

PRA Health Sciences, Inc.
Form 424B7
August 08, 2018

Use these links to rapidly review the document

[TABLE OF CONTENTS](#)

[TABLE OF CONTENTS](#)

[Table of Contents](#)

CALCULATION OF REGISTRATION FEE

| Title of Each Class of Securities to be Registered | Amount To Be Registered | Proposed Maximum Offering Price Per Share | Proposed Maximum Aggregate Offering Price | Amount of Registration Fee |
|---|------------------------------------|--|--|---------------------------------------|
| Common Stock, par value \$0.01 per share | 6,500,000 | \$103.52(1) | \$672,880,000.00 | \$83,773.56 |

(1) Estimated solely for purposes of calculating the registration fee. In accordance with Rule 457(c) and Rule 457(r) of the Securities Act of 1933, as amended, the prices shown are based on the average of the high and low prices reported for PRA Health Sciences, Inc.'s common stock on the Nasdaq Global Select Market on July 31, 2018.

Table of Contents

Filed Pursuant to Rule 424(b)(7)
Registration Statement No. 333-209883

PROSPECTUS SUPPLEMENT
(To Prospectus dated March 2, 2016)

6,500,000 Shares

PRA Health Sciences, Inc.

Common Stock

The selling stockholders named in this prospectus supplement are offering 6,500,000 shares of our common stock. We will not receive any proceeds from the sale of our common stock by the selling stockholders.

Our common stock is listed on the Nasdaq Global Select Market (the "Nasdaq") under the symbol "PRAH." On August 6, 2018, the last sale price of our common stock as reported on the Nasdaq was \$104.33 per share.

| | Per Share | Total |
|---|------------------|---------------|
| Public offering price | \$101.50 | \$659,750,000 |
| Underwriting discounts and commissions | \$0.49 | \$3,185,000 |
| Proceeds, before expenses, to the selling stockholders(1) | \$101.01 | \$656,565,000 |

(1) We have agreed to reimburse the underwriters for certain FINRA-related expenses. See "Underwriting."

Investing in our common stock involves risks. See "Risk Factors" beginning on page S-8 of this prospectus supplement, beginning on page 2 of the accompanying prospectus, in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, as well as the other information contained in such report and in our Quarterly Reports on Form 10-Q for the quarters ended March 31 and June 30, 2018 (which Forms 10-K and 10-Q are incorporated by reference herein) to read about factors you should consider before making a decision to invest in our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares of common stock against payment in New York, New York on or about August 9, 2018.

Morgan Stanley

Goldman Sachs & Co. LLC

Prospectus Supplement dated August 6, 2018.

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

| | Page |
|---|-------------|
| <u>About This Prospectus Supplement</u> | <u>S-ii</u> |
| <u>Prospectus Supplement Summary</u> | <u>S-1</u> |
| <u>Risk Factors</u> | <u>S-8</u> |
| <u>Forward-Looking Statements</u> | <u>S-11</u> |
| <u>Use of Proceeds</u> | <u>S-13</u> |
| <u>Price Range of Common Stock</u> | <u>S-14</u> |
| <u>Dividend Policy</u> | <u>S-15</u> |
| <u>Selling Stockholders</u> | <u>S-16</u> |
| <u>United States Federal Income and Estate Tax Consequences to Non-U.S. Holders</u> | <u>S-17</u> |
| <u>Certain ERISA Considerations</u> | <u>S-20</u> |
| <u>Underwriting</u> | <u>S-22</u> |
| <u>Legal Matters</u> | <u>S-29</u> |
| <u>Experts</u> | <u>S-29</u> |
| <u>Incorporation by Reference</u> | <u>S-29</u> |
| <u>Where You Can Find More Information</u> | <u>S-30</u> |

Prospectus

| | Page |
|--|-------------|
| <u>About This Prospectus</u> | <u>1</u> |
| <u>Risk Factors</u> | <u>2</u> |
| <u>Special Note Regarding Forward-Looking Statements</u> | <u>3</u> |
| <u>PRA Health Sciences, Inc.</u> | <u>5</u> |
| <u>Use of Proceeds</u> | <u>6</u> |
| <u>Description of Capital Stock</u> | <u>7</u> |
| <u>Selling Stockholders</u> | <u>15</u> |
| <u>Plan of Distribution</u> | <u>16</u> |
| <u>Legal Matters</u> | <u>18</u> |
| <u>Experts</u> | <u>18</u> |
| <u>Incorporation by Reference</u> | <u>18</u> |
| <u>Where You Can Find More Information</u> | <u>19</u> |

We have not authorized anyone to provide any information or to make any representations other than those contained or incorporated by reference herein or in any free writing prospectuses we have prepared. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus supplement is current only as of its date. Our business, financial condition, results of operation and prospects may have changed since that date.

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document has two parts, a prospectus supplement and an accompanying prospectus dated March 2, 2016. This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the SEC, utilizing the SEC's "shelf" registration process. The prospectus supplement, which describes certain matters relating to us and the specific terms of this offering of shares of our common stock, adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. Generally, when we refer to this document, we are referring to both parts of this document combined. Both this prospectus supplement and the accompanying prospectus include important information about us, our common stock and other information you should know before investing in our common stock. The accompanying prospectus gives more general information. To the extent the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus, you should rely on the information contained in this prospectus supplement. If the information contained in this prospectus supplement differs or varies from the information contained in a document we have incorporated by reference, you should rely on the information in the more recent document.

Before you invest in our common stock, you should read the registration statement of which this document forms a part and this document, including the documents incorporated by reference herein that are described under the heading "Incorporation by Reference."

The distribution of this prospectus supplement and the accompanying prospectus and the offering of the common stock in certain jurisdictions may be restricted by law. We are not making an offer of the common stock in any jurisdiction where the offer is not permitted. Persons who come into possession of this prospectus supplement and the accompanying prospectus should inform themselves about and observe any such restrictions. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation.

You should not consider any information in this prospectus supplement or the accompanying prospectus to be investment, legal or tax advice. You should consult your own counsel, accountant and other advisors for legal, tax, business, financial and related advice regarding the purchase of the common stock. We are not making any representation to you regarding the legality of an investment in the common stock by you under applicable investment or similar laws.

In this prospectus supplement, unless otherwise indicated or the context otherwise requires, references to "PRA Health Sciences," "PRA," the "Company," "we," "us" and "our" refer to PRA Health Sciences, Inc., a Delaware corporation, and its consolidated subsidiaries. References to the "IPO" refer to our initial public offering on November 12, 2014 of 19,523,255 shares of our common stock, including shares issued to the underwriters of the IPO pursuant to their election to exercise in full their option to purchase additional shares. References to the "selling stockholders" refer to the selling stockholders listed in the table under the caption "Selling Stockholders" in this prospectus supplement. References to our "2017 Annual Report" refer to our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, which is incorporated by reference in this prospectus supplement.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained or incorporated by reference in this prospectus supplement or the accompanying prospectus. It does not contain all of the information that you should consider before investing in shares of our common stock. You should carefully read this entire prospectus supplement and the accompanying prospectus, including the factors described or referred to under the heading "Risk Factors" herein and in our 2017 Annual Report, the other information contained in such report, our Quarterly Reports on Form 10-Q for the quarters ended March 31 and June 30, 2018 and the financial statements and related notes and other information incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision.

PRA Health Sciences, Inc.

Our Company

PRA Health Sciences, Inc. is one of the world's leading global contract research organizations, or CROs, by revenue, providing outsourced clinical development services to the biotechnology and pharmaceutical industries. PRA believes it is one of a select group of CROs with the expertise and capability to conduct clinical trials across major therapeutic areas on a global basis. PRA's therapeutic expertise includes areas that are among the largest in pharmaceutical development, and it focuses in particular on oncology, central nervous system, inflammation, respiratory, cardiometabolic and infectious diseases. PRA believes it further differentiates itself from its competitors through PRA's investments in medical informatics and clinical technologies designed to enhance efficiencies, improve study predictability and provide better transparency for its clients throughout their clinical development processes. PRA's data solutions offerings allow it to better serve its clients across their entire product lifecycle by (i) improving clinical trial design, recruitment, and execution; (ii) creating real-world data solutions based on the use of medicines by actual patients in normal situations; and (iii) increasing the efficiency of healthcare companies' commercial organizations through enhanced analytics and outsourcing services.

Our History

PRA Health Sciences, Inc. was incorporated in Delaware in June 2013 and its predecessors date back to 1982. Our qualified and experienced clinical and scientific staff has been delivering clinical drug development services to our clients for more than 30 years and our service offerings now encompass the spectrum of the clinical drug development process.

On September 23, 2013, affiliates of Kohlberg Kravis Roberts & Co. L.P., or KKR, acquired PRA Holdings for \$1.4 billion pursuant to a plan of merger among Pinnacle Holdco Parent, Inc. (now known as PRA Health Sciences, Inc.), Pinnacle Merger Sub, Inc., or merger sub, and Genstar Capital Partners V, L.P, or Genstar, or the PRA Acquisition. Also on September 23, 2013, we acquired RPS Parent Holding Corp., or RPS, a global CRO, for \$274.3 million, or the RPS Acquisition.

In September 2017, PRA completed the acquisition of Symphony Health Solutions Corporation, a provider of data and analytics to help professionals understand the full market lifecycle of products offered for sale by companies in the pharmaceutical industry.

Our largest stockholder is KKR PRA Investors L.P., a Delaware limited partnership controlled by KKR, or KKR PRA Investors.

PRA's principal executive offices are located at 4130 ParkLake Avenue, Suite 400, Raleigh, NC 27612 and the telephone number at that address is (919) 786-8200. We maintain a website at www.prahs.com. The information contained on our website or that can be accessed through our website neither constitutes part of this prospectus supplement nor is incorporated by reference herein.

Table of Contents

The Offering

The following summary of the offering contains basic information about the offering and our common stock and is not intended to be complete. It does not contain all the information that may be important to you. For a more complete understanding of our common stock, please refer to the section of the accompanying prospectus entitled "Description of Common Stock."

| | |
|--|---|
| Common stock offered by the selling stockholders | 6,500,000 shares of our common stock. |
| Use of proceeds | We will not receive any proceeds from this sale of shares by the selling stockholders. |
| Risk factors | You should carefully read and consider the information set forth under "Risk Factors" herein, in the accompanying prospectus and in the documents incorporated by reference herein, including our 2017 Annual Report before investing in our common stock. |
| Dividend policy | We do not anticipate paying any regular cash dividends on our common stock. Any decision to declare and pay dividends in the future will be made at the discretion of our board of directors and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that our board of directors may deem relevant. In addition, our ability to pay dividends is, and may be, limited by covenants of existing and any future outstanding indebtedness we or our subsidiaries incur, including under our existing credit facilities. Therefore, any return on investment in our common stock is solely dependent upon the appreciation of the price of our common stock on the open market, which may not occur. See "Dividend Policy." |
| Nasdaq symbol | "PRAH." |

Unless we indicate otherwise or the context otherwise requires, the information in this prospectus supplement does not reflect (1) 4,727,249 shares of common stock issuable upon the exercise of 4,727,249 options outstanding as of July 31, 2018, at a weighted average exercise price of \$45.93 per share, (2) 2,919,051 shares of common stock available for future issuance under our 2018 Stock Incentive Plan as of July 31, 2018 and (3) 12,500 restricted stock units outstanding as of July 31, 2018.

Table of Contents**Summary Historical Consolidated Financial and Other Data**

The following tables set forth, for the periods and at the dates indicated, our selected historical consolidated financial data. We have derived the selected consolidated financial data for the fiscal years ended December 31, 2015, December 31, 2016 and December 31, 2017 and the summary consolidated balance sheet data as of December 31, 2016 and December 31, 2017 from our audited consolidated financial statements included in our 2017 Annual Report, which is incorporated by reference herein. We have derived the selected consolidated condensed financial data for the six-month periods ended June 30, 2017 and June 30, 2018 and the summary consolidated condensed balance sheet data as of June 30, 2018 from our unaudited consolidated condensed financial statements included in our Quarterly Report on Form 10-Q for the six-month period ended June 30, 2018, which is incorporated by reference herein. The summary consolidated balance sheet data as of December 31, 2015 has been derived from our historical audited consolidated financial statements not incorporated by reference herein, and the summary consolidated condensed balance sheet data as of June 30, 2017 has been derived from our historical unaudited consolidated condensed financial statements not incorporated by reference herein. Our historical results are not necessarily indicative of the results we may achieve in any future period. The information set forth below should be read in conjunction with, and is qualified in its entirety by reference to "Selected Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes included in the 2017 Annual Report and subsequent quarterly reports that are incorporated by reference in this prospectus supplement.

| (\$ in thousands, other than per share and share data) | Year Ended December 31, 2015 | Year Ended December 31, 2016 | Year Ended December 31, 2017 | Six Months Ended June 30, 2017 | Six Months Ended June 30, 2018 |
|---|------------------------------------|------------------------------------|------------------------------------|---|---|
| Statement of Operations Data: | | | | | |
| Revenue: | | | | | |
| Service revenue(1) | \$ 1,375,847 | \$ 1,580,023 | \$ 1,948,374 | | |
| Reimbursement revenue(1) | 238,036 | 231,688 | 311,015 | | |
| Total revenue(1) | 1,613,883 | 1,811,711 | 2,259,389 | \$ 1,021,484 | \$ 1,424,678 |
| Operating expenses: | | | | | |
| Direct costs | 886,528 | 1,032,688 | 1,283,868 | 588,123 | 763,087 |
| Reimbursable out-of-pocket costs | 238,036 | 231,688 | 311,015 | 136,462 | 159,723 |
| Reimbursable investigator fees(1) | | | | | 128,452 |
| Selling, general and administrative expenses | 246,417 | 269,893 | 321,987 | 150,463 | 182,871 |
| Transaction-related costs | | 44,834 | 87,709 | 75 | (11,128) |
| Depreciation and amortization | 77,952 | 69,506 | 78,227 | 31,293 | 55,893 |
| Loss on disposal of fixed assets, net | 652 | 753 | 358 | 232 | 36 |
| Income from operations | 164,298 | 162,349 | 176,225 | 114,836 | 145,744 |
| Interest expense, net | (61,747) | (54,913) | (46,729) | (19,531) | (29,437) |
| Loss on modification or extinguishment of debt | | (38,178) | (15,023) | | |
| Foreign currency gains (losses), net | 14,048 | 24,029 | (39,622) | (22,210) | 393 |
| Other (expense) income, net | (1,434) | 607 | (304) | (205) | (133) |
| Income before income taxes and equity in income of unconsolidated joint ventures | 115,165 | 93,894 | 74,547 | 72,890 | 116,567 |
| Provision for (benefit from) income taxes | 30,004 | 28,494 | (12,623) | 18,076 | 35,144 |
| Income before equity in income of unconsolidated joint ventures | 85,161 | 65,400 | 87,170 | 54,814 | 81,423 |
| (Loss) equity in income of unconsolidated joint ventures, net of tax | (3,396) | 2,775 | 123 | 68 | 74 |
| Net income | 81,765 | 68,175 | 87,293 | 54,882 | 81,497 |
| Net income attributable to noncontrolling interest | | | (366) | (112) | (539) |
| Net income attributable to PRA Health Sciences, Inc. | \$ 81,765 | \$ 68,175 | \$ 86,927 | \$ 54,770 | \$ 80,958 |

Net income per share:

Edgar Filing: PRA Health Sciences, Inc. - Form 424B7

| | | | | | | | | | | |
|---------|----|------|----|------|----|------|----|------|----|------|
| Basic | \$ | 1.36 | \$ | 1.12 | \$ | 1.39 | \$ | 0.88 | \$ | 1.27 |
| Diluted | \$ | 1.29 | \$ | 1.06 | \$ | 1.32 | \$ | 0.84 | \$ | 1.22 |

S-3

Table of Contents

| | Year Ended December 31, 2015 | Year Ended December 31, 2016 | Year Ended December 31, 2017 | Six Months Ended June 30, 2017 | Six Months Ended June 30, 2018 |
|---|------------------------------------|------------------------------------|------------------------------------|---|---|
| (\$ in thousands, other than per share and share data) | | | | | |
| Weighted average shares outstanding: | | | | | |
| Basic | 59,965 | 60,759 | 62,437 | 61,908 | 63,702 |
| Diluted | 63,207 | 64,452 | 65,773 | 65,586 | 66,120 |
| Cash Flow: | | | | | |
| Net cash provided by (used in): | | | | | |
| Operating activities(2) | \$ 152,428 | \$ 160,047 | \$ 220,408 | \$ 15,937 | \$ 87,191 |
| Investing activities(2) | (71,686) | (34,614) | (687,420) | (58,888) | (26,800) |
| Financing activities(2) | (42,444) | (101,595) | 507,009 | 6,785 | (128,135) |
| Balance sheet data (at end of period): | | | | | |
| Cash and cash equivalents | \$ 121,065 | \$ 144,623 | \$ 192,229 | \$ 113,400 | \$ 122,854 |
| Accounts receivable and unbilled services, net | 415,077 | 439,053 | 627,003 | 607,322 | 602,860 |
| Working capital | 43,796 | 60,538 | (94,592) | 111,921 | (63,339) |
| Total assets | 2,228,743 | 2,190,391 | 3,358,046 | 2,409,657 | 3,252,908 |
| Total debt, net | 889,514 | 828,302 | 1,345,686 | 833,464 | 1,300,630 |
| Total liabilities | 1,526,021 | 1,461,139 | 2,421,565 | 1,561,474 | 2,298,785 |
| Total stockholders' equity | 702,722 | 729,252 | 936,481 | 848,183 | 954,123 |
| Other Financial Data: | | | | | |
| EBITDA(3) | \$ 251,468 | \$ 221,088 | \$ 199,260 | \$ 123,670 | \$ 201,432 |
| Adjusted EBITDA(3) | 251,593 | 289,287 | 362,661 | 154,710 | 205,475 |
| Adjusted net income(3) | 126,258 | 162,307 | 218,804 | 92,124 | 122,313 |
| Adjusted net income per diluted share | \$ 2.00 | \$ 2.52 | \$ 3.33 | \$ 1.40 | \$ 1.85 |
| Backlog (at period end)(4) | 2,440,123 | 2,934,823 | 3,535,611 | 3,250,450 | 3,935,609 |
| Net new business(5) | 1,696,635 | 2,076,484 | 2,413,730 | 1,167,999 | 1,320,229 |

- (1) On January 1, 2018, we adopted Accounting Standards Codification, or ASC, Topic 606, "Revenue from Contracts with Customers," or ASC 606, using the modified retrospective method for all contracts that were not completed as of January 1, 2018. Comparative prior period information continues to be reported under the accounting standards in effect for the period presented. We recorded a net decrease in opening retained earnings of \$60.6 million as of January 1, 2018 due to the cumulative impact of adopting ASC 606. We decreased unbilled services by \$67.4 million, increased deferred tax assets by \$18.3 million, increased accrued expenses by \$50.8 million, and decreased advanced billings by \$39.3 million as of January 1, 2018. The adoption of ASC 606 had no net impact on our consolidated condensed statement of cash flows. The six months ended June 30, 2017 has been recast to conform with the presentation of a single revenue total in the consolidated condensed statement of operations. Previously, the six months ended June 30, 2017 included service revenue of \$885.0 million, reimbursement revenue of \$136.5 million, and excluded \$123.1 million in investigator fees which were reported net of costs incurred. For additional information on the impact of adoption of ASC 606 to our consolidated condensed statements of operations for the six months ended June 30, 2018, see Note 1 to our unaudited consolidated condensed financial statements included in our Quarterly Report on Form 10-Q for the six-month period ended June 30, 2018, which is incorporated by reference herein.
- (2) The consolidated statement of cash flows data for the year ended December 31, 2015 has been restated to reflect the adoption of Accounting Standard Update (ASU) No. 2016-15 and ASU No. 2016-18.
- (3) We report our financial results in accordance with generally accepted accounting principles, or GAAP. To supplement this information, we also use the following non-GAAP financial measures in this prospectus supplement: "EBITDA," "Adjusted EBITDA" and "Adjusted net income" (including diluted adjusted net income per share) which should not be considered as alternatives to income from operations, net income, net income per share, or any other performance measures derived in accordance with GAAP.

Management believes that these measures provide useful supplemental information to management and investors regarding our operating results as they exclude certain items whose fluctuation from period-to-period does not necessarily correspond to changes in the operating results of our business. As a result, management and our board of directors regularly use EBITDA and Adjusted EBITDA as a tool in evaluating our operating and financial performance and in establishing discretionary annual bonuses. Adjusted EBITDA is also the basis for covenant compliance EBITDA, which is used in certain covenants in the credit agreement governing our senior secured credit facilities. In addition, management believes that EBITDA, Adjusted EBITDA and Adjusted net income (including diluted adjusted net income per share) facilitate comparisons of our operating results with those of other companies by backing out of GAAP net income items relating to variations in capital structures (affecting interest expense), taxation, and the age and book depreciation of facilities and equipment (affecting relative depreciation expense), which may vary for different companies for reasons unrelated to operating performance. We believe that EBITDA, Adjusted EBITDA and Adjusted net income (including diluted adjusted net income per share) are frequently used by securities analysts, investors, and other interested parties in the evaluation of issuers, many of which also present EBITDA, Adjusted EBITDA and Adjusted net income (including diluted adjusted net income per share) when reporting their results in an effort to facilitate an

Edgar Filing: PRA Health Sciences, Inc. - Form 424B7

understanding of their operating results.

These non-GAAP financial measures have limitations as analytical tools, and you should not consider these measures in isolation, or as a substitute for analysis of our results as reported under GAAP. Additionally, because not all companies use identical

S-4

Edgar Filing: PRA Health Sciences, Inc. - Form 424B7

Table of Contents

calculations, these presentations of EBITDA, Adjusted EBITDA and Adjusted net income (including diluted adjusted net income per share) may not be comparable to similarly titled measures of other companies.

EBITDA represents net income before interest, taxes, depreciation and amortization. Adjusted EBITDA and Adjusted net income (including diluted adjusted net income per share) represent EBITDA and net income (including diluted net income per share), respectively, adjusted to exclude stock-based compensation expense, loss on disposal of fixed assets, loss on modification or extinguishment of debt, foreign currency (losses) and gains, other non-operating (expense) income, equity in (losses) gains of unconsolidated joint ventures, transaction and acquisition related costs, severance and restructuring charges, prior year foreign research and development credits, lease termination costs, non-cash rent adjustments, non-operating income attributable to noncontrolling interest and other charges. Adjusted net income is also adjusted to exclude amortization of intangible assets, amortization of deferred financing costs and amortization of terminated interest rate swaps. EBITDA and Adjusted EBITDA are not measurements of our financial performance under GAAP and should not be considered as alternatives to net income or other performance measures derived in accordance with GAAP or as alternatives to cash flow from operating activities as measures of our liquidity. EBITDA and Adjusted EBITDA have limitations as analytical tools, and you should not consider such measures either in isolation or as substitutes for analyzing our results as reported under GAAP.

Some of these limitations are:

EBITDA and Adjusted EBITDA do not reflect changes in, or cash requirements for, our working capital needs;

EBITDA and Adjusted EBITDA do not reflect our interest expense, or the cash requirements necessary to service interest or principal payments, on our debt;

EBITDA and Adjusted EBITDA do not reflect our tax expense or the cash requirements to pay our taxes;

EBITDA and Adjusted EBITDA do not reflect historical capital expenditures or future requirements for capital expenditures or contractual commitments;

although depreciation and amortization are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and EBITDA and Adjusted EBITDA do not reflect any cash requirements for such replacements; and

other companies in our industry may calculate EBITDA and Adjusted EBITDA differently, limiting their usefulness as comparative measures.

Because of these limitations, EBITDA and Adjusted EBITDA should not be considered as discretionary cash available to us to reinvest in the growth of our business or as a measure of cash that will be available to us to meet our obligations

The following table provides a reconciliation from our net income attributable to PRA Health Sciences, Inc. to EBITDA, Adjusted EBITDA and Adjusted net income.

Edgar Filing: PRA Health Sciences, Inc. - Form 424B7

Table of Contents

| | Year Ended December 31, 2015 | Year Ended December 31, 2016 | Year Ended December 31, 2017 | Six Months Ended June 30, 2017 | Six Months Ended June 30, 2018 |
|--|------------------------------------|------------------------------------|------------------------------------|---|---|
| (\$ in thousands) | | | | | |
| Net income attributable to PRA Health Sciences, Inc. | \$ 81,765 | \$ 68,175 | \$ 86,927 | \$ 54,770 | \$ 80,958 |
| Depreciation and amortization | 77,952 | 69,506 | 78,227 | 31,293 | 55,893 |
| Interest expense, net | 61,747 | 54,913 | 46,729 | 19,531 | 29,437 |
| Provision for (benefit from) income taxes | 30,004 | 28,494 | (12,623) | 18,076 | 35,144 |
| EBITDA | 251,468 | 221,088 | 199,260 | 123,670 | 201,432 |
| Stock-based compensation expense(a) | 5,276 | 7,067 | 12,616 | 4,236 | 12,698 |
| Loss on disposal of fixed assets, net(b) | 652 | 753 | 358 | 232 | 36 |
| Loss on modification or extinguishment of debt(c) | | 38,178 | 15,023 | | |
| Foreign currency (gains) losses, net(d) | (14,048) | (24,029) | 39,622 | 22,210 | (393) |
| Other non-operating expense (income), net(e) | 1,434 | (607) | 304 | 205 | 133 |
| Equity in loss (income) of unconsolidated joint ventures, net of tax | 3,396 | (2,775) | (123) | (68) | (74) |
| Foreign research and development credits(f) | (8,346) | (197) | (66) | | |
| Transaction-related costs(g) | | 44,834 | 87,709 | 75 | (11,128) |
| Acquisition-related costs(h) | 233 | 2,434 | 3,565 | 2,904 | 390 |
| Lease termination expense(i) | 3,270 | (415) | 187 | 26 | 68 |
| Severance and restructuring charges(j) | 1,569 | 33 | | | 804 |
| Non-cash rent adjustment(k) | 4,273 | 2,923 | 3,614 | 1,152 | 532 |
| Non-operating income attributable to noncontrolling interest | | | 592 | 68 | 528 |
| Other charges(l) | 2,416 | | | | 449 |
| Adjusted EBITDA | \$ 251,593 | \$ 289,287 | \$ 362,661 | \$ 154,710 | \$ 205,475 |
| Net income attributable to PRA Health Sciences, Inc. | \$ 81,765 | \$ 68,175 | \$ 86,927 | 54,770 | 80,958 |
| Provision for (benefit from) income taxes | 30,004 | 28,494 | (12,623) | 18,076 | 35,144 |
| Amortization of intangible assets | 56,751 | 45,368 | 49,184 | 18,169 | 36,111 |
| Amortization of deferred financing costs | 5,983 | 4,433 | 2,108 | 964 | 1,073 |
| Amortization of terminated interest rate swaps | 731 | 4,961 | 6,684 | 3,178 | 3,610 |
| Stock-based compensation expense(a) | 5,276 | 7,067 | 12,616 | 4,236 | 12,698 |
| Loss on disposal of fixed assets, net(b) | 652 | 753 | 358 | 232 | 36 |
| Loss on modification or extinguishment of debt(c) | | 38,178 | 15,023 | | |
| Foreign currency (gain) losses, net(d) | (14,048) | (24,029) | 39,622 | 22,210 | (393) |
| Other non-operating expense (income), net(e) | 1,434 | (607) | 304 | 205 | 133 |
| Equity in loss (income) of unconsolidated joint ventures, net of tax | 3,396 | (2,775) | (123) | (68) | (74) |
| Foreign research and development credits(f) | (8,346) | (197) | (66) | | |
| Transaction-related costs(g) | | 44,834 | 87,709 | 75 | (11,128) |
| Acquisition-related costs(h) | 233 | 2,434 | 3,565 | 2,904 | 390 |
| Lease termination costs(i) | 3,270 | (415) | 187 | 26 | 68 |
| Severance and restructuring charges(j) | 1,569 | 33 | | | 804 |
| Non-cash rent adjustment(k) | 4,273 | 2,923 | 3,614 | 1,152 | 532 |
| Non-operating income attributable to noncontrolling interest | | | 592 | 68 | 528 |
| Other charges(l) | 2,416 | | | | 449 |
| Adjusted pre-tax income | 175,359 | 219,630 | 295,681 | 126,197 | 160,939 |
| Adjusted tax expense(m) | (49,101) | (57,323) | (76,877) | (34,073) | (38,626) |
| Adjusted net income | \$ 126,258 | \$ 162,307 | \$ 218,804 | \$ 92,124 | \$ 122,313 |

(a) Stock-based compensation expense represents the amount of recurring non-cash expense related to the Company's equity compensation programs, excluding transaction-related stock-based compensation discussed in footnote (g).

Edgar Filing: PRA Health Sciences, Inc. - Form 424B7

(b)

Loss on disposal of fixed assets, net represents the costs incurred in connection with the sale or disposition of fixed assets, primarily IT equipment and furniture and fixtures. We exclude these (gains) losses from Adjusted EBITDA and Adjusted net income because they result from investing decisions rather than from decisions made related to our ongoing operations.

S-6

Edgar Filing: PRA Health Sciences, Inc. - Form 424B7

Table of Contents

- (c) Loss on modification or extinguishment of debt relates to costs incurred in connection with changes to our long-term debt. We exclude these losses from Adjusted EBITDA and Adjusted net income because they result from financing decisions rather than from decisions made related to our ongoing operations.
- (d) Foreign currency (gains) losses, net primarily relates to gains or losses that arise in connection with the revaluation of short-term inter-company balances between our domestic and international subsidiaries. In addition, this amount includes gains or losses from foreign currency transactions, such as those resulting from the settlement of third-party accounts receivable and payables denominated in a currency other than the local currency of the entity making the payment. We exclude these gains and losses from Adjusted EBITDA and Adjusted net income because they result from financing decisions rather than from decisions made related to our ongoing operations and because fluctuations from period-to-period do not necessarily correspond to changes in our operating results.
- (e) Other non-operating expense (income), net represents income and expense that are non-operating and whose fluctuations from period-to-period do not necessarily correspond to changes in our operating results.
- (f) The foreign research and development credits are the result of a comprehensive analysis we have been performing across the organization to determine whether expenditures incurred qualify as research and development as defined by the respective jurisdiction. The amounts recorded in this line item represent amounts recorded in the current period that related to a prior period.
- (g) Transaction-related costs relate primarily to the acquisition of Symphony Health Solutions Corporation ("Symphony Health"), secondary offerings, fair-value revaluation of acquisition-related earn-out liabilities and the receivables financing agreement. Such costs for the six months ended June 30, 2018 and 2017 consist of fair-value revaluations of acquisition-related earn-out liabilities and fees associated with the amendment to our accounts receivable financing agreement. Such costs for the year ended December 31, 2017 consist of \$6.4 million of fees incurred in connection with the acquisition of Symphony Health, \$5.3 million of stock-based compensation expense related to the release of the transfer restrictions on vested options, \$1.0 million of third-party fees incurred in connection with our August 2017 secondary offering and \$75.0 million related to changes in the fair value of earn-out liabilities associated with our recent acquisitions. Transaction-related costs for the year ended December 31, 2016 primarily relate to costs incurred in connection with the March, May and November 2016 secondary offerings and receivables financing agreement. For the year ended December 31, 2016, these costs include \$32.0 million of non-cash stock-based compensation expense related to the vesting and release of the transfer restrictions of certain performance-based stock options and \$10.1 million of stock-based compensation expense associated with the release of the transfer restrictions on a portion of service-based vested options in connection with the announcement of our March, May and November 2016 secondary offerings. In addition, we incurred \$2.7 million of third-party fees associated with the secondary offerings and the closing of our accounts receivable financing agreement.
- (h) Acquisition-related costs primarily relate to costs incurred in connection with due diligence performed in connection with contemplated acquisitions, the acquisition of Symphony Health that are discussed in footnote (g), the acquisition of Nextrials, Inc., the acquisition of Parallel 6, Inc., and the integration cost for the Takeda joint venture, as well as costs related to other potential acquisitions to enhance our strategic objectives. Integration costs primarily consist of professional fees, rebranding costs, the elimination of redundant facilities and any other costs incurred directly related to the integration of these acquisitions.
- (i) Lease termination expense represents charges incurred in connection with the termination of leases at locations that are no longer being used by the Company.
- (j) Severance and restructuring charges represent amounts incurred in connection with the elimination of redundant positions within the organization, including positions eliminated in connection with acquisitions made by the Company.
- (k) We have escalating leases that require the amortization of rent expense on a straight-line basis over the life of the lease. The non-cash rent adjustment represents the difference between rent expense recorded in the consolidated statement of operations and the amount of cash actually paid.
- (l) Represents charges incurred that are not considered part of our core operating results.
- (m) Represents the tax effect of the total adjustments at our estimated effective tax rate.
- (4) Our backlog consists of anticipated service revenue for our Clinical Research segment from new business awards that either have not started or are but have not been completed. Backlog varies from period to period depending upon new business awards and contract increases, cancellations and the amount of service revenue recognized under existing contracts.

Edgar Filing: PRA Health Sciences, Inc. - Form 424B7

(5)

For our Strategic Solutions offering, the value of new business awards is the anticipated service revenue to be recognized in the corresponding quarter of the next fiscal year. For the remainder of our business, net new business is the value of services awarded during the period from projects under signed contracts, letters of intent and, in some cases, pre-contract commitments that are supported by written communications, adjusted for contracts that were modified or canceled during the period.

S-7

Table of Contents

RISK FACTORS

An investment in our common stock involves risk. Before investing in our common stock, you should carefully consider the risks described below as well as other factors and information included in or incorporated by reference into this prospectus supplement and the accompanying prospectus, including the risk factors set forth in our 2017 Annual Report, the other information contained in such report and our Quarterly Reports on Form 10-Q for the quarters ended March 31 and June 30, 2018 and our financial statements and related notes, all of which are incorporated by reference into this prospectus supplement and the accompanying prospectus. Any such risks could materially and adversely affect our business, financial condition, results of operations or liquidity. However, the selected risks described below and in our 2017 Annual Report are not the only risks facing us. Additional risks and uncertainties not currently known to us or those we currently view to be immaterial may also materially and adversely affect our business, financial condition or results of operations. In such a case, the trading price of the common stock could decline and you may lose all or part of your investment in the Company.

Risks Related to this Offering and Ownership of Our Common Stock

Our operating results and share price may be volatile, and you may not be able to resell shares of our common stock at or above the price you paid or at all, and you could lose all or part of your investment as a result.

We completed our IPO in November 2014. Since the IPO, the price of our common stock, as reported by the Nasdaq, has ranged from a low of \$18.47 on November 13, 2014, to a high of \$108.02 on July 26, 2018. Securities markets worldwide have experienced, and are likely to continue to experience, significant price and volume fluctuations. This market volatility, as well as general economic, market or political conditions, could subject the market price of our shares to wide price fluctuations regardless of our operating performance. Our operating results and the trading price of our shares may fluctuate in response to various factors, including:

market conditions in the broader stock market;

actual or anticipated fluctuations in our quarterly financial and operating results;

introduction of new products or services by us or our competitors;

the public's reaction to our press releases, our other public announcements and our filings with the SEC;

changes in, or failure to meet, earnings estimates or recommendations by research analysts who track our common stock or the stock of other companies in our industries;

strategic actions by us, our customers or our competitors, such as acquisitions or restructurings;

changes in accounting standards, policies, guidance, interpretations or principles;

issuance of new or changed securities analysts' reports or recommendations or termination of coverage of our common stock by securities analysts;

sales, or anticipated sales, of large blocks of our stock;

the granting or exercise of employee stock options;

volume of trading in our common stock;

additions or departures of key personnel;

regulatory or political developments;

litigation and governmental investigations;

S-8

Table of Contents

changing economic conditions;

defaults on our indebtedness; and

exchange rate fluctuations.

These and other factors, many of which are beyond our control, may cause our operating results and the market price and demand for our shares to fluctuate substantially. While we believe that operating results for any particular quarter are not necessarily a meaningful indication of future results, fluctuations in our quarterly operating results could limit or prevent investors from readily selling their shares and may otherwise negatively affect the market price and liquidity of our shares. In addition, in the past, when the market price of a stock has been volatile, holders of that stock have sometimes instituted securities class action litigation against the company that issued the stock. If any of our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit. Such a lawsuit could also divert the time and attention of our management from our business, which could significantly harm our profitability and reputation.

Provisions of our corporate governance documents and Delaware law could make any change in our board of directors or in control of our company more difficult.

Our amended and restated certificate of incorporation and our amended and restated bylaws and Delaware law contain provisions, such as provisions authorizing, without a vote of stockholders, the issuance of one or more series of preferred stock, that could make it difficult or expensive for a third party to pursue a tender offer, change in control or takeover attempt that is opposed by our management and board of directors even if such a transaction would be beneficial to our stockholders. We also have a staggered board of directors that could make it more difficult for stockholders to change the composition of our board of directors in any one year. These anti-takeover provisions could substantially impede the ability of public stockholders to change our management or board of directors.

Future sales, or the perception of future sales, by us or our existing stockholders in the public market following this offering could cause the market price for our common stock to decline.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. We have 64,371,278 outstanding shares of common stock based on the number of shares outstanding as of July 31, 2018. We, the selling stockholders and our directors have agreed with the underwriters, subject to certain exceptions, not to offer or sell, dispose of or hedge, directly or indirectly, any common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus supplement continuing through the date that is 30 days from the date of this prospectus supplement, except with the prior written consent of the underwriters. See "Underwriting" for a description of these lock-up agreements. KKR who following this offering will own 10.4% of our common stock, may sell shares of our common stock after the expiration of the lock-up period. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. We also registered all shares of common stock that we may issue under our equity compensation plans and they can be freely sold in the public market upon issuance, subject to the lock-up agreements. As restrictions on resale end, the market price of our stock could decline if the holders of currently restricted shares sell them or are perceived by the market as intending to sell them.

Table of Contents

KKR will continue to have significant influence over us after this offering, including control over decisions that require the approval of stockholders, which could limit your ability to influence the outcome of matters submitted to stockholders for a vote.

Following this offering, KKR will beneficially own approximately 10.4% of our common stock. Even though KKR does not control a majority of our outstanding voting power, it has the ability to exercise significant control over all corporate actions requiring stockholder approval, including:

the election and removal of directors and the size of our board of directors;

any amendment of our articles of incorporation or bylaws; or

the approval of mergers and other significant corporate transactions, including a sale of substantially all of our assets.

Because we have no current plans to pay regular cash dividends on our common stock, 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 do not anticipate paying any regular cash dividends on our common stock. Any decision to declare and pay dividends in the future will be made at the discretion of our board of directors and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that our board of directors may deem relevant. In addition, our ability to pay dividends is, and may be, limited by covenants of existing and any future outstanding indebtedness we or our subsidiaries incur, including under our existing credit facilities. Therefore, any return on investment in our common stock is solely dependent upon the appreciation of the price of our common stock on the open market, which may not occur.

Because a significant portion of our operations is conducted through our subsidiaries, we are largely dependent on our receipt of distributions or other payments from our subsidiaries for cash to fund all of our operations and expenses, including to make future dividend payments, if any.

A significant portion of our operations is conducted through our subsidiaries. As a result, our ability to service our debt or to make future dividend payments or other distributions, if any, is largely dependent on the earnings of our subsidiaries and the payment of those earnings to us in the form of dividends, loans or advances and through repayment of loans or advances from us. Payments to us by our subsidiaries will be contingent upon our subsidiaries' earnings and other business considerations and may be subject to statutory or contractual restrictions. We do not currently expect to declare or pay dividends and other distributions on our common stock for the foreseeable future; however, to the extent that we determine in the future to pay dividends or other distributions on our common stock, the credit agreement governing our senior secured credit facilities significantly restrict the ability of our subsidiaries to pay dividends or otherwise transfer assets to us. Further, there may be significant tax and other legal restrictions on the ability of non-U.S. subsidiaries or associates to remit money to us.

If securities or industry analysts do not publish research or reports about our business, if they adversely change their recommendations regarding our shares or if our results of operations do not meet their expectations, our share price and trading volume could decline.

The trading market for our shares will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not have any control over these analysts. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our share price or trading volume to decline. Moreover, if one or more of the analysts who cover us downgrade our stock, or if our results of operations do not meet their expectations, our share price could decline.

Table of Contents

FORWARD-LOOKING STATEMENTS

This prospectus supplement (and the information incorporated or deemed to be incorporated by reference in this prospectus supplement and any free writing prospectus that we may provide to you in connection with an offering of our common stock described in this prospectus supplement) contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act. All statements, other than statements of historical facts included in this prospectus supplement and the information incorporated or deemed to be incorporated by reference in this prospectus supplement, including statements concerning our plans, objectives, goals, strategies, future events, future revenues or performance, financing needs, plans or intentions relating to acquisitions, business trends and other information referred to are forward-looking statements. When used in this prospectus supplement, the words "anticipates," "believes," "estimates," "expects," "intends," "may," "plans," "projects," "should," "targets," "will" and the negative thereof and variations of such words or similar expressions are intended to identify forward-looking statements. The forward-looking statements are not historical facts, and are based upon our current expectations, beliefs and projections, and various assumptions, many of which, by their nature, are inherently uncertain and beyond our control. Our expectations, beliefs and projections are expressed in good faith and we believe there is a reasonable basis for them. However, there can be no assurance that management's expectations, beliefs and projections will result or be achieved and actual results may vary materially from what is expressed in or indicated by the forward-looking statements.

There are a number of risks, uncertainties and other important factors that could cause our actual results to differ materially from the forward-looking statements contained in this prospectus supplement and the information incorporated or deemed to be incorporated by reference in this prospectus supplement. Such risks, uncertainties and other important factors include, among others, the risks, uncertainties and factors discussed herein and set forth under "Risk Factors" herein and in our 2017 Annual Report and the following risks, uncertainties and factors:

decisions to forego or terminate a particular clinical trial;

lack of available financing, budgetary limits or changing priorities;

actions by regulatory authorities;

production problems resulting in shortages of the drug being tested;

failure of the drug being tested to satisfy safety requirements or efficacy criteria;

unexpected or undesired clinical results;

insufficient patient enrollment in a trial;

insufficient investigator recruitment;

decisions to downsize product development portfolios;

dissatisfaction with our performance, including the quality of data provided and our ability to meet agreed upon schedules;

shift of business to another CRO or internal resources;

Edgar Filing: PRA Health Sciences, Inc. - Form 424B7

product withdrawal following market launch; or

shut down of our clients' manufacturing facilities.

There may be other factors that may cause our actual results to differ materially from the forward-looking statements, including factors disclosed under the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our 2017 Annual Report and the other information contained in such report and in our Quarterly Reports for

S-11

Table of Contents

the quarters ended March 31 and June 30, 2018. You should evaluate all forward-looking statements made in this prospectus supplement in the context of these risks and uncertainties.

We caution you that the risks, uncertainties and other factors referenced above 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 prospectus supplement apply only as of the date made and are expressly qualified in their entirety by the cautionary statements included in this prospectus supplement. We undertake no obligation to publicly update or revise any forward-looking statements to reflect subsequent events or circumstances.

S-12

Table of Contents

USE OF PROCEEDS

We will not receive any proceeds from this sale of shares of our common stock in this offering by the selling stockholders.

S-13

Table of Contents**PRICE RANGE OF COMMON STOCK**

Our common stock is listed on the Nasdaq and is traded under the symbol "PRAH". At the close of business on July 31, 2018, there were 158 holders of record of our shares of common stock. The last reported price of our common stock on the Nasdaq on August 6, 2018 was \$104.33 per share.

The following table sets forth for the periods indicated the high and low reported sale prices per share for our common stock, as reported on the Nasdaq:

| | High | Low |
|--|-------------|------------|
| 2016 | | |
| First Quarter | \$ 47.84 | \$ 35.60 |
| Second Quarter | \$ 51.35 | \$ 39.52 |
| Third Quarter | \$ 56.77 | \$ 39.25 |
| Fourth Quarter | \$ 60.96 | \$ 50.87 |
| 2017 | | |
| First Quarter | \$ 66.04 | \$ 54.08 |
| Second Quarter | \$ 79.98 | \$ 61.93 |
| Third Quarter | \$ 80.99 | \$ 73.05 |
| Fourth Quarter | \$ 92.00 | \$ 75.71 |
| 2018 | | |
| First Quarter | \$ 95.90 | \$ 81.18 |
| Second Quarter | \$ 97.31 | \$ 79.20 |
| Third Quarter (through August 6, 2018) | \$ 108.02 | \$ 91.99 |

S-14

Table of Contents

DIVIDEND POLICY

We have no current plans to pay any cash dividends on our common stock for the foreseeable future and instead intend to retain earnings, if any, for future operations, expansion and debt repayment. Any decision to declare and pay dividends in the future will be made at the 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, our ability to pay dividends is limited by covenants in the credit agreement governing our senior secured credit facilities.

We did not pay any dividends in 2015, 2016, 2017 or the six months ended June 30, 2018.

S-15

Table of Contents**SELLING STOCKHOLDERS**

The following table and accompanying footnotes set forth information with respect to the beneficial ownership of our common stock, as of July 31, 2018, by the stockholders selling shares in this offering.

A person is a "beneficial owner" of a security if that person has or shares voting or investment power over the security or if that person has the right to acquire beneficial ownership within 60 days. Unless otherwise noted, these persons may be contacted at our executive offices and, to our knowledge, have sole voting and investment power over the shares listed. Percentage computations are based on 64,371,278 shares of our common stock outstanding as of July 31, 2018.

| Name of Beneficial Owner | Shares Beneficially Owned Prior to Offering | | Shares to be Sold in This Offering | Shares Beneficially Owned After Offering | |
|---|---|-------|------------------------------------|--|-------|
| | Number | % | | Number | % |
| Investment funds affiliated with KKR(1) | 13,195,984 | 20.5% | 6,500,000 | 6,695,984 | 10.4% |

*

Less than 1%.

(1)

Shares are directly owned by KKR PRA Investors L.P. KKR PRA Investors L.P. has identified itself as an affiliate of a broker-dealer and has represented to us that (a) the shares of our common stock shown above as being held by such entity were purchased by it in the ordinary course of business, and (b) at the time of such purchase, such entity had no arrangements or understandings, directly or indirectly, with any person to distribute such shares of our common stock. KKR PRA Investors GP II LLC is the sole general partner of KKR PRA Investors L.P. KKR PRA Investors GP LLC is the sole member of KKR PRA Investors GP II LLC. KKR North America Fund XI L.P. is the sole member of KKR PRA Investors GP LLC. KKR Associates North America XI L.P. is the general partner of KKR North America Fund XI L.P. KKR North America XI Limited is the general partner of KKR Associates North America XI L.P. KKR Fund Holdings L.P. is the sole shareholder of KKR North America XI Limited. KKR Fund Holdings GP Limited is a general partner of KKR Fund Holdings L.P. KKR Group Holdings Corp. is the sole shareholder of KKR Fund Holdings GP Limited and a general partner of KKR Fund Holdings L.P. KKR & Co. Inc. is the sole shareholder of KKR Group Holdings Corp. KKR Management LLC is the controlling shareholder of KKR & Co. Inc. Messrs. Henry R. Kravis and George R. Roberts are the designated members of KKR Management LLC and may be deemed to share voting and dispositive power with respect to the shares directly owned or beneficially owned by KKR PRA Investors L.P. Each of KKR PRA Investors GP LLC, KKR North America Fund XI L.P., KKR Associates North America XI L.P., KKR North America XI Limited, KKR Fund Holdings L.P., KKR Fund Holdings GP Limited, KKR Group Holdings Corp., KKR & Co. Inc., KKR Management LLC, and Messrs. Kravis and Roberts may be deemed to be the beneficial owner of the securities held by KKR PRA Investors L.P., but each disclaim beneficial ownership of such securities. The principal business address of each of the entities and persons identified in this and the paragraph above, except Mr. Roberts, is c/o Kohlberg Kravis Roberts & Co. L.P., 9 West 57th Street, Suite 4200, New York, NY, 10019. The principal business address for Mr. Roberts is c/o Kohlberg Kravis Roberts & Co. L.P., 2800 Sand Hill Road, Suite 200, Menlo Park, CA 94025. As of February 22, 2016, KKR PRA Investors L.P. has pledged, hypothecated or granted security interests in all of its shares of our common stock pursuant to a margin loan agreement with customary default provisions. In the event of a default under the margin loan agreement, the secured parties may foreclose upon any and all shares of common stock pledged to them and may seek recourse against the borrower.

Table of Contents

**UNITED STATES FEDERAL INCOME AND ESTATE TAX CONSEQUENCES TO
NON-U.S. HOLDERS**

The following is a summary of material United States federal income and estate tax consequences to a non-U.S. holder (as defined below) of the purchase, ownership and disposition of our common stock issued pursuant to this offering. Except where noted, this summary deals only with common stock that is held as a capital asset within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended, or the Code.

A "non-U.S. holder" means any beneficial owner of our common stock (other than an entity treated as a partnership for United States federal income tax purposes) that is not for United States federal income tax purposes any of the following:

an individual citizen or resident of the United States;

a corporation (or any other entity treated as a corporation for United States federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

an estate the income of which is subject to United States federal income taxation regardless of its source; or

a trust if it (1) is subject to the primary supervision of a court within the United States and one or more United States persons have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable United States Treasury regulations to be treated as a United States person.

This summary is based upon provisions of the Code and regulations, rulings and judicial decisions, in each case in effect as of the date hereof. Those authorities may be changed or be subject to differing interpretations, perhaps retroactively, so as to result in United States federal income and estate tax consequences different from those summarized below and which may adversely affect a non-U.S. holder of our common stock. This summary does not address all aspects of United States federal income and estate taxes and does not deal with foreign, state, local or other tax considerations that may be relevant to non-U.S. holders in light of their particular circumstances (including the Medicare contribution tax on net investment income). In addition, it does not represent a detailed description of the United States federal income tax consequences applicable to you if you are subject to special treatment under the United States federal income tax laws (including if you are a United States expatriate, foreign pension fund, "controlled foreign corporation," "passive foreign investment company," or a partnership or other pass-through entity for United States federal income tax purposes). We cannot assure you that a change in law will not alter significantly the tax considerations that we describe in this summary.

If an entity treated as a partnership for United States federal income tax purposes holds our common stock, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership holding our common stock, you should consult your tax advisors.

If you are considering the purchase of our common stock, you should consult your own tax advisors concerning the particular United States federal income and estate tax consequences to you of the purchase, ownership and disposition of the common stock, as well as the consequences to you arising under the laws of any other taxing jurisdiction.

Dividends

In the event that we make a distribution of cash or other property (other than certain pro rata distributions of our stock) in respect of our common stock, the distribution generally will be treated as a dividend for United States federal income tax purposes to the extent it is paid from our current or

Table of Contents

accumulated earnings and profits, as determined under United States federal income tax principles. Any portion of a distribution that exceeds our current and accumulated earnings and profits generally will be treated first as a tax-free return of capital, causing a reduction in the adjusted tax basis of a non-U.S. holder's common stock, and to the extent the amount of the distribution exceeds a non-U.S. holder's adjusted tax basis in our common stock, the excess will be treated as gain from the disposition of our common stock (the tax treatment of which is discussed below under "Gain on Disposition of Common Stock").

Dividends paid to a non-U.S. holder of our common stock generally will be subject to withholding of United States federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. However, dividends that are effectively connected with the conduct of a trade or business by the non-U.S. holder within the United States (and, if required by an applicable income tax treaty, are attributable to a United States permanent establishment) are not subject to the withholding tax, provided certain certification and disclosure requirements are satisfied. Instead, such dividends are subject to United States federal income tax on a net income basis generally in the same manner as if the non-U.S. holder were a United States person as defined under the Code. Any such effectively connected dividends received by a foreign corporation may be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

A non-U.S. holder of our common stock who wishes to claim the benefit of an applicable treaty rate and avoid backup withholding, as discussed below, for dividends will be required (a) to provide the applicable withholding agent with a properly executed Internal Revenue Service Form W-8BEN or Form W-8BEN-E (or other applicable form) certifying under penalty of perjury that such holder is not a United States person as defined under the Code and is eligible for treaty benefits or (b) if our common stock is held through certain foreign intermediaries, to satisfy the relevant certification requirements of applicable United States Treasury regulations. Special certification and other requirements apply to certain non-U.S. holders that are pass-through entities rather than corporations or individuals.

A non-U.S. holder of our common stock eligible for a reduced rate of United States withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the Internal Revenue Service.

Gain on Disposition of Common Stock

Subject to the discussion of backup withholding and FATCA below, any gain realized by a non-U.S. holder on the taxable disposition of our common stock generally will not be subject to United States federal income tax unless:

the gain is effectively connected with a trade or business of the non-U.S. holder in the United States (and, if required by an applicable income tax treaty, is attributable to a United States permanent establishment of the non-U.S. holder);

the non-U.S. holder is an individual who is present in the United States for 183 days or more in the taxable year of that disposition, and certain other conditions are met; or

we are or have been a "United States real property holding corporation" for United States federal income tax purposes and certain other conditions are met.

A non-U.S. holder described in the first bullet point immediately above will be subject to tax on the net gain derived from the disposition generally in the same manner as if the non-U.S. holder were a United States person as defined under the Code. In addition, if any non-U.S. holder described in the first bullet point immediately above is a foreign corporation, the gain realized by such non-U.S. holder may be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be

Table of Contents

specified by an applicable income tax treaty. An individual non-U.S. holder described in the second bullet point immediately above will be subject to a flat 30% (or such lower rate as may be specified by an applicable income tax treaty) tax on the gain derived from the disposition, which gain may be offset by United States source capital losses, even though the individual is not considered a resident of the United States.

We believe we are not and do not anticipate becoming a "United States real property holding corporation" for United States federal income tax purposes.

Federal Estate Tax

Common stock held by an individual non-U.S. holder at the time of death will be included in such holder's gross estate for United States federal estate tax purposes, unless an applicable estate tax treaty provides otherwise.

Information Reporting and Backup Withholding

Distributions paid to a non-U.S. holder and the amount of any tax withheld with respect to such distributions generally will be reported to the Internal Revenue Service. Copies of the information returns reporting such dividends and any withholding may also be made available to the tax authorities in the country in which the non-U.S. holder resides under the provisions of an applicable income tax treaty.

A non-U.S. holder will be subject to backup withholding on dividends paid to such holder unless such holder certifies, on an applicable Internal Revenue Service Form W-8, under penalty of perjury that it is a non-U.S. holder (and the payor does not have actual knowledge or reason to know that such holder is a United States person as defined under the Code), or such holder otherwise establishes an exemption.

Information reporting and, depending on the circumstances, backup withholding will apply to the proceeds of a sale or other disposition of our common stock within the United States or conducted through certain United States-related financial intermediaries, unless the beneficial owner certifies, on an applicable Internal Revenue Service Form W-8, under penalty of perjury that it is a non-U.S. holder (and the payor does not have actual knowledge or reason to know that the beneficial owner is a United States person as defined under the Code), or such owner otherwise establishes an exemption.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's United States federal income tax liability provided the required information is timely furnished to the Internal Revenue Service.

Additional Withholding Requirements

Under Sections 1471 through 1474 of the Code (such Sections commonly referred to as "FATCA"), a 30% United States federal withholding tax may apply to any dividends paid on our common stock, and, for a disposition of our common stock occurring after December 31, 2018, the gross proceeds from such disposition, in each case paid to (i) a "foreign financial institution" (as specifically defined in the Code) which does not provide sufficient documentation, typically on Internal Revenue Service Form W-8BEN-E, evidencing either (x) an exemption from FATCA, or (y) its compliance (or deemed compliance) with FATCA (which may alternatively be in the form of compliance with an intergovernmental agreement with the United States) in a manner that avoids withholding, or (ii) a "non-financial foreign entity" (as specifically defined in the Code) which does not provide sufficient documentation, typically on Internal Revenue Service Form W-8BEN-E, evidencing either (x) an exemption from FATCA, or (y) adequate information regarding certain substantial United States beneficial owners of such entity (if any). If a dividend payment is both subject to withholding under FATCA and subject to the withholding tax discussed above under "Dividends," the withholding under FATCA may be credited against, and therefore reduce, such other withholding tax. You should consult your own tax advisors regarding these requirements and whether they may be relevant to your ownership and disposition of our common stock.

Table of Contents

CERTAIN ERISA CONSIDERATIONS

The following is a summary of certain considerations associated with the purchase of our common stock by employee benefit plans that are subject to Title I of ERISA, plans, individual retirement accounts ("IRAs") and other arrangements that are subject to Section 4975 of the Code or provisions under any federal, state, local, non-U.S. or other laws or regulations that are similar to such provisions of ERISA or the Code (collectively, "Similar Laws"), and entities whose underlying assets are considered to include "plan assets" of any such plan, account or arrangement (each, a "Plan").

General Fiduciary Matters

ERISA and the Code impose certain duties on persons who are fiduciaries of a Plan subject to Title I of ERISA or Section 4975 of the Code (an "ERISA Plan") and prohibit certain transactions involving the assets of an ERISA Plan and its fiduciaries or other interested parties. Under ERISA and the Code, any person who exercises any discretionary authority or control over the administration of such an ERISA Plan or the management or disposition of the assets of such an ERISA Plan, or who renders investment advice for a fee or other compensation to such an ERISA Plan, is generally considered to be a fiduciary of the ERISA Plan.

In considering an investment of a portion of the assets of any Plan in our common stock, a fiduciary should determine whether the investment is in accordance with the documents and instruments governing the Plan and the applicable provisions of ERISA, the Code or any Similar Law relating to a fiduciary's duties to the Plan including, without limitation, the prudence, diversification, delegation of control and prohibited transaction provisions of ERISA, the Code and any other applicable Similar Laws.

Prohibited Transaction Issues

Section 406 of ERISA and Section 4975 of the Code prohibit ERISA Plans from engaging in specified transactions involving plan assets with persons or entities who are "parties in interest," within the meaning of ERISA, or "disqualified persons," within the meaning of Section 4975 of the Code, unless an exemption is available. A party in interest or disqualified person who engaged in a non-exempt prohibited transaction may be subject to excise taxes and other penalties and liabilities under ERISA and the Code. In addition, the fiduciary of the ERISA Plan that engaged in such a non-exempt prohibited transaction may be subject to penalties and liabilities under ERISA and the Code. The acquisition of our common stock by an ERISA Plan with respect to which we or the underwriters are considered a party in interest or a disqualified person may constitute or result in a direct or indirect prohibited transaction under Section 406 of ERISA and/or Section 4975 of the Code, unless the investment is acquired and is held in accordance with an applicable statutory, class or individual prohibited transaction exemption. In this regard, the U.S. Department of Labor has issued prohibited transaction class exemptions, or "PTCEs," that may apply to the acquisition and holding of our common stock. These class exemptions include, without limitation, PTCE 84-14 respecting transactions determined by independent qualified professional asset managers, PTCE 90-1 respecting insurance company pooled separate accounts, PTCE 91-38 respecting bank collective investment funds, PTCE 95-60 respecting life insurance company general accounts and PTCE 96-23 respecting transactions determined by in-house asset managers, although there can be no assurance that all of the conditions of any such exemptions will be satisfied. Each of the above-noted exemptions contains conditions and limitations on its application. Fiduciaries of ERISA Plans considering acquiring our common stock in reliance on these or any other exemption should carefully review the exemption to assure it is applicable.

Table of Contents

Because of the foregoing, our common stock should not be purchased or held by any person investing "plan assets" of any Plan, unless such purchase and holding will not constitute a non-exempt prohibited transaction under ERISA and the Code or similar violation of any applicable Similar Law.

Representation

Accordingly, by acceptance of our common stock, each purchaser and subsequent transferee of our common stock will be deemed to have represented and warranted that either (i) no portion of the assets used by such purchaser or transferee to acquire and hold our common stock constitutes assets of any Plan or (ii) the purchase and holding of our common stock by such purchaser or transferee will not constitute a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code or similar violation under any applicable Similar Laws.

The foregoing discussion is general in nature and is not intended to be all inclusive. Due to the complexity of these rules and the penalties that may be imposed upon persons involved in non-exempt prohibited transactions, it is particularly important that fiduciaries, or other persons considering purchasing our common stock on behalf of, or with the assets of, any Plan, consult with their counsel regarding the potential applicability of ERISA, Section 4975 of the Code and any Similar Law to such investment and whether an exemption would be applicable to the purchase and holding of our common stock.

Table of Contents**UNDERWRITING**

Morgan Stanley & Co. LLC and Goldman Sachs & Co. LLC are acting as the underwriters for this offering. Subject to the terms and conditions set forth in an underwriting agreement among us, the selling stockholders and the underwriters, the selling stockholders have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase from the selling stockholders, the number of shares of common stock indicated in the following table.

| Underwriters | Number of Shares |
|--------------------------|-----------------------------|
| Morgan Stanley & Co. LLC | 3,250,000 |
| Goldman Sachs & Co. LLC | 3,250,000 |
| Total | 6,500,000 |

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased.

We and the selling stockholders have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by it, subject to approval of legal matters by its counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commissions and Discounts

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by the selling stockholders.

Paid by the Selling Stockholders

| | | |
|-----------|----|-----------|
| Per Share | \$ | 0.49 |
| Total | \$ | 3,185,000 |

Shares sold by the underwriters to the public will initially be offered at the offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$0.49 per share from the offering price. After the initial offering of the shares, the underwriters may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part. Sales of shares made outside the United States may be made by affiliates of the underwriters.

The expenses of the offering, not including the underwriting discounts, are estimated at \$500,000 and are payable by us. We have agreed to reimburse the underwriters for expenses relating to clearing of this offering with the Financial Regulatory Authority in an amount up to \$25,000.

No Sales of Similar Securities

We, the selling stockholders and our directors have agreed not to sell or transfer any common stock or securities convertible into, exchangeable for, exercisable for, or repayable with common stock, for 30 days after the date of this prospectus supplement without first obtaining the written consent of

Table of Contents

the underwriters. Specifically, we and the selling stockholders have agreed, with certain limited exceptions, not to directly or indirectly:

offer, pledge, sell or contract to sell any common stock,

sell any option or contract to purchase any common stock,

purchase any option or contract to sell any common stock,

grant any option, right or warrant for the sale of any common stock,

lend or otherwise dispose of or transfer any common stock,

request or demand that we file a registration statement related to the common stock, or

enter into any swap or other agreement that transfers, in whole or in part, the economic consequence of ownership of any common stock whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition.

Our common stock is listed on the Nasdaq under the symbol "PRAH."

Short Positions

In connection with the offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. The underwriters must close out any short position by purchasing shares in the open market. A short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the completion of the offering.

Similar to other purchase transactions, the underwriters' purchases to cover the short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on the Nasdaq in the over-the-counter market or otherwise.

None of us, the selling stockholders or the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor the underwriters make any representation that the underwriters will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Distribution

In connection with the offering, the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail.

Table of Contents

Other Relationships

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financial and brokerage activities. The underwriters and their respective affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions.

In addition, in the ordinary course of their business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Notice to Canadian Residents

The shares of common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date"), no offer of shares may be made to the public in that Relevant Member State other than:

- A. to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- B. to fewer than 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the underwriters; or
- C. in any other circumstances falling within Article 3(2) of the Prospectus Directive,

Table of Contents

provided that no such offer of shares shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

Each person in a Relevant Member State who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed that (A) it is a "qualified investor" within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive, and (B) in the case of any shares acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, the shares acquired by it in the offering have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than "qualified investors" as defined in the Prospectus Directive, or in circumstances in which the prior consent of the underwriters have been given to the offer or resale. In the case of any shares being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters have been obtained to each such proposed offer or resale.

We, our representatives and their affiliates will rely upon the truth and accuracy of the foregoing representation, acknowledgement and agreement.

This prospectus supplement has been prepared on the basis that any offer of shares in any Relevant Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of shares. Accordingly any person making or intending to make an offer in that Relevant Member State of shares which are the subject of the offering contemplated in this prospectus supplement may only do so in circumstances in which no obligation arises for us or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive in relation to such offer. Neither we nor the underwriters have authorized, nor do they authorize, the making of any offer of shares in circumstances in which an obligation arises for us or the underwriters to publish a prospectus for such offer.

For the purpose of the above provisions, the expression "an offer to the public" in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in the Relevant Member State by any measure implementing the Prospectus Directive in the Relevant Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (as amended, by including Directive 2010/73/EU) and includes any relevant implementing measure in the Relevant Member State.

Notice to Prospective Investors in the United Kingdom

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in the Prospectus Directive) (i) who have professional experience in matters relating to investments falling within Article 19 (5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Order") and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). This document must not be acted on or relied on in the United Kingdom by persons who are not relevant persons. In the

Table of Contents

United Kingdom, any investment or investment activity to which this document relates is only available to, and will be engaged in with, relevant persons.

Notice to Prospective Investors in Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, us or the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA ("FINMA"), and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ("CISA"). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Notice to Prospective Investors in South Africa

Due to restrictions under the securities laws of South Africa, the shares of common stock are not offered, and the offer of our common stock shall not be transferred, sold, renounced or delivered, in South Africa or to a person with an address in South Africa, unless one or other of the following exemptions applies:

(i) the offer, transfer, sale, renunciation or delivery is to duly registered banks, mutual banks, financial services provider, financial institution, the Public Investment Corporation (in each case registered as such in South Africa), a person who deals with securities in their ordinary course of business, or a wholly owned subsidiary of a bank, mutual bank, authorised services provider or financial institution, acting as agent in the capacity of an authorised portfolio manager for a pension fund (duly registered in South Africa), or as manager for a collective investment scheme (registered in South Africa); or

(ii) the contemplated acquisition cost of the securities, for any single addressee acting as principal is equal to or greater than R1,000,000.

This document does not, nor is it intended to, constitute an "offer to the public" (as that term is defined in the South African Companies Act, 2008 (the "SA Companies Act") and does not, nor is it intended to, constitute a prospectus prepared and registered under the SA Companies Act. This document is not an "offer to the public" and must not be acted on or relied on by persons who do not fall within Section 96(1)(a) of the SA Companies Act (such persons being referred to as "relevant persons"). Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.

A South African resident person or company or any non-South African company which is a subsidiary of a South African company is not permitted to acquire the shares of common stock unless such person has obtained exchange control approval to do so.

Table of Contents

Notice to Prospective Investors in the Dubai International Financial Centre

This prospectus supplement relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority ("DFSA"). This prospectus supplement is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement nor taken steps to verify the information set forth herein and has no responsibility for the prospectus. The shares to which this prospectus supplement relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus supplement you should consult an authorized financial advisor.

Notice to Prospective Investors in Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission ("ASIC"), in relation to the offering. This prospectus supplement does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the "Corporations Act"), and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the common stock may only be made to persons (the "Exempt Investors") who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the common stock without disclosure to investors under Chapter 6D of the Corporations Act.

The common stock applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring common stock must observe such Australian on-sale restrictions.

This prospectus supplement contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus supplement is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Notice to Prospective Investors in Hong Kong

The common stock have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the common stock has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws

Table of Contents

of Hong Kong) other than with respect to common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Notice to Prospective Investors in Japan

The common stock have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) and, accordingly, will not be offered or sold, directly or indirectly, in Japan, or for the benefit of any Japanese Person or to others for re-offering or resale, directly or indirectly, in Japan or to any Japanese Person, except in compliance with all applicable laws, regulations and ministerial guidelines promulgated by relevant Japanese governmental or regulatory authorities in effect at the relevant time. For the purposes of this paragraph, "Japanese Person" shall mean any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to Prospective Investors in Singapore

This prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of common stock may not be circulated or distributed, nor may the common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the common stock pursuant to an offer made under Section 275 of the SFA except:

- (a) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- (b) where no consideration is or will be given for the transfer;
- (c) where the transfer is by operation of law;
- (d) as specified in Section 276(7) of the SFA; or
- (e) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Table of Contents

LEGAL MATTERS

The validity of the shares of common stock offered hereunder will be passed upon for us and the selling stockholders by Simpson Thacher & Bartlett LLP, New York, New York. Certain legal matters relating to this offering will be passed upon for the underwriters by Latham & Watkins LLP, Washington, District of Columbia.

EXPERTS

The financial statements incorporated in this Prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2017, and the effectiveness of PRA Health Sciences, Inc. and subsidiaries' internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference (which reports (1) express an unqualified opinion on the financial statements and includes an explanatory paragraph referring to the Company's adoption of ASU No. 2016-09, "Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" and (2) express an unqualified opinion on the effectiveness of internal control over financial reporting). Such financial statements have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

INCORPORATION BY REFERENCE

The rules of the SEC allow us to "incorporate by reference" information into this prospectus supplement and accompanying prospectus. By incorporating by reference, we can disclose important information to you by referring you to another document we have filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus and information that we file in the future with the SEC will automatically update and supersede, as appropriate, this information. We incorporate by reference the documents listed below and all documents that we subsequently file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering but excluding any documents furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed from their respective filing dates so long as the registration statement of which this prospectus supplement and accompanying prospectus is a part remains effective:

our annual report on Form 10-K for the year ended December 31, 2017;

the information specifically incorporated by reference into our 2017 Annual Report from our Definitive Proxy Statement on Schedule 14A filed on April 20, 2018;

our quarterly reports on Form 10-Q for the quarters ended March 31, 2018 and June 30, 2018;

our current reports on Form 8-K filed on April 19, 2018, April 25, 2018 (but excluding Items 2.02, 7.01 and 9.01 and Exhibits 99.1), May 1, 2018, May 31, 2018 and June 5, 2018; and

the description of our common stock contained in our Form 8-A, filed on November 6, 2014.

Any statement contained in a document incorporated by reference in this prospectus supplement shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained herein or in any other subsequently filed document that also is incorporated by reference in this prospectus supplement modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement. You may request a copy of any or all of the documents referred to above that have been or may be incorporated by reference into this prospectus supplement (excluding

Table of Contents

certain exhibits to the documents) at no cost, by writing or calling us at the following address or telephone number:

PRA Health Sciences, Inc.
4130 ParkLake Avenue
Suite 400
Raleigh, North Carolina 27612
Attention: Investor Relations
Phone: (919) 786-8200

You should rely only on the information incorporated by reference or provided in this prospectus supplement. We have not authorized anyone else to provide you with different information.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the shares of common stock offered by this prospectus supplement and the accompanying prospectus. This prospectus supplement, filed as part of the registration statement, does not contain all of the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us, as well as our common stock, we refer you to the registration statement and to its exhibits and schedules.

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and are required to file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any of these reports, statements or other information at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549 or at its regional offices. You can request copies of those documents, upon payment of a duplicating fee, by writing to the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our filings are also available to the public at the SEC's internet site at <http://www.sec.gov>.

We also make available, free of charge, through the investor relations portion of our website our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and Proxy Statement on Schedule 14A (and any amendments to those forms) as soon as reasonably practicable after they are filed with or furnished to the SEC. Our website address is <http://www.prahs.com>. Please note that our website address is provided in this prospectus supplement as an inactive textual reference only. The information found on or accessible through our website is not part of this prospectus supplement or the accompanying prospectus, and is therefore not incorporated by reference unless such information is otherwise specifically referenced elsewhere in this prospectus supplement or the accompanying prospectus.

Table of Contents

PROSPECTUS

Common Stock

Certain selling stockholders may offer and sell from time to time shares of our common stock.

The selling stockholders will determine when they sell shares of our common stock, which may be sold on a continuous or delayed basis directly, to or through agents, dealers or underwriters as designated from time to time, or through a combination of these methods. The selling stockholders reserve the sole right to accept, and they and any agents, dealers and underwriters reserve the right to reject, in whole or in part, any proposed purchase of shares of our common stock. If any agents, dealers or underwriters are involved in the sale of any shares of our common stock, the applicable prospectus supplement will set forth any applicable commissions or discounts payable to them. We will not receive any proceeds from the sale of the shares of our common stock by the selling stockholders.

Each time that any selling stockholders sell shares of our common stock using this prospectus, we or such selling stockholders will provide a prospectus supplement and attach it to this prospectus and may also provide you with a free writing prospectus. The prospectus supplement and any free writing prospectus will contain more specific information about the offering and the shares of our common stock being offered, including the names of the selling stockholders and the prices at which the shares of our common stock are sold. The prospectus supplement or free writing prospectus may also add, update, change or clarify information contained in or incorporated by reference into this prospectus. This prospectus may not be used to sell shares of our common stock unless accompanied by a prospectus supplement describing the method and terms of the offering.

You should carefully read this prospectus and any applicable prospectus supplement and free writing prospectus, together with any documents we incorporate by reference, before you invest in our common stock.

Our common stock is listed on the Nasdaq Global Select Market under the symbol "PRAH".

Investing in our common stock involves risks. You should carefully consider the risk factors referred to on page 2 of this prospectus, in any applicable prospectus supplement and in the documents incorporated or deemed incorporated by reference in this prospectus before investing in our common stock.

Neither the Securities and Exchange Commission (the "SEC") nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is March 2, 2016.

Table of Contents

TABLE OF CONTENTS

| | Page |
|--|-------------|
| <u>About This Prospectus</u> | <u>1</u> |
| <u>Risk Factors</u> | <u>2</u> |
| <u>Special Note Regarding Forward-Looking Statements</u> | <u>3</u> |
| <u>PRA Health Sciences, Inc.</u> | <u>5</u> |
| <u>Use of Proceeds</u> | <u>6</u> |
| <u>Description of Capital Stock</u> | <u>7</u> |
| <u>Selling Stockholders</u> | <u>15</u> |
| <u>Plan of Distribution</u> | <u>16</u> |
| <u>Legal Matters</u> | <u>18</u> |
| <u>Experts</u> | <u>18</u> |
| <u>Incorporation by Reference</u> | <u>18</u> |
| <u>Where You Can Find More Information</u> | <u>19</u> |

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC using a "shelf" registration process. Under this shelf registration process, certain selling stockholders may, from time to time, offer and/or sell shares of our common stock in one or more offerings or resales. This prospectus provides you with a general description of the shares of our common stock that such selling stockholders may offer. Each time selling stockholders sell shares of our common stock using this prospectus, we or such selling stockholders will provide a prospectus supplement and attach it to this prospectus and may also provide you with a free writing prospectus. The prospectus supplement and any free writing prospectus will contain more specific information about the offering and the shares of our common stock being offered, including the names of the selling stockholders and the prices at which the shares of our common stock are sold. The prospectus supplement may also add, update, change or clarify information contained in or incorporated by reference into this prospectus. If there is any inconsistency between the information in this prospectus and the information in the prospectus supplement, you should rely on the information in the prospectus supplement.

The rules of the SEC allow us to incorporate by reference information into this prospectus. This means that important information is contained in other documents that are considered to be a part of this prospectus. Additionally, information that we file later with the SEC will automatically update and supersede this information. You should carefully read both this prospectus and the applicable prospectus supplement together with the additional information that is incorporated or deemed incorporated by reference in this prospectus. See "Incorporation by Reference" before making an investment in our common stock. This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of the documents referred to herein have been filed or will be filed or incorporated by reference as exhibits to the registration statement of which this prospectus is a part. The registration statement, including the exhibits and documents incorporated or deemed incorporated by reference in this prospectus, can be read on the SEC website or at the SEC offices mentioned under the heading "Where You Can Find More Information."

THIS PROSPECTUS MAY NOT BE USED TO SELL ANY SHARES OF OUR COMMON STOCK UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

Neither the delivery of this prospectus or any applicable prospectus supplement nor any sale made using this prospectus or any applicable prospectus supplement implies that there has been no change in our affairs or that the information in this prospectus or in any applicable prospectus supplement is correct as of any date after their respective dates. You should not assume that the information included in or incorporated by reference in this prospectus or any applicable prospectus supplement or any free writing prospectus prepared by us, is accurate as of any date other than the date(s) on the front covers of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

You should rely only on the information contained in or incorporated by reference in this prospectus or a prospectus supplement. We have not authorized anyone to give you different information, and if you are given any information that is not contained or incorporated by reference in this prospectus or a prospectus supplement, you must not rely on that information. We and any selling stockholders are not making an offer to sell securities in any jurisdiction where the offer or sale of such securities is not permitted.

In this prospectus, unless otherwise indicated or the context otherwise requires, references to "PRA Health Sciences," "PRA," the "Company," "we," "us" and "our" refer to PRA Health Sciences, Inc., a Delaware corporation, and its consolidated subsidiaries.

Table of Contents

RISK FACTORS

Investing in our common stock involves risks. Before you make a decision to buy shares of our common stock, in addition to the risks and uncertainties discussed below under "Special Note Regarding Forward-Looking Statements," you should carefully read and consider the risks and uncertainties and the risk factors set forth under the caption "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, or the 2015 Annual Report, which is incorporated by reference in this prospectus, and under the caption "Risk Factors" or any similar caption in the other documents and reports that we file with the SEC after the date of this prospectus that are incorporated or deemed to be incorporated by reference in this prospectus as well as any risks described in any applicable prospectus supplement or free writing prospectus that we provide you in connection with an offering of common stock pursuant to this prospectus. Additionally, the risks and uncertainties discussed in this prospectus or in any document incorporated by reference into this prospectus are not the only risks and uncertainties that we face, and our business, financial condition, liquidity and results of operations and the market price of any shares of common stock we may sell could be materially adversely affected by additional factors that apply to companies generally, as well as other risks that are not known to us or that we currently do not consider to be material.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus (including any prospectus supplement and the information incorporated or deemed to be incorporated by reference in this prospectus) and any free writing prospectus that we may provide to you in connection with an offering of our common stock described in this prospectus contain "forward-looking statements" within the meaning of Section 27A of the Securities Act. All statements, other than statements of historical facts included in this prospectus (including any prospectus supplement and the information incorporated or deemed to be incorporated by reference in this prospectus), including statements concerning our plans, objectives, goals, strategies, future events, future revenues or performance, financing needs, plans or intentions relating to acquisitions, business trends and other information referred to are forward-looking statements. When used herein, the words "anticipates," "believes," "estimates," "expects," "intends," "may," "plans," "projects," "should," "targets," "will" and the negative thereof and variations of such words or similar expressions are intended to identify forward-looking statements. The forward-looking statements are not historical facts, and are based upon our current expectations, beliefs and projections, and various assumptions, many of which, by their nature, are inherently uncertain and beyond our control. Our expectations, beliefs and projections are expressed in good faith and we believe there is a reasonable basis for them. However, there can be no assurance that management's expectations, beliefs and projections will result or be achieved and actual results may vary materially from what is expressed in or indicated by the forward-looking statements.

There are a number of risks, uncertainties and other important factors that could cause our actual results to differ materially from the forward-looking statements contained in this prospectus (including any prospectus supplement and the information incorporated or deemed to be incorporated by reference in this prospectus). Such risks, uncertainties and other important factors include, among others, the risks, uncertainties and factors set forth under "Part I Item 1A Risk Factors" in our 2015 Annual Report and the following risks, uncertainties and factors:

decisions to forego or terminate a particular clinical trial;

lack of available financing, budgetary limits or changing priorities;

actions by regulatory authorities;

production problems resulting in shortages of the drug being tested;

failure of the drug being tested to satisfy safety requirements or efficacy criteria;

unexpected or undesired clinical results;

insufficient patient enrollment in a trial;

insufficient investigator recruitment;

decisions to downsize product development portfolios;

dissatisfaction with our performance, including the quality of data provided and our ability to meet agreed upon schedules;

shift of business to another contract research organization, or CRO, or internal resources;

product withdrawal following market launch; or

shut down of our clients' manufacturing facilities.

There may be other factors that may cause our actual results to differ materially from the forward-looking statements, including factors disclosed under the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our 2015

Table of Contents

Annual Report and the other information contained in such report. You should evaluate all forward-looking statements made in this prospectus in the context of these risks and uncertainties.

We caution you that the risks, uncertainties and other factors referenced above 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 prospectus apply only as of the date made and are expressly qualified in their entirety by the cautionary statements included in this prospectus. We undertake no obligation to publicly update or revise any forward-looking statements to reflect subsequent events or circumstances.

Table of Contents

PRA HEALTH SCIENCES, INC.

PRA Health Sciences, Inc. is one of the world's leading global CROs by revenue, providing outsourced clinical development services to the biotechnology and pharmaceutical industries. PRA believes it is one of a select group of CROs with the expertise and capability to conduct clinical trials across all major therapeutic areas on a global basis. PRA has therapeutic expertise in areas that are among the largest in pharmaceutical development, including oncology, central nervous system, inflammation and infectious diseases. PRA believes it provides its clients with one of the most flexible clinical development service offerings, which includes both traditional, project-based Phase I through Phase IV services as well as embedded and functional outsourcing services. PRA believes it further differentiates itself from its competitors through PRA's investments in medical informatics and clinical technologies designed to enhance efficiencies, improve study predictability and provide better transparency for our clients throughout their clinical development processes.

PRA is one of the largest CROs in the world by revenue, focused on executing clinical trials on a global basis. PRA's global clinical development platform includes approximately 70 offices across North America, Europe, Asia, Latin America, South Africa, Australia and the Middle East and approximately 12,000 employees worldwide. Since 2000, PRA has performed approximately 3,300 clinical trials worldwide, has worked on more than 100 marketed drugs across several therapeutic areas and conducted the pivotal or supportive trials that led to U.S. Food and Drug Administration or international regulatory approval of more than 60 drugs. PRA is focused on further expansion, which is demonstrated by its acquisition in 2013 of ClinStar, LLC, a CRO managing clinical research trials in Eastern Europe; ReSearch Pharmaceutical Services, Inc., a global CRO providing clinical development services primarily to large pharmaceutical companies; and CRI Holding Company, LLC, a specialized, early stage CRO.

As of December 31, 2015, we had approximately \$2,228.7 million in assets and \$702.7 million in stockholders' equity. Our net income was \$81.8 million for 2015, compared to a net loss of \$35.7 million for 2014.

PRA was incorporated in Delaware in June 2013 under the name Pinnacle Holdco Parent, Inc. On December 19, 2013, Pinnacle Holdco Parent, Inc. changed its name to PRA Global Holdings, Inc. and on July 10, 2014, PRA Global Holdings, Inc. changed its name to PRA Health Sciences, Inc. PRA's principal executive offices are located at 4130 ParkLake Avenue, Suite 400, Raleigh, NC 27612 and the telephone number at that address is (919) 786-8200. PRA's common stock is traded on the Nasdaq Global Select Market, or Nasdaq, under the symbol "PRAH."

Table of Contents

USE OF PROCEEDS

We will not receive any of the proceeds from a sale of shares of our common stock by any selling stockholders.

Table of Contents

DESCRIPTION OF CAPITAL STOCK

Overview

The following is a description of the material terms of, and is qualified in its entirety by, our amended and restated certificate of incorporation and amended and restated bylaws, copies of which are incorporated by reference as exhibits to the registration statement of which this prospectus is a part.

Our purpose is to engage in any lawful act or activity for which corporations may now or hereafter be organized under the General Corporation Law of the State of Delaware (the "DGCL"). Our authorized capital stock consists of 1,000,000,000 shares of common stock, par value \$0.01 per share and 100,000,000 shares of preferred stock, par value \$0.01 per share. No shares of preferred stock have been issued or are currently outstanding. Unless our board of directors determines otherwise, we issue all shares of our capital stock in uncertificated form. As of February 22, 2016, we had 60,276,999 shares of common stock outstanding.

Common Stock

Voting Rights Holders of our common stock are entitled to one vote for each share held of record on all matters to which stockholders are entitled to vote generally, including the election or removal of directors. The holders of our common stock do not have cumulative voting rights in the election of directors.

Dividends The DGCL permits a corporation to declare and pay dividends out of "surplus" or, if there is no "surplus," out of its net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year. "Surplus" is defined as the excess of the net assets of the corporation over the amount determined to be the capital of the corporation by the board of directors. The capital of the corporation is typically calculated to be (and cannot be less than) the aggregate par value of all issued shares of capital stock. Net assets equals the fair value of the total assets minus total liabilities. The DGCL also provides that dividends may not be paid out of net profits if, after the payment of the dividend, capital is less than the capital represented by the outstanding stock of all classes having a preference upon the distribution of assets.

Declaration and payment of any dividend will be subject to the discretion of our board of directors. The time and amount of dividends will be dependent upon our financial condition, operations, cash requirements and availability, debt repayment obligations, capital expenditure needs and restrictions in our debt instruments, industry trends, the provisions of Delaware law affecting the payment of dividends to stockholders and any other factors our board of directors may consider relevant.

Liquidation Upon our liquidation, dissolution or winding up and after payment in full of all amounts required to be paid to creditors and to the holders of preferred stock having liquidation preferences, if any, the holders of our common stock will be entitled to receive pro rata our remaining assets available for distribution.

Rights and Preferences Holders of our common stock do not have preemptive, subscription, redemption or conversion rights. The common stock will not be subject to further calls or assessment by us. There will be no redemption or sinking fund provisions applicable to the common stock. All shares of our common stock that will be outstanding at the time of the completion of the offering will be fully paid and non-assessable. The rights, powers, preferences and privileges of holders of our common stock will be subject to those of the holders of any shares of our preferred stock we may authorize and issue in the future.

Table of Contents

Preferred Stock

Our amended and restated certificate of incorporation authorizes our board of directors to establish one or more series of preferred stock (including convertible preferred stock). Unless required by law or by Nasdaq, the authorized shares of preferred stock will be available for issuance without further action by you. Our board of directors may determine, with respect to any series of preferred stock, the powers (including voting powers), preferences and relative participations, optional or other special rights, and the qualifications, limitations or restrictions thereof, of that series, including, without limitation:

the designation of the series;

the number of shares of the series, which our board of directors may, except where otherwise provided in the preferred stock designation, increase (but not above the total number of authorized shares of the class) or decrease (but not below the number of shares then outstanding);

whether dividends, if any, will be cumulative or non-cumulative and the dividend rate of the series;

the dates at which dividends, if any, will be payable;

the redemption rights and price or prices, if any, for shares of the series;

the terms and amounts of any sinking fund provided for the purchase or redemption of shares of the series;

the amounts payable on shares of the series in the event of any voluntary or involuntary liquidation, dissolution or winding-up of the affairs of our Company;

whether the shares of the series will be convertible into shares of any other class or series, or any other security, of our Company or any other corporation, and, if so, the specification of the other class or series or other security, the conversion price or prices or rate or rates, any rate adjustments, the date or dates as of which the shares will be convertible and all other terms and conditions upon which the conversion may be made;

restrictions on the issuance of shares of the same series or of any other class or series; and

the voting rights, if any, of the holders of the series.

We could issue a series of preferred stock that could, depending on the terms of the series, impede or discourage an acquisition attempt or other transaction that some, or a majority, of you might believe to be in your best interests or in which you might receive a premium for your common stock over the market price of the common stock. Additionally, the issuance of preferred stock may adversely affect the holders of our common stock by restricting dividends on the common stock, diluting the voting power of the common stock or subordinating the liquidation rights of the common stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of our common stock.

Anti-Takeover Effects of Our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws and Certain Provisions of Delaware Law

Our amended and restated certificate of incorporation, amended and restated bylaws and the DGCL, which are summarized in the following paragraphs, contain provisions that are intended to enhance the likelihood of continuity and stability in the composition of our board of directors. These provisions are intended to avoid costly takeover battles, reduce our vulnerability to a hostile change of control and enhance the ability of

our board of directors to maximize stockholder value in connection with any unsolicited offer to acquire us. However, these provisions may have an anti-takeover effect and may delay, deter or prevent a merger or acquisition of our Company by means of a tender offer, a

Table of Contents

proxy contest or other takeover attempt that a stockholder might consider in its best interest, including those attempts that might result in a premium over the prevailing market price for the shares of common stock held by stockholders.

Authorized but Unissued Capital Stock

Delaware law does not require stockholder approval for any issuance of authorized shares. However, the listing requirements of the Nasdaq, which would apply if and so long as our common stock remains listed on the Nasdaq, require stockholder approval of certain issuances equal to or exceeding 20% of the then outstanding voting power or then outstanding number of shares of common stock. These additional shares may be used for a variety of corporate purposes, including future public offerings, to raise additional capital or to facilitate acquisitions.

Our board of directors may generally issue preferred shares on terms calculated to discourage, delay or prevent a change of control of our Company or the removal of our management. Moreover, our authorized but unissued shares of preferred stock will be available for future issuances without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans.

One of the effects of the existence of unissued and unreserved common stock or preferred stock may be to enable our board of directors to issue shares to persons friendly to current management, which issuance could render more difficult or discourage an attempt to obtain control of our Company by means of a merger, tender offer, proxy contest or otherwise, and thereby protect the continuity of our management and possibly deprive our stockholders of opportunities to sell their shares of common stock at prices higher than prevailing market prices.

Classified Board of Directors

Our amended and restated certificate of incorporation provides that our board of directors will be divided into three classes of directors, with the classes to be as nearly equal in number as possible, and with the directors serving three-year terms. As a result, approximately one-third of our board of directors are elected each year. The classification of directors will have the effect of making it more difficult for stockholders to change the composition of our board of directors. Our amended and restated certificate of incorporation and amended and restated bylaws provide that, subject to any rights of holders of preferred stock to elect additional directors under specified circumstances, the number of directors are fixed from time to time exclusively pursuant to a resolution adopted by the board of directors.

Business Combinations

We have opted out of Section 203 of the DGCL; however, our amended and restated certificate of incorporation contains similar provisions providing that we may not engage in certain "business combinations" with any "interested stockholder" for a three-year period following the time that the stockholder became an interested stockholder, unless:

prior to such time, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding certain shares; or

at or subsequent to that time, the business combination is approved by our board of directors and by the affirmative vote of holders of at least 66²/₃% of the outstanding voting stock that is not owned by the interested stockholder.

Table of Contents

Generally, a "business combination" includes a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an "interested stockholder" is a person who, together with that person's affiliates and associates, owns, or within the previous three years owned, 15% or more of our voting stock. For purposes of this section only, "voting stock" has the meaning given to it in Section 203 of the DGCL.

Under certain circumstances, this provision will make it more difficult for a person who would be an "interested stockholder" to effect various business combinations with a corporation for a three-year period. This provision may encourage companies interested in acquiring our Company to negotiate in advance with our board of directors because the stockholder approval requirement would be avoided if our board of directors approves either the business combination or the transaction which results in the stockholder becoming an interested stockholder. These provisions also may have the effect of preventing changes in our board of directors and may make it more difficult to accomplish transactions which stockholders may otherwise deem to be in their best interests.

Our amended and restated certificate of incorporation provides that Kohlberg Kravis Roberts & Co. L.P., or KKR, and its affiliates, and any of their respective direct or indirect transferees and any group as to which such persons are a party do not constitute "interested stockholders" for purposes of this provision.

Removal of Directors; Vacancies

Under the DGCL, unless otherwise provided in our amended and restated certificate of incorporation, directors serving on a classified board may be removed by the stockholders only for cause. Our amended and restated certificate of incorporation provides that directors may be removed with or without cause upon the affirmative vote of a majority in voting power of all outstanding shares of stock entitled to vote thereon, voting together as a single class; provided, however, at any time when KKR and its affiliates beneficially own, in the aggregate, less than 40% in voting power of the stock of the Company entitled to vote generally in the election of directors, directors may only be removed for cause, and only by the affirmative vote of holders of at least 66²/₃% in voting power of all the then-outstanding shares of stock of the Company entitled to vote thereon, voting together as a single class. In addition, our amended and restated certificate of incorporation also provides that, subject to the rights granted to one or more series of preferred stock then outstanding or the rights granted under the stockholders agreement with affiliates of KKR, any vacancies on our board of directors are filled only by the affirmative vote of a majority of the remaining directors, even if less than a quorum, by a sole remaining director or by the stockholders; provided, however, at any time when KKR and its affiliates beneficially own, in the aggregate, less than 40% in voting power of the stock of the Company entitled to vote generally in the election of directors, any newly created directorship on the board of directors that results from an increase in the number of directors and any vacancy occurring in the board of directors may only be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director (and not by stockholders).

No Cumulative Voting

Under Delaware law, the right to vote cumulatively does not exist unless the certificate of incorporation specifically authorizes cumulative voting. Our amended and restated certificate of incorporation does not authorize cumulative voting. Therefore, stockholders holding a majority in voting power of the shares of our stock entitled to vote generally in the election of directors are able to elect all our directors.

Special Stockholder Meetings

Our amended and restated certificate of incorporation provides that special meetings of our stockholders may be called at any time only by or at the direction of the board of directors or the

Table of Contents

chairman of the board of directors; provided, however, at any time when KKR and its affiliates beneficially own, in the aggregate, at least 40% in voting power of the stock of the Company entitled to vote generally in the election of directors, special meetings of our stockholders shall also be called by the board of directors or the chairman of the board of directors at the request of KKR and its affiliates. Our amended and restated bylaws prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control or management of our Company.

Requirements for Advance Notification of Director Nominations and Stockholder Proposals

Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors. In order for any matter to be "properly brought" before a meeting, a stockholder will have to comply with advance notice requirements and provide us with certain information. Generally, to be timely, a stockholder's notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the immediately preceding annual meeting of stockholders. Our amended and restated bylaws also specify requirements as to the form and content of a stockholder's notice. Our amended and restated bylaws allow the chairman of the meeting at a meeting of the stockholders to adopt rules and regulations for the conduct of meetings which may have the effect of precluding the conduct of certain business at a meeting if the rules and regulations are not followed. These provisions do not apply to KKR and its affiliates so long as the stockholders agreement with affiliates of KKR remains in effect. These provisions may also defer, delay or discourage a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to influence or obtain control of our Company.

Stockholder Action by Written Consent

Pursuant to Section 228 of the DGCL, any action required to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice and without a vote if a consent or consents in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of our stock entitled to vote thereon were present and voted, unless our amended and restated certificate of incorporation provides otherwise. Our amended and restated certificate of incorporation precludes stockholder action by written consent at any time when KKR and its affiliates beneficially own, in the aggregate, less than 40% in voting power of the stock of the Company entitled to vote generally in the election of directors; provided, that any action required or permitted to be taken by the holders of preferred stock, voting separately as a series or separately as a class with one or more other such series, may be taken by written consent to the extent provided by the applicable certificate of designation relating to such series.

Supermajority Provisions

Our amended and restated certificate of incorporation and amended and restated bylaws provide that the board of directors is expressly authorized to make, alter, amend, change, add to, rescind or repeal, in whole or in part, our amended and restated bylaws without a stockholder vote in any matter not inconsistent with the laws of the State of Delaware or our amended and restated certificate of incorporation. For as long as KKR and its affiliates beneficially own, in the aggregate, at least 40% in voting power of the stock of the Company entitled to vote generally in the election of directors, any amendment, alteration, rescission or repeal of our amended and restated bylaws by our stockholders requires the affirmative vote of a majority in voting power of the outstanding shares of our stock

Table of Contents

present in person or represented by proxy and entitled to vote on such amendment, alteration, rescission or repeal. At any time when KKR and its affiliates beneficially own, in the aggregate, less than 40% in voting power of the stock of the Company entitled to vote generally in the election of directors, any amendment, alteration, rescission or repeal of our bylaws by our stockholders requires the affirmative vote of the holders of at least 66²/₃% in voting power of all the then-outstanding shares of stock of the Company entitled to vote thereon, voting together as a single class.

The DGCL provides generally that the affirmative vote of a majority of the outstanding shares entitled to vote thereon, voting together as a single class, is required to amend a corporation's certificate of incorporation, unless the certificate of incorporation requires a greater percentage.

Our amended and restated certificate of incorporation provides that at any time when KKR and its affiliates beneficially own, in the aggregate, less than 40% in voting power of the stock of the Company entitled to vote generally in the election of directors, the following provisions in our amended and restated certificate of incorporation may be amended, altered, repealed or rescinded only by the affirmative vote of the holders of at least 66²/₃% in voting power of all the then-outstanding shares of stock of the Company entitled to vote thereon, voting together as a single class:

the provision requiring a 66²/₃% supermajority vote for stockholders to amend our amended and restated bylaws;

the provisions providing for a classified board of directors (the election and term of our directors);

the provisions regarding resignation and removal of directors;

the provisions regarding competition and corporate opportunities;

the provisions regarding entering into business combinations with interested stockholders;

the provisions regarding stockholder action by written consent;

the provisions regarding calling special meetings of stockholders;

the provisions regarding filling vacancies on our board of directors and newly created directorships;

the provisions eliminating monetary damages for breaches of fiduciary duty by a director; and

the amendment provision requiring that the above provisions be amended only with a 66²/₃% supermajority vote.

The combination of the classification of our board of directors, the lack of cumulative voting and the supermajority voting requirements make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management.

These provisions may have the effect of deterring hostile takeovers, delaying, or preventing changes in control of our management or our Company, such as a merger, reorganization or tender offer. These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of us. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions are also intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts. Such provisions may also have the effect of preventing changes in management.

Table of Contents

Dissenters' Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, our stockholders have appraisal rights in connection with a merger or consolidation of us. Pursuant to the DGCL, stockholders who properly request and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery.

Stockholders' Derivative Actions

Under the DGCL, any of our stockholders may bring an action in our name to procure a judgment in our favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of our shares at the time of the transaction to which the action relates or such stockholder's stock thereafter devolved by operation of law.

Exclusive Forum

Our amended and restated certificate of incorporation provides that unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for any (i) derivative action or proceeding brought on behalf of our Company, (ii) action asserting a claim of breach of a fiduciary duty owed by any director or officer of our Company to the Company or the Company's stockholders, creditors or other constituents, (iii) action asserting a claim against the Company or any director or officer of the Company arising pursuant to any provision of the DGCL or our amended and restated certificate of incorporation or our amended and restated bylaws, or (iv) action asserting a claim against the Company or any director or officer of the Company governed by the internal affairs doctrine; provided, that, if and only if the Court of Chancery of the State of Delaware dismisses any such action for lack of subject matter jurisdiction, such action may be brought in another state court sitting in the State of Delaware. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of our Company shall be deemed to have notice of and consented to the forum provisions in our amended and restated certificate of incorporation. However, the enforceability of similar forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be unenforceable.

Conflicts of Interest

Delaware law permits corporations to adopt provisions renouncing any interest or expectancy in certain opportunities that are presented to the corporation or its officers, directors or stockholders. Our amended and restated certificate of incorporation, to the maximum extent permitted from time to time by Delaware law, renounces any interest or expectancy that we have in, or right to be offered an opportunity to participate in, specified business opportunities that are from time to time presented to our officers, directors or stockholders or their respective affiliates, other than those officers, directors, stockholders or affiliates who are our or our subsidiaries' employees. Our amended and restated certificate of incorporation provides that, to the fullest extent permitted by law, each of KKR or any of its affiliates or 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) or his or her affiliates has no duty to refrain from (i) engaging in a corporate opportunity in the same or similar lines of business in which we or our affiliates now engage or propose to engage or (ii) otherwise competing with us or our affiliates.

In addition, to the fullest extent permitted by law, in the event that KKR or any non-employee director acquires knowledge of a potential transaction or other business opportunity which may be a corporate opportunity for itself or himself or its or his affiliates or for us or our affiliates, such person will have no duty to communicate or offer such transaction or business opportunity to us or any of our affiliates and they may take any such opportunity for themselves or offer it to another person or entity.

Table of Contents

Our amended and restated certificate of incorporation does not renounce our interest in any business opportunity that is expressly offered to a non-employee director solely in his or her capacity as a director or officer of the Company. To the fullest extent permitted by law, no business opportunity will be deemed to be a potential corporate opportunity for us unless we would be permitted to undertake the opportunity under our amended and restated certificate of incorporation, we have sufficient financial resources to undertake the opportunity and the opportunity would be in line with our business.

Limitations on Liability and Indemnification of Officers and Directors

The DGCL authorizes corporations to limit or eliminate the personal liability of directors to corporations and their stockholders for monetary damages for breaches of directors' fiduciary duties, subject to certain exceptions. Our amended and restated certificate of incorporation includes a provision that eliminates the personal liability of directors for monetary damages for any breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL. The effect of these provisions is to eliminate the rights of us and our stockholders, through stockholders' derivative suits on our behalf, to recover monetary damages from a director for breach of fiduciary duty as a director, including breaches resulting from grossly negligent behavior. However, exculpation does not apply to any director if the director has acted in bad faith, knowingly or intentionally violated the law, authorized illegal dividends, repurchases or redemptions or derived an improper benefit from his or her actions as a director.

Our amended and restated bylaws provide that we must generally indemnify, and advance expenses to, our directors and officers to the fullest extent authorized by the DGCL. We also are expressly authorized to carry directors' and officers' liability insurance providing indemnification for our directors, officers and certain employees for some liabilities. We believe that these indemnification and advancement provisions and insurance are useful to attract and retain qualified directors and executive officers.

The limitation of liability, indemnification and advancement provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

There is currently no pending material litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Wells Fargo Bank, N.A.

Listing

Our common stock is listed on the Nasdaq under the symbol "PRAH."

Table of Contents

SELLING STOCKHOLDERS

Information about selling stockholders will be set forth in a prospectus supplement, in a post-effective amendment or in filings we will make with the SEC which are incorporated into this prospectus by reference.

Table of Contents

PLAN OF DISTRIBUTION

The selling stockholders may sell the shares of our common stock covered by this prospectus in any of the following ways (or in any combination):

to or through underwriters or dealers;

directly to one or more purchasers; or

through agents.

Each time that the selling stockholders sell shares of our common stock covered by this prospectus, we or such selling stockholders will provide a prospectus supplement that will describe the method of distribution and set forth the terms and conditions of the offering of such shares, including:

the name or names of any underwriters, dealers or agents and the amounts of shares underwritten or purchased by each of them;

the offering price of the shares and the proceeds to the selling stockholders, and any underwriting discounts, commissions, concessions or agency fees allowed or reallocated or paid to dealers;

any options under which underwriters may purchase additional shares from the selling stockholders; and

any securities exchange or market on which the shares may be listed or traded.

Any offering price and any discounts, commissions, concessions or agency fees allowed or reallocated or paid to dealers may be changed from time to time. The selling stockholders may determine the price or other terms of the shares of our common stock offered under this prospectus by use of an electronic auction. We or such selling stockholders will describe how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the obligations of the underwriter, dealer or agent in the applicable prospectus supplement.

The selling stockholders may distribute the shares from time to time in one or more transactions:

at a fixed price or at prices that may be changed from time to time;

at market prices prevailing at the time of sale;

at prices relating to such prevailing market prices; or

at negotiated prices.

Underwriters, dealers or any other third parties described above may offer and sell the offered shares from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. If underwriters or dealers are used in the sale of any shares, the shares will be acquired by the underwriters or dealers for their own account and may be resold

Edgar Filing: PRA Health Sciences, Inc. - Form 424B7

from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The shares may be either offered to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters. Generally, the underwriters' obligations to purchase the shares will be subject to certain conditions precedent. The underwriters will be obligated to purchase all of the shares if they purchase any of the shares (other than any shares purchased upon exercise of any over-allotment option), unless otherwise specified in the prospectus supplement. The selling stockholders may use underwriters with whom we have a material relationship. We will describe the nature of any such relationship in the prospectus supplement, naming the underwriter or underwriters.

Table of Contents

The selling stockholders may sell the shares through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of the shares and any commissions paid to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment. Any underwriters, broker-dealers and agents that participate in the distribution of the shares may be deemed to be "underwriters" as defined in the Securities Act. Any commissions paid or any discounts or concessions allowed to any such persons, and any profits they receive on resale of the shares, may be deemed to be underwriting discounts and commissions under the Securities Act. We will identify any underwriters or agents and describe their compensation in a prospectus supplement.

Offered shares may also be offered and sold, if so indicated in the applicable prospectus supplement, in connection with a remarketing upon their purchase, in accordance with a redemption or repayment pursuant to their terms, or otherwise, by one or more marketing firms, acting as principals for their own accounts or as agents for the selling stockholders. Any remarketing firm will be identified and the terms of its agreements, if any, with us and/or the selling stockholders and its compensation will be described in the applicable prospectus supplement.

Underwriters or agents may purchase and sell the shares in the open market. These transactions may include over-allotment, stabilizing transactions, syndicate covering transactions and penalty bids.

Over-allotment involves sales in excess of the offering size, which creates a short position. Stabilizing transactions consist of bids or purchases for the purpose of preventing or retarding a decline in the market price of the shares and are permitted so long as the stabilizing bids do not exceed a specified maximum. Syndicate covering transactions involve the placing of any bid on behalf of the underwriting syndicate or the effecting of any purchase to reduce a short position created in connection with the offering. The underwriters or agents also may impose a penalty bid, which permits them to reclaim selling concessions allowed to syndicate members or certain dealers if they repurchase the shares in stabilizing or covering transactions. These activities may stabilize, maintain or otherwise affect the market price of the shares, which may be higher than the price that might otherwise prevail in the open market. These activities, if begun, may be discontinued at any time. These transactions may be effected on any exchange on which the shares are traded, in the over-the-counter market or otherwise.

Our common stock is listed on Nasdaq under the symbol "PRAH".

If at the time of any offering made under this prospectus a member of the Financial Industry Regulatory Authority, Inc., or FINRA, participating in the offering has a "conflict of interest" as defined in FINRA's Rule 5121 ("Rule 5121"), that offering will be conducted in accordance with the relevant provisions of Rule 5121.

There can be no assurance that the selling stockholders will sell all or any of the shares of common stock offered by this prospectus.

Agents, dealers and underwriters may be entitled to indemnification by us and the selling stockholders against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the agents, dealers or underwriters may be required to make in respect thereof.

The specific terms of the lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

Table of Contents

LEGAL MATTERS

Unless we state otherwise in the applicable prospectus supplement, the validity of the shares of common stock offered hereunder will be passed upon for us and the selling stockholders by Simpson Thacher & Bartlett LLP, New York, New York.

EXPERTS

The consolidated financial statements incorporated in this Prospectus by reference from the Annual Report on Form 10-K of PRA Health Sciences, Inc. and subsidiaries and the effectiveness of PRA Health Sciences, Inc. and subsidiaries' internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

The consolidated financial statements of RPS Parent Holding Corp. and subsidiaries at December 31, 2012 and 2011, and for the year ended December 31, 2012 and for the period from February 18, 2011 through December 31, 2011, and the consolidated financial statements of Research Pharmaceutical Services, Inc. and subsidiaries for the period from January 1, 2011 through February 17, 2011, appearing in this prospectus and registration statement have been audited by Ernst & Young LLP, independent auditors, as set forth on their reports thereon appearing elsewhere herein, and are included in reliance on such reports, given on their authority as experts in accounting and auditing.

INCORPORATION BY REFERENCE

The rules of the SEC allow us to "incorporate by reference" information into this prospectus. By incorporating by reference, we can disclose important information to you by referring you to another document we have filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus and information that we file in the future with the SEC will automatically update and supersede, as appropriate, this information. We incorporate by reference the documents listed below and all documents that we subsequently file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering of shares by means of this prospectus but excluding any documents furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus, from their respective filing dates:

our annual report on Form 10-K for the year ended December 31, 2015;

those portions of our definitive proxy statement on Schedule 14A filed on April 27, 2015, in connection with our 2015 annual meeting of shareholders that are incorporated by reference into our Form 10-K for the year ended December 31, 2014;

our current report on Form 8-K filed on February 18, 2016; and

the Audited Consolidated Financial Statements of RPS Parent Holding Corp. and Subsidiaries and Research Pharmaceutical Services, Inc. and Subsidiaries (Successor and Predecessor), and Interim Unaudited Consolidated Financial Statements of RPS Parent Holding Corp. and Subsidiaries filed as Exhibit 99.1 to the registration statement of which this prospectus is a part.

Any statement contained in a document incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed document that also is incorporated by reference in this prospectus modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus or any prospectus supplement.

Table of Contents

You may request a copy of any or all of the documents referred to above that have been or may be incorporated by reference into this prospectus (excluding certain exhibits to the documents) at no cost, by writing or calling us at the following address or telephone number:

PRA Health Sciences, Inc.
4130 ParkLake Avenue
Suite 400
Raleigh, North Carolina 27612
Attention: Investor Relations
Phone: (919) 786-8200

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the shares of common stock offered by this prospectus. This prospectus, filed as part of the registration statement, does not contain all of the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us, as well as our common stock, we refer you to the registration statement and to its exhibits and schedules.

We are subject to the informational requirements of the Exchange Act and are required to file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any of these reports, statements or other information at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549 or at its regional offices. You can request copies of those documents, upon payment of a duplicating fee, by writing to the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our filings are also available to the public at the SEC's internet site at <http://www.sec.gov>.

We also make available, free of charge, through the investor relations portion of our website our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and Proxy Statement on Schedule 14A (and any amendments to those forms) as soon as reasonably practicable after they are filed with or furnished to the SEC. Our website address is <http://www.prahs.com>. Please note that our website address is provided in this prospectus as an inactive textual reference only. The information found on or accessible through our website is not part of this prospectus or any prospectus supplement, and is therefore not incorporated by reference unless such information is otherwise specifically referenced elsewhere in this prospectus or the prospectus supplement.

Table of Contents

6,500,000 Shares

PRA Health Sciences, Inc.

Common Stock

PROSPECTUS SUPPLEMENT

August 6, 2018

Morgan Stanley

Goldman Sachs & Co. LLC
