UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

x **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2022

or

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to .

Commission file number: 001-37856

Medpace Holdings, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**32-0434904**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

5375 Medpace Way, Cincinnati, OH 45227
(Address of principal executive offices) (Zip Code)

(513) 579-9911
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock $0.01 par value	**MEDP**	**NASDAQ Global Select Market**

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes x No o

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

Large accelerated filer	x	Accelerated filer	o
Non-accelerated filer	o	Smaller reporting company	o
Emerging growth company	o		

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

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

Indicate the number of shares outstanding of each of the issuer's classes of Common Stock, as of the latest practicable date.

Class	Number of Shares Outstanding
Common Stock $0.01 par value	**31,099,897 shares outstanding as of October 21, 2022**

MEDPACE HOLDINGS, INC. AND SUBSIDIARIES
FORM 10-Q
FOR QUARTERLY PERIOD ENDED SEPTEMBER 30, 2022

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PART I — FINANCIAL INFORMATION
Item 1. Financial Statements

MEDPACE HOLDINGS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)

(Amounts in thousands, except share amounts)	As of	
	September 30, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 31,007	$ 461,304
Accounts receivable and unbilled, net (includes $3.0 million and $2.7 million with related parties at September 30, 2022 and December 31, 2021, respectively)	249,086	186,432
Prepaid expenses and other current assets	57,648	43,176
Total current assets	337,741	690,912
Property and equipment, net	104,719	93,153
Operating lease right-of-use assets	139,071	129,558
Goodwill	662,396	662,396
Intangible assets, net	38,846	41,360
Deferred income taxes	27,023	25,134
Other assets	18,629	17,422
Total assets	$ 1,328,425	$ 1,659,935
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable (includes $0.3 million with related parties at September 30, 2022 and December 31, 2021, respectively)	$ 28,245	$ 25,678
Accrued expenses	204,117	159,286
Advanced billings (includes $5.7 million and $8.3 million with related parties at September 30, 2022 and December 31, 2021, respectively)	417,927	344,641
Short-term debt	139,700	—
Other current liabilities	30,879	27,612
Total current liabilities	820,868	557,217
Operating lease liabilities	139,203	130,965
Deferred income tax liability	911	1,080
Other long-term liabilities	17,558	17,745
Total liabilities	978,540	707,007
Commitments and contingencies (see Note 11)		
Shareholders' equity:		
Preferred stock - $0.01 par-value; 5,000,000 shares authorized; no shares issued and outstanding at September 30, 2022 and December 31, 2021, respectively	—	—
Common stock - $0.01 par-value; 250,000,000 shares authorized at September 30, 2022 and December 31, 2021, respectively; 31,098,397 and 36,006,778 shares issued and outstanding at September 30, 2022 and December 31, 2021, respectively	309	360
Treasury stock - 81,573 and 180,000 shares at September 30, 2022 and December 31, 2021, respectively	(14,243)	(5,427)
Additional paid-in capital	759,986	727,857
(Accumulated deficit) Retained earnings	(380,115)	234,984
Accumulated other comprehensive loss	(16,052)	(4,846)
Total shareholders' equity	349,885	952,928
Total liabilities and shareholders' equity	$ 1,328,425	$ 1,659,935

See notes to condensed consolidated financial statements.

MEDPACE HOLDINGS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)

(Amounts in thousands, except per share amounts)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Revenue, net (includes $9.8 million and $8.7 million with related parties for the three months ended September 30, 2022 and 2021, respectively, and $40.3 million and $23.9 million with related parties for the nine months ended September 30, 2022 and 2021, respectively)	$ 383,744	$ 295,567	$ 1,065,898	$ 833,825
Operating expenses:				
Direct service costs, excluding depreciation and amortization	136,648	112,540	394,200	322,160
Reimbursed out-of-pocket expenses	128,062	95,934	354,991	271,494
Total direct costs	264,710	208,474	749,191	593,654
Selling, general and administrative	35,418	28,046	97,999	80,757
Depreciation	4,951	4,056	13,928	11,819
Amortization	838	1,278	2,514	3,835
Total operating expenses	305,917	241,854	863,632	690,065
Income from operations	77,827	53,713	202,266	143,760
Other income, net:				
Miscellaneous income, net	5,649	1,064	9,027	2,253
Interest expense, net	(1,584)	(41)	(2,078)	(82)
Total other income, net	4,065	1,023	6,949	2,171
Income before income taxes	81,892	54,736	209,215	145,931
Income tax provision	15,865	6,162	32,517	14,117
Net income	$ 66,027	$ 48,574	$ 176,698	$ 131,814
Net income per share attributable to common shareholders:				
Basic	$ 2.13	$ 1.35	$ 5.39	$ 3.67
Diluted	$ 2.05	$ 1.29	$ 5.18	$ 3.49
Weighted average common shares outstanding:				
Basic	31,009	35,816	32,791	35,822
Diluted	32,253	37,519	34,098	37,641

See notes to condensed consolidated financial statements.

MEDPACE HOLDINGS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)

(Amounts in thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Net income	$ 66,027	$ 48,574	$ 176,698	$ 131,814
Other comprehensive income				
Foreign currency translation adjustments, net of taxes	(6,080)	(1,483)	(11,206)	(3,112)
Comprehensive income	$ 59,947	$ 47,091	$ 165,492	$ 128,702

See notes to condensed consolidated financial statements.

MEDPACE HOLDINGS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (UNAUDITED)

(Amounts in thousands)	Common Stock	Treasury Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total
BALANCE — December 31, 2020	$ 355	$ (5,578)	$ 695,904	$ 115,229	$ (131)	$ 805,779
Net income				43,306		43,306
Foreign currency translation					(2,135)	(2,135)
Stock-based compensation expense			2,871			2,871
Stock options exercised	4		9,102			9,106
BALANCE — March 31, 2021	$ 359	$ (5,578)	$ 707,877	$ 158,535	$ (2,266)	$ 858,927
Net income				39,934		39,934
Foreign currency translation					506	506
Stock-based compensation expense			3,570			3,570
Stock options exercised	2		5,100			5,102
Repurchases of common stock	(3)			(56,154)		(56,157)
BALANCE — June 30, 2021	$ 358	$ (5,578)	$ 716,547	$ 142,315	$ (1,760)	$ 851,882
Net income				48,574		48,574
Foreign currency translation					(1,483)	(1,483)
Stock-based compensation expense			4,047			4,047
Stock options exercised	1		1,003			1,004
Repurchases of common stock				(5,939)		(5,939)
BALANCE — September 30, 2021	$ 359	$ (5,578)	$ 721,597	$ 184,950	$ (3,243)	$ 898,085

	Common Stock	Treasury Stock	Additional Paid-In Capital	(Accumulated Deficit) Retained Earnings	Accumulated Other Comprehensive Loss	Total
BALANCE — December 31, 2021	$ 360	$ (5,427)	$ 727,857	$ 234,984	$ (4,846)	$ 952,928
Net income				61,311		61,311
Foreign currency translation					(1,542)	(1,542)
Stock-based compensation expense			4,372			4,372
Stock options exercised	3		13,894			13,897
Repurchases of common stock	(27)	(14,243)		(411,680)		(425,950)
Retirement of treasury stock		5,427		(5,427)		—
BALANCE — March 31, 2022	$ 336	$ (14,243)	$ 746,123	$ (120,812)	$ (6,388)	$ 605,016
Net income				49,360		49,360
Foreign currency translation					(3,584)	(3,584)
Stock-based compensation expense			5,653			5,653
Stock options exercised			1,524			1,524
Repurchases of common stock	(27)			(374,690)		(374,717)
BALANCE — June 30, 2022	$ 309	$ (14,243)	$ 753,300	$ (446,142)	$ (9,972)	$ 283,252
Net income				66,027		66,027
Foreign currency translation					(6,080)	(6,080)
Stock-based compensation expense			5,794			5,794
Stock options exercised			892			892
BALANCE — September 30, 2022	$ 309	$ (14,243)	$ 759,986	$ (380,115)	$ (16,052)	$ 349,885

See notes to condensed consolidated financial statements.

MEDPACE HOLDINGS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

(Amounts in thousands)	Nine Months Ended September 30,	
	2022	2021
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$ 176,698	$ 131,814
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	13,928	11,819
Amortization	2,514	3,835
Stock-based compensation expense	15,819	10,488
Noncash lease expense	13,460	11,878
Deferred income tax (benefit) provision	(2,126)	3,299
Amortization and adjustment of deferred credit	(465)	(501)
Other	115	213
Changes in assets and liabilities:		
Accounts receivable and unbilled, net	(62,438)	(25,046)
Prepaid expenses and other current assets	(17,397)	(22,049)
Accounts payable	770	2,150
Accrued expenses	47,848	24,691
Advanced billings	73,286	48,184
Lease liabilities	(11,134)	(11,335)
Other assets and liabilities, net	488	2,993
Net cash provided by operating activities	251,366	192,433
CASH FLOWS FROM INVESTING ACTIVITIES:		
Property and equipment expenditures	(27,636)	(19,155)
Other	(1,886)	(3,093)
Net cash used in investing activities	(29,522)	(22,248)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from stock option exercises	16,313	15,212
Repurchases of common stock	(800,667)	(62,096)
Proceeds from revolving loan	299,200	—
Payments on revolving loan	(159,500)	—
Net cash used in financing activities	(644,654)	(46,884)
EFFECT OF EXCHANGE RATES ON CASH, CASH EQUIVALENTS, AND RESTRICTED CASH	(7,487)	(2,680)
(DECREASE) INCREASE IN CASH, CASH EQUIVALENTS, AND RESTRICTED CASH	(430,297)	120,621
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH — Beginning of period	461,304	277,766
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH — End of period	$ 31,007	$ 398,387
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION —		
Acquisition of property and equipment—non-cash	$ 9,094	$ 5,424

See notes to condensed consolidated financial statements.

MEDPACE HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)
September 30, 2022

(1) Basis of Presentation

Description of Business

Medpace Holdings, Inc. (together with its subsidiaries, “Medpace” or the “Company”), a Delaware corporation, is a global provider of clinical research-based drug and medical device development services. The Company partners with pharmaceutical, biotechnology, and medical device companies in the development and execution of clinical trials. The Company’s drug development services focus on full service Phase I-IV clinical development services and include development plan design, project management, regulatory affairs, clinical monitoring, data management and analysis, pharmacovigilance new drug application submissions, post-marketing clinical support, laboratory services, clinical human pharmacology, imaging services, and electrocardiography reading support for clinical trials.

The Company’s operations are principally based in North America, Europe, and Asia.

Unaudited Interim Financial Information

The interim condensed consolidated financial statements include the accounts of the Company, are prepared in conformity with U.S. generally accepted accounting principles (“GAAP”), and are unaudited. In the opinion of the Company’s management, all adjustments of a normal recurring nature necessary for a fair presentation have been reflected. Certain financial information that is normally included in annual financial statements prepared in accordance with GAAP, but that is not required for interim reporting purposes, has been omitted. The preparation of the interim condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the interim condensed consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results and outcomes could differ from management’s estimates and assumptions. As such, the information included in this quarterly report on Form 10-Q should be read in conjunction with the Company’s audited consolidated financial statements and related notes included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2021.

Share Repurchases

In the second quarter of 2021, the Board approved an increase of $150.0 million to the Company's stock repurchase program bringing the total repurchase authorization up to $300.0 million. In the first quarter of 2022, the Board approved additional increases totaling $500.0 million to the Company's stock repurchase program. In the second quarter of 2022, the Board approved further increases of $110.0 million to the Company's stock repurchase program. During the nine months ended September 30, 2022, the Company repurchased 5,463,244 shares for $800.5 million. During the three and nine months ended September 30, 2021, the Company repurchased 34,624 and 377,783 shares for $5.9 million and $62.1 million, respectively. As of September 30, 2022, the Company has completed all authorized share repurchases under the repurchase program.

Repurchases under the share repurchase program are executed in the open market or negotiated transactions under trading plans put in place pursuant to Rule 10b5-1. The Company constructively retired the repurchased shares associated with these approved share repurchases, except for a small portion which were retained as Treasury Shares on the condensed consolidated statements of shareholders' equity. Retired share repurchase amounts paid in excess of par value are reflected within Accumulated deficit/Retained earnings in the Company’s condensed consolidated balance sheets.

Recently Issued Accounting Standards

In November 2021, the FASB issued ASU 2021-10, "Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance" which requires entities to provide disclosures on material government assistance transactions for annual reporting periods. The disclosures include information around the nature of the assistance, the related accounting policies used to account for government assistance, the effect of government assistance on the entity's financial statements, and any significant terms and conditions of the agreements, including commitments and contingencies. The guidance is effective for annual periods beginning after December 15, 2021, with early adoption permitted. The Company is currently evaluating the effect this standard will have on its condensed consolidated financial statements and related disclosures.

(2) Net Income Per Share

Basic and diluted earnings or loss per share ("EPS") are computed using the two-class method, which is an earnings allocation that determines EPS for each class of common stock and participating securities according to dividends declared and participation rights in undistributed earnings. The Company's Restricted Stock Awards ("RSA") are considered participating securities because they are legally issued at the date of grant and holders are entitled to receive non-forfeitable dividends during the vesting term.

The computation of diluted EPS includes additional common shares, such as unvested Restricted Stock Units ("RSU") and stock options with exercise prices less than the average market price of the Company's common stock during the period ("in-the-money options"), which would be considered outstanding. This assumes that additional shares would have to be issued in cases where the exercise price of stock options is less than the value of the common stock being acquired because the cash proceeds received from the stock option holder would not be sufficient to acquire that same number of shares. The Company does not compute diluted EPS in cases where the inclusion of such additional shares would be anti-dilutive in effect.

The following table sets forth the computation of basic and diluted earnings per share for the three and nine months ended September 30, 2022 and 2021 (in thousands, except for earnings per share):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Weighted-average shares:				
Common shares outstanding	31,009	35,816	32,791	35,822
RSAs	21	112	21	114
Total weighted-average shares	31,030	35,928	32,812	35,936
Earnings per common share—Basic				
Net income	$ 66,027	$ 48,574	$ 176,698	$ 131,814
Less: Undistributed earnings allocated to RSAs	(44)	(151)	(112)	(419)
Net income available to common shareholders—Basic	$ 65,983	$ 48,423	$ 176,586	$ 131,395
Net income per common share—Basic	$ 2.13	$ 1.35	$ 5.39	$ 3.67
Basic weighted-average common shares outstanding	31,009	35,816	32,791	35,822
Effect of diluted shares	1,244	1,703	1,307	1,819
Diluted weighted-average shares outstanding	32,253	37,519	34,098	37,641
Net income per common share—Diluted	$ 2.05	$ 1.29	$ 5.18	$ 3.49

During the three and nine months ended September 30, 2022, the Company had (in thousands) 274.4 stock options, respectively, that were excluded due to the exercise price exceeding the average fair value of the Company's common stock during the period.

(3) Fair Value Measurements

The Company follows accounting guidance related to fair value measurements that defines fair value, establishes a framework for measuring fair value, and establishes a hierarchy for inputs used in measuring fair value. This hierarchy maximizes the use of "observable" inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. The hierarchy specifies three levels based on the inputs, as follows:

Level 1: Valuations based on quoted prices in active markets for identical assets or liabilities.

Level 2: Valuations based on directly observable inputs or unobservable inputs corroborated by market data.

Level 3: Valuations based on unobservable inputs supported by little or no market activity representing management's determination of assumptions of how market participants would price the assets or liabilities.

The fair value of financial instruments such as cash and cash equivalents, accounts receivable and unbilled, net, accounts payable, accrued expenses and advanced billings approximate their carrying amounts due to their short term maturities.

The Company does not have any recurring fair value measurements as of September 30, 2022. There were no transfers between Level 1, Level 2 or Level 3 during the three and nine months ended September 30, 2022 or September 30, 2021.

(4) Contract Assets and Contract Liabilities

Contract assets and liabilities are reflected in the Company's condensed consolidated balance sheets within the accounts reflected below.

Contract Assets

Accounts receivable represent amounts due from the Company's customers who are concentrated primarily in the pharmaceutical, biotechnology, and medical device industries. Unbilled represents revenue recognized to date that has not been billed or is not yet contractually billable to the customer. In general, amounts become billable upon the achievement of negotiated contractual events, in accordance with predetermined payment schedules or when a reimbursable expense has been incurred. Amounts classified to unbilled are those billable to customers within one year from the respective balance sheet date.

Accounts receivable and unbilled, net consisted of the following (in thousands):

	As of	
	September 30, 2022	December 31, 2021
Accounts receivable	$ 207,792	$ 150,496
Unbilled receivables	41,463	36,107
Less: allowance for doubtful accounts	(169)	(171)
Total accounts receivable and unbilled, net	$ 249,086	$ 186,432

Contract Liabilities

Advanced billings represent cash received from customers, or billed amounts per an agreed upon payment schedule, in advance of services being performed or revenue being recognized.

Advanced billings consisted of the following (in thousands):

	As of	
	September 30, 2022	December 31, 2021
Advanced billings	$ 417,927	$ 344,641

As of September 30, 2022, we had approximately $2.5 billion of performance obligations remaining to be performed for active projects.

(5) Intangible Assets, Net

Intangible assets, net consisted of the following (in thousands):

	As of September 30, 2022	As of December 31, 2021
Intangible assets:		
Finite-lived intangible assets:		
Carrying amount:		
Customer relationships	145,051	145,051
Accumulated amortization:		
Customer relationships	(137,851)	(135,337)
Total finite-lived intangible assets, net	7,200	9,714
Trade name (indefinite-lived)	31,646	31,646
Total intangible assets, net	$ 38,846	$ 41,360

As of September 30, 2022, estimated amortization expense of the Company's intangible assets for each of the next five years and thereafter is as follows (in thousands):

	Amortization
Remainder of 2022	$ 839
2023	2,199
2024	1,443
2025	946
2026	620
Later years	1,153
	$ 7,200

(6) Accrued Expenses

Accrued expenses consisted of the following (in thousands):

	As of September 30, 2022	As of December 31, 2021
Employee compensation and benefits	$ 63,517	$ 57,846
Project related reimbursable expenses	127,603	91,839
Other	12,997	9,601
Total accrued expenses	$ 204,117	$ 159,286

(7) Debt

Debt consisted of the following (in thousands):

	As of September 30, 2022	As of December 31, 2021
Revolving credit facility	$ 139,700	$ —
Short-term debt	$ 139,700	$ —

Principal payments on debt are due as follows (in thousands):

2022 (remaining)		—
2023		139,700
Total	$	139,700

On September 30, 2019 (the "Closing Date"), the Company obtained an unsecured credit facility in an aggregate principal amount up to $50.0 million (as amended from time to time, the "Credit Facility") through its wholly owned subsidiaries, Medpace, Inc., as borrower (the "Borrower"), and Medpace IntermediateCo, Inc., as guarantor (the "Guarantor").

On the Closing Date, the Borrower and lender entered into a Loan Agreement (as it may be amended from time to time, the "Loan Agreement") providing for the Credit Facility, and the Guarantor executed a Guaranty Agreement providing for its guarantee of the payment and performance of the obligations under the Loan Agreement. On December 27, 2021, the Company entered into Amendment No. 3 to the Loan Agreement, which, among other things, extends the expiration date of the revolving credit note to March 31, 2023, adds provisions for alternative rates of interest as a result of global reference rate initiatives and removes the Borrower's ability to obtain advances in any currency other than U.S. Dollars. After the LIBOR cessation date of December 31, 2021, the Credit Facility bears interest at a rate of the sum of The Secured Overnight Financing Rate (SOFR) and the benchmark replacement adjustment plus 100 basis points (1.00%). On March 15, 2022, the Company entered into Amendment No. 4 to the Loan Agreement, which increased the aggregate principal amount that may be borrowed under the facility's line of credit to up to $250.0 million.

As of September 30, 2022, there were $0.2 million in letters of credit outstanding related to certain operating lease obligations, which are secured by the Credit Facility.

(8) Leases

The Company enters into leases for real estate and equipment. Real estate leases are for our corporate office space and laboratories around the world. Real estate leases have remaining lease terms of less than 1 year to 18 years. Many of the Company's leases include options to extend the leases on a month to month basis or for set periods for up to 20 years. Many leases also include options to terminate the leases within 1 year or per other contractual terms.

The components of lease expense were as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Operating lease cost	$ 6,482	$ 5,941	$ 19,357	$ 17,488
Variable lease cost	2,240	1,749	6,353	4,565

Supplemental cash flow information related to the leases was as follows (in thousands):

	Nine Months Ended September 30,	
	2022	2021
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 12,045	$ 11,847
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases	29,915	24,251

Supplemental balance sheet information related to the leases was as follows (in thousands):

	As of September 30, 2022	As of December 31, 2021
Operating lease right-of-use assets	$ 139,071	$ 129,558
Other current liabilities	$ 18,691	$ 16,276
Operating lease liabilities	139,203	130,965
Total operating lease liabilities	$ 157,894	$ 147,241
Weighted Average Remaining Lease Term (years)		
Operating leases	11.4	12.0
Weighted Average Discount Rate		
Operating leases	5.2 %	5.5 %

Lease payments due related to lease liabilities as of September 30, 2022 were as follows (in thousands):

	Related Party Operating Leases	Non-Related Parties Operating Leases	Total Operating Leases
Remainder of 2022	$ 2,746	$ 3,674	$ 6,420
2023	11,025	13,894	24,919
2024	11,154	11,394	22,548
2025	11,286	9,302	20,588
2026	11,422	8,108	19,530
Later years	106,988	17,570	124,558
Total lease payments	154,621	63,942	218,563
Less: imputed interest	(54,538)	(6,131)	(60,669)
Total	$ 100,083	$ 57,811	$ 157,894

As of September 30, 2022, we have several additional leases with contractual obligations, which have not yet commenced, with future payments of $0.1 million.

(9) Shareholder’s Equity and Stock-Based Compensation

The Company granted 392,231 awards to employees under the 2016 Incentive Award Plan during the nine months ended September 30, 2022, consisting of 151,159 RSU and 113,838 stock option awards having four year vesting schedules and 127,234 stock option awards having two year vesting schedules. The Company granted an additional 11,418 stock option awards to non-employee directors under the 2016 Incentive Award Plan, during the nine months ended September 30, 2022. These awards are scheduled to vest on the earlier of (a) the day immediately preceding the date of the first annual meeting following the date of grant and (b) the first anniversary of the date of grant, subject to the non-employee director continuing in service through the applicable vesting date.

Award Activity

The following table sets forth the Company’s stock option activity:

	Nine Months Ended September 30, 2022	
	Stock Options	Weighted Average Exercise Price
Outstanding - beginning of period	1,992,915	$ 68.39
Granted	252,490	$ 138.91
Exercised	(395,863)	$ 41.21
Cancelled/Forfeited/Expired	(28,747)	$ 72.76
Outstanding - end of period	1,820,795	$ 84.01
Exercisable - end of period	1,212,799	$ 56.49

The following table sets forth the Company’s RSA/RSU activity:

	Nine Months Ended September 30, 2022
	Shares/Units
Outstanding and unvested - beginning of period	602,187
Granted	151,159
Vested	(159,000)
Forfeited	(40,248)
Outstanding and unvested - end of period	554,098
Cumulative vested shares - end of period	2,191,916

Stock-based compensation expense recognized in the condensed consolidated statements of operations related to all outstanding stock based compensation awards is summarized below (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Total direct costs	$ 3,179	$ 2,607	$ 8,744	$ 6,841
Selling, general and administrative	2,615	1,440	7,075	3,647
Total stock-based compensation expense	$ 5,794	$ 4,047	$ 15,819	$ 10,488

(10) Income Taxes

The Company’s effective income tax rate was 19.4% and 11.3% for the three months ended September 30, 2022 and 2021, respectively. The Company's effective income tax rate was 15.5% and 9.7% for the nine months ended September 30, 2022 and 2021, respectively. The Company’s effective income tax rate for the three months ended September 30, 2022 varied from the U.S. statutory rate of 21% primarily due to the impact of state taxes, which was favorably offset by excess tax benefits recognized from share-based compensation. The Company's effective income tax rate for the nine months ended September 30, 2022 varied from the U.S. statutory rate of 21% due to the impact of the state taxes, which was favorably offset by excess tax benefits recognized from share-based compensation and benefits from uncertain tax positions.

(11) Commitments and Contingencies

Legal Proceedings

The Company is involved in legal proceedings from time to time in the ordinary course of its business, including employment claims and claims related to other business transactions. The Company cannot predict with certainty the outcome of such proceedings, but it believes that adequate reserves have been recorded and losses already recognized with respect to such proceedings, which were immaterial as of September 30, 2022 and December 31, 2021. There is a reasonable possibility that a loss exceeding amounts already recognized may be incurred related to these actions; however, the Company believes that such potential losses were immaterial as of September 30, 2022.

Purchase Commitments

The Company has several minimum purchase commitments for project related supplies totaling $14.3 million as of September 30, 2022. In return for the commitment, Medpace receives preferential pricing. The commitments expire at various times through 2029.

(12) Related Party Transactions

Employee Loans

The Company periodically extends short term loans or advances to employees, typically upon commencement of employment. Total receivables as a result of these employee advances of $0.2 million existed at September 30, 2022 and December 31, 2021, respectively, and are included in the Prepaid expenses and other current assets and Other assets line items of the condensed consolidated balance sheets, respectively, depending on the contractual repayment date.

Service Agreement

LIB Therapeutics LLC and subsidiaries ("LIB")

Certain executives and employees of the Company, including the chief executive officer, are members of LIB's board of managers. The Company entered into a MSA dated November 24, 2015 with LIB, a company that engages in research, development, marketing and commercialization of pharmaceutical drugs. Subsequently, the Company and LIB have entered into several task orders for the Company to perform clinical trial related services. The Company recognized total revenue from LIB of $9.5 million and $2.3 million during the three months ended September 30, 2022 and 2021, respectively, and $26.6 million and $5.6 million during the nine months ended September 30, 2022 and 2021, respectively, in the Company's condensed consolidated statements of operations. As of September 30, 2022 and December 31, 2021, respectively, the Company had Advanced billings from LIB of $4.7 million and $2.9 million in the condensed consolidated balance sheets. In addition, as of September 30, 2022 and December 31, 2021, respectively, the Company had Accounts receivable and unbilled, net from LIB of $1.7 million and $0.5 million in the condensed consolidated balance sheets.

CinRX Pharma, subsidiaries and affiliates ("CinRx")

Certain executives and employees of the Company, including the chief executive officer, are members of CinRx's board of managers and/or have equity investments in CinRx, a biotech company. The Company and CinRx have entered into several task orders for the Company to perform clinical trial related services. The Company recognized total revenue from CinRx of $0.5 million and $6.4 million during the three months ended September 30, 2022 and 2021, respectively, and $13.8 million and $18.3 million during the nine months ended September 30, 2022 and 2021, respectively, in the Company's condensed consolidated statements of operations. As of September 30, 2022 and December 31, 2021, respectively, the Company had Advanced billings from CinRx of $1.0 million and $5.4 million in the condensed consolidated balance sheets. As of September 30, 2022 and December 31, 2021 the Company had Accounts receivable and unbilled, net from CinRx of $1.3 million and $2.1 million, respectively, in the condensed consolidated balance sheets. Certain affiliates of CinRx included in previous reported quarters are no longer disclosed due to changes in the affiliate relationship.

The Summit Hotel ("The Summit")

The Summit Hotel, located on the Medpace campus, is owned by the chief executive officer, and managed by an unrelated hospitality management entity. Medpace incurs travel lodging and meeting expenses at The Summit. Medpace incurred expenses of $0.1 million and $0.2 million during the three months ended September 30, 2022 and 2021, respectively, and $0.2 million and $0.3 million during the nine months ended September 30, 2022 and 2021 at The Summit, respectively.

Leased Real Estate

Headquarters Lease

The Company entered into an operating lease for its corporate headquarters with an entity that is wholly owned by the chief executive officer of the Company. The Company has evaluated its relationship with the related party and concluded that the related party is not a variable interest entity because the Company has no direct ownership interest or relationship other than the lease. The lease for headquarters is for an initial term of twelve years through November 2022 with a renewal option for one 10-year term at prevailing market rates. In Q3 2021, the Company accounted for the renewal option, as it became reasonably certain it would be exercised per the agreement, by extending the lease term through November 2032. The Company pays rent, taxes, insurance, and maintenance expenses that arise from the use of the property. Annual base rent for its corporate headquarters allows for adjustments to the rental rate annually for increases in the consumer price index. Operating lease cost recognized for the three months ended September 30, 2022 and 2021 was $0.6 million and $1.7 million and $1.6 million for the nine months ended September 30, 2022 and 2021, respectively. The operating lease cost was allocated between Total direct costs and Selling, general and administrative in the condensed consolidated statements of operations. The Operating lease right-of-use assets at September 30, 2022 and December 31, 2021 were $18.6 million and $19.7 million, respectively, in the condensed consolidated balance sheets. The current and long-term portions of the lease liabilities at September 30, 2022 were $1.5 million and $17.1 million, respectively, and were recognized in Other current liabilities and Operating lease liabilities in the condensed consolidated balance sheets. The current and long-term portions of the lease liabilities at December 31, 2021 were $1.5 million and $18.3 million, respectively, and were recognized in Other current liabilities and Operating lease liabilities in the condensed consolidated balance sheets.

In 2018, Medpace, Inc. entered into a multi-year lease agreement governing future occupancy of additional office space in Cincinnati, Ohio with an entity that is wholly owned by the Company's chief executive officer and certain members of his immediate family. The Company began to occupy the premises in the second quarter of fiscal year 2020. The lease expires in 2040 and the Company has two 10-year options to extend the term of the lease. The Company pays rent, taxes, insurance, and maintenance expenses that arise from the use of the property. Annual base rent for the corporate headquarters allows for adjustments to the rental rate annually for increases in the consumer price index. The Company has determined that the lease is an operating lease. Operating lease cost recognized for the three months ended September 30, 2022 and 2021 was $1.5 million and $4.3 million for the nine months ended September 30, 2022 and 2021. The operating lease cost was allocated between Total direct costs and Selling, general and administrative in the condensed consolidated statements of operations. The Operating lease right-of-use assets at September 30, 2022 and December 31, 2021 were $53.9 million and $55.1 million, respectively, in the condensed consolidated balance sheets. The current and long-term portions of the lease liabilities at September 30, 2022 were $1.1 million and $65.1 million, respectively, and were recognized in Other current liabilities and Operating lease liabilities in the condensed consolidated balance sheets. The current and long-term portions of the lease liabilities at December 31, 2021 were $0.9 million and $65.9 million, respectively and were recognized in Other current liabilities and Operating lease liabilities in the condensed consolidated balance sheets.

The Company entered into two multi-year lease agreements governing the occupancy of space of two buildings in Cincinnati, Ohio with an entity that is wholly owned by the Company's chief executive officer and certain members of his immediate family. The Company assumed occupancy in 2012 and the leases expire in 2027 with the Company having one 10-year option to extend the lease term. The Company pays rent, taxes, insurance, and maintenance expenses that arise from the use of the property. Annual base rent for the corporate headquarters allows for adjustments to the rental rate annually for increases in the consumer price index. The Company has determined that the leases are operating leases. Operating lease cost recognized for the three months ended September 30, 2022 and 2021 was $0.9 million and $2.7 million for the nine months ended September 30, 2022 and 2021. The operating lease cost was allocated between Total direct costs and Selling, general and administrative in the condensed consolidated statements of operations. The Operating lease right-of-use assets at September 30, 2022 and December 31, 2021 were $15.3 million and $17.2 million, respectively, in the condensed consolidated balance sheets. The current and long-term portions of the lease liabilities at September 30, 2022 were $2.7 million and $12.6 million, respectively, and were recognized in Other current liabilities and Operating lease liabilities in the condensed consolidated balance sheets. The current and long-term portions of the lease liabilities at December 31, 2021 were $2.6 million and $14.6 million, respectively, and were recognized in Other current liabilities and Operating lease liabilities in the condensed consolidated balance sheets.

Travel Services

The Company incurs expenses for travel services for company executives provided by private aviation charter companies which is a company controlled by the chief executive officer of the Company (each a "private aviation charter"). The Company may contract directly with the private aviation charter for the use of its aircraft or indirectly through a third party aircraft management and jet charter company (the “Aircraft Management Company”). The travel services provided are primarily for business purposes, with certain personal travel paid for as part of the executives’ compensation arrangements. The Aircraft Management Company also makes the private aviation charter aircraft available to third parties. The Company incurred travel expenses of $0.6 million and $0.4 million during the three months ended September 30, 2022 and 2021, respectively, and $1.6 million and $0.9 million during the nine months ended September 30, 2022 and 2021, respectively, related to these travel services. These travel expenses are recorded in Selling, general and administrative in the Company’s condensed consolidated statements of operations. As of September 30, 2022 and December 31, 2021, the Company had Accounts payable to the Aircraft Management Company of $0.2 million, respectively, in the condensed consolidated balance sheets.

(13) Entity Wide Disclosures

Revenue by Category

The following table disaggregates our revenue by major source (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Therapeutic Area				
Oncology	$ 122,834	$ 94,724	$ 343,589	$ 267,110
Other	72,767	64,088	216,739	197,146
Metabolic	63,478	42,133	167,194	112,771
Cardiology	49,802	34,736	129,225	86,538
Central Nervous System	43,418	32,854	120,811	86,217
AVAI	31,445	27,032	88,340	84,043
Total revenue	$ 383,744	$ 295,567	$ 1,065,898	$ 833,825

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our condensed consolidated financial statements and the notes thereto included elsewhere in this Quarterly Report on Form 10-Q, with our audited consolidated financial statements and the notes thereto included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021 and with the information under the heading "Management Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021. This item and the related discussion contain forward-looking statements reflecting current expectations that involve risks and uncertainties. Actual results and the timing of events may differ materially from those indicated in such forward-looking statements. Important factors that may cause such differences include, but are not limited to, those discussed under the "Forward-Looking Statements" below and "Risk Factors" in "Item 1A Risk Factors" of Part I of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements. We intend such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements other than statements of historical facts contained herein, are forward looking statements. Forward looking statements include, without limitation, statements regarding our results of operations; financial position and performance; the anticipated impact of the coronavirus COVID-19 pandemic on our business; international risks including the conflict involving Russia, Ukraine and surrounding countries, respectively, on our business; liquidity and our ability to fund our business operations and initiatives; capital expenditure and debt service obligations; business strategies, plans and goals, including those related to operations, marketing, acquisitions and expansion of our business; product approvals and plans; industry trends; general economic conditions, including inflation and other pricing pressures that could decrease our operating margins; expectations regarding consumer behaviors and trends; our culture and operating philosophy; human resource management; arrangements with and delivery of our services to the customers; conversion of backlog; dividend policy; legal proceedings; and our objectives for future operations. The words "expect," "anticipate," "intend," "plan," "believe," "seek," "see," "will," "would," "target," "likely," and similar expressions are intended to identify forward-looking statements. Forward-looking statements are based largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to inherent uncertainties, risks, changes in circumstances and other important factors that are difficult to predict. Moreover, we operate in a very competitive and rapidly changing environment in which new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all important factors on our business or the extent to which any factor, or combination of such factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed may not occur and our financial condition and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. We caution you therefore against relying on these forward-looking statements.

We qualify all of our forward-looking statements by these cautionary statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. For a further discussion of the risks relating to our business, see "Item 1A Risk Factors" of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021 and "Part II – Other Information, Item 1A Risk Factors" herein.

Business Overview

We are one of the world's leading clinical contract research organizations, or CROs, by revenue, solely focused on providing scientifically-driven outsourced clinical development services to the biotechnology, pharmaceutical and medical device industries. Our mission is to accelerate the global development of safe and effective medical therapeutics. We differentiate ourselves from our competitors by our disciplined operating model centered on providing full-service Phase I-IV clinical development services and our therapeutic expertise. We believe this combination results in timely and cost-effective delivery of clinical development services for our customers. We believe that we are a partner of choice for small- and mid-sized biopharmaceutical companies based on our ability to consistently utilize our full-service, disciplined operating model to deliver timely and high-quality results for our customers.

We focus on conducting clinical trials across all major therapeutic areas, with particular strength in Oncology, Metabolic Disease, Cardiology, Central Nervous System, or CNS, and Antiviral and Anti-infective, or AVAI. Our global platform includes approximately 5,000 employees across 40 countries as of September 30, 2022, providing our customers with broad access to diverse markets and patient populations as well as local regulatory expertise and market knowledge.

How We Generate Revenue

We earn fees through the performance of services detailed in our customer contracts. Contract scope and pricing is typically based on either a fixed-fee or unit-of-service model, with consideration of activities performed by third parties, as well as ancillary costs necessary to deliver on the contract scope that are reimbursable by our customers. Our contracts can range in duration from a few months to several years. These contracts are individually priced and negotiated based on the anticipated project scope, including the complexity of the project and the performance risks inherent in the project. The majority of our contracts are structured with an upfront fee that is collected at the time of contract signing, and the balance of the fee is collected over the duration of the contract either through an arranged billing schedule or upon completion of certain performance targets or defined milestones.

Revenue, which is distinct from billing and cash receipt, is recognized based on the satisfaction of the individual performance obligations identified in each contract. Substantially all of our customer contracts consist of a single performance obligation, as the promise to transfer the individual services defined in the contracts are not separately identifiable from other promises in the contract, and therefore not distinct. Our performance obligations are generally satisfied over time and recognized as services are performed. The progression of our contract performance obligations are measured primarily utilizing the input method of cost to cost. Cancellation provisions in our contracts allow our customers to terminate a contract either immediately or according to advance notice terms specified within the applicable contract, which is typically 30 days. Contract cancellation may occur for various reasons, including, but not limited to, adverse patient reactions, lack of efficacy, or inadequate patient enrollment. Upon cancellation, we are entitled to fees for services rendered through the date of termination, including payment for subsequent services necessary to conclude the study or close out the contract. These fees are typically discussed and agreed upon with the customer and are realized as revenue when we believe the amount can be estimated reliably and its realization is probable. Changes in revenue from period to period are driven primarily by new business volume and task order execution activity, project cancellations, and the mix of active studies during a given period that can vary based on therapeutic area and or study life cycle stage.

Costs and Expenses

Our costs and expenses are comprised primarily of our total direct costs, selling, general and administrative costs, depreciation and amortization and income taxes.

Total Direct Costs

Total direct costs are primarily driven by labor and related employee benefits, but also include contracted third party service related expenses, fees paid to site investigators, reimbursed out of pocket expenses, laboratory supplies and other expenses contributing to service delivery. The other costs of service delivery can include office rent, utilities, supplies and software licenses which are allocated between Total direct costs and selling, general and administrative expenses based on the estimated contribution among service delivery and support function efforts on a percentage basis. Total direct costs are expensed as incurred and are not deferred in anticipation of contracts being awarded or finalization of changes in scope. Total direct costs, as a percentage of net revenue, can vary from period to period due to project labor efficiencies, changes in workforce, compensation/bonus programs and service mix.

Selling, General and Administrative

Selling, general and administrative expenses are primarily driven by compensation and related employee benefits, as well as rent, utilities, supplies, software licenses, professional fees (e.g., legal and accounting expenses), bad debt expense, travel, marketing and other operating expenses.

Depreciation

Depreciation is provided on our property and equipment on the straight-line method at rates adequate to allocate the cost of the applicable assets over their estimated useful lives, which is three to five years for computer hardware, software, phone, and medical imaging equipment, five to seven years for furniture and fixtures and other equipment, and thirty to forty years for buildings. Leasehold improvements are amortized on a straight-line basis over the shorter of the estimated useful life of the improvement or the associated remaining lease term.

Amortization

Amortization relates to finite-lived intangible assets recognized as expense using the straight-line method or using an accelerated method over their estimated useful lives of 15 years.

Income Tax Provision

Income tax provision consists of federal, state and local taxes on income in multiple jurisdictions. Our income tax is impacted by the pre-tax earnings in jurisdictions with varying tax rates and any related tax credits that may be available to us. Our current and future provision for income taxes will vary from statutory rates due to the impact of valuation allowances in certain countries, income tax incentives, certain non-deductible expenses, and other discrete items.

Key Performance Metrics

To evaluate the performance of our business, we utilize a variety of financial and performance metrics. These key measures include new business awards, cancellations and backlog.

New Business Awards, Cancellations and Backlog

New business awards represent the value of anticipated future net revenue that has been awarded during the period that is recognized in backlog. This value is recognized upon the signing of a contract or receipt of a written pre-contract confirmation from a customer that confirms an agreement in principle on budget and scope. New business awards also include contract amendments, or changes in scope, where the customer has provided written authorization for changes in budget and scope or has approved us to perform additional work as of the measurement date. Awards may not be recognized as backlog after consideration of a number of factors, including whether (i) the relevant net revenue is expected only after a pending regulatory hurdle, which might result in cancellation of the study, (ii) the customer funding needed for commencement of the study is not believed to have been secured or (iii) study timelines are uncertain or not well defined. In addition, study amounts that extend beyond a three-year timeline are not included in backlog. The number and amount of new business awards can vary significantly from period to period, and an award’s contractual duration can range from several months to several years based on customer and project specifications.

Cancellations arise in the normal course of business and are reflected when we receive written confirmation from the customer to cease work on a contractual agreement. The majority of our customers can terminate our contracts without cause upon 30 days’ notice. Similar to new business awards, the number and amount of cancellations can vary significantly period over period due to timing of customer correspondence and study-specific circumstances.

Net new business awards represent gross new business awards received in a period offset by total cancellations in that period. Net new business awards were $470.9 million and $1,344.4 million for the three and nine months ended September 30, 2022, respectively. Net new business awards were $408.0 million and $1,151.7 million for the three and nine months ended September 30, 2021, respectively.

Backlog represents anticipated future net revenue from net new business awards that have not commenced or are currently in process but not complete. Reported backlog will fluctuate based on new business awards, changes in the scope of existing contracts, cancellations, revenue recognition on existing contracts and foreign exchange adjustments from non-U.S. dollar denominated backlog. As of September 30, 2022, our backlog increased by $386.4 million, or 20.9%, to $2,236.2 million compared to $1,849.8 million as of September 30, 2021. Included within backlog as of September 30, 2022 was approximately $1,165.0 million to $1,175.0 million that we expect to convert to net revenue over the next twelve months, with the remainder expected to convert to net revenue thereafter.

The effect of foreign currency adjustments on backlog was as follows: unfavorable foreign currency adjustments of $17.4 million for the three months ended September 30, 2022; unfavorable foreign currency adjustments of $33.2 million for the nine months ended September 30, 2022; unfavorable foreign currency adjustments of $3.5 million for the three months ended September 30, 2021; and unfavorable foreign currency adjustments of $3.9 million for the nine months ended September 30, 2021.

Backlog and net new business award metrics may not be reliable indicators of our future period revenue as they are subject to a variety of factors that may cause material fluctuations from period to period. These factors include, but are not limited to, changes in the scope of projects, cancellations, and duration and timing of services provided.

Coronavirus (COVID-19)

The COVID-19 pandemic increased travel restrictions and caused the shutdown of many businesses in countries in which we operate. While we continue to operate globally, the pandemic continues to impact our business and the level of activity at each of our locations varies depending on the local governmental requirements and guidelines which continue to evolve and change.

Our office staff are either working remotely or in the office, and our labs are fully operational with modifications made to ensure the safety of our employees. The diversion of resources to treat COVID-19 patients continues to impact the operations at most of the investigative sites where patients in our clinical trials are recruited and treated.

Depending on the duration of the disruption, ongoing studies may be cancelled and some of our clients may lack the funding to complete trials which are extended due to slowed recruitment of patients. We work with many smaller clients with limited financial resources and market disruptions may make raising additional funds difficult for them.

Travel restrictions and business closures continue to impact study participants and clinical sites which affects our ability to efficiently provide clinical trial services. We continue to work with our customers to develop solutions to limit disruption to clinical trials while following required regulatory guidelines and maintaining quality to ensure the health and well-being of study participants. We are continuing along with the rest of the industry with a blend of on-site monitoring and remote based monitoring and we are using technology tools like e-PRO for patient reported outcomes, e-COA, for clinical outcome assessment, remote data capture and remote data review. We are also leveraging internal service capabilities like patient concierge service to help facilitate patient travel to sites and master service agreements in place with strategic vendors for other patient services like home health.

While certain governments eased restrictions during 2021 and into the three and nine months ended September 30, 2022, the pandemic remains disruptive to our business operations. As we look ahead, we continue to expect impacts to our business to be temporary and primarily relate to limitations on our ability to physically access investigative sites, delays in patient enrollment and trial start-up activities.

The COVID-19 outbreak had a significant adverse effect on our results of operations and we believe that the outbreak may have a continued adverse impact on our results of operations in the future. As we cannot predict the duration or scope of the pandemic, the future financial impact on our results of operations and financial condition cannot be reasonably estimated.

Exchange Rate Fluctuations

The majority of our contracts and operational transactions are U.S. dollar denominated. The Euro represents the largest foreign currency denomination of our contractual and operational exposure. As a result, a portion of our revenue and expenses are subject to exchange rate fluctuations. We have translated the Euro into U.S. dollars using the following average exchange rates based on data obtained from www.xe.com:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
U.S. Dollars per Euro:	1.01	1.18	1.07	1.20

Results of Operations

Three Months Ended September 30, 2022 compared to Three Months Ended September 30, 2021

	Three Months Ended September 30,			
(Amounts in thousands, except percentages)	**2022**	**2021**	**Change**	**% Change**
Revenue, net	$ 383,744	$ 295,567	$ 88,177	29.8 %
Direct service costs, excluding depreciation and amortization	136,648	112,540	24,108	21.4 %
Reimbursed out-of-pocket expenses	128,062	95,934	32,128	33.5 %
Total direct costs	264,710	208,474	56,236	27.0 %
Selling, general and administrative	35,418	28,046	7,372	26.3 %
Depreciation	4,951	4,056	895	22.1 %
Amortization	838	1,278	(440)	(34.4)%
Total operating expenses	305,917	241,854	64,063	26.5 %
Income from operations	77,827	53,713	24,114	
Miscellaneous income, net	5,649	1,064	4,585	
Interest expense, net	(1,584)	(41)	(1,543)	
Income before income taxes	81,892	54,736	27,156	
Income tax provision	15,865	6,162	9,703	
Net income	$ 66,027	$ 48,574	$ 17,453	

Nine Months Ended September 30, 2022 compared to Nine Months Ended September 30, 2021

	Nine Months Ended September 30,			
(Amounts in thousands, except percentages)	**2022**	**2021**	**Change**	**% Change**
Revenue, net	$ 1,065,898	$ 833,825	$ 232,073	27.8 %
Direct service costs, excluding depreciation and amortization	394,200	322,160	72,040	22.4 %
Reimbursed out-of-pocket expenses	354,991	271,494	83,497	30.8 %
Total direct costs	749,191	593,654	155,537	26.2 %
Selling, general and administrative	97,999	80,757	17,242	21.4 %
Depreciation	13,928	11,819	2,109	17.8 %
Amortization	2,514	3,835	(1,321)	(34.4)%
Total operating expenses	863,632	690,065	173,567	25.2 %
Income from operations	202,266	143,760	58,506	
Miscellaneous income, net	9,027	2,253	6,774	
Interest expense, net	(2,078)	(82)	(1,996)	
Income before income taxes	209,215	145,931	63,284	
Income tax provision	32,517	14,117	18,400	
Net income	$ 176,698	$ 131,814	$ 44,884	

Total revenue

Total revenue increased by $88.2 million to $383.7 million for the three months ended September 30, 2022, from $295.6 million for the three months ended September 30, 2021. Total revenue increased by $232.1 million to $1,065.9 million for the nine months ended September 30, 2022, from $833.8 million for the nine months ended September 30, 2021. The increase for the three and nine months ended September 30, 2022 was primarily driven by growth within the Oncology, Metabolic, Cardiology and Central Nervous System therapeutic areas, compared to the same period in the prior year.

Total direct costs

Total direct costs increased by $56.2 million, to $264.7 million for the three months ended September 30, 2022 from $208.5 million for the three months ended September 30, 2021. Total direct costs increased by $155.5 million, to $749.2 million for the nine months ended September 30, 2022 from $593.7 million for the nine months ended September 30, 2021. The increase was primarily attributed to higher reimbursed out-of-pocket expenses and higher personnel costs to support the growth in service activities. Reimbursed out-of-pocket expenses, which can fluctuate significantly from period to period based on the timing of program initiation and closeout, increased $32.1 million and $83.5 million for the three and nine months ended September 30, 2022, compared to the same period in the prior year. The higher personnel costs portion increased by $18.1 million and $59.4 million for the three and nine months ended September 30, 2022, compared to the same periods in the prior year.

Selling, general and administrative

Selling, general and administrative expenses increased by $7.4 million, to $35.4 million for the three months ended September 30, 2022 from $28.0 million for the three months ended September 30, 2021. Selling, general and administrative expenses increased by $17.2 million, to $98.0 million for the nine months ended September 30, 2022 from $80.8 million for the nine months ended September 30, 2021. The increase was primarily attributed to higher personnel costs to support the growth in service activities. The higher personnel costs portion increased by $4.8 million and $13.5 million for the three and nine months ended September 30, 2022, compared to the same periods in the prior year.

Depreciation and Amortization

Depreciation and amortization expense of $5.8 million and $16.4 million for the three and nine months ended September 30, 2022 remained relatively consistent with $5.3 million and $15.7 million for the three and nine months ended September 30, 2021.

Miscellaneous income, net

Miscellaneous income, net increased by $4.6 million to $5.6 million for the three months ended September 30, 2022 from $1.1 million for the three months ended September 30, 2021. Miscellaneous income, net increased by $6.8 million to $9.0 for the nine months ended September 30, 2022 from $2.3 million for the nine months ended September 30, 2021. These changes were mainly attributable to foreign exchange gains or losses that arise in connection with the revaluation of short-term intercompany balances between our domestic and international subsidiaries and from the settlement of third-party accounts receivables and payables denominated in a currency other than the local currency of the entity making the payment.

Income tax provision

Income tax provision increased by $9.7 million, to $15.9 million for the three months ended September 30, 2022 from $6.2 million for the three months ended September 30, 2021. Income tax provision increased by $18.4 million, to $32.5 million for the nine months ended September 30, 2022 from $14.1 million for the nine months ended September 30, 2021. The overall effective tax rate for the three months ended September 30, 2022 was 19.4%, compared to an overall effective tax rate of 11.3% for the three months ended September 30, 2021. The overall effective tax rate for the nine months ended September 30, 2022 was 15.5% compared to an overall effective tax rate of 9.7% for the nine months ended September 30, 2021. The increase in the income tax provision and overall effective tax rate was primarily attributable to the increase in pre-tax book income and a decrease in excess tax benefits recognized from share based compensation which was partially offset by an increase in benefits from uncertain tax positions compared to the same periods in the prior year.

Liquidity and Capital Resources

We assess our liquidity in terms of our ability to generate cash to fund our operating, investing and financing activities. Our principal sources of liquidity are operating cash flows and from borrowings under our unsecured credit facility consisting of up to a $250.0 million revolving line of credit which we entered into on September 30, 2019 (the “Credit Facility”), and has subsequently been amended. As of September 30, 2022, we had cash and cash equivalents of $31.0 million which decreased from $461.3 million as of December 31, 2021 primarily due to share repurchases during the nine months ended September 30, 2022. Approximately $5.3 million of cash and cash equivalents, none of which was restricted, was held by our foreign subsidiaries as of September 30, 2022.

As of September 30, 2022, we had $110.1 million available for borrowing under the Credit Facility. Our expected primary cash needs on both a short and long-term basis are for investment in operational growth, capital expenditures, credit facility repayments, share repurchases, selective strategic bolt-on acquisitions, other investments, and other general corporate needs. We have historically funded our operations and growth with cash flow from operations and borrowings under our credit facilities. We expect to continue expanding our operations through organic growth and potentially highly selective bolt-on acquisitions and investments. As of September 30, 2022, cash commitments to support operating business needs include lease liabilities discussed in Note 8 of the Condensed Consolidated Financial Statements, purchase commitments discussed in Note 11 of the Condensed Consolidated Financial Statements and capital expenditures primarily related to infrastructure investments in our facilities, equipment and technology. Capital spending as a percentage of revenue increased by 30 basis points to 2.59% in the nine months ended September 30, 2022, compared to the same period in the prior year. We expect these activities will be funded from existing cash, cash flow from operations and, if necessary, borrowings under our existing or future credit facilities or other debt. We have deemed that foreign earnings will be indefinitely reinvested and therefore we have not provided taxes on these earnings. While we do not anticipate the need to repatriate these foreign earnings for liquidity purposes given our cash flows from operations and borrowings under existing and future credit facilities, we would incur taxes on these earnings if the need for repatriation due to liquidity purposes arises.

Cash Flows (Amounts in thousands)	Nine Months Ended September 30, 2022	2021
Net cash provided by operating activities	$ 251,366	$ 192,433
Net cash used in investing activities	(29,522)	(22,248)
Net cash used in financing activities	(644,654)	(46,884)
Effect of exchange rates on cash, cash equivalents and restricted cash	(7,487)	(2,680)
(Decrease) increase in cash, cash equivalents and restricted cash	$ (430,297)	$ 120,621

Cash Flow from Operating Activities

Cash flows from operations are driven mainly by net income, noncash lease expense, depreciation, stock based compensation expense, and net movement in advanced billings, accrued expenses, prepaid expenses and other current assets, and accounts receivable and unbilled, net. Accounts receivable and unbilled, net and advanced billings fluctuate on a regular basis as we perform our services, bill our customers and ultimately collect on those receivables. We attempt to negotiate payment terms in order to provide for payments prior to or soon after the provision of services, but this timing of collection can vary significantly on a period by period comparative basis.

Net cash flows provided by operating activities was $251.4 million for the nine months ended September 30, 2022 beginning with net income of $176.7 million. Adjustments to reconcile net income to net cash provided by operating activities were $43.2 million, primarily related to stock based compensation expense of $15.8 million, depreciation of $13.9 million and noncash lease expense of $13.5 million. Changes in operating assets and liabilities provided $31.4 million in operating cash flows and was primarily driven by increased advanced billings of 73.3 million and increased accrued expenses of 47.8 million, offset by increased accounts receivable and unbilled, net of 62.4 million and increased prepaid expenses and other current assets of 17.4 million.

Net cash flows provided by operating activities was $192.4 million for the nine months ended September 30, 2021 beginning with net income of $131.8 million. Adjustments to reconcile net income to net cash provided by operating activities were $41.0 million, primarily related to noncash lease expense of $11.9 million, depreciation of $11.8 million, stock based compensation expense of $10.5 million and amortization of intangibles of $3.8 million. Changes in operating assets and liabilities provided $19.6 million in operating cash flows and was primarily driven by increased advanced billings of $48.2 million and increased accrued expenses of $24.7 million, offset by increased accounts receivable and unbilled, net of $25.0 million and increased prepaid expenses and other current assets of $22.0 million.

Cash Flow from Investing Activities

Net cash used in investing activities was $29.5 million for the nine months ended September 30, 2022 primarily consisting of $27.6 million in property and equipment expenditures.

Net cash used in investing activities was $22.2 million for the nine months ended September 30, 2021 primarily consisting of $19.2 million in property and equipment expenditures.

Cash Flow from Financing Activities

Net cash used in financing activities was $644.7 million for the nine months ended September 30, 2022 primarily related to $800.7 million in repurchases of common stock and $159.5 million in repayments of the Credit Facility, partially offset by 299.2 million in proceeds related to the Credit Facility and $16.3 million in proceeds from stock option exercises.

Net cash used in financing activities was $46.9 million for the nine months ended September 30, 2021 primarily related to $62.1 million in repurchases of common stock, partially offset by $15.2 million in proceeds from stock option exercises.

Share Repurchases

In the second quarter of 2021, the Board approved an increase of $150.0 million to the Company's stock repurchase program bringing the total repurchase authorization up to $300.0 million. In the first quarter of 2022, the Board approved additional increases totaling $500.0 million to the Company's stock repurchase program. In the second quarter of 2022, the Board approved further increases of $110.0 million to the Company's stock repurchase program. During the nine months ended September 30, 2022, the Company repurchased 5,463,244 shares for $800.5 million. During the three and nine months ended September 30, 2021, the Company repurchased 34,624 and 377,783 shares for $5.9 million and $62.1 million, respectively. As of September 30, 2022, the Company has completed all authorized share repurchases under the repurchase program.

Repurchases under the share repurchase program are executed in the open market or negotiated transactions under trading plans put in place pursuant to Rule 10b5-1. The Company constructively retired the repurchased shares associated with these approved share repurchases, except for a small portion which were retained as Treasury Shares on the condensed consolidated statements of shareholders' equity. Retired share repurchase amounts paid in excess of par value are reflected within Accumulated deficit/Retained earnings in the Company’s condensed consolidated balance sheets.

Indebtedness

As of September 30, 2022, we had total indebtedness of 139.7 million and $0.2 million in letters of credit outstanding related to certain operating lease obligations, which are secured by the Credit Facility. Refer to Note 7 of the Notes to Condensed Consolidated Financial Statements for details regarding our Credit Facility.

Critical Accounting Policies and Estimates

The preparation of financial statements in accordance with generally accepted accounting principles in the United States of America, or U.S. GAAP, requires us to make a variety of decisions which affect reported amounts and related disclosures, including the selection of appropriate accounting principles and the assumptions on which to base accounting estimates. In reaching such decisions, we apply judgment based on our understanding and analysis of the relevant circumstances, including our historical experience and other assumptions. Actual results could differ from our estimates. We are committed to incorporating accounting principles, assumptions and estimates that promote the representational faithfulness, verifiability, neutrality and transparency of the accounting information included in the financial statements.

There have been no significant changes in the critical accounting policies and estimates as previously described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Effect of Recent Accounting Pronouncements

Refer to Note 1 of the Condensed Consolidated Financial Statements for management’s discussion of the effect of recent accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

There have been no material changes to our quantitative and qualitative disclosures about market risk as compared to the quantitative and qualitative disclosures about market risk described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Item 4. Controls and Procedures

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of the Chief Executive Officer (the Principal Executive Officer) and Chief Financial Officer (the Principal Financial Officer), has evaluated the effectiveness of the Company's disclosure controls and procedures, as defined in Rules 13(a)-15(e) and 15(d)-15(e) of the Securities Exchange Act of 1934 (Exchange Act), as of the end of the period covered by this report. Based on this evaluation, we concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective in providing reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's forms and rules, and the material information relating to the Company is accumulated and communicated to management, including the President and Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Control systems, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that control objectives are met. Because of inherent limitations in all control systems, no evaluation of controls can provide assurance that all control issues and instances of fraud, if any, within a company will be detected. Additionally, controls can be circumvented by individuals, by collusion of two or more people or by management override. Over time, controls can become inadequate because of changes in conditions or the degree of compliance may deteriorate. Further, the design of any system of controls is based in part upon assumptions about the likelihood of future events. There can be no assurance that any design will succeed in achieving its stated goals under all future conditions. Because of the inherent limitations in any cost-effective control system, misstatements due to errors or fraud may occur and not be detected.

Changes in Internal Control over Financial Reporting

In the ordinary course of business, we routinely enhance our information systems by either upgrading current systems or implementing new ones. There were no changes in our internal control over financial reporting that occurred during the nine months ended September 30, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

We are party to legal proceedings incidental to our business. While the outcome of these matters could differ from management's expectations, we do not believe that the resolution of these matters is reasonably likely to have a material adverse effect to our financial statements.

Item 1A. Risk Factors

For a discussion of our potential risks and uncertainties, see the information under the heading "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021. There have been no significant changes from the risk factors previously disclosed in our Annual Report, except that the following risk factor discussion is hereby added to our "Risk Factors":

Our operating margins could decrease due to increased pricing pressure or other pressures, if we are unable to either achieve efficiencies in our operating expenses or grow revenues at a rate faster than expenses.

Historically, we have been able to generate the operating margins that we do because of our disciplined, full-service operating model. However, we operate in a highly competitive environment, and, if we experience increased levels of competitive pricing pressure, or pricing pressure from the continued rise of inflation, our operating margins may decrease. In addition, we may adapt our operating model to achieve greater levels of growth or in response to investor demands. Such changes could result in lower operating margins.

Our business is subject to international economic, political and other risks that could negatively affect our results of operations and financial condition.

We have significant operations in foreign countries, including, but not limited to, countries in Europe, Latin America, Asia, the Middle East and Africa, that may require complex arrangements to deliver services on global contracts for our customers. As a result, we are subject to heightened risks inherent in conducting business internationally, including, without limitation, the following:

- conducting a single trial across multiple countries is complex, and issues in one country, such as a failure to comply with local regulations or restrictions, may affect the progress of the trial in the other countries, for example, by limiting the amount of data necessary for a trial to proceed, resulting in delays or potential cancellation of contracts, which in turn may result in loss of revenue;
- the United States or other countries could enact legislation or impose regulations or other restrictions, including unfavorable labor regulations or tax policies, which could have an adverse effect on our ability to conduct business in or expatriate profits from those countries;
- tax rates in certain foreign countries may exceed those in the United States and foreign earnings may be subject to withholding requirements or the imposition of tariffs, exchange controls or other restrictions, including restrictions on repatriation;
- certain foreign countries are expanding or may expand their regulatory framework with respect to patient informed consent, protection and compensation in clinical trials, and privacy, which could delay or inhibit our ability to conduct trials in such jurisdictions or which could materially increase the risks associated with performing trials in such jurisdictions;
- certain foreign countries are expanding or may expand their banking regulations that govern international currency transactions, particularly cross-border transfers, which may inhibit our ability to transfer funds into or within a jurisdiction, impeding our ability to pay our principal investigators, vendors and employees, thereby impacting our ability to conduct trials in such jurisdictions;
- the regulatory or judicial authorities of foreign countries may not enforce legal rights and recognize business procedures in a manner to which we are accustomed or would reasonably expect;
- we may have difficulty complying with a variety of laws and regulations in foreign countries, some of which may conflict with laws in the United States;
- potential violations of existing or newly adopted local laws or anti-bribery laws, such as the United States Foreign Corrupt Practices Act (FCPA) and the UK Bribery Act of 2010, may cause a material adverse effect on our business, financial condition, results of operations, cash flows or reputation;
- changes in political and economic conditions, including inflation, may lead to changes in the business environment in which we operate, as well as changes in foreign currency exchange rates;
- foreign governments may enact currency exchange controls that may limit the ability to fund our operations or significantly increase the cost of maintaining operations;
- customers in foreign jurisdictions may have longer payment cycles, and it may be more difficult to collect receivables in foreign jurisdictions;
- natural disasters, pandemics or international conflict, including terrorist acts, could interrupt our services, endanger our personnel or cause project delays or loss of trial materials or results; and
- Russian military action in Europe may impact foreign countries in which we may need to enroll patients in our clinical trials, could cause such clinical trials to be delayed or suspended and could impact operations in Russia and Belarus.

These risks and uncertainties could negatively impact our ability to, among other things, perform large, global projects for our customers. Furthermore, our ability to deal with these issues could be affected by applicable U.S. laws and the need to protect our assets. In addition, we may be more susceptible to these risks as we enter and continue to target growth in emerging countries and regions, including Asia, Eastern Europe and Latin America, which may be subject to a relatively higher risk of political instability, economic volatility, crime, corruption and social and ethnic unrest, all of which are exacerbated in many cases by a lack of an independent and experienced judiciary and uncertainties in how local law is applied and enforced. The materialization of any such risks could have an adverse impact on our financial condition, results of operations, cash flows and reputation.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Recent Sales of Unregistered Securities

Date	Equity Plan	Number of Stock Options Exercised	Exercise Price	Approximate Aggregate Purchase Price
July 13, 2022	2014 Equity Incentive Plan	5,000	$ 16.88	$ 84,400
July 19, 2022	2014 Equity Incentive Plan	3,500	16.88	59,100
July 27, 2022	2014 Equity Incentive Plan	2,611	16.88	44,100
Total		11,111		$ 187,600

All of the forgoing transactions involved issuances of securities to employees of the Company and are exempt from registration pursuant to Rule 701 promulgated under the Securities Act of 1933, as amended, as transactions pursuant to benefit plans and contracts relating to compensation.

Use of Proceeds from Registered Securities

Not applicable.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

The exhibits in the accompanying Exhibit Index preceding the signature page are filed or furnished as a part of this report and are incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed/ Furnished Herewith
		Form	File No.	Exhibit	Filing Date	
31.1	Rule 13a-14(a) / 15d-14(a) Certification of Chief Executive Officer					*
31.2	Rule 13a-14(a) / 15d-14(a) Certification of Chief Financial Officer					*
32.1	Section 1350 Certification of Chief Executive Officer					**
32.2	Section 1350 Certification of Chief Financial Officer					**
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document					*
101.SCH	Inline XBRL Taxonomy Extension Schema Document					*
101.CAL	Inline XBRL Taxonomy Calculation Linkbase Document					*
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					*
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document					*
101.PRE	Inline XBRL Taxonomy Extension Presentation					*
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)					

* Filed herewith.

** Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MEDPACE HOLDINGS, INC.

/s/ Kevin M. Brady

Kevin M. Brady
Chief Financial Officer
(Principal Financial Officer)

Date: October 25, 2022

Exhibit 31.1

I, August J. Troendle, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Medpace Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 25, 2022

/s/ August J. Troendle

August J. Troendle
Chief Executive Officer and Chairman of the Board of Directors
(Principal Executive Officer)

Exhibit 31.2

I, Kevin M. Brady, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Medpace Holdings, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: October 25, 2022

/s/ Kevin M. Brady

Kevin M. Brady
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Medpace Holdings, Inc. (the "Company") on Form 10-Q for the quarter ended September 30, 2022 filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the periods presented therein.

Date: October 25, 2022

By: /s/ August J. Troendle

August J. Troendle
Chief Executive Officer and
Chairman of the Board of Directors
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Medpace Holdings, Inc. (the "Company") on Form 10-Q for the quarter ended September 30, 2022 filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the periods presented therein.

Date: October 25, 2022

By: /s/ Kevin M. Brady
Kevin M. Brady
Chief Financial Officer
(Principal Financial Officer)