement

The agreements and other documents filed as exhibits to this report are not intended to provide factual information or other disclosure other than with respect to the terms of the agreements or other documents themselves, and you should not rely on them for that purpose. In particular, any representations and warranties made by us in these agreements or other documents were made solely within the specific context of the relevant agreement or document and may not describe the actual state of affairs as of the date they were made or at any other time.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMERICAN RENAL ASSOCIATES HOLDINGS INC.
(Registrant)

Dated: March 6, 2018

By: /s/ Joseph A. Carlucci
Name: Joseph A. Carlucci
Title: Chief Executive Officer and Chairman of the Board of Directors

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant and in the capacities and on the date indicated.

Date: March 6, 2018

/s/ Joseph A. Carlucci
Name: Joseph A. Carlucci
Title: Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)

Date: March 6, 2018

/s/ Syed Kamal
Name: Syed Kamal
Title: President and Director

Date: March 6, 2018

/s/ Jonathan L. Wilcox
Name: Jonathan L. Wilcox
Title: Vice President and Chief Financial Officer (Principal Financial Officer)

Date: March 6, 2018

/s/ Jason Boucher
Name: Jason Boucher
Title: Vice President of Finance, Chief Accounting Officer and Treasurer (Principal Accounting Officer)

Date: March 6, 2018

/s/ Steven M. Silver
Name: Steven M. Silver
Title: Director

Date: March 6, 2018

/s/ Jared Hendricks
Name: Jared Hendricks
Title: Director

Date: March 6, 2018

/s/ Michael Boxer
Name: Michael Boxer
Title: Director

Date: March 6, 2018

/s/ Tom Erickson

Name: Tom Erickson

Title: Director

Date: March 6, 2018

/s/ John Jureller

Name: John Jureller

Title: Director

Date: March 6, 2018

/s/ Patrick Ryan

Name: Patrick Ryan

Title: Director

Date: March 6, 2018

/s/ Robert Fish

Name: Robert Fish

Title: Director

Date: March 6, 2018

/s/ Susanne Clark

Name: Susanne Clark

Title: Director

Exhibit 10.11

VICE PRESIDENTS, REGIONAL DIRECTORS, DIRECTORS & OFFICERS NON-SOLICITATION, NON-COMPETITION AND CONFIDENTIALITY AGREEMENT

This **VICE PRESIDENTS, REGIONAL DIRECTORS, DIRECTORS & OFFICERS NON-SOLICIATION, NON-COMPETITION AND CONFIDENTIALITY AGREEMENT** (the "Agreement") is entered into as of the 6th day of March 2018, and made effective as of June 19, 2017 (the "Effective Date"), by and between American Renal Associates LLC, a Delaware limited liability company, American Renal Holdings, Inc. ("ARH"), American Renal Management LLC (the "Company"), and their affiliated subsidiaries, parents, and related or joint venture entities (collectively "ARA"), and the employee executing this Agreement ("Employee").

RECITALS

WHEREAS , in consideration of the employment and/or continued employment of the Employee and any discretionary bonus, the mutual covenants and agreements contained herein, the sufficiency and adequacy of which Employee hereby recognizes, and any other or further consideration which may be or has been provided to Employee in conjunction with the execution of this Agreement; and

WHEREAS, execution of this Agreement by Employee is an express condition of Employee's employment and/or continued employment by Employer;

THE PARTIES HEREBY AGREE AS FOLLOWS:

1.1 General . The Employee acknowledges that in the course of the Employee's employment with ARA the Employee has become familiar with trade secrets and other confidential information concerning ARA and its subsidiaries, that the Employee's services were of special, unique and extraordinary value to ARA and its affiliates, and that but for Employee's employment with ARA, Employee would not have had access to ARA's trade secrets or other confidential information.

1.2 Non-Solicitation . In further consideration of Employee's employment, Employee agrees that for a period of two (2) years following the termination of Employee's relationship with the Company and the expiration of any paid-time-off ("PTO") or severance period(s) (the "Nonsolicitation Period"), the Employee shall not (i) solicit any of ARA's employees to work for any competing dialysis facility/company, (ii) hire any of ARA's employees to work (as an employee or an independent contractor) for any competing dialysis facility/company, (iii) take any action that may reasonably result in any of ARA's employees going to work (as an employee or an independent contractor) for any competing dialysis facility/company, (iv) induce any patient or customer of ARA, either individually or collectively, to patronize any competing dialysis facility/company; (v) request or advise any patient, customer, or supplier of ARA to withdraw, curtail, or cancel such person's business with ARA; (vi) enter into any contract the purpose or result of which would benefit Employee if any patient or customer of ARA were to withdraw, curtail, or cancel such person's business with ARA; (vii) solicit, induce, or encourage any physician (or former physician) either affiliated with ARA or who becomes known to ARA or Employee through its business development activities or induce or encourage any other person under contract with ARA to curtail or terminated such person's affiliation or contractual relationship with ARA; (viii) disclose to any Person the names or addresses of any patient or customer of ARA or of any physician (or former physician) affiliated with ARA; or (ix) disparage ARA or any of its agents, employees, or affiliated physicians in any fashion.

1.3 Non-Competition . During the period of his employment and for a period of two (2) years following the termination of Employee's relationship with the Company and the expiration of any paid-time-off or severance period(s), irrespective of the reason or absence of reason for such termination (the "Restrictive Period"), the Employee will not, directly or indirectly, compete with the Company and/or its affiliates as an owner, partner, member, shareholder, consultant, agent, employee, director or co-venturer of any business (i) engaged in the kidney dialysis business and/or the operation of kidney dialysis facilities within 10 miles of any such facility owned and operated by ARH or its affiliates and subsidiaries, (ii) engaged in the kidney dialysis business and/or the operation of kidney dialysis facilities where the Employee is involved in a program to establish joint ventures with nephrologists in the United States of America, and (iii) in the case of a termination of employment that occurs on or before the second anniversary of the Effective Date, engaged in the kidney dialysis business and/or the operation of kidney dialysis facilities in the United States of America. In addition to the foregoing, the Employee will not during the Restrictive Period represent any other entity or business enterprise in conducting substantial negotiations with any nephrologists with whom such Executive had conducted substantial negotiations on behalf of ARH or its affiliates and subsidiaries during the one (1) year period immediately prior to the termination of such Employee's employment with the Company, however such termination may occur, for the purpose of establishing a business relationship between such nephrologists and such other entity or business enterprise. Notwithstanding the foregoing, this Section 1.3 is not intended to prohibit or restrict the Employee from (i) holding a direct or indirect equity interest in ARH, or (ii) owning up to five percent (5%) of the outstanding stock of a publicly held corporation that competes with ARH or its affiliates and subsidiaries.

1.4 Confidentiality. "Confidential Information" means (a) all information acquired by Employee from ARA, its employees, its suppliers or customers, its agents or consultants, or others, during Employee's relationship with ARA, that relates to the present or potential businesses, products or services and operations or processes of ARA, as well as any other information as may be designated by ARA as confidential or that a reasonable person would understand from the circumstances of the disclosure to be confidential. Employee acknowledges and agrees that: (i) in the course of employment by the Company, it will or may be necessary for Employee to create, use, or have access to information and materials that concern ARA's business; (ii) all Confidential Information are the property of ARA; (iii) the use, misappropriation, or disclosure of any Confidential Information would constitute a breach of trust and could cause serious and irreparable injury to ARA; and (iv) it is essential to the protection of ARA's goodwill and maintenance of ARA's competitive position that all Confidential Information be kept confidential and that Employee not disclose any Confidential Information to others or use Confidential Information to Employee's own advantage or the advantage of others.

1.5 Compliance and Acknowledgement . To enable the Company to monitor compliance with the non-competition, non-solicitation, and confidentiality obligations imposed by this Agreement, Employee further agrees to inform in writing the Company's Chief Executive Officer, Joseph Carlucci, of the identity of Employee's subsequent employer(s) and prospective job title(s) and responsibilities prior to beginning employment. Employee agrees that this notice requirement shall remain in effect for one (1) year following the termination of Employee's employment at the Company. Employee acknowledges and agrees that the covenants in Sections 1.2, 1.3, 1.4 have unique, substantial and immeasurable value to the Company, that Employee has sufficient skills to provide a livelihood for Employee while this covenant remains in force, and that these covenant will not interfere with Employee's ability to work consistent with Employee's experience, training, and education.

(b) Not Employment Contract. The Employee acknowledges that this Agreement does not constitute a contract of employment and does not guarantee that the Company or any of its subsidiaries

will continue his/her employment for any period of time or otherwise change the at-will nature of his/her employment.

(c) Interpretation. If any restriction set forth in herein is found by any court of competent jurisdiction to be invalid, illegal, or unenforceable, it shall be modified to the minimum extent necessary to render the modified restriction valid, legal and enforceable. The parties intend that the non-competition and non-solicitation provisions contained in this Agreement shall be deemed to be a series of separate covenants, one for each and every county of each and every state of the United States of America and each and every political subdivision of each and every country outside the United States of America where this provision is intended to be effective.

(d) Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement.

(e) Waiver of Rights. No delay or omission by the Company in exercising any right under this Agreement will operate as a waiver of that or any other right. A waiver or consent given by the Company on any one occasion is effective only in that instance and will not be construed as a bar to or waiver of any right on any other occasion.

(f) Equitable Remedies. The restrictions contained in this Agreement are necessary for the protection of the business and goodwill of the Company and its subsidiaries and are considered by the Employee to be reasonable for such purpose. The Employee agrees that any breach of this Agreement is likely to cause the Company substantial and irrevocable damage and therefore, in the event of any such breach, the Employee agrees that the Company, in addition to such other remedies which may be available, shall be entitled to specific performance and other injunctive relief.

(g) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts. Any action, suit, or other legal proceeding which is commenced to resolve any matter arising under or relating to any provision of this Agreement shall be commenced only in a court within the Commonwealth of Massachusetts (or, if appropriate, a federal court located within Massachusetts), and the Company and the Employee each consents to the jurisdiction of such a court.

THE EMPLOYEE ACKNOWLEDGES THAT HE/SHE HAS CAREFULLY READ THIS AGREEMENT AND UNDERSTANDS AND AGREES TO ALL OF THE PROVISIONS IN THIS AGREEMENT.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

EMPLOYEE AMERICAN RENAL ASSOCIATES, LLC

/s/ Jonathan Wilcox By: /s/ Michael Costa

Print Name: Jonathan Wilcox Its: Vice President and General Counsel

Exhibit 21.1

List of Subsidiaries

Name	Jurisdiction of Formation
ARA-Yuba City Dialysis LLC	CA
Kerman Dialysis Center, LLC	CA
Capitol Dialysis, LLC	DC
Acute Dialysis Services-ARA LLC	DE
AKC Holding LLC	DE
American Renal Associates Holdings, Inc.	DE
American Renal Associates LLC	DE
American Renal Aviation, LLC	DE
American Renal Global Ventures, LLC	DE
AMERICAN RENAL HOLDINGS INTERMEDIATE COMPANY, LLC	DE
American Renal Holdings, Inc.	DE
American Renal Integrated Services of Colorado, LLC	DE
American Renal Integrated Services of New England, LLC	DE
American Renal Management LLC	DE
American Renal Patient Care Foundation, Inc.	DE
American Renal Practice Management, LLC	DE
American Universal, LLC	DE
American Universal-Hockessin, LLC	DE
Ameri-Tech Kidney Center- Arlington, LLC	DE
Ameri-Tech Kidney Center- Bedford, LLC	DE
ARA - Ludlow Dialysis, LLC	DE
ARA Dialysis Unit at Ohio Valley Hospital, LLC	DE
ARA-Boca Raton Dialysis LLC	DE
ARA-Boca Raton Holding LLC	DE
ARA-Chillicothe Dialysis, LLC	DE
ARA-Crystal Lake Dialysis LLC	DE
ARA-Daytona Beach Dialysis LLC	DE
ARA-East Providence Dialysis LLC	DE
ARA-Jackson Dialysis LLC	DE
ARA-Johnston Dialysis LLC	DE
ARA-Milwaukee Dialysis LLC	DE
ARA-N.W. Chicago LLC	DE
ARA-Naples Dialysis Center LLC	DE
ARA-Naples South Dialysis Center LLC	DE
ARA-New Castle Dialysis LLC	DE
ARA-Ohio Holdings LLC	DE
ARA-Pawtucket Dialysis LLC	DE
ARA-Piketon Dialysis LLC	DE

Name	Jurisdiction of Formation
ARA-Providence Dialysis LLC	DE
ARA-Rhode Island Dialysis II LLC	DE
ARA-South Barrington Dialysis LLC	DE
ARA-South Central Ohio, LLC	DE
ARA-Tiverton Dialysis LLC	DE
Arlington Dialysis Center, LLC	DE
Athens Renal Center, LLC	DE
Atlantic Kidney Center LLC	DE
Baldwin Dialysis Center, LLC	DE
Belle Glade Dialysis Center, LLC	DE
Bensalem Dialysis Center LLC	DE
Big Lake Kidney Center LLC	DE
Boardman Dialysis Center LLC	DE
Bradenton Dialysis Center LLC	DE
Bristol Dialysis LLC	DE
Brockton Dialysis Center, LLC	DE
Brockton Healthcare Clinic, LLC	DE
Carolina Dialysis LLC	DE
Central Columbia Kidney Center, LLC	DE
Central Kittanning Dialysis Center LLC	DE
Champion Dialysis Center, LLC	DE
Clarion Dialysis Center, LLC	DE
Clermont Dialysis Center LLC	DE
Clewiston Dialysis Center, LLC	DE
Clifton Dialysis Center, LLC	DE
Clinton Dialysis Clinic, LLC	DE
Columbia Northeast Kidney Center, LLC	DE
Complete Dialysis Care, LLC	DE
Comprehensive Dialysis Care, LLC	DE
Continental Dialysis Care Center, LLC	DE
Dearborn Kidney Center, LLC	DE
Delano Kidney Center, LLC	DE
Delray Beach Dialysis Center LLC	DE
Dentsville Kidney Center, LLC	DE
Detroit Kidney Center, LLC	DE
Dialysis Care Center of Palm Coast LLC	DE
Dialysis Center of Forsyth, LLC	DE
Dialysis Center of Macon, LLC	DE
Dialysis Center of Milledgeville, LLC	DE
Dialysis Center of Porterville, LLC	DE
Dialysis Center of Wakefield LLC	DE
Dialysis Center of West Orange LLC	DE

Name	Jurisdiction of Formation
Dialysis Center of West Warwick LLC	DE
Dialysis Center of Westerly LLC	DE
Dialysis Center of Western Massachusetts LLC	DE
Dialysis Center of Woonsocket LLC	DE
Dialysis Services of London, LLC	DE
Dialysis Services of Pineville, LLC	DE
Dublin Dialysis Center, LLC	DE
Ellicott City Dialysis Center LLC	DE
Ellicott Kidney Center, LLC	DE
Estrella Mountain Dialysis, LLC	DE
Fairfield Kidney Center LLC	DE
Fall River Kidney Center, LLC	DE
Florida Dialysis Center of Celebration, LLC	DE
Florida Dialysis Center of Haines City, LLC	DE
Florida Dialysis Center of Orlando, LLC	DE
Fort Lauderdale Renal Dialysis, LLC	DE
Fort Myers Kidney Center, LLC	DE
Fort Valley Dialysis Center, LLC	DE
Gateway St. Louis Dialysis, LLC	DE
Georgia Dialysis Centers, LLC	DE
Goldtree Kidney Center LLC	DE
Grand Prairie Dialysis Center, LLC	DE
Great Falls Dialysis, LLC	DE
Greenacres Dialysis Center, LLC	DE
Greenville Dialysis Clinic, LLC	DE
Grovetown Dialysis Clinic, LLC	DE
Hammond Dialysis Clinic, LLC	DE
Hawthorn Kidney Center, LLC	DE
Hawthorn Kidney Center-Wareham, LLC	DE
Hephzibah Dialysis Clinic LLC	DE
Herald Square Dialysis , LLC	DE
Heritage Dialysis Center LLC	DE
Hilliard Dialysis Center LLC	DE
Hollywood Dialysis, LLC	DE
Howard University Dialysis Center, LLC	DE
Jacksonville Acute Dialysis Services LLC	DE
JKC Holding LLC	DE
Jupiter Kidney Center LLC	DE
Keowee Dialysis Center, LLC	DE
Kidney Care Centers of Cambridge Ohio, LLC	DE
Kidney Care Centers of Coshocton Ohio, LLC	DE
Kidney Care Centers of Zanesville Ohio, LLC	DE

Name	Jurisdiction of Formation
Kidney Center of Arvada LLC	DE
Kidney Center of Bear Creek, LLC	DE
Kidney Center of Dacono, LLC	DE
Kidney Center of Lafayette LLC	DE
Kidney Center of Lakewood LLC	DE
Kidney Center of Longmont LLC	DE
Kidney Center of North Denver, LLC	DE
Kidney Center of the Rockies, LLC	DE
Kidney Center of Westminster LLC	DE
Lake Gray Dialysis Center LLC	DE
Lake Oconee Dialysis Center, LLC	DE
Langhorne Dialysis LLC	DE
Lawton Dialysis Center, LLC	DE
Lawton Dialysis Center-East, LLC	DE
Lehigh Acres Dialysis Center, LLC	DE
Louisville Dialysis Clinic, LLC	DE
Louisville Dialysis Clinic-Peachtree, LLC	DE
Macon Eastside Dialysis Center, LLC	DE
Macon Southside Dialysis Center, LLC	DE
Madera Kidney Center, LLC	DE
McHenry Dialysis Center, LLC	DE
Metro St. Louis Dialysis - Florissant, LLC	DE
Miami Regional Dialysis Center West, LLC	DE
Middleburg Dialysis LLC	DE
Millen Dialysis Clinic, LLC	DE
Nephrology Center of Detroit, LLC	DE
Nephrology Center of Eastpointe, LLC	DE
New Orleans Kidney Center LLC	DE
North Arlington Dialysis Center, LLC	DE
North Main Kidney Center, LLC	DE
Northwest Jacksonville Dialysis Center, LLC	DE
Oil City Dialysis Center, LLC	DE
Palmetto Dialysis Center, LLC	DE
Parker Kidney Center, LLC	DE
Phoenix Pediatric Dialysis Center LLC	DE
Pickaway Dialysis Center LLC	DE
Salisbury Dialysis Center, LLC	DE
Sandersville Dialysis Clinic, LLC	DE
Seneca Dialysis Center, LLC	DE
South Arlington Dialysis Center, LLC	DE
South Augusta Dialysis Clinic, LLC	DE
Southwest Jacksonville Dialysis Center LLC	DE

Name	Jurisdiction of Formation
Space City Dialysis Center, LLC	DE
Spartanburg Dialysis, LLC	DE
St. Petersburg Kidney Care South, LLC	DE
St. Petersburg Kidney Care, LLC	DE
Swainsboro Dialysis Clinic, LLC	DE
Taunton Healthcare Clinic, LLC	DE
Texas-ARA LLC	DE
The Dialysis Center of Attleboro, LLC	DE
The Dialysis Center of Gary – Merrillville, LLC	DE
The Dialysis Center of Hammond, LLC	DE
The Dialysis Center of North Philadelphia, LLC	DE
The Dialysis Center of Portage, LLC	DE
The Dialysis Center of Schererville, LLC	DE
The Dialysis Center of West Philadelphia, LLC	DE
The Dialysis Unit of Center City Philadelphia, LLC	DE
The Kidney Center of South Philadelphia, LLC	DE
The Kidney Center on Main, LLC	DE
Thornton Kidney Center, LLC	DE
Universal Dialysis Center, LLC	DE
University Kidney Center Bluegrass, LLC	DE
University Kidney Center Broadway, LLC	DE
University Kidney Center Hikes Lane, LLC	DE
University Kidney Center, LLC	DE
University Kidney Center-Louisville, LLC	DE
Wallingford Dialysis Care, LLC	DE
Waltham Dialysis LLC	DE
Warner Robins Dialysis Center, LLC	DE
Warren Dialysis Center LLC	DE
Waynesboro Dialysis Clinic, LLC	DE
Wellesley Dialysis LLC	DE
Western Community Dialysis Center, LLC	DE
Westminster Renal Dialysis, LLC	DE
Woodbridge Dialysis Center, LLC	DE
Woodhaven Dialysis Center, LLC	DE
Woodland Park Dialysis Center, LLC	DE
Youngstown-Warren Home Dialysis, LLC	DE
ARA-Aventura LLC	FL
ARA-Orange Park LLC	FL
ARA-Sebring Dialysis LLC	FL
ARA-Sun City Dialysis LLC	FL
ARA-Titusville Dialysis LLC	FL
ARA-West Jacksonville LLC	FL
Miami-ARA LLC	FL

Name	Jurisdiction of Formation
ARA-Augusta Clinic LLC	GA
ARA-Augusta, LLC	GA
ARA-South Augusta Clinic LLC	GA
Lewis-Clark Kidney Center, LLC	ID
ARA-Springfield Dialysis LLC	MA
ARA-ADELPHI LLC	MD
Associates of Fulton County, LLC	NY
Elizabethtown Center, LLC	NY
Harriman Partners, LLC	NY
Massena Center, LLC	NY
MOHAWK VALLEY DIALYSIS CENTER, INC.	NY
Plattsburgh Associates, LLC	NY
Schenectady Partners, LLC	NY
Utica Partners, LLC	NY
ARA-Bexley LLC	OH
ARA-Columbus, LLC	OH
ARA-North Columbus Dialysis LLC	OH
ARA-South Columbus Dialysis LLC	OH
Kidney Center of Bexley, LLC	OH
Kidney Center of Whitehall, LLC	OH
ARA-Hazleton LLC	PA
Butler-ARA, LLC	PA
American Renal Texas, L.P.	TX
Bay City Dialysis Center, LLP	TX
Beaumont-ARA Dialysis LLP	TX
Brazoria County Dialysis, L.L.P.	TX
Carrollton Regional Dialysis Center, LLC	TX
Desoto Regional Dialysis Center LLC	TX
Grapevine Kidney Center, LLC	TX
Greater Irving I Regional Dialysis Center, LLC	TX
Greater Irving II Regional Dialysis Center, LLC	TX
Irving Regional Dialysis Center LLC	TX
Jasper-ARA Dialysis L.L.P.	TX
Matagorda Dialysis Care, LLP	TX
Regional Dialysis Center of Lancaster LLC	TX
Regional Dialysis Center of Mesquite LLC	TX
Renal North Texas Holdings LLC	TX
Wharton Dialysis Care, L.L.P.	TX
Woodville Dialysis Center LLP	TX
ARA-Forest Park Dialysis LLC	VA
ARA-Mechanicsville Dialysis LLC	VA

Name	Jurisdiction of Formation
ARA-Richmond Dialysis LLC	VA
ARA-South Laburnum Dialysis LLC	VA
Richmond Regional Dialysis, LLC	VA
Westhampton Regional Dialysis, LLC	VA

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated March 6, 2018, with respect to the consolidated financial statements included in the Annual Report of American Renal Associates Holdings, Inc. on Form 10-K for the year ended December 31, 2017. We consent to the incorporation by reference of said report in the Registration Statements of American Renal Associates Holdings, Inc. on Form S-8 (File No. 333-210870) and on Form S-3 (File No. 333-219326).

/s/ GRANT THORNTON LLP

Boston, Massachusetts
March 6, 2018

Exhibit 31.1

SECTION 302 CERTIFICATION

I, Joseph A. Carlucci, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2017 of American Renal Associates Holdings, Inc. (the "registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Joseph A. Carlucci

Joseph A. Carlucci

Chief Executive Officer

Date: March 6, 2018

Exhibit 31.2

SECTION 302 CERTIFICATION

I, Jonathan L. Wilcox, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2017 of American Renal Associates Holdings, Inc. (the "registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Jonathan L. Wilcox

Jonathan L. Wilcox

Chief Financial Officer

Date: March 6, 2018

Exhibit 32.1

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of American Renal Associates Holdings, Inc. (the "Company") on Form 10-K for the year ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joseph A. Carlucci, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Joseph A. Carlucci

Joseph A. Carlucci
Chief Executive Officer

Date: March 6, 2018

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 32.2

CERTIFICATION OF THE CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of American Renal Associates Holdings, Inc. (the "Company") on Form 10-K for the year ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jonathan L. Wilcox, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Jonathan L. Wilcox

Jonathan L. Wilcox
Chief Financial Officer

Date: March 6, 2018

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.