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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2022

OR

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

For the Transition Period From _______to

Commission file number: 001-36309

INOGEN, INC.
(Exact name of registrant as specified in its charter)

Delaware **(State or other jurisdiction of incorporation or organization)**	**33-0989359** **(I.R.S. Employer Identification No.)**
301 Coromar Drive **Goleta, CA** **(Address of principal executive offices)**	**93117** **(Zip Code)**

Registrant's telephone number, including area code: (805) 562-0500

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, $0.001 par value	**INGN**	**The NASDAQ Stock Market LLC (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 ☒ No ☐

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 ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

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

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

As of July 29, 2022, the registrant had 22,866,466 shares of common stock, par value $0.001, outstanding.

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

Inogen, Inc.
Consolidated Balance Sheets
(unaudited)
(amounts in thousands)

	June 30, 2022	December 31, 2021
Assets		
Current assets		
Cash and cash equivalents	$ 223,621	$ 235,524
Marketable securities	—	9,989
Accounts receivable, net	31,146	24,452
Inventories, net	33,496	31,873
Income tax receivable	1,670	1,343
Prepaid expenses and other current assets	25,514	26,005
Total current assets	315,447	329,186
Property and equipment		
Rental equipment, net	59,158	59,073
Manufacturing equipment and tooling	11,134	12,050
Computer equipment and software	9,044	8,585
Furniture and equipment	3,135	3,167
Leasehold improvements	6,059	5,956
Land and building	125	125
Construction in process	2,913	1,639
Total property and equipment	91,568	90,595
Less accumulated depreciation	(51,150)	(51,669)
Property and equipment, net	40,418	38,926
Goodwill	32,803	32,979
Intangible assets, net	55,850	60,147
Operating lease right-of-use asset	23,484	24,912
Other assets	2,067	3,363
Total assets	$ 470,069	$ 489,513

See accompanying condensed notes to the consolidated financial statements.

Inogen, Inc.
Consolidated Balance Sheets (continued)
(unaudited)
(amounts in thousands, except share and per share amounts)

	June 30, 2022	December 31, 2021
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable and accrued expenses	$ 26,808	$ 25,689
Accrued payroll	12,659	17,307
Warranty reserve - current	7,360	6,480
Operating lease liability - current	3,506	3,393
Deferred revenue - current	9,007	8,568
Income tax payable	—	75
Total current liabilities	59,340	61,512
Long-term liabilities		
Warranty reserve - noncurrent	7,144	7,246
Operating lease liability - noncurrent	21,678	23,281
Earnout liability - noncurrent	13,975	15,386
Deferred revenue - noncurrent	11,395	11,861
Total liabilities	113,532	119,286
Commitments and contingencies (Note 9)		
Stockholders' equity		
Common stock, $0.001 par value per share; 200,000,000 authorized; 22,865,715 and 22,731,586 shares issued and outstanding as of June 30, 2022 and December 31, 2021, respectively	23	23
Additional paid-in capital	304,939	299,463
Retained earnings	51,616	69,272
Accumulated other comprehensive income (loss)	(41)	1,469
Total stockholders' equity	356,537	370,227
Total liabilities and stockholders' equity	$ 470,069	$ 489,513

See accompanying condensed notes to the consolidated financial statements.

Inogen, Inc.
Consolidated Statements of Comprehensive Income (Loss)
(unaudited)
(amounts in thousands, except share and per share amounts)

	Three months ended June 30, 2022	Three months ended June 30, 2021	Six months ended June 30, 2022	Six months ended June 30, 2021
Revenue				
Sales revenue	$ 89,291	$ 90,304	$ 156,693	$ 167,385
Rental revenue	14,085	11,259	27,068	21,110
Total revenue	103,376	101,563	183,761	188,495
Cost of revenue				
Cost of sales revenue	50,661	46,565	90,161	89,200
Cost of rental revenue, including depreciation of $2,720 and $2,054, for the three months ended and $5,358 and $3,942 for the six months ended, respectively	6,457	4,663	12,336	9,087
Total cost of revenue	57,118	51,228	102,497	98,287
Gross profit				
Gross profit-sales revenue	38,630	43,739	66,532	78,185
Gross profit-rental revenue	7,628	6,596	14,732	12,023
Total gross profit	46,258	50,335	81,264	90,208
Operating expense				
Research and development	6,064	4,123	11,428	8,138
Sales and marketing	30,388	29,317	58,427	54,808
General and administrative	12,682	5,224	27,871	17,723
Total operating expense	49,134	38,664	97,726	80,669
Income (loss) from operations	(2,876)	11,671	(16,462)	9,539
Other income (expense)				
Interest income	225	29	254	86
Other income (expense)	(722)	304	(1,155)	(6)
Total other income (expense), net	(497)	333	(901)	80
Income (loss) before provision for income taxes	(3,373)	12,004	(17,363)	9,619
Provision for income taxes	69	6,902	293	5,249
Net income (loss)	(3,442)	5,102	(17,656)	4,370
Other comprehensive income (loss), net of tax				
Change in foreign currency translation adjustment	(634)	123	(837)	(334)
Change in net unrealized gains (losses) on foreign currency hedging	(1,204)	390	(1,878)	1,534
Less: reclassification adjustment for net (gains) losses included in net income	606	(132)	1,206	(373)
Total net change in unrealized gains (losses) on foreign currency hedging	(598)	258	(672)	1,161
Change in net unrealized gains (losses) on marketable securities	7	(3)	(1)	1
Total other comprehensive income (loss), net of tax	(1,225)	378	(1,510)	828
Comprehensive income (loss)	$ (4,667)	$ 5,480	$ (19,166)	$ 5,198
Basic net income (loss) per share attributable to common stockholders (Note 6)	$ (0.15)	$ 0.23	$ (0.77)	$ 0.20
Diluted net income (loss) per share attributable to common stockholders (Note 6)	$ (0.15)	$ 0.22	$ (0.77)	$ 0.19
Weighted average number of shares used in calculating net income (loss) per share attributable to common stockholders:				
Basic common shares	22,845,040	22,444,246	22,799,981	22,313,546
Diluted common shares	22,845,040	22,874,321	22,799,981	22,734,079

See accompanying condensed notes to the consolidated financial statements.

Inogen, Inc.
Consolidated Statements of Stockholders' Equity
(unaudited)
(amounts in thousands, except share amounts)

Three months ended June 30, 2022 and June 30, 2021

	Common stock Shares	Common stock Amount	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income (loss)	Total stockholders' equity
Balance, March 31, 2021	22,385,794	$ 22	$ 280,464	$ 74,873	$ 925	$ 356,284
Stock-based compensation	—	—	3,239	—	—	3,239
Restricted stock awards issued, net of forfeitures	(19,835)	—	—	—	—	—
Vesting of restricted stock units	42,804	—	(82)	—	—	(82)
Shares withheld related to net restricted stock settlement	(1,615)	—	(97)	—	—	(97)
Stock options exercised	171,548	1	6,091	—	—	6,092
Net income	—	—	—	5,102	—	5,102
Other comprehensive income	—	—	—	—	378	378
Balance, June 30, 2021	22,578,696	$ 23	$ 289,615	$ 79,975	$ 1,303	$ 370,916
Balance, March 31, 2022	22,836,472	$ 23	$ 302,020	$ 55,058	$ 1,184	$ 358,285
Stock-based compensation	—	—	3,020	—	—	3,020
Restricted stock awards issued, net of forfeitures	(5,011)	—	—	—	—	—
Vesting of restricted stock units	29,221	—	(104)	—	—	(104)
Shares withheld related to net restricted stock settlement	(117)	—	(3)	—	—	(3)
Stock options exercised	5,150	—	6	—	—	6
Net loss	—	—	—	(3,442)	—	(3,442)
Other comprehensive loss	—	—	—	—	(1,225)	(1,225)
Balance, June 30, 2022	22,865,715	$ 23	$ 304,939	$ 51,616	$ (41)	$ 356,537

Six months ended June 30, 2022 and June 30, 2021

	Common stock Shares	Common stock Amount	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income (loss)	Total stockholders' equity
Balance, December 31, 2020	22,131,447	$ 22	$ 273,521	$ 75,605	$ 475	$ 349,623
Stock-based compensation	—	—	5,755	—	—	5,755
Employee stock purchases	37,699	—	927	—	—	927
Restricted stock awards issued, net of forfeitures	(41,344)	—	—	—	—	—
Vesting of restricted stock units	76,921	—	(357)	—	—	(357)
Shares withheld related to net restricted stock settlement	(3,328)	—	(188)	—	—	(188)
Stock options exercised	377,301	1	9,957	—	—	9,958
Net income	—	—	—	4,370	—	4,370
Other comprehensive income	—	—	—	—	828	828
Balance, June 30, 2021	22,578,696	$ 23	$ 289,615	$ 79,975	$ 1,303	$ 370,916
Balance, December 31, 2021	22,731,586	$ 23	$ 299,463	$ 69,272	$ 1,469	$ 370,227
Stock-based compensation	—	—	5,685	—	—	5,685
Employee stock purchases	30,558	—	915	—	—	915
Restricted stock awards issued, net of forfeitures	(5,011)	—	—	—	—	—
Vesting of restricted stock units	102,716	—	(1,062)	—	—	(1,062)
Shares withheld related to net restricted stock settlement	(2,783)	—	(97)	—	—	(97)
Stock options exercised	8,649	—	35	—	—	35
Net loss	—	—	—	(17,656)	—	(17,656)
Other comprehensive loss	—	—	—	—	(1,510)	(1,510)
Balance, June 30, 2022	22,865,715	$ 23	$ 304,939	$ 51,616	$ (41)	$ 356,537

See accompanying condensed notes to the consolidated financial statements.

Inogen, Inc.
Consolidated Statements of Cash Flows
(unaudited)
(amounts in thousands)

	Six months ended June 30, 2022	Six months ended June 30, 2021
Cash flows from operating activities		
Net income (loss)	$ (17,656)	$ 4,370
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	11,608	10,339
Loss on rental units and other fixed assets	1,466	601
Gain on sale of former rental assets	(93)	(40)
Provision for sales revenue returns and doubtful accounts	6,200	5,266
Provision for rental revenue adjustments	—	2,065
Provision for inventory losses	1,552	888
Stock-based compensation expense	5,685	5,755
Deferred income taxes	—	5,297
Change in fair value of earnout liability	(1,411)	(7,775)
Changes in operating assets and liabilities:		
Accounts receivable	(13,788)	(14,691)
Inventories	(2,623)	(4,644)
Income tax receivable	(327)	66
Prepaid expenses and other current assets	482	6,447
Operating lease right-of-use asset	1,428	(17,811)
Other noncurrent assets	87	68
Accounts payable and accrued expenses	281	(1,071)
Accrued payroll	(4,637)	5,021
Warranty reserve	778	944
Deferred revenue	(27)	1,386
Income tax payable	(82)	(817)
Operating lease liability	(1,490)	18,465
Net cash provided by (used in) operating activities	(12,567)	20,129
Cash flows from investing activities		
Maturities of marketable securities	9,988	8,152
Investment in intangible assets	—	(101)
Investment in property and equipment	(2,236)	(3,594)
Production and purchase of rental equipment	(7,083)	(7,957)
Proceeds from sale of former assets	153	78
Net cash provided by (used in) investing activities	822	(3,422)

(continued on next page)

See accompanying condensed notes to the consolidated financial statements.

Inogen, Inc.
Consolidated Statements of Cash Flows (continued)
(unaudited)
(amounts in thousands)

	Six months ended June 30, 2022	2021
Cash flows from financing activities		
Proceeds from stock options exercised	35	9,958
Proceeds from employee stock purchases	915	927
Payment of employment taxes related to release of restricted stock	(1,159)	(545)
Net cash provided by (used in) financing activities	(209)	10,340
Effect of exchange rates on cash	51	(159)
Net increase (decrease) in cash and cash equivalents	(11,903)	26,888
Cash and cash equivalents, beginning of period	235,524	211,962
Cash and cash equivalents, end of period	$ 223,621	$ 238,850
Supplemental disclosures of cash flow information		
Cash paid during the period for income taxes, net of refunds received	$ 483	$ 1,057
Supplemental disclosure of non-cash transactions		
Property and equipment in accounts payable and accrued liabilities	345	68

See accompanying condensed notes to the consolidated financial statements.

1. Business overview

Inogen, Inc. (Company or Inogen) was incorporated in Delaware on November 27, 2001. The Company is a medical technology company that primarily develops, manufactures and markets innovative portable oxygen concentrators (POCs) used to deliver supplemental long-term oxygen therapy to patients suffering from chronic respiratory conditions. Traditionally, these patients have relied on stationary oxygen concentrator systems for use in the home and oxygen tanks or cylinders for mobile use, which the Company calls the delivery model. The tanks and cylinders must be delivered regularly and have a finite amount of oxygen, which requires patients to plan activities outside of their homes around delivery schedules and a finite oxygen supply. Additionally, patients must attach long, cumbersome tubing to their stationary concentrators simply to enable mobility within their homes. The Company's proprietary Inogen One® systems concentrate the air around the patient to offer a single source of supplemental oxygen anytime, anywhere with a single battery and can be plugged into an outlet when at home, in a car, or in a public place with outlets available. The Company's Inogen One systems reduce the patient's reliance on stationary concentrators and scheduled deliveries of tanks with a finite supply of oxygen, thereby improving patient quality of life and fostering mobility.

The Company incorporated Inogen Europe Holding B.V., a Dutch limited liability company, on April 13, 2017. On May 4, 2017, Inogen Europe Holding B.V. acquired all issued and outstanding capital stock of MedSupport Systems B.V. (MedSupport) and began operating under the name Inogen Europe B.V. The Company merged Inogen Europe Holding B.V. and Inogen Europe B.V. on December 28, 2018. Inogen Europe B.V. is the remaining legal entity. Inogen completed the acquisition of New Aera, Inc. (New Aera) on August 9, 2019.

2. Basis of presentation and summary of significant accounting policies

The consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP).

The results of operations for the three and six months ended June 30, 2022 shown in this report are not necessarily indicative of results to be expected for the full year ending December 31, 2022. In the opinion of the Company's management, the information contained herein reflects all adjustments, consisting of only normal recurring adjustments, necessary for a fair presentation of the Company's results of operations, financial position, cash flows and stockholders' equity. Certain footnote disclosures normally included in annual consolidated financial statements prepared in accordance with U.S. GAAP have been condensed or omitted pursuant to Securities and Exchange Commission (SEC) rules and regulations relating to interim financial statements. The accompanying consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto contained in the Company's Annual Report on Form 10-K filed with the SEC on February 24, 2022. Except as further described below, there have been no significant changes in the Company's accounting policies from those disclosed in its Annual Report on Form 10-K filed with the SEC on February 24, 2022.

Basis of consolidation

The consolidated financial statements include the accounts of Inogen, Inc. and its wholly owned subsidiary. All intercompany balances and transactions have been eliminated.

Use of estimates

The preparation of consolidated financial statements in conformity with U.S. 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 consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Management bases these estimates and assumptions upon historical experience, existing and known circumstances, authoritative accounting pronouncements and other factors that management believes to be reasonable. Significant areas requiring the use of management estimates relate to revenue recognition, warranty reserves and expense, determining the stand-alone selling price (SSP) and service period of performance obligations, rental asset valuations and write-downs, accounts receivable allowances for bad debts, returns and adjustments, impairment of long-lived assets, stock-based compensation expense, income taxes, fair value of acquired intangible assets and goodwill and fair value of earnout liabilities. Actual results could differ from these estimates.

Business segments

The Company operates and reports in only one operating and reportable segment – development, manufacturing, marketing, sales, and rental of respiratory products. Management reports financial information on a consolidated basis to the Company’s chief operating decision maker.

3. Fair value measurements

Accounting Standards Codification (ASC) 820 — *Fair Value Measurements and Disclosures* creates a single definition of fair value, establishes a framework for measuring fair value in U.S. GAAP and expands disclosures about fair value measurements. ASC 820 emphasizes that fair value is a market-based measurement, not an entity-specific measurement, and states that a fair value measurement is to estimate the price at which an orderly transaction to sell an asset or to transfer the liability would take place between market participants at the measurement date under current market conditions. Assets and liabilities adjusted to fair value in the balance sheet are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Level inputs, as defined by ASC 820, are as follows:

Level input	Input definition
Level 1	Inputs are unadjusted, quoted prices for identical assets or liabilities in active markets at the measurement date.
Level 2	Inputs, other than quoted prices included in Level 1, that are observable for the asset or liability through corroboration with market data at the measurement date.
Level 3	Unobservable inputs that reflect management’s best estimate of what market participants would use in pricing the asset or liability at the measurement date.

The Company’s financial instruments consist of cash and cash equivalents, marketable securities, accounts receivable, accounts payable and accrued expenses. The carrying values of its financial instruments approximate fair value based on their short-term nature.

Cash, cash equivalents and marketable securities

The Company obtained the fair value of its available-for-sale investments, which are not in active markets, from a third-party professional pricing service using quoted market prices for identical or comparable instruments, rather than direct observations of quoted prices in active markets. The Company's professional pricing service gathers observable inputs for all of its fixed income securities from a variety of industry data providers (e.g., large custodial institutions) and other third-party sources. Once the observable inputs are gathered, all data points are considered, and the fair value is determined. The Company validates the quoted market prices provided by its primary pricing service by comparing their assessment of the fair values against the fair values provided by its investment managers. The Company's investment managers use similar techniques to its professional pricing service to derive pricing as described above. As all significant inputs were observable, derived from observable information in the marketplace or supported by observable levels at which transactions are executed in the marketplace, the Company has classified its marketable securities within Level 2 of the fair value hierarchy.

(amounts in thousands, except share and per share amounts)

The following table summarizes fair value measurements by level for the assets measured at fair value on a recurring basis for cash, cash equivalents and marketable securities:

	As of June 30, 2022				
	Adjusted cost	Gross unrealized gains	Fair value	Cash and cash equivalents	Marketable securities
Cash	$ 34,756	$ —	$ 34,756	$ 34,756	$ —
Level 1:					
Money market accounts	188,865	—	188,865	188,865	—
Level 2:					
Corporate bonds	—	—	—	—	—
Total	$ 223,621	$ —	$ 223,621	$ 223,621	$ —

	As of December 31, 2021				
	Adjusted cost	Gross unrealized gains	Fair value	Cash and cash equivalents	Marketable securities
Cash	$ 48,817	$ —	$ 48,817	$ 48,817	$ —
Level 1:					
Money market accounts	186,707	—	186,707	186,707	—
Level 2:					
Corporate bonds	9,988	1	9,989	—	9,989
Total	$ 245,512	$ 1	$ 245,513	$ 235,524	$ 9,989

Derivative instruments and hedging activities

The Company records the assets or liabilities associated with derivative instruments and hedging activities at fair value based on Level 2 inputs in other current assets or other current liabilities, respectively, in the consolidated balance sheet. The Company had a related receivable of $1,779 and $1,671 as of June 30, 2022 and December 31, 2021, respectively.

Accumulated other comprehensive income (loss)

The components of accumulated other comprehensive income (loss) were as follows:

	Foreign currency translation adjustments	Unrealized gains (losses) on marketable securities	Unrealized gains (losses) on cash flow hedges	Accumulated other comprehensive income (loss)
Balance as of December 31, 2021	$ 328	$ 1	$ 1,140	$ 1,469
Other comprehensive loss	(837)	(1)	(672)	(1,510)
Balance as of June 30, 2022	$ (509)	$ —	$ 468	$ (41)

Comprehensive income (loss) is the total net earnings and all other non-owner changes in equity. Except for net income (loss) and unrealized gains and losses on cash flow hedges, the Company does not have any transactions or other economic events that qualify as other comprehensive income (loss).

Earnout liability

The Company has obligations to pay up to $31,400 in earnout payments in cash if certain future financial results are met. The earnout liability was valued using Level 3 inputs. The fair value of the earnout was determined by employing a Monte Carlo simulation in a risk-neutral framework. The underlying simulated variable includes recognized revenue. The recognized revenue volatility estimate was based on a study of historical asset volatility for a set of comparable public companies. The model includes other assumptions including the market price of risk, which was calculated as the weighted average cost of capital (WACC) less the long-term risk free rate. The earnout period for recognized revenue is each calendar year beginning with calendar year 2019 and ending on the calendar year in which the earnout consideration equals the earnout cap.

(amounts in thousands, except share and per share amounts)

The following table provides quantitative information about Level 3 inputs for fair value measurement of the earnout liability as of June 30, 2022 and December 31, 2021. Significant increases or decreases in these inputs in isolation could result in a significant impact on the fair value measurement:

Simulation input	June 30, 2022	December 31, 2021
Revenue volatility	15.00 %	15.00 %
WACC	13.50 %	10.50 %
20-year risk free rate	3.38 %	2.02 %
Market price of risk	2.70 %	2.68 %

The reconciliation of the earnout liability measured and carried at fair value on a recurring basis is as follows:

	Three months ended June 30, 2022	Six months ended June 30, 2022
Balance at beginning of period	$ 16,646	$ 16,016
Change in fair value	(2,041)	(1,411)
Balance at end of period	$ 14,605	$ 14,605

The Company recorded $630 and $630 of preacquisition loss recoveries that can be withheld from any earnout amounts payable as of June 30, 2022 and December 31, 2021, respectively.

4. Balance sheet components

Cash, cash equivalents and marketable securities

The Company considers all short-term highly liquid investments with a maturity of three months or less to be cash equivalents. The Company's marketable debt securities are classified and accounted for as available-for-sale. Cash equivalents are recorded at cost plus accrued interest, which is considered adjusted cost, and approximates fair value. Marketable debt securities are included in cash equivalents and marketable securities based on the maturity date of the security. Short-term investments are included in marketable securities in the current period presentation.

The Company considers investments with maturities greater than three months, but less than one year, to be marketable securities. Investments are reported at fair value with realized and unrealized gains or losses reported in other income (expense), net.

The Company reviews its investments to identify and evaluate investments that have an indication of possible impairment. Factors considered in determining whether a loss is temporary include the length of time and extent to which fair value has been less than the cost basis, the financial condition and near-term prospects of the investee, and the Company's intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value. Credit losses and other-than-temporary impairments are declines in fair value that are not expected to recover and are charged to other income (expense), net.

(amounts in thousands, except share and per share amounts)

Cash, cash equivalents, and marketable securities consist of the following:

Cash and cash equivalents	June 30, 2022	December 31, 2021
Cash	$ 34,756	$ 48,817
Money market accounts	188,865	186,707
Total cash and cash equivalents	$ 223,621	$ 235,524
Marketable securities		
Corporate bonds	$ —	$ 9,989
Total marketable securities	$ —	$ 9,989

Accounts receivable and allowance for bad debts, returns, and adjustments

Accounts receivable are customer obligations due under normal sales and rental terms. The Company performs credit evaluations of the customers' financial condition and generally does not require collateral. The allowance for doubtful accounts is maintained at a level that, in management's opinion, is adequate to absorb potential losses related to accounts receivable and is based upon the Company's continuous evaluation of the collectability of outstanding balances. Management's evaluation takes into consideration such factors as past bad debt experience, economic conditions and information about specific receivables. The Company's evaluation also considers the age and composition of the outstanding amounts in determining their net realizable value.

The allowance for doubtful accounts is based on estimates, and ultimate losses may vary from current estimates. As adjustments to these estimates become necessary, they are reported in general and administrative expense for sales revenue in the periods in which they become known. The allowance is increased by bad debt provisions, net of recoveries, and is reduced by direct write-offs.

The Company generally does not allow returns from providers for reasons not covered under its standard warranty. Therefore, provision for returns applies primarily to direct-to-consumer sales. This reserve is calculated primarily based on actual historical return rates under the Company's 30-day return program and is applied to the related sales revenue for the last month of the quarter reported.

The Company also records an estimate for rental revenue adjustments which is recorded as a reduction of rental revenue and net rental accounts receivable balances. These adjustments result from contractual adjustments, audit adjustments, untimely claims filings, or billings not paid due to another provider performing same or similar functions for the patient in the same period, all of which prevent billed revenue from becoming realizable. The reserve is based on historical revenue adjustments as a percentage of rental revenue billed and unbilled during the related period.

When recording the allowance for doubtful accounts for sales revenue, the bad debt expense account (general and administrative expense account) is charged and when recording allowance for sales returns, the sales returns account (contra sales revenue account) is charged.

The Company consistently applies its allowance estimation methodology from period-to-period. The Company's best estimate is made on an accrual basis and adjusted in future periods as required. Any adjustments to the prior period estimates are included in the current period. As additional information becomes known, the Company adjusts its assumptions accordingly to change its estimate of accounts receivable.

Net accounts receivable (gross accounts receivable, net of allowances) balance concentrations by major category as of June 30, 2022 and December 31, 2021 were as follows:

Net accounts receivable	June 30, 2022	December 31, 2021
Rental (1)	$ 5,470	$ 6,011
Business-to-business and other receivables (2)	25,676	18,441
Total net accounts receivable	$ 31,146	$ 24,452

(1)Rental includes Medicare, Medicaid/other government, private insurance and patient pay.

(amounts in thousands, except share and per share amounts)

(2)Business-to-business receivables included one customer with an accounts receivable balance of $3,867 and $5,945 as of June 30, 2022 and December 31, 2021, respectively. The customer received extended payment terms through a direct financing plan offered. The Company also has a credit insurance policy in place, which allocated up to $10,000 in coverage as of June 30, 2022 and December 31, 2021 for this customer with a $400 deductible and 10% retention.

The following tables sets forth the accounts receivable allowances as of June 30, 2022 and December 31, 2021:

Allowances - accounts receivable	**June 30, 2022**	**December 31, 2021**
Doubtful accounts	$ 83	$ 52
Sales returns	1,001	810
Total allowances - accounts receivable	$ 1,084	$ 862

Concentration of credit risk

Financial instruments that potentially subject the Company to concentration of credit risk consist principally of cash, cash equivalents, marketable securities and accounts receivable. At times, cash account balances may be in excess of the amounts insured by the Federal Deposit Insurance Corporation. However, management believes the risk of loss to be minimal. The Company performs periodic evaluations of the relative credit standing of these institutions and has not experienced any losses on its cash and cash equivalents to date. The Company has also entered into hedging relationships with a single counterparty to offset the forecasted Euro-based revenues. The credit risk has been reduced due to a net settlement arrangement whereby the Company is allowed to net settle transactions with a single net amount payable by one party to the other.

Concentration of customers and vendors

The Company primarily sells its products to traditional home medical equipment providers, distributors, and resellers in the United States and in foreign countries on a credit basis. The Company also sells its products direct-to-consumers primarily on a prepayment basis. Medicare's service reimbursement programs represented more than 10% of the Company's total revenue for the six months ended June 30, 2022, and one single customer represented more than 10% of the Company's total revenue for the six months ended June 30, 2021. One single customer represented more than 10% of the Company's net accounts receivable balance with an accounts receivable balance of $3,867 as of June 30, 2022, and one single customer and Medicare represented more than 10% of the Company's net accounts receivable balance with an accounts receivable balance of $5,945 and $2,685, respectively, as of December 31, 2021.

The Company also rents products directly to consumers for insurance reimbursement, which resulted in a customer concentration relating to Medicare's service reimbursement programs. Medicare's service reimbursement programs accounted for 78.5% and 83.1% of rental revenue for the six months ended June 30, 2022 and 2021, respectively, and based on total revenue were 11.6% and 9.3% for the six months ended June 30, 2022 and 2021, respectively. Accounts receivable balances relating to Medicare's service reimbursement programs (including held and unbilled, net of allowances) amounted to $2,461 or 7.9% of total net accounts receivable as of June 30, 2022 as compared to $2,685 or 11.0% of total net accounts receivable as of December 31, 2021.

The Company currently purchases raw materials from a limited number of vendors, which resulted in a concentration of three major vendors. The three major vendors supply the Company with raw materials used to manufacture the Company's products. For the six months ended June 30, 2022, the Company's three major vendors accounted for 24.4%, 22.3% and 8.8%, respectively, of total raw material purchases. For the six months ended June 30, 2021, the Company's three major vendors accounted for 16.3%, 14.1% and 11.7%, respectively, of total raw material purchases.

(amounts in thousands, except share and per share amounts)

A portion of revenue is earned from sales outside the United States. Approximately 77.4% and 67.4% of the non-U.S. revenue for the three months ended June 30, 2022 and 2021, respectively, were invoiced in Euros. Approximately 75.6% and 72.4% of the non-U.S. revenue for the six months ended June 30, 2022 and 2021, respectively, were invoiced in Euros. A breakdown of the Company's revenue from U.S. and non-U.S. sources for the three and six months ended June 30, 2022 and 2021, respectively, is as follows:

	Three months ended June 30, 2022	Three months ended June 30, 2021	Six months ended June 30, 2022	Six months ended June 30, 2021
U.S. revenue	$ 65,935	$ 79,740	$ 118,379	$ 150,952
Non-U.S. revenue	37,441	21,823	65,382	37,543
Total revenue	$ 103,376	$ 101,563	$ 183,761	$ 188,495

Inventories

Inventories are stated at the lower of cost and net realizable value, using the first-in, first-out (FIFO) method. The Company records adjustments at least quarterly to inventory for potentially excess, obsolete, slow-moving or impaired items. The Company recorded noncurrent inventory related to inventories that are expected to be realized or consumed after one year of $734 and $1,943 as of June 30, 2022 and December 31, 2021, respectively. Noncurrent inventories are primarily related to raw materials purchased in bulk to support long-term expected repairs to reduce costs and are classified in other assets. The Company had prepayments for raw materials of $12,854 and $15,426 as of June 30, 2022 and December 31, 2021, respectively, that were classified in prepaid expenses and other current assets. During the six months ended June 30, 2022 and 2021, $692 and $706, respectively, of inventory was transferred to rental equipment and was considered a noncash transaction in the production and purchase of rental equipment on the consolidated statements of cash flows. Inventories that are considered current consist of the following:

	June 30, 2022	December 31, 2021
Raw materials and work-in-progress	$ 21,215	$ 21,909
Finished goods	13,994	12,116
Less: reserves	(1,713)	(2,152)
Inventories, net	$ 33,496	$ 31,873

Property and equipment

Property and equipment are stated at cost. Depreciation and amortization are calculated using the straight-line method over the assets' estimated useful lives as follows:

Rental equipment	1.5-5 years
Manufacturing equipment and tooling	3-5 years
Computer equipment and software	2-3 years
Furniture and equipment	3-5 years
Leasehold improvements	Lesser of estimated useful life or remaining lease term

Expenditures for additions, improvements and replacements are capitalized and depreciated to a salvage value of $0. Repair and maintenance costs on rental equipment are included in cost of rental revenue on the consolidated statements of comprehensive income (loss). Repair and maintenance expense, which includes labor, parts and freight, for rental equipment was $2,230 and $1,674 for the six months ended June 30, 2022 and 2021, respectively.

Included within property and equipment is construction in process, primarily related to the design and engineering of tooling, jigs and other machinery. In addition, this item also includes computer software or development costs that have been purchased but have not completed the final configuration process for implementation into the Company's systems. These items have not been placed in service; therefore, no depreciation or amortization was recognized for these items in the respective periods.

(amounts in thousands, except share and per share amounts)

Depreciation and amortization expense related to rental equipment and other property and equipment are summarized below for the three and six months ended June 30, 2022 and 2021, respectively.

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Rental equipment	$ 2,720	$ 2,054	$ 5,358	$ 3,942
Other property and equipment	978	984	1,953	1,930
Total depreciation and amortization	$ 3,698	$ 3,038	$ 7,311	$ 5,872

Property and equipment and rental equipment with associated accumulated depreciation is summarized below as of June 30, 2022 and December 31, 2021, respectively.

	June 30, 2022	December 31, 2021
Property and equipment		
Rental equipment, net of allowances of $1,740 and $1,290, respectively	$ 59,158	$ 59,073
Other property and equipment	32,410	31,522
Property and equipment	91,568	90,595
Accumulated depreciation		
Rental equipment	32,497	33,355
Other property and equipment	18,653	18,314
Accumulated depreciation	51,150	51,669
Property and equipment, net		
Rental equipment, net of allowances of $1,740 and $1,290, respectively	26,661	25,718
Other property and equipment	13,757	13,208
Property and equipment, net	$ 40,418	$ 38,926

Long-lived assets

The Company accounts for the impairment and disposition of long-lived assets in accordance with ASC 360 — *Property, Plant, and Equipment*. In accordance with ASC 360, long-lived assets to be held are reviewed for events or changes in circumstances that indicate that their carrying value may not be recoverable. No impairments were recorded as of June 30, 2022 and June 30, 2021.

Goodwill and other identifiable intangible assets

Goodwill

The changes in the carrying amount of goodwill for the six months ended June 30, 2022 were as follows:

Balance as of December 31, 2021	$ 32,979
Translation adjustment	(176)
Balance as of June 30, 2022	$ 32,803

As of June 30, 2022, the Company had no accumulated impairment losses related to goodwill.

(amounts in thousands, except share and per share amounts)

Intangible assets

There were no accumulated impairment losses related to the Company's intangible assets as of June 30, 2022 and December 31, 2021.

The following tables represent the changes in net carrying values of intangible assets as of the respective dates:

June 30, 2022	**Average estimated useful lives (in years)**	**Gross carrying amount**	**Accumulated amortization**	**Net amount**
Technology	10	$ 77,700	$ 22,339	$ 55,361
Licenses	10	185	182	3
Patents and websites	5	4,518	4,108	410
Customer relationships	4	1,254	1,254	—
Commercials	2-3	348	272	76
Total		$ 84,005	$ 28,155	$ 55,850

December 31, 2021	**Average estimated useful lives (in years)**	**Gross carrying amount**	**Accumulated amortization**	**Net amount**
Technology	10	$ 77,700	$ 18,454	$ 59,246
Licenses	10	185	180	5
Patents and websites	5	4,519	3,746	773
Customer relationships	4	1,361	1,361	—
Commercials	2-3	799	676	123
Total		$ 84,564	$ 24,417	$ 60,147

Annual estimated amortization expense for each of the succeeding fiscal years is as follows:

	June 30, 2022
Remaining 6 months of 2022	$ 4,175
2023	7,876
2024	7,839
2025	7,790
2026	7,774
Thereafter	20,396
	$ 55,850

Current liabilities

Accounts payable and accrued expenses as of June 30, 2022 and December 31, 2021 consisted of the following:

	June 30, 2022	**December 31, 2021**
Accounts payable	$ 11,906	$ 10,258
Accrued inventory (in-transit and unvouchered receipts) and trade payables	9,959	12,488
Accrued purchasing card liability	3,453	1,488
Accrued franchise, sales and use taxes	465	486
Other accrued expenses	1,025	969
Accounts payable and accrued expenses	$ 26,808	$ 25,689

(amounts in thousands, except share and per share amounts)

Accrued payroll as of June 30, 2022 and December 31, 2021 consisted of the following:

	June 30, 2022	December 31, 2021
Accrued bonuses	$ 3,760	$ 8,274
Accrued wages and other payroll related items	5,290	5,469
Accrued vacation	2,914	2,894
Accrued employee stock purchase plan deductions	695	670
Accrued payroll	$ 12,659	$ 17,307

5. Leases

The Company has entered into operating leases primarily for commercial buildings. These leases have terms which range from 3 years to 11 years, some of which include options to extend the leases for up to 5 years. There are no economic penalties for the Company to extend the lease, and it is not reasonably certain that the Company will exercise the extension options. Operating lease right-of-use assets and liabilities commencing after January 1, 2019 are recognized at commencement date based on the present value of lease payments over the lease term. The operating leases do not contain material residual value guarantees or material restrictive covenants.

Rent expense, including short-term lease cost, was $958 and $1,105 for the three months ended June 30, 2022 and 2021, respectively, and $1,929 and $2,093 for the six months ended June 30, 2022 and 2021, respectively.

Information related to the Company's right-of-use assets and related operating lease liabilities were as follows:

	Six months ended June 30,	
	2022	2021
Cash paid for operating lease liabilities	$ 1,994	$ 1,206
Operating lease cost	1,932	1,802
Non-cash right-of-use assets obtained in exchange for new operating lease obligations	225	19,340
Weighted average remaining lease term	2.7 years	3.0 years
Weighted average discount rate	2.9 %	3.1 %

Maturities of lease liabilities due in the 12-month period ending June 30,	
2023	$ 4,029
2024	4,051
2025	3,127
2026	2,691
2027	2,726
Thereafter	10,731
	27,355
Less imputed interest	(2,171)
Total lease liabilities	$ 25,184
Operating lease liability - current	$ 3,506
Operating lease liability - noncurrent	$ 21,678
Total lease liabilities	$ 25,184

6. Earnings (loss) per share

Earnings (loss) per share (EPS) is computed in accordance with ASC 260—*Earnings per Share* and is calculated using the weighted average number of common shares outstanding during each period. Diluted EPS assumes the conversion, exercise or issuance of all potential common stock equivalents (which can include dilution of outstanding stock options, restricted stock units and restricted stock awards) unless the effect is to reduce a loss or increase the income per share. For purposes of this calculation, common stock subject to repurchase by the Company, options, and other dilutive awards are considered to be common stock equivalents and are only included in the calculation of diluted earnings (loss) per share when their effect is dilutive.

(amounts in thousands, except share and per share amounts)

Basic earnings (loss) per share is calculated using the Company's weighted average outstanding common shares. Diluted earnings (loss) per share is calculated using the Company's weighted average outstanding common shares including the dilutive effect of stock awards as determined under the treasury stock method.

The computation of EPS is as follows:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Numerator—basic and diluted:				
Net income (loss)	$ (3,442)	$ 5,102	$ (17,656)	$ 4,370
Denominator:				
Weighted average common shares - basic common stock (1)	22,845,040	22,444,246	22,799,981	22,313,546
Weighted average common shares - diluted common stock (2)	22,845,040	22,874,321	22,799,981	22,734,079
Net income (loss) per share - basic common stock	$ (0.15)	$ 0.23	$ (0.77)	$ 0.20
Net income (loss) per share - diluted common stock (2)	$ (0.15)	$ 0.22	$ (0.77)	$ 0.19
Denominator calculation from basic to diluted:				
Weighted average common shares - basic common stock (1)	22,845,040	22,444,246	22,799,981	22,313,546
Stock options and other dilutive awards	93,181	430,075	127,759	420,533
Weighted average common shares - diluted common stock	22,938,221	22,874,321	22,927,740	22,734,079
Shares excluded from diluted weighted average shares:				
Stock options	325,734	64,498	325,734	64,498
Restricted stock units and restricted stock awards	509,785	50,203	503,435	63,677
Shares excluded from diluted weighted average shares	835,519	114,701	829,169	128,175

(1)Unvested restricted stock units and restricted stock awards are not included as shares outstanding in the calculation of basic earnings per share. Vested restricted stock units and restricted stock awards are included in basic earnings per share if all vesting and performance criteria have been met. Performance-based restricted stock units and restricted stock awards are included in the number of shares used to calculate diluted earnings per share as long as all applicable performance criteria are met, and their effect is dilutive. Restricted stock awards are eligible to receive all dividends declared on the Company's common shares during the vesting period; however, such dividends are not paid until the restrictions lapse.
(2)Due to net losses for the three and six months ended June 30, 2022, diluted loss per share is the same as basic.

7. Income taxes

The Company accounts for income taxes in accordance with ASC 740 — *Income Taxes*. Under ASC 740, income taxes are recognized for the amount of taxes payable or refundable for the current period and deferred tax liabilities and assets are recognized for the future tax consequences of transactions that have been recognized in the Company's consolidated financial statements or tax returns. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is provided when it is more likely than not that some portion, or all, of the deferred tax asset will not be realized. As of June 30, 2022, the Company continued to record a valuation allowance against its deferred tax assets.

The Company accounts for uncertainties in income taxes in accordance with ASC 740-10 — *Accounting for Uncertainty in Income Taxes*. ASC 740-10 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. This accounting standard also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition.

(amounts in thousands, except share and per share amounts)

The Company recognizes interest and penalties on taxes, if any, within its income tax provision on its consolidated statements of comprehensive income.

8. Stockholders' equity

The Company has a 2012 Equity Incentive Plan (2012 Plan) under which the Company granted options to purchase shares of its common stock. As of June 30, 2022, options to purchase 62,803 shares of common stock remained outstanding under the 2012 Plan. The 2012 Plan was terminated in connection with the Company's initial public offering in February 2014, and accordingly, no new options are available for issuance under this plan. The 2012 Plan continues to govern outstanding awards granted thereunder.

The Company has a 2014 Equity Incentive Plan (2014 Plan) that provides for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to the Company's employees and any parent and subsidiary corporation's employees, and for the grant of nonstatutory stock options, restricted stock, restricted stock units, restricted stock awards, stock appreciation rights, performance units and performance shares to its employees, directors and consultants and its parent and subsidiary corporations' employees and consultants.

As of June 30, 2022, awards with respect to 1,205,681 shares of the Company's common stock were outstanding, and 872,864 shares of common stock remained available for issuance under the 2014 Plan. The shares available for issuance under the 2014 Plan will be increased by any shares returned to the 2012 Plan and 2014 Plan as a result of expiration or termination of awards (provided that the maximum number of shares that may be added to the 2014 Plan pursuant to such previously granted awards under the 2012 Plan is 2,328,569 shares). The number of shares available for issuance under the 2014 Plan also is increased annually on the first day of each fiscal year by an amount equal to the least of:

•895,346 shares;

•4% of the outstanding shares of common stock as of the last day of the Company's immediately preceding fiscal year; or

•such other amount as the Company's board of directors may determine.

For 2022, no additional shares were added to the 2014 Plan share reserve pursuant to the provision described above.

Stock options

Options typically expire between seven and ten years from the date of grant and vest over one to four year terms. Options have been granted to employees, directors and consultants of the Company, as determined by the board of directors, at the deemed fair market value of the shares underlying the options at the date of grant.

The activity for stock options under the Company's stock plans for the six months ended June 30, 2022 is as follows:

	Options	Price per share	Weighted-average exercise price	Remaining weighted-average contractual terms (in years)	Per share average intrinsic value
Outstanding as of December 31, 2021	459,441	$1.17-$83.30	$ 42.18	1.36	$ 4.31
Exercised	(8,649)	1.17-8.37	4.08		
Forfeited	(7,500)	38.54-44.19	42.31		
Expired	(54,755)	38.54	38.54		
Outstanding as of June 30, 2022	388,537	1.17-83.30	43.54	0.88	2.84
Vested and exercisable as of June 30, 2022	388,537	1.17-83.30	43.54	0.88	2.84
Vested and expected to vest as of June 30, 2022	388,537	$1.17-$83.30	$ 43.54	0.88	$ 2.84

The total intrinsic value of options exercised during the six months ended June 30, 2022 and 2021 was $204 and $11,402, respectively. As of June 30, 2022, all stock-based compensation expense for options granted under the Plans was recognized.

(amounts in thousands, except share and per share amounts)

Stock incentive awards

The Company grants restricted stock units (RSUs) and restricted stock awards (RSAs) under the 2014 Plan (Stock Awards). The Stock Awards vest either based solely on the satisfaction of time-based service conditions or on the satisfaction of time-based service conditions combined with performance criteria. Stock Awards are subject to forfeiture if the holder's services to the Company terminate before vesting.

Stock Awards granted with only time-based service vesting conditions generally vest over three-year and four-year service periods, as defined in the terms of each award. Stock Awards that vest based on the satisfaction of time-based service conditions combined with performance criteria generally vest over a three-year service and performance period, based on performance criteria established at the time of the award. The portion of the Stock Award that is earned may equal or be less than the targeted number of shares subject to the Stock Award depending on whether the performance criteria are met.

Stock Awards activity for the six months ended June 30, 2022 is summarized below:

Restricted stock units	**Time-based**	**Performance and time-based**	**Total**	**Weighted-average grant date fair value per share**
Unvested restricted stock units as of December 31, 2021	289,166	99,112	388,278	$ 54.81
Granted	640,667	164,722	805,389	30.18
Vested	(96,295)	(37,677)	(133,972)	55.72
Forfeited/canceled	(55,384)	(27,716)	(83,100)	47.66
Unvested restricted stock units as of June 30, 2022 [(1)]	778,154	198,441	976,595	$ 34.97
Unvested and expected to vest restricted stock units outstanding as of June 30, 2022			816,827	$ 34.63

Restricted stock awards	**Time-based**	**Performance and time-based**	**Total**	**Weighted-average grant date fair value per share**
Unvested restricted stock awards outstanding as of December 31, 2021	10,416	5,629	16,045	$ 87.12
Vested	(3,327)	(5,629)	(8,956)	99.53
Forfeited/canceled	(5,011)	—	(5,011)	73.45
Unvested restricted stock awards outstanding as of June 30, 2022 [(1)]	2,078	—	2,078	$ 84.50
Unvested and expected to vest restricted stock awards outstanding as of June 30, 2022			1,984	$ 85.06

[(1)] Outstanding restricted stock units and restricted stock awards are based on the maximum payout of the targeted number of shares.

As of June 30, 2022, the unrecognized compensation cost related to unvested employee restricted stock units and restricted stock awards was $25,540, excluding estimated forfeitures. This amount is expected to be recognized over a weighted average period of 2.3 years.

Employee stock purchase plan

The Company's 2014 Employee Stock Purchase Plan (ESPP) provides for the grant to all eligible employees an option to purchase stock under the ESPP, within the meaning Section 423 of the Internal Revenue Code. The ESPP permits participants to purchase common stock through payroll deductions of up to 15% of their eligible compensation, which includes a participant's base straight time gross earnings, incentive compensation, bonuses, overtime and shift premium, but exclusive of payments for equity compensation and other similar compensation. A participant may purchase a maximum of 1,500 shares during a purchase period. Amounts deducted and accumulated by the participant are used to purchase shares of the Company's common stock at the end of each six-month period. The purchase price of the shares will be 85% of the lower of the fair market value of the Company's common stock on the first trading day of each offering period or on the exercise date. The offering periods are currently approximately six months in length beginning on the first business day on or after March 1 and September 1 of each year and ending on the first business day on or after September 1 and March 1 approximately six months later.

(amounts in thousands, except share and per share amounts)

As of June 30, 2022, a total of 539,308 shares of common stock were available for sale pursuant to the ESPP.

The number of shares available for sale under the ESPP is increased annually on the first day of each fiscal year by an amount equal to the least of:

- 179,069 shares;
- 1.5% of the outstanding shares of the Company's common stock on the last day of the Company's immediately preceding fiscal year; or
- such other amount as may be determined by the administrator.

For 2022, no additional shares were added to the ESPP share reserve pursuant to the provision described above.

Stock-based compensation

Stock-based compensation expense recognized for the three and six months ended June 30, 2022 and 2021, was as follows:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Stock-based compensation expense by type of award:				
Restricted stock units and restricted stock awards	2,891	$ 3,053	5,359	5,383
Employee stock purchase plan	129	186	326	372
Total stock-based compensation expense	$ 3,020	$ 3,239	$ 5,685	$ 5,755

Employee stock-based compensation expense was calculated based on awards of stock options, restricted stock units and restricted stock awards ultimately expected to vest based on the Company's historical award cancellations. ASC 718 – *Compensation-Stock Compensation* requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

For the three and six months ended June 30, 2022 and 2021, respectively, stock-based compensation expense recognized under ASC 718, included in cost of revenue, research and development expense, sales and marketing expense, and general and administrative expense was as follows:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Cost of revenue	$ 303	$ 319	$ 536	$ 557
Research and development	412	382	796	680
Sales and marketing	766	668	1,357	1,280
General and administrative	1,539	1,870	2,996	3,238
Total stock-based compensation expense	$ 3,020	$ 3,239	$ 5,685	$ 5,755

(amounts in thousands, except share and per share amounts)

9. Commitments and contingencies

Purchase obligations

The Company had approximately $116,500 of outstanding purchase orders due within one year with its outside vendors and suppliers as of June 30, 2022.

Warranty obligation

The following table identifies the changes in the Company's aggregate product warranty liabilities for the six and twelve-month periods ended June 30, 2022 and December 31, 2021, respectively:

	June 30, 2022	December 31, 2021
Product warranty liability at beginning of period	$ 13,726	$ 14,394
Accruals for warranties issued	3,477	9,168
Adjustments related to preexisting warranties	4,342	(597)
Settlements made (in cash or in kind)	(7,041)	(9,239)
Product warranty liability at end of period	$ 14,504	$ 13,726

Contract liabilities

Contract liabilities primarily consist of deferred revenue related to lifetime warranties on direct-to-consumer sales revenue when cash payments are received in advance of services performed under the contract. The contract with the customer states the final terms of the sale, including the description, quantity, and price of each product or service purchase. The decrease in deferred revenue related to lifetime warranties for the six months ended June 30, 2022 was primarily driven by $3,235 of revenue recognized that was included in the deferred revenue balances as of December 31, 2021, partially offset by $2,955 of payments received in advance of satisfying performance obligations. Deferred revenue related to lifetime warranties was $17,696 and $17,976 as of June 30, 2022 and December 31, 2021, respectively, and is classified within deferred revenue – current and noncurrent deferred revenue in the consolidated balance sheet.

Legislation and HIPAA

The healthcare industry is subject to numerous laws and regulations of federal, state and local governments. These laws and regulations include, but are not necessarily limited to, matters such as licensure, accreditation, government healthcare program participation requirements, reimbursement for patient services, and Medicare and Medicaid fraud and abuse. Government activity has continued with respect to investigations and allegations concerning possible violations of fraud and abuse statutes and regulations by healthcare providers. Violations of these laws and regulations could result in exclusion from government healthcare programs together with the imposition of significant fines and penalties, as well as significant repayments for patient services previously billed.

The Company believes that it is in compliance in all material respects with applicable fraud and abuse regulations and other applicable government laws and regulations. Compliance with such laws and regulations can be subject to future government review and interpretation as well as regulatory actions unknown or unasserted at this time. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) was enacted to ensure health insurance portability, reduce healthcare fraud and abuse, guarantee security and privacy of health information, and enforce standards for health information. The Health Information Technology for Economic and Clinical Health Act (HITECH Act), in part, imposes notification requirements of certain security breaches relating to protected health information. The Company believes that it complies in all material respects with the provisions of those regulations that are applicable to the Company's business.

Legal proceedings

Civil Investigative Demand

On June 21, 2022, the Company received a civil investigative demand (CID) from the United States Attorney's Office for the Northern District of Iowa. The CID states that it was issued in a False Claims Act investigation to determine whether there is or has been a violation of the False Claims Act and that the investigation involves concerns of inappropriate kickbacks provided by certain manufacturers of portable oxygen concentrators and related products in violation of the Anti-Kickback Statute. The CID followed informal requests from the United States Attorney's Office for the Northern District of Iowa begun in 2020, with which the Company voluntarily complied, to obtain information concerning the Company's participation in (i) zero-interest or below market-rate loans through a third party lender to finance customer purchases; (ii) guaranteeing the obligation of a customer to a finance company in connection with financing of purchases of Company equipment; and (iii) entering into an agreement with a customer that included marketing, exclusivity, discount, and favorable financing terms. The Company is cooperating in the investigation. The Company is currently unable to predict the outcome of this investigation or whether qui tam or other litigation is probable. Regardless of the outcome, this inquiry has the potential to have an adverse impact on the Company due to any related defense and settlement costs, diversion of management resources, and other factors.

Other Litigation

The Company is party to various legal proceedings arising in the normal course of business. The Company carries insurance, subject to specified deductibles under the policies, to protect against losses from certain types of legal claims. At this time, the Company does not anticipate that any of these other proceedings arising in the normal course of business will have a material adverse effect on the Company's business. Regardless of the outcome, litigation can have an adverse impact on the Company because of defense and settlement costs, diversion of management resources, and other factors.

10. Foreign currency exchange contracts and hedging

As of June 30, 2022 and June 30, 2021, the Company's total non-designated and designated derivative contracts had notional amounts totaling approximately $20,644 and $4,540, respectively, and $2,353 and $38,516, respectively. These contracts were comprised of offsetting contracts with the same counterparty, each expires within one to six months. During the six months ended June 30, 2022 and 2021, these contracts had, net of tax, an unrealized loss of $672 and an unrealized gain of $1,161, respectively.

The nonperformance risk of the Company and the counterparty did not have a material impact on the fair value of the derivatives. During the six months ended June 30, 2022, there were three ineffective portions relating to these hedges. During the six months ended June 30, 2021, there were no ineffective portions relating to these hedges and the hedges remained effective through their respective settlement dates. As of June 30, 2022, the Company had three designated hedges and four non-designated hedges. As of June 30, 2021, the Company had twenty-eight designated hedges and three non-designated hedges.

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

Forward-Looking Statements

The following discussion and analysis should be read together with our consolidated financial statements and the condensed notes to those statements included elsewhere in this Quarterly Report on Form 10-Q. This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are based on our management's beliefs and assumptions and on information currently available to our management. The forward-looking statements are contained principally in this Management's Discussion and Analysis of Financial Condition and Results of Operations and in the section entitled "Risk Factors" of our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q filed with the Securities and Exchange Commission (SEC). Forward-looking statements include, but are not limited to, statements concerning the following:

•information concerning our possible or assumed future cash flows, revenue, sources of revenue and results of operations, operating and other expenses;

•our expectations of the impact of the COVID-19 pandemic and related public health emergency (PHE) on sales, productivity, hiring, media expenditures, prescriber sales team and physician referrals, worldwide demand for oxygen therapies, and our supply chain, including supply constraints and cost inflation related to semiconductor chips used in our batteries and printed circuit boards which are components of our portable oxygen concentrators (POCs) and the possibility of a future impact on our manufacturing facilities in California and Texas;

•our assessment and expectations regarding reimbursement rates, future rounds of competitive bidding, Centers for Medicare and Medicaid Services (CMS) changes associated with the COVID-19 pandemic and related PHE impacting respiratory care, CMS changes to Home Use of Oxygen national coverage determination and how those changes are implemented, and future changes in rental revenue;

•our expectations regarding regulatory approvals, including the period of time during which our sales in Europe will be suspended due to delayed European Medical Device Regulation approval, and government and third-party payor coverage and reimbursement;

•our ability to develop new products, improve our existing products and increase the value of our products, including the potential integration of Tidal Assist® Ventilator (TAV®) technology into our existing products;

•our expectations regarding the timing of new products and product improvement launches as well as product features and specifications;

•market share expectations, unit sales, business strategies, financing plans, expansion of our business, competitive position, industry environment, and potential growth opportunities;

•our expectations regarding the market size, market growth and the growth potential for our business;

•our ability to grow our business and enter new markets;

•our expectations regarding the average selling prices and manufacturing costs of our products, including our expectations related to the impact of supply chain disruptions on our manufacturing costs and our ongoing efforts to reduce average unit costs for our systems;

•our expectations regarding our sales and marketing channels related to our prescriber sales team, including the expansion of the sales team and concierge service representatives and implementation of healthcare data, insights and tools through our partnership with Ashfield Healthcare, LLC (Ashfield) and its impact on clinician awareness and coverage, POC penetration, and sales team productivity;

•our expectations with respect to our European and U.S. facilities and our expectations with respect to our contract manufacturer in Europe;

•our expectations regarding tariffs being imposed by the U.S. on certain imported materials and products;

•our ability to successfully acquire and integrate companies and assets;

•our expectations regarding the impact and implementation of trade regulations on our supply chain;

•our expectations regarding excess tax benefits or deficiencies from stock-based compensation and our assessments and estimates of our effective tax rate;

•our expectations of future accounting pronouncements or changes in our accounting policies;

•our internal control environment;

•the effects of seasonal trends on our results of operations and estimated hiring plans;

•our expectation that our existing capital resources and the cash to be generated from expected product sales and rentals will be sufficient to meet our projected operating and investing requirements for at least the next twelve months; and

•the effects of competition.

Forward-looking statements include statements that are not historical facts and can be identified by terms such as “anticipates,” “believes,” “could,” “seeks,” “estimates,” “expects,” “intends,” “may,” “plans,” “potential,” “predicts,” “projects,” “should,” “will,” “would,” or similar expressions and the negatives of those terms.

Forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause our actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. We discuss these risks in greater detail in the sections entitled “Risk Factors” and elsewhere in this Quarterly Report on Form 10-Q and in our Annual Report on Form 10-K filed with the SEC. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for us to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of 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 future events and trends discussed in this Quarterly Report on Form 10-Q may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

The forward-looking statements made in this Quarterly Report on Form 10-Q relate only to events as of the date on which the statements are made. Except as required by law, we assume no obligation to update these forward-looking statements, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

This Quarterly Report on Form 10-Q also contains estimates, projections and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources.

“Inogen,” “Inogen One,” “Inogen One G2,” “Inogen One G3,” “G4,” “G5,” “Live Life in Moments, not Minutes,” “Never Run Out of Oxygen,” “Oxygen Therapy on Your Terms,” “Oxygen.Anytime.Anywhere,” “Reclaim Your Independence,” “Intelligent Delivery Technology,” “Inogen At Home,” the Inogen design, “TIDAL ASSIST,” “TAV,” and “SIDEKICK” are registered trademarks with the United States Patent and Trademark Office of Inogen, Inc. We own a pending application for “Inogen” with the United States Patent and Trademark Office. We own trademark registrations for the mark “Inogen” in Argentina, Australia, Canada, Chile, China, Columbia, Ecuador, South Korea, Mexico, Europe (European Union Registration), the United Kingdom, Iceland, India, Israel, Japan, Kuwait, New Zealand, Norway, Paraguay, Peru, Turkey, Singapore, Switzerland, and Uruguay. We own pending applications for the mark “Inogen” in Brazil, India, Malaysia, and South Africa. We own a trademark registration for the mark “イノジェン” in Japan. We own trademark registrations for the marks “印诺真” and “艾诺根” in China. We own trademark registrations for the mark “Inogen One” in Australia, Canada, China, South Korea, Mexico, Europe (European Union Registration), and the United Kingdom. We own a trademark registration for the mark “Satellite Conserver” in Canada. We own a trademark registration for the mark “Inogen At Home” in Europe (European Union Registration) and the United Kingdom. We own trademark registrations for the mark “G4” in Europe (European Union Registration) and the United Kingdom. We own trademark registrations for the mark “G5” in Europe (European Union Registration) and the United Kingdom. We own a trademark application for the Inogen design in Bolivia. We own a trademark registration for the Inogen design in China. We own a trademark registration for the mark “إنوجن” in Saudi Arabia. Other service marks, trademarks, and trade names referred to in this Quarterly Report on Form 10-Q are the property of their respective owners.

In this Quarterly Report on Form 10-Q, “we,” “us” and “our” refer to Inogen, Inc. and its subsidiary.

The following discussion of our financial condition and results of operations should be read together with our consolidated financial statements and the accompanying condensed notes to those statements included elsewhere in this document.

The purpose of Management's Discussion and Analysis (MD&A) is to provide an understanding of Inogen's financial condition, results of operations and cash flows by focusing on changes in certain key measures from year-to-year. The MD&A is provided as a supplement to, and should be read in conjunction with, our consolidated financial statements and accompanying condensed notes. The MD&A is organized in the following sections:

- Critical accounting policies and estimates
- COVID-19 pandemic and related PHE
- Overview
- Basis of presentation
- Results of operations
- Liquidity and capital resources
- Sources of funds
- Use of funds
- Non-GAAP financial measures

Critical accounting policies and estimates

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements which have been prepared in accordance with generally accepted accounting principles in the United States of America, or U.S. GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and related disclosure of contingent assets and liabilities, revenue and expenses at the date of the financial statements. Generally, we base our estimates on historical experience and on various other assumptions in accordance with U.S. GAAP that we believe to be reasonable under the circumstances. Actual results may differ from these estimates and such differences could be material to the financial position and results of operations.

Critical accounting policies and estimates are those that we consider the most important to the portrayal of our financial condition and results of operations because they require our most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Our critical accounting policies and estimates include those related to:

- revenue recognition; and
- acquisitions and related acquired intangible assets and goodwill.

There have been no material changes in our critical accounting policies and estimates in the preparation of our consolidated financial statements during the three and six months ended June 30, 2022 compared to those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2021, as filed with the SEC on February 24, 2022.

COVID-19 pandemic and related PHE

The novel coronavirus outbreak of COVID-19 has had and likely will continue to have significant adverse effects on businesses and healthcare institutions around the world. While it is not possible at this time to estimate the overall impact that the COVID-19 pandemic and related PHE could have on our business, the continued spread of COVID-19, both across the United States and throughout the world, and the measures taken by the governments of countries and local authorities affected has adversely impacted and could likely continue to adversely impact patient mobility, care accessibility, diagnosis rates, demand for our products, our business operations, including manufacturing, due to supply chain constraints, hiring and continued employment of our employees and contractors, shipment, cost of our products, and our financial condition and operating results.

Our priorities during the COVID-19 pandemic and related PHE include protecting the health and safety of our employees and supporting our patients and customers. Given the COVID-19 impact to the respiratory system, we anticipate that it is possible that the demand for long-term oxygen therapy will increase due to new cases of chronic respiratory failure or exacerbation or progression of preexisting respiratory conditions will sustain or increase, although this is not based on clinical data. We also believe stationary oxygen concentrators, and, secondarily, POCs could help meet the needs of global healthcare systems by allowing appropriate patients to use oxygen therapy at home to treat respiratory symptoms.

However, the COVID-19 pandemic and related PHE adversely impacted our consolidated operating results starting in the second quarter of 2020. We experienced lower direct-to-consumer sales starting toward the end of the first quarter of 2020, which we believe was primarily associated with shelter-in-place orders, self-quarantine, reduced mobility and travel, and reduced access to clinicians for diagnosis and follow-up for chronic obstructive pulmonary disease (COPD) patients related to the mandates and behaviors emanating from the COVID-19 pandemic and PHE. In periods with lower COVID-19 spread, we saw improved consumer demand for our products, which we believe was due to increasing vaccination rates and other effective containment measures, higher consumer confidence, mobility and interest in travel, versus lower demand in periods with higher COVID-19 spread. Those impacts were in addition to our traditional seasonality in consumer buying patterns. We continue to believe that potential future shelter-in-place orders, reduced travel, lower consumer confidence, or the impacts of new variants could reduce consumer demand in future periods.

Despite the COVID-19 pandemic and related PHE adverse impacts to direct-to-consumer sales, we experienced increased rental setups in the second quarter of 2020 through the second quarter of 2022, which we believe was due to Medicare and commercial payors reducing some of the administrative burden for oxygen therapy and our focus on the rental channel of the business. We believe this change will continue to contribute to increased rental setups during the remainder of the COVID-19 pandemic and related PHE. We have also seen increased reimbursement rates in some areas for Medicare beneficiaries, which have increased rental revenue during the COVID-19 pandemic and related PHE and are expected to continue to do so for the remainder of the COVID-19 pandemic and related PHE.

In the business-to-business channel, there have been certain surges in demand for oxygen concentrators by our home medical equipment (HME) providers worldwide during the COVID-19 pandemic and related PHE in specific markets with significant COVID-19 case rates due to the tendency of hospitals to discharge COVID-19 impacted patients for treatment at home during rehabilitation due to space and labor shortages in hospitals. However, overall business-to-business demand has been lower because of the COVID-19 pandemic and related PHE due to lower patient travel, physician offices limiting patient interactions for COPD patient referrals, HME providers minimizing patient interactions in response to the COVID-19 pandemic and related PHE, which includes replacing existing oxygen patient setups with POCs, and HME providers turning their purchasing focus to stationary oxygen concentrators to treat COVID-19 patients. Also, sales in Europe declined due to the temporary closure and reduced operating capacity of certain respiratory assessment centers and continued tender delays in certain markets due to the COVID-19 pandemic. Similar to our direct-to-consumer sales channel, business-to-business sales improved in periods with lower COVID-19 spread, higher consumer confidence, interest in travel, and availability of effective vaccines. In addition, this channel is impacted by COPD patient referral volumes in our core markets of the United States and Europe, which tends to improve in periods with lower COVID-19 spread due to a patient's willingness to see their physician. However, supply constraints, primarily due to limited semiconductor chip availability, negatively impacted sales in 2021 and the first half of 2022 mainly in the domestic business-to-business channel, as discussed in more detail below.

During 2020 and 2021, we were able to broadly maintain our operations, but in the first quarter of 2022 we were forced to temporarily suspend production for a period of approximately six weeks due to the semiconductor chip shortages discussed below. As seen in this temporary production halt, the COVID-19 pandemic and related PHE have caused and could continue to cause disruption to our supply chain that could impact our operations, limit our growth, and increase our cost of goods sold per unit.

For example, we have seen reduced semiconductor chip availability in 2021 and the first half of 2022, which has impacted our ability to produce and sell systems and batteries. We expect availability issues to continue through the remainder of 2022 and into 2023 as the semiconductor chip shortage is being experienced across many industries, placing additional pressure on existing supplies. In addition, gas required for manufacturing of semiconductors and manufacturing capacity constraints as a result of the war in Ukraine as well as the COVID-19 extended lockdown in China are expected to impact our operations into the second half of 2022. We have attempted to mitigate the impact of this increased supply shortage, but it has and will likely continue to negatively impact our ability to manufacture product, and we could be forced to slowdown or temporarily halt production again. We are continuing to focus our mitigation efforts on product redesign, seeking increased commitments on supply and shipment dates from our regular suppliers, sourcing from the open semiconductor channel, and using appropriate pricing actions such as price increases, to help offset some of the increased cost.

We saw inflated costs related to the acquisition of semiconductor chips begin to negatively impact our cost of goods sold in the second half of 2021, which continued through the second quarter of 2022, and we expect this to have an increased impact on our cost of goods sold for the remainder of 2022 and into 2023. Even though we paid significant costs in the second half of 2021 and the first half of 2022 associated with acquiring chips on the open market, most of these costs increased our prepaid expense and inventory given that these components were not yet in finished products that were sold during the period. We believe based on our assessment and industry feedback that these supply shortages and increased costs are likely to continue through the remainder of 2022 and into 2023. In addition to the semiconductor chip limitations, we are continuing to see supply chain constraints and cost inflation for other components used in our products albeit to a lower degree. Due to semiconductor chip shortages, we temporarily suspended manufacturing operations at our Texas and California locations as well as Foxconn, our Czech Republic-based original equipment manufacturer (OEM), beginning January 3, 2022 until early February 2022 when we resumed production and restarted our manufacturing operations at all three locations. While we have been able to restart manufacturing operations at all locations, we are still seeing challenges in terms of available supply and we believe the supply shortages continue to represent an increased risk to the business in 2022, and we may have to suspend manufacturing again in the future due to these shortages. As a result, in the interim we expect to be supply constrained and unable to meet all customer demand for our products.

Additionally, we have experienced, along with most other companies across many industries, the macro-economic impact of a challenging employment environment related to hiring and retaining employees and wage inflation. We expect that these hiring, retention, and wage inflation challenges, as well as challenges related to maintaining our current workforce, will continue into the second half of 2022. These challenges may negatively affect our ability to grow our business and keep our best employees or increase our cost of operations. In response we have implemented more flexible workplace requirements depending on the role, such as increasing ability for remote work, but we still expect to be challenged by the macro-economic employment environment.

The COVID-19 pandemic and related PHE has also and could continue to lead to volatility in consumer access to our products due to government actions impacting our ability to produce and ship products or impacting consumers' movements and access to our products. The COVID-19 pandemic and related PHE has caused demand to fluctuate for our products across all channels due to the global economic environment and changes to physician visits, interactions, testing requirements and diagnosis. Additionally, while we planned for sales and marketing expansion in 2021, we saw lower hiring and increased attrition in our direct-to-consumer sales force, primarily due to increased competition for sales professionals in 2021 and the first half of 2022. While we intend to increase sales representative headcount in the second half of 2022, the labor shortage trend for qualified sales professionals may continue in second half of 2022, limiting our ability to grow in future periods.

The health and safety of our people and their families continues to be our primary focus. Our ability to continue to operate without any significant negative operational impacts will in part depend on our ability to protect our employees. As the COVID-19 pandemic and related PHE has developed, we have taken numerous steps to help ensure the health and safety of our employees and their families. We follow recommended actions of government and health authorities to protect our employees, with particular measures in place for those working in our manufacturing facilities, and those with patient, prescriber, or customer face-to-face interactions. Employees whose tasks can be done offsite have been allowed to work from home and most of our personnel continue to work from home. We have also worked closely with local and national officials to keep our manufacturing facilities open due to the essential nature of our products.

For additional information on risk factors that could impact our results, please refer to the sections entitled "Risk Factors" in this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K.

Overview

We are a medical technology company that primarily develops, manufactures and markets innovative POCs used to deliver supplemental long-term oxygen therapy to patients suffering from chronic respiratory conditions. Long-term oxygen therapy is defined as the provision of oxygen therapy for use at home in patients who have chronic low blood oxygen levels (hypoxemia). Traditionally, these patients have relied on stationary oxygen concentrator for use in the home and oxygen tanks or cylinders for mobile use, which we call the delivery model. The tanks and cylinders must be delivered regularly and have a finite amount of oxygen, which requires patients to plan activities outside of their homes around delivery schedules and a finite oxygen supply. Additionally, patients must attach long, cumbersome tubing to their stationary concentrators simply to enable mobility within their homes. Our proprietary Inogen One® systems concentrate the air around the patient to offer a single source of supplemental oxygen anytime, anywhere with a portable device weighing as little as approximately 2.8 pounds with a single battery. Our Inogen One systems range from 2.6 to 6.5 hours of battery life with a single battery and can be plugged into an outlet as needed. We believe our Inogen One systems reduce the patient's reliance on stationary concentrators and scheduled deliveries of tanks with a finite supply of oxygen, thereby improving patient quality of life and fostering mobility.

We employ a direct-to-consumer market and rental strategy that we believe contributes to our leadership position in the POC market. Our direct-to-consumer market and rental strategy means that we (i) advertise directly to consumers, process their physician paperwork, provide clinical support as needed and (ii) bill Medicare or insurance on the patient's behalf in the United States. We believe that we are the only POC manufacturer offering patients both a purchase and a rental option to acquire an oxygen therapy device.

We derive the majority of our revenue from the sale and rental of our Inogen One systems and related accessories to patients, insurance carriers, home healthcare providers, resellers, charitable organizations, and distributors, including our private label partner. We sell multiple configurations of our Inogen One and Inogen At Home systems with various batteries, accessories, warranties, power cords and language settings. Our goal is to design, build and market oxygen solutions that redefine how long-term oxygen therapy is delivered.

To accomplish this goal and to grow our revenue, we intend to:

• *Expand our domestic direct-to-consumer sales and prescriber sales teams and increase productivity.* We have restarted our sales capacity expansion efforts with new sales representatives hired and expect sales representative headcount to be up in the second half of 2022. As part of our growth plans, except as otherwise limited by the impact of the COVID-19 pandemic and related PHE, our plan is to continue to expand sales capacity while focusing on increased productivity driven by improved sales management discipline, insights-informed tools, and optimized patient lead generation.

During the year ended December 31, 2021, the number of inside direct-to-consumer sales representatives decreased to 292 from 300 as of December 31, 2020, and we have continued to see our inside direct-to-consumer sales representative headcount slightly decline in the first half of 2022 due to attrition outpacing hiring. In 2021 and continuing into the first half of 2022, hiring was challenging due to the continued impacts of the COVID-19 pandemic and related PHE. We hope to offset attrition with replacement hiring and add additional sales representatives through the remainder of 2022 while we opportunistically increase the total inside direct-to-consumer sales representatives if and when required while maintaining our hiring standards and being mindful of the supply constraints.

We also plan to expand our prescriber sales team to drive increased physician referrals for patient rentals. This specialized sales team consisted of 35 sales representatives and 6 support personnel as of December 31, 2021. In addition, we are using a third-party contract sales organization, Ashfield, that will only represent Inogen in the field, to enhance our go-to-market capabilities in the U.S. Ashfield has provided access to its best-in-class data-driven sales management disciplines, proprietary prescriber insights, and analytics to support our growth strategy and drive performance in the clinician sales channel. The combined sales organization, Inogen and Ashfield, will benefit from access to Ashfield's comprehensive offering of analytics tools, sales operations support, and personalized concierge services that will help drive productivity and efficiency.

• *Expand our domestic direct-to-consumer marketing efficiently and optimize pricing.* We maintained our marketing efforts to continue to drive patient awareness of our products and patient inquiries about their ability to switch from their current oxygen products to our technology as patient interest increased. We plan to optimize marketing spend to drive consumer and physician awareness of our products in 2022 and beyond. We raised prices as of September 1, 2021 and March 1, 2022 to partially offset rising product costs. We plan to continue to monitor the progression of the COVID-19 pandemic and related PHE in the United States and may adjust our marketing plan accordingly.

• *Expand our rental revenues.* We are evolving our operating model to focus the enhanced prescriber sales team on rental opportunities with our direct-to-consumer sales team focusing mainly on cash sales. We believe the new specialized operating model will drive higher rental setups as we expand prescriber and payor awareness of our products and services.

Due to the COVID-19 pandemic and related PHE, Medicare and commercial payors have reduced some of the administrative burden for oxygen therapy, which also contributed to increased rental setups in the second quarter of 2020 through the second quarter of 2022. We believe this change will continue to contribute to increased rental setups during the remainder of the COVID-19 pandemic and related PHE. We have also seen increased reimbursement rates in some areas for Medicare beneficiaries, which have increased rental revenue during the COVID-19 pandemic and related PHE and are expected to continue to do so for the remainder of the COVID-19 pandemic and related PHE. CMS has finalized additional changes to the administrative requirements to dispense and bill for oxygen therapy, which is discussed in more detail in the Reimbursement section below. These changes may reduce the administrative burden and increase patient access to our products; however, we still need additional clarity on how it will be implemented.

• *Expand our domestic HME provider and reseller sales.* We are also focused on building our domestic business-to-business partnerships, including relationships with distributors, key accounts, resellers, our private label partner, traditional HME providers, and charitable organizations. We offer patient-preferred, low service cost products and services to help providers convert their businesses to a non-delivery POC business model.

Supplemental oxygen is a treatment prescribed by healthcare professionals for some patients with hypoxemia, which in some cases may be caused or exacerbated by COVID-19. While there have been surges in demand for oxygen concentrators by our HME providers during the COVID-19 pandemic and related PHE in specific markets with significant COVID-19 case rates, domestic business-to-business demand in 2020 declined. In 2020, the COVID-19 pandemic and related PHE represented a period of isolation, with lower patient travel, fewer visits to physician offices (limiting patient interactions for COPD patient referrals) and HME providers minimizing patient interactions. Domestic HME provider demand increased in the year ended December 31, 2021 and in the six months ended June 30, 2022, primarily due to increased demand for POCs as hospital systems and stationary oxygen concentrator supply were strained to keep up with the increase in COVID-19 cases and increased patient ambulation and consumer confidence.

However, in spite of the increased demand, starting in the third quarter of 2021 through the first half of 2022, we saw supply constraints associated with the semiconductor chip shortage that led to a significant decline in this channel, specifically in the first quarter as we were forced to temporarily halt production from early January 2022 to early February 2022 due to these supply constraints. We expect these supply constraints to continue to impact the domestic business-to-business channel in the remainder of 2022.

•*Increase international business-to-business adoption.* Although our main growth opportunity remains POC adoption in the United States given what we still believe is a relatively low penetration rate, we believe there is a sizable international market opportunity, particularly in Europe where there is existing oxygen reimbursement for respiratory conditions. In order to take advantage of these international markets, we have partnered with distributors who serve those markets and key customers in them. We additionally have an Inogen base of operations for sales and customer service in the Netherlands, and use a contract manufacturer, Foxconn, located in the Czech Republic to support the majority of our European sales volumes. We have sold our products in a total of 59 international countries and overseas regions.

Current Inogen products have been commercialized in the European Union and United Kingdom under Medical Device Directive (MDD) certificates, which expired on May 18, 2022. The extension of the existing certificates under the MDD or obtaining a new certificate under the European Medical Device Regulation (MDR) is required for continued marketing in the European Union after May 18, 2022. Our EU MDR Generic Device Group submission has been filed for our POCs and are under review. In addition, United Kingdom Conformity Assessed and the Swiss Medic Submission under MDD have been received and will be updated to MDR following the receipt of the corresponding certification in the EU. Derogation requests have also been filed in most EU countries. France granted permission in June 2022 for continuous commercialization of G4 and G5 POCS under MDR Articles 94/97. Due to the expected reduced availability in the second half of 2022 due to the delay in MDR approval, we placed intentional focus on fulfilling European orders in our international business-to-business sales channel until May 18, 2022 when the MDD certificates expired. Until we obtain the necessary certificate(s), we expect international sales within the EU to be negatively impacted.

As in the United States, there have been surges in demand for oxygen concentrators by our international HME customers during the COVID-19 pandemic in specific markets with significant COVID-19 case rates. However, international demand declined in the second quarter of 2020 and continuing through the first quarter of 2021, primarily due to the temporary closures and reduced operating capacity of certain European respiratory assessment centers due to the COVID-19 pandemic, tender delays in certain European markets, and decreased sales in other markets, primarily Canada. In addition, during this period, providers turned their focus to supplying stationary oxygen concentrators with higher flow characteristics in response to the COVID-19 pandemic. We experienced increased demand for the remainder of 2021 and during the first half of 2022, which we believe was due to improving COVID-19 vaccination rates and increased ambulation of patients in Europe, increased operational capacity of certain European respiratory assessment centers, and increased sales in certain markets associated with spikes in COVID-19 cases in such instances. To grow our international sales markets, we are also in the process of developing regulatory and sales pathways to capture opportunities in new and emerging markets.

Over time, as the U.S. and European markets mature, our growth will depend on our ability to drive POC adoption in developing or emerging markets, where limited oxygen therapy treatment and reimbursement exists today. However, growth may also be limited by regulatory and reimbursement clearances, currency fluctuations, capital expenditure constraints, ongoing restructuring challenges, and tender uncertainty.

•*Invest in our oxygen product offerings to develop innovative products and expand clinical evidence.* We incurred $16.6 million and $14.1 million in 2021 and 2020, respectively, in research and development expenses, and we intend to continue to make such investments in the foreseeable future. We incurred $6.1 million and $4.1 million for the three months ended June 30, 2022 and 2021, respectively, and $11.4 million and $8.1 million for the six months ended June 30, 2022 and 2021, respectively, in research and development costs.

We launched our fifth-generation POC, the Inogen One G5 in 2019. The Inogen One G5 weighs 4.7 pounds and produces 1,260 ml per minute of oxygen output, with very quiet operation at 38 dBA and our longest battery life at 6.5 hours for a single battery and up to 13 hours for a double battery. We estimate that the Inogen One G5 is suitable for over 90% of ambulatory long-term oxygen therapy patients based on our analysis of the patients who have contacted us and their clinical needs. The Inogen One G5 represented more than 77% of total domestic POC units sold in the six months ended June 30, 2022, showing the strong demand for this product from both patients and providers.

Inogen Connect, our connectivity platform on our Inogen One G4® and Inogen One G5 products in the United States and Canada is compatible with Apple and Android platforms and includes patient features such as purity status, battery life, product support functions, notification alerts, and remote software updates. We believe home oxygen providers will also find features such as remote troubleshooting, equipment health checks, and location tracking to help drive operational efficiencies when transitioning away from the oxygen tank delivery model.

We plan to also invest in clinical studies to evaluate expected improvements in clinical, economic and patient reported outcomes associated with the use of our products as part of our efforts to drive payor and prescriber advocacy for our products.

• *Expand our product offerings.* We are primarily focused on creating innovative, evidence-based chronic respiratory care solutions to strengthen and build preference and advocacy for our respiratory therapies and brand across patients, prescribers, and payors. We plan to do this with an expanded, high quality, connected, and innovative product portfolio that strengthens our differentiation. We are also committed to pursuing complementary acquisition opportunities to strengthen our technology, product offerings, and channel access.

In August 2019, we acquired New Aera. New Aera’s patented and Food and Drug Administration (FDA)-cleared TAV system is designed to deliver increased air flow and pressure from an approximately 4-ounce pocket-size unit, features a state-of-the-art nasal pillow interface, and is compatible with certain oxygen concentrators, oxygen cylinders, wall gas, and certain medical air sources. TAV therapy with oxygen has been clinically demonstrated during periods of exercise to reduce breathlessness, increase exercise endurance, and improve oxygen saturation for patients suffering from certain chronic lung disease compared to oxygen therapy alone. We plan to only sell this product across our domestic direct-to-consumer channel and in our domestic business-to-business channel in 2022, and we expect limited contributions to revenue in its existing configuration.

We have been developing and refining the manufacturing of our Inogen One systems since 2004. While nearly all of our manufacturing and assembly processes were originally outsourced, assembly of the compressors, sieve beds, concentrators and certain manifolds were brought in-house in order to improve quality control and reduce cost. In support of our European sales, we use a contract manufacturer located in the Czech Republic to manufacture high volume products and perform product repairs to improve delivery to our European accounts. We expect to maintain our assembly operations for our products at our facilities in Texas and California. In 2022, we are focused on securing supply for components to make our products in spite of the higher costs of semiconductor chips, reducing the cost of our Inogen One G5 product (excluding semiconductor chips) and increasing the robustness of our supply chain to reduce potential component constraints as we grow our business.

We also use lean manufacturing practices to maximize manufacturing efficiency. We rely on third-party manufacturers to supply several components of our products. We have elected to source certain key components from single sources of supply, including our batteries, motors, valves, TAV-compatible stationary concentrators, columns, and some molded plastic components. In some cases, maintaining a single source of supply can allow us to control production costs and inventory levels and to manage component quality, but also may lead to supply availability risks, and means our ability to maintain production is dependent on these single source suppliers, which may put us at an increased risk of supply disruption, as we have seen from the production halt we implemented in early January 2022 through early February 2022. In order to help mitigate against the risks related to a single source of supply, for certain components we qualify alternative suppliers and develop contingency plans for responding to disruptions. However, a continued reduction or halt in supply from one of these single-source suppliers, any dual-sourced suppliers or any other limited source suppliers with similar sub-component suppliers could limit or prevent our ability to manufacture our products or devices until one or more sufficient replacement suppliers is found and qualified. For additional discussion of potential risks related to our manufacturing and raw materials, please see the risk factor entitled “*We obtain some of the components, subassemblies and completed products included in our products from a single source or a limited group of manufacturers or suppliers, and in some cases those components are available in only limited supplies from limited manufacturers or suppliers, and the partial or complete loss of one or more of these manufacturers or suppliers could cause significant production delays or stoppages, an inability to meet customer demand, substantial loss in revenue, and an adverse effect on our financial condition and results of operations.*”

Historically, we have generated a majority of our revenue from sales and rentals to customers in the United States. For the three months ended June 30, 2022 and 2021, approximately 36.2% and 21.5%, respectively, and 35.6% and 19.9% for the six months ended June 30, 2022 and 2021, respectively, of our total revenue was from sales to customers outside the United States, primarily in Europe. Approximately 77.4% and 67.4% of the non-U.S. revenue for the three months ended June 30, 2022 and 2021, respectively, and 75.6% and 72.4% for the six months ended June 30, 2022 and 2021, respectively, were invoiced in Euros with the remainder invoiced in United States dollars. We have sold our products in a total of 59 international countries and overseas regions outside the United States through our wholly-owned subsidiary, distributors or directly to large “house” accounts, which include gas companies, HME oxygen providers, and resellers. In those instances, we sell to and bill the distributor or “house” accounts directly, leaving responsibility for the patient billing, support and clinical setup to the local provider.

Sales revenue

Our future financial performance will be driven in part by the growth in sales of our Inogen One POCs, and, to a lesser extent, sales of batteries, other accessories, our Inogen At Home stationary oxygen concentrators and our TAV products. We plan to grow our system sales in the coming years through multiple strategies including: hiring additional sales representatives directly or through our contract sales organization, improving productivity, investing in consumer and physician awareness and advocacy through increased sales and marketing efforts, expanding our clinical evidence, expanding our sales infrastructure and efforts outside of the United States, expanding our business-to-business sales through key strategic partnerships, and enhancing our product offerings through additional product launches, although, as mentioned above, these plans have been and may continue to be impacted by the COVID-19 pandemic and related PHE. While we believe most HME providers are still in the process of converting their business model to a non-delivery model and purchase POCs, growth has been challenged and we expect it could continue to be challenged due to the COVID-19 pandemic and related PHE, their ongoing restructuring efforts, lack of access to available credit, provider capital expenditure constraints, and potential changes in reimbursement rates.

Our direct-to-consumer and prescriber sales processes involve numerous interactions with the individual patient, their physician and the physician’s staff, and includes an in-depth analysis and review of our product, the patient’s diagnosis and prescribed oxygen therapy, including procuring an oxygen prescription, although, as discussed above, this process has been disrupted due to the COVID-19 pandemic and related PHE and we expect that such disruption will continue for the duration of the COVID-19 pandemic and related PHE. The patient may consider whether to finance the product through an Inogen-approved third party or purchase the equipment. Product is not deployed until both the prescription and payment are secured. Once a full system is deployed, the patient has 30 calendar days to return the product, subject to the payment of a minimal processing and handling fee. Approximately 6-10% of consumers who purchase a system return the system during this 30-day return period.

Our business-to-business efforts are focused on selling to distributors, HME oxygen providers, our private label partner, resellers, and charitable organizations who are based inside and outside of the United States. This process involves interactions with various key customer stakeholders including sales, purchasing, product testing, and clinical personnel. Businesses that have patient demand that can be met with our products place purchase orders to secure product deployment. This may be influenced based on outside factors, including the result of tender offerings, changes in insurance plan coverage or reimbursement rates, business restructuring activities toward a non-delivery model, capital constraints, and overall changes in the net oxygen therapy patient populations, and is presently being impacted by the COVID-19 pandemic and related PHE. Products are shipped freight on board (FOB) Inogen dock domestically, and based on financial history and profile, businesses may either prepay or receive extended payment terms. Products are shipped both FOB Inogen dock and Delivery Duty Paid (DDP) for certain international shipments depending on the shipper used. DDP shipments are Inogen’s property until title has transferred which is upon duty being paid and delivered to the customer. As a result of these factors, product purchases can be subject to changes in demand by customers.

We sold approximately 42,400 systems in the three months ended June 30, 2022 and 52,400 systems for the same period in 2021. We sold approximately 72,800 systems in the six months ended June 30, 2022 and 101,800 systems for the same period in 2021. The decline in the current period was caused by supply chain constraints and associated temporary suspension of manufacturing at all three locations in the first quarter of 2022.

Rental revenue

Our rental process involves numerous interactions with the individual patient, their physician and the physician's staff. The process includes an in-depth analysis and review of our product, the patient's diagnosis and prescribed oxygen therapy, and their medical history to confirm the appropriateness of our product for the patient's oxygen therapy and compliance with Medicare and private payor billing requirements, which often necessitates additional physician evaluation and/or testing for oxygen. Once the product is deployed, the patient receives instruction on product use and may receive a clinical titration from our licensed staff to confirm the product meets the patient's medical oxygen needs prior to billing. As a result, the period of time from initial contact with a patient to billing can vary significantly and be up to one month or longer. However, during the COVID-19 PHE, CMS has reduced the paperwork requirements for Medicare oxygen therapy patients, as discussed in more detail in the Reimbursement section below. CMS has also adopted additional changes to the administrative requirements to dispense and bill for oxygen therapy, which is discussed in more detail in the Reimbursement section below, which may reduce the administrative burden and increase patient access to our products.

Rental revenue increased in the three months ended June 30, 2022 compared to the three months ended June 30, 2021, primarily due to a greater number of patients on service and higher Medicare reimbursement rates. Medicare reimbursement rates for oxygen therapy have increased, as detailed in the Reimbursement section below. In addition, as part of the various stimulus bills in 2020 (also discussed in more detail in the Reimbursement section below), the 2% Medicare sequestration reduction was temporarily paused, and Medicare reimbursement rates for non-rural, non-competitive bid areas through the duration of the COVID-19 PHE were increased to a 75/25 blended rate retroactive to March 6, 2020, which increased the rates in 2021 and 2022 while the COVID-19 PHE continued. The 50/50 blended rate for HME providers in rural and non-contiguous, non-competitive bid areas was extended permanently as part of the final rule published in December 2021. We plan to add new rental patients on service in future periods through multiple strategies, including expanding our prescriber sales teams, expanding our direct-to-consumer marketing efforts, investing in patient and physician awareness and advocacy, expanding clinical evidence, and securing additional insurance contracts.

A portion of rentals includes a capped rental period during which no additional reimbursement is allowed unless additional criteria are met. This capped period begins after month 36 and continues until month 60. In this scenario, the ratio of billable patients to total patients on service is critical to maintaining rental revenue growth as patients on service increases. Medicare has noted a certain percentage of beneficiaries, approximately 25%, based on their review of Medicare claims, reach the 36^{th} month of eligible reimbursement and enter the post-36 month capped rental period. The percentage of capped patients may fluctuate over time as new patients come on service, patients come off of service before and during the capped rental period, and existing patients enter the capped rental period.

We had approximately 43,800 and 37,100 oxygen rental patients as of June 30, 2022 and June 30, 2021, respectively. Management focuses on patients on service as a leading indicator of likely future rental revenue; however, actual rental revenue recognized is subject to a variety of other factors, including reimbursement levels by payor, patient location, the number of capped patients, write-offs for uncollectable balances, and rental revenue adjustments.

Reimbursement

Medicare and private insurance rentals represented 13.6% and 11.1% of our total revenue in the three months ended June 30, 2022 and 2021, respectively, and 14.7% and 11.2% in the six months ended June 30, 2022 and 2021, respectively. The increased rental revenue as a percentage of total revenue was primarily due to increased rental patients on service and increased reimbursement rates. In cases where we rent our long-term oxygen therapy solutions directly to patients, we bill third-party payors, such as Medicare or private insurance, for monthly rentals on behalf of our patients. We process and coordinate all physician paperwork necessary for reimbursement of our solutions. A common medical criterion for long-term oxygen therapy reimbursement is insufficient blood oxygen saturation level. Our team in sales and rental intake are trained on how to verify benefits, review medical records and process physician paperwork. Additionally, an independent internal review is performed, and our products are not deployed until after physician paperwork is processed and reimbursement eligibility is verified and communicated to the patient.

We rely significantly on reimbursement from Medicare and private payors, including Medicare Advantage plans, Medicaid and patients for our rental revenue. For the three months ended June 30, 2022 and 2021, approximately 78.0% and 82.5%, respectively, and for the six months ended June 30, 2022 and 2021, approximately 78.5% and 83.1%, respectively, of our rental revenue was derived from Medicare's traditional fee-for-service reimbursement programs. The U.S. list price for our stationary oxygen rentals Healthcare Common Procedure Coding System (HCPCS E1390) is $260 per month and the U.S. list price for our oxygen generating portable equipment (OGPE) rentals (HCPCS E1392) is $70 per month. The average Medicare reimbursement rates in former competitive bidding areas (CBAs) in the prior five years are outlined in the table below for E1390 and E1392, which are the two primary codes that we bill to Medicare and other payors for our oxygen product rentals. These rates are typically updated annually each January as they are subject to the Consumer Price Index (CPI), sequestration and budget neutrality adjustments, but are also subject to adjustments during the year due to legislative rulings. Competitive bidding contracts were scheduled to go into effect on January 1, 2021; however, on October 27, 2020, CMS announced that competitive bidding contracts would not be awarded for most product categories, including oxygen, due to the payment amounts not achieving the expected savings and the current COVID-19 pandemic and related PHE. Effective April 1, 2021, rates were adjusted to remove a percentage reduction that was put in place to meet the budget neutrality requirement previously mandated by section 1834(a)(9)(D)(ii) of the Social Security Act. See the table below for average Medicare rates in former CBAs, using a simple average of rates in each CBA.

Average Medicare reimbursement rates in former CBAs	**E1390**	**E1392**
As of January 1, 2022	$ 85.31	$ 41.81
As of April 1, 2021	$ 81.25	$ 39.82
As of January 1, 2021	$ 73.88	$ 36.20
As of January 1, 2020	$ 73.98	$ 36.25
As of January 1, 2019	$ 72.92	$ 35.72
As of January 1, 2018	$ 77.03	$ 36.06

Medicare payment rates are based upon whether the beneficiary resides in former or current CBAs, or in rural or non-rural non-CBAs, or in non-contiguous states. Non-CBA payment rates are based on regional pricing, that are derived from (former) competitive bidding payment rates. In rural areas and non-contiguous states, payment rates are higher, to account for higher servicing costs in those areas. The Medicare reimbursement rates in rural areas are outlined in the table below, and include areas that are considered non-contiguous (Alaska, Hawaii, Puerto Rico, and the Virgin Islands). We estimate that approximately 18% of our patients are eligible to receive the higher reimbursement rates based on the geographic locations of our current patient population. These rates are typically updated annually each January as they are subject to the CPI, sequestration and budget neutrality adjustments, but are also subject to adjustments during the year due to legislative rulings. Effective April 1, 2021, rates were adjusted to remove a percentage reduction that was put in place to meet the budget neutrality requirement previously mandated by section 1834(a)(9)(D)(ii) of the Social Security Act. Therefore, Medicare payment rates are no longer affected by a budget neutrality adjustment, as of April 1, 2021. See the table below for average Medicare rates in rural areas, using a simple average of rates in each state.

Average Medicare reimbursement rates in rural areas	**E1390**	**E1392**
As of January 1, 2022	$ 151.15	$ 48.39
As of April 1, 2021	$ 143.48	$ 47.13
As of January 1, 2021 (retroactively revised March 1, 2021)	$ 136.84	$ 44.99
As of January 1, 2020	$ 136.71	$ 44.93
As of January 1, 2019	$ 134.71	$ 44.32
As of January 1, 2018	$ 76.31	$ 41.91

Rates in non-former CBAs that are not defined as rural are set based on the rates in former CBAs. See the table below for average Medicare rates in these non-former CBAs, non-rural areas, using a simple average of rates in each state. These rates are typically updated annually each January as they are subject to the CPI, sequestration and budget neutrality adjustments but are also subject to adjustments during the year due to legislative rulings. Effective April 1, 2021, rates were adjusted to remove a percentage reduction that was put in place to meet the budget neutrality requirement previously mandated by section 1834(a)(9)(D)(ii) of the Social Security Act. Note that the 2022 rates listed below include Coronavirus Aid, Relief, and Economic Security (CARES Act) increased rates due to the COVID-19 PHE, which may not be in place for all of 2022. If the COVID-19 PHE is declared over, the rates in these non-former CBAs, non-rural areas are expected to adjust down to the former CBA rates listed in the table above.

Average Medicare reimbursement rates in non-former CBAs, non-rural areas	**E1390**	**E1392**
As of January 1, 2022	$ 115.14	$ 43.69
As of April 1, 2021	$ 109.39	$ 42.12
As of January 1, 2021 (retroactively revised March 1, 2021)	$ 104.07	$ 40.06
As of January 1, 2020	$ 74.84	$ 36.87
As of January 1, 2019	$ 72.32	$ 35.64
As of January 1, 2018	$ 69.31	$ 38.10

There have been significant U.S. reimbursement and policy changes that impact oxygen therapy associated with the COVID-19 PHE declared by the U.S. Department of Health and Human Services (HHS) on January 31, 2020. The CARES Act allows HHS to waive certain Medicare telehealth payment requirements during the COVID-19 PHE to allow beneficiaries in all areas to receive telehealth services, including at their homes, starting March 6, 2020. The Coronavirus Preparedness and Response Supplemental Appropriations Act (H.R. 6074) also granted HHS the authority to waive certain requirements with respect to telehealth services. Under this authority, CMS clarified that HHS would not conduct audits to determine whether there was a prior physician-patient relationship for telehealth claims submitted during the COVID-19 PHE. The CARES Act included the extension of the 50/50 blended rate for home medical equipment (HME) in rural and non-contiguous, non-competitively bid areas and established a new 75/25 blended rate for all other non-competitively bid areas through the duration of the COVID-19 PHE. The 75/25 blended rate was retroactive to March 6, 2020. While the duration of the current emergency is impossible to predict, the Zika virus PHE lasted approximately 360 days, and the H1N1 flu PHE lasted approximately 450 days.

The 2% Medicare sequestration payment cut that was suspended by Congress, starting in May 2020 due to the COVID-19 PHE, was set to expire on December 31, 2021, but was extended by Congress through March 31, 2022. The sequestration payment cut has now resumed with a 1% reduction to rates from April 1, 2022 until June 30, 2022, and the full 2% Medicare sequestration payment cut resumed starting July 1, 2022 and is now expected to continue through September 30, 2030.

On April 6, 2020, CMS published an Interim Final Rule (IFR) in the Federal Register for policy and regulatory revisions in response to the COVID-19 PHE. This IFR included that for the duration of the COVID-19 PHE, the face-to-face requirements and clinical indications for coverage of home oxygen, among other respiratory products, are waived. In addition, the prior Administration issued a number of regulatory waivers to increase the flexibility in DMEPOS suppliers' ability to service patients quickly and without the normal requirements. For example, the patient's signature for proof of delivery has been waived when signatures cannot be collected during the COVID-19 PHE. In addition, CMS increased Medicare contractors' ability to waive replacement product requirements, paused the national prior authorization program for certain DMEPOS, automatically extended expiring accreditations, granted contractors the flexibility to grant appeals extensions, and medical review suspension. Both the IFR and temporary regulatory changes show significant flexibility from CMS to improve access to oxygen and other DMEPOS items during this COVID-19 PHE. These changes were retroactive to early March 2020. In August 2020, CMS resumed medical review of claims and the prior authorization program for certain DMEPOS.

CMS also issued a final rule in December 2021 (CMS-1738-P) to establish payment amounts for DMEPOS products and services covered under Medicare that will be effective after the COVID-19 PHE. We believe that Medicare rates will not change for the length of the COVID-19 PHE, except for any net change for inflation and sequestration adjustments, as outlined above.

CMS established three different fee schedule adjustment methodologies for non-CBAs after the termination of the COVID-19 PHE: (1) for non-contiguous non-CBAs; (2) for contiguous non-CBAs defined as rural areas; and (3) for non-rural non-CBAs within the contiguous United States. The final payment methodology sets the fee schedule amounts to 100% of the Medicare (competitive bid derived) rates in all non-rural areas. This will reduce Medicare rates after the PHE is over in the current areas that are considered non-rural but not covered by a former CBA, as those areas are currently receiving a 75/25 blended payment rate. The final payment methodology establishes the fee schedule amounts to a 50/50 blended payment rate in rural areas, which is the same rate that is currently applicable in these areas.

CMS is required by law to implement future rounds of competitive bidding, which could change reimbursement rates, negatively impact the premium for POCs over other oxygen modalities, or limit beneficiary access to our technologies. At this point, CMS has not yet announced when a new round of competitive bidding will occur. Cumulatively, in previous rounds of competitive bidding, we were offered contracts for a substantial majority of the CBAs and product categories for which we submitted bids. As of January 1, 2017 (when the last round of competitive bidding was in effect), we believe we had access to over 90% of the Medicare oxygen therapy market based on our analysis of the 103 CBAs that we won out of the 130 total CBAs. These 130 CBAs represented approximately 36% of the Medicare market with the remaining approximately 64% of the market not subject to competitive bidding per Medicare's data on 2018 traditional Medicare fee-for-service beneficiaries in CBAs compared to the total Medicare fee-for-service beneficiaries. As of January 1, 2019, we can choose to accept Medicare oxygen patients throughout the United States. As of July 2018, we are operating in all 50 states in the U.S. We did not sell or rent to patients in Hawaii due to the licensure requirements from inception to June 2018.

We cannot guarantee that we will be offered contracts in any subsequent rounds of competitive bidding. In all five rounds of competitive bidding in which we have participated, we have gained access to certain CBAs and been excluded from other CBAs.

In September 2021, CMS published a Decision Memo which revised the Home Use of Oxygen national coverage determination and removed the national coverage determination for Home Oxygen Use to Treat Cluster Headaches. This allows the Medicare Administrative Contractors to make coverage determinations regarding the use of home oxygen and oxygen equipment for cluster headaches. CMS also expanded patient access to oxygen and oxygen equipment in the home by allowing oxygen use for acute or short-term needs instead of limiting coverage to chronic hypoxemia, removed the requirement for alternative treatment measures before dispensing of oxygen therapy, and removed the limited list of conditions for which oxygen may be covered to respiratory-related diseases, to allow the physician flexibility to make that determination. In addition, CMS defined exercise more broadly to include functional performance of the patient and allow more flexibility on pulse oximetry readings to account for differences in skin pigmentation. Lastly, CMS removed from the national coverage determination the oxygen certificate of medical necessity requirement, effective January 2023. We believe these changes will expand coverage for patients who would benefit from oxygen therapy, reduce administrative burdens, and give more decision-making authority on proper patient care to the physicians. CMS issued guidance on February 10, 2022 to the Medicare Administrative Contractors detailing that the implementation date of the revised national coverage policy would be June 14, 2022. On May 23, 2022, CMS issued revised guidance delaying the implementation date of the new national coverage policy to January 3, 2023. However, we do not yet have visibility on the details of how the Medicare Administrative Contractors will further define the coverage criteria and documentation requirements implementing the new national coverage policy.

Medicare revenue, including patient co-insurance and deductible obligations, represented 10.6% and 9.1% of our total revenue in the three months ended June 30, 2022 and 2021, respectively, and 11.6% and 9.3% of our total revenue in the six months ended June 30, 2022 and 2021, respectively.

Medicare reimbursement for oxygen rental equipment is limited to a maximum of 36 months within a 60-month service period, and the equipment remains the property of the home oxygen supplier. The supplier that billed Medicare for the 36th month of service continues to be responsible for the patient's oxygen therapy needs for months 37 through 60, and there is generally no additional reimbursement for OGPE for these later months. Medicare does not separately reimburse suppliers for oxygen tubing, cannulas and supplies that may be required for the patient. The supplier is required to keep the equipment provided in working order and in some cases, Medicare will reimburse for repair costs. At the end of the five-year useful life of the equipment, the patient may request replacement equipment and, if he or she can be re-qualified for the Medicare benefit, a new maximum 36-month payment cycle out of the next 60 months of service would begin. The supplier may not arbitrarily issue new equipment. We have analyzed the potential impact to revenue associated with patients in the capped rental period and have deferred $0 associated with the capped rental period for the three and six months ended June 30, 2022 and 2021, respectively. Our capped patients as a percentage of total patients on service was approximately 8.5% as of June 30, 2022 and 8.7% as of June 30, 2021. The decrease in percentage of capped patients in the comparative periods was primarily due to the significant increase in new patients coming on service, which substantially exceeded the number of patients that entered the capped period. The percentage of capped patients may fluctuate over time as new patients come on service, patients come off of service before and during the capped rental period, and existing patients enter the capped rental period.

Our obligations to service Medicare patients over the rental period include supplying working equipment that meets each patient's oxygen needs pursuant to his/her doctor's prescription and supplying all disposables required for the patient to operate the equipment, including cannulas, filters, replacement batteries, carts and carry bags, as needed. If the equipment malfunctions, we must repair or replace the equipment. We determine what equipment the patient receives, and we can deploy used assets in working order as long as the prescription requirements are met. We must also procure a renewal from the patient's doctor to confirm the patient's need for continued oxygen therapy one year after the patient first receives oxygen therapy and one year after each new 36-month reimbursement period begins. The patient can choose to receive oxygen supplies and services from another supplier at any time, but the supplier may only transition the patient to another supplier in certain circumstances.

We have contracts with Medicaid, Medicare Advantage, government and private payors that qualify us as an in-network provider for these payors. As a result, patients can rent or purchase our systems at the same patient obligation as other in-network oxygen suppliers. We had 97 contracts as of June 30, 2022. Private payors typically provide reimbursement at a rate similar to Medicare allowables for in-network plans. We anticipate that private payor reimbursement levels will generally be reset in accordance with Medicare payment amounts.

We believe that we are well positioned to respond to the changing reimbursement environment because our product offerings are innovative, patient-focused and cost-effective. We have historically been able to reduce our costs through scalable manufacturing, better sourcing, continuous innovation, and reliability improvements, as well as innovations that reduce our product service costs by minimizing exchanges. As a result of design changes, supplier negotiations, bringing manufacturing and assembly largely in-house and our commitment to driving efficient manufacturing processes, we have historically reduced our overall POC system cost and intend to continue to seek ways to reduce our cost of revenue through manufacturing and design improvements.

For additional discussion of the impact of the recent Medicare reimbursement proposals, see the sections entitled "Risk Factors" in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q filed with the SEC.

Basis of presentation

The following describes the line items set forth in our consolidated statements of comprehensive loss.

Revenue

We classify our revenue in two main categories: sales revenue and rental revenue. There will be fluctuations in mix between business-to-business sales, direct-to-consumer sales and rental revenue from period-to-period. Product selling prices and gross margins may fluctuate as we introduce new products, our product costs change, we have changes in purchase volumes, and as currency variations occur. For example, the higher costs for semiconductor chips has had a negative impact on our gross margin, and we expect that will continue in the remainder of 2022. Additionally, fluctuations in the channel mix could cause variability in our gross margins, as direct-to-consumer sales and rental revenue have higher margins than the business-to-business channels. Quarter-over-quarter results may vary due to seasonality in both the international and domestic markets, as discussed in Item 1. *Seasonality* and elsewhere in our Annual Report on Form 10-K for the year ended December 31, 2021, as filed with the SEC on February 24, 2022.

Sales revenue

Our sales revenue is primarily derived from the sale of our Inogen One systems, Inogen At Home systems, TAV systems, and related accessories to individual consumers, our private label partner, HME providers, distributors, resellers, and charitable organizations worldwide. Sales revenue is classified into two areas: business-to-business sales and direct-to-consumer sales. Generally, our direct-to-consumer sales have higher gross margins than our business-to-business sales.

Rental revenue

Our rental revenue is primarily derived from the rental of our Inogen One and Inogen At Home systems to patients through reimbursement from Medicare, private payors and Medicaid, which typically also includes a patient responsibility component for patient co-insurance and deductibles. Rental revenue increased in the three and six months ended June 30, 2022 compared to the three and six months ended June 30, 2021, primarily due to higher patients on service and higher Medicare reimbursement rates. We expect our rental revenue to increase in future periods as we scale the rental intake and sales teams and increase new rental setups. In addition, for the duration of the COVID-19 PHE, we expect to benefit from higher Medicare reimbursement rates and reduced administrative requirements for oxygen therapy enacted due to the COVID-19 PHE. We also expect that our rental revenue will be impacted by the number of our sales and rental intake representatives, reimbursement rate changes, including the impact of COVID-19

PHE changes, the level of and response from potential customers to direct-to-consumer marketing spend, product launches, the number of billable patients and denial rates, and other uncontrollable factors such as changes in the market and competition.

Cost of revenue

Cost of sales revenue

Cost of sales revenue consists primarily of costs incurred in the production process, including component materials, assembly labor and overhead, warranty expense, provisions for slow-moving and obsolete inventory, rework and delivery costs for items sold. Labor and overhead expenses consist primarily of personnel-related expenses, including wages, bonuses, benefits, and stock-based compensation for manufacturing, logistics, repair, manufacturing engineering, and quality assurance employees as well as temporary labor. Cost of sales revenue also includes manufacturing freight in, depreciation expense, facilities costs and materials. Provisions for warranty obligations are included in cost of sales revenue and are provided for at the time of revenue recognition.

Supply chain disruptions began negatively impacting our cost of sales revenue starting in the third quarter of 2021 and are expected to continue to do so through the remainder of 2022 and into 2023. The supply chain constraints are primarily associated with semiconductor chips used in our batteries and printed circuit boards which are components of our POCs. In addition to the semiconductor chip limitations, we are continuing to see supply chain constraints for other components used in our products.

We expect this to have an increased impact on our material costs for the remainder of 2022 and into 2023 until supply and demand get closer to equilibrium. As a result of the semiconductor chip shortages, we temporarily suspended manufacturing operations at our Texas and California locations from January 3, 2022 to February 7, 2022 and Foxconn, our Czech Republic-based OEM, suspended manufacturing due to the same supply constraints from January 3, 2022 to February 9, 2022. While we were able to resume manufacturing operations at all locations, we are still seeing challenges in terms of available supply, and we believe the supply shortages continue to represent an increased risk to the business in the remainder of 2022 and into 2023, and we may be required to suspend manufacturing again in the future due to these shortages. As a result, in the interim we expect to be supply constrained and unable to meet all customer demand for our products.

Recent United States policies related to global trade and tariffs may also increase our average unit cost. The current economic environment has introduced greater uncertainty with respect to potential trade regulations, including changes to United States policies related to global trade and tariffs. We continue to monitor the Section 301 tariffs being imposed by the United States on certain imported Chinese materials and products in addition to potential retaliatory responses from other nations. In 2021 and the six months ended June 30, 2022, the impact of the China tariffs on our financial results was minimal as we have received some exemptions, negotiated cost sharing and price reductions with suppliers, and re-allocated purchases. Assuming the Chinese tariffs stay at the current levels, we currently expect the overall financial impact to our business to be minimal to the average unit cost for 2022.

For these reasons, we expect sales gross margin percentage to fluctuate over time based on the sales channel mix, product mix, changes in average selling prices and manufacturing cost per unit.

Cost of rental revenue

Cost of rental revenue consists primarily of depreciation expense, consumable disposables, logistics costs and service costs for rental patients, including rework costs, material, labor, and freight.

We expect rental gross margin percentage to decrease in 2022, primarily associated with lower rental revenue per patient on service and higher costs per patient on service.

Operating expense

Research and development

Our research and development expense consists primarily of personnel-related expenses, including wages, bonuses, benefits and stock-based compensation for research and development, engineering, and medical affairs employees. It also includes facility costs, laboratory supplies, product development materials, consulting fees, clinical studies costs, and testing costs for new product launches as well as enhancements to existing products. We have made substantial investments in research and development since our inception. Our research and development efforts have focused primarily on the tasks required to enhance our technologies and to support development and commercialization of new and existing products.

We plan to continue to invest in research and development activities to stay at the forefront of patient preference in oxygen therapy, including significant investments in clinical research. We also expect research and development expense to increase in absolute dollars in future periods as we continue to invest in our engineering and technology teams to support our new and enhanced product research and development efforts and manufacturing improvements. We expect increased research and development costs associated with broadening our product portfolio.

Sales and marketing

Our sales and marketing expense primarily supports our direct-to-consumer sales and rental strategy and consists mainly of personnel-related expenses, including wages, bonuses, commissions, benefits, and stock-based compensation for sales, marketing, customer service, rental intake, and clinical service employees. It also includes expenses for media and advertising, printing, informational kits, dues and fees, credit card fees, recruiting, training, sales promotional activities, travel and entertainment expenses as well as allocated facilities costs.

We continue to recruit to add new sales representatives, while maintaining our hiring standards and being mindful of the supply constraints. Going forward, except as otherwise limited by the impact of the COVID-19 pandemic and related PHE, our plan is to continue to expand sales capacity while focusing on increased productivity, improved sales personnel and lead distribution systems, and improved training. We expect an increase in sales and marketing expense in future periods as we continue to invest in our business, including expanding our sales and sales support team which includes our prescriber sales team, increasing our rental infrastructure, and rising patient support costs as our patient and customer base increases.

General and administrative

Our general and administrative expense consists primarily of personnel-related expenses, including wages, bonuses, benefits, and stock-based compensation for employees in our compliance, finance, medical billing, order intake, regulatory, legal, human resources, and information technology departments as well as facilities costs, and board of directors' expenses, including stock-based compensation. In addition, general and administrative expense includes professional services, such as legal, patent registration and defense costs, insurance, consulting and accounting services, including audit and tax services, and travel and entertainment expenses. General and administrative expense also includes changes in the fair value of the New Aera earnout liability.

We expect general and administrative expense to increase in future periods as the number of administrative personnel grows and we continue to introduce new products, broaden our customer base and grow our business. General and administrative expense will increase in absolute dollars as we continue to invest in corporate infrastructure to support our growth including personnel-related expenses, professional services fees and compliance costs associated with operating as a public company.

Other income (expense), net

Our other income (expense), net consists primarily of foreign currency gains and (losses), as well as interest income earned on cash equivalents and marketable securities.

Income taxes

We account for income taxes in accordance with Accounting Standards Codification (ASC) 740—*Income Taxes*. Under ASC 740, income taxes are recognized for the amount of taxes payable or refundable for the current period and deferred tax liabilities and assets are recognized for the future tax consequences of transactions that have been recognized in our consolidated financial statements or tax returns. A valuation allowance is provided when it is more likely than not that some portion, or all, of the deferred tax asset will not be realized.

We account for uncertainties in income tax in accordance with ASC 740-10—*Accounting for Uncertainty in Income Taxes*. ASC 740-10 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. This accounting standard also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition.

The accounting for stock-based compensation will increase or decrease our effective tax rate based upon the difference between our stock-based compensation expense and the deductions taken on our U.S. tax return, which depends upon the stock price at the time of employee option exercise or award vesting. We recognize excess tax benefits or deficiencies on a discrete basis, and we anticipate our effective tax rate will vary from year-to-year depending on our stock price in each period.

Results of operations

Comparison of three months ended June 30, 2022 and 2021

Revenue

(amounts in thousands)	Three months ended June 30, 2022	Three months ended June 30, 2021	Change 2022 vs. 2021 $	Change 2022 vs. 2021 %	% of Revenue 2022	% of Revenue 2021
Sales revenue	$ 89,291	$ 90,304	$ (1,013)	-1.1 %	86.4 %	88.9 %
Rental revenue	14,085	11,259	2,826	25.1 %	13.6 %	11.1 %
Total revenue	$ 103,376	$ 101,563	$ 1,813	1.8 %	100.0 %	100.0 %

Sales revenue decreased $1.0 million for the three months ended June 30, 2022 from the three months ended June 30, 2021, a decrease of 1.1% from the comparable period. The decrease was primarily attributable to supply chain constraints that mostly limited sales in our domestic business-to-business channel, partially offset by improved average selling prices and sustained demand. We sold approximately 42,400 oxygen systems during the three months ended June 30, 2022 compared to approximately 52,400 oxygen systems sold during the three months ended June 30, 2021, a decrease of 19.1%. The decrease in the number of systems sold resulted from a decrease in sales in the domestic business-to-business channel, primarily due to supply chain constraints.

Rental revenue increased $2.8 million for the three months ended June 30, 2022 from the three months ended June 30, 2021, an increase of 25.1% from the comparable period. The increase in rental revenue was primarily related to higher rental patients on service and higher Medicare reimbursement rates.

(amounts in thousands) **Revenue by region and category**	Three months ended June 30, 2022	Three months ended June 30, 2021	Change 2022 vs. 2021 $	Change 2022 vs. 2021 %	% of Revenue 2022	% of Revenue 2021
Business-to-business domestic sales	$ 11,212	$ 27,558	$ (16,346)	-59.3 %	10.9 %	27.1 %
Business-to-business international sales	37,441	21,823	15,618	71.6 %	36.2 %	21.5 %
Direct-to-consumer domestic sales	40,638	40,923	(285)	-0.7 %	39.3 %	40.3 %
Direct-to-consumer domestic rentals	14,085	11,259	2,826	25.1 %	13.6 %	11.1 %
Total revenue	$ 103,376	$ 101,563	$ 1,813	1.8 %	100.0 %	100.0 %

Domestic business-to-business sales decreased 59.3% for the three months ended June 30, 2022 compared to the three months ended June 30, 2021. The decrease was primarily due to the supply chain constraints that limited our ability to meet all customer demand and strategic sales channel optimization decisions, partially offset by improved average selling prices and sustained demand.

International business-to-business sales increased 71.6% for the three months ended June 30, 2022 compared to the three months ended June 30, 2021, mostly driven by increased average selling prices and improved demand primarily in Europe as we placed intentional focus on fulfilling European orders in our international business-to-business sales channel prior to the EU MDR certificate expiration on May 18, 2022. In the three months ended June 30, 2022, sales in Europe as a percentage of total international sales revenue increased to 92.1% versus 81.3% in the comparative period in 2021.

Domestic direct-to-consumer sales decreased 0.7% for the three months ended June 30, 2022 compared to the three months ended June 30, 2021, primarily due to supply chain constraints that limited our ability to meet all customer demand, partially offset by increased average selling prices versus the comparative period in the prior year. Inside sales representative productivity increased in the quarter despite lower average inside sales representative headcount, which was down approximately 8.7% from the comparative period in 2021.

Domestic direct-to-consumer rentals increased 25.1% for the three months ended June 30, 2022 compared to the three months ended June 30, 2021, primarily due to an increase in patients on service and increased Medicare reimbursement rates due to the inflation adjustment effective January 1, 2022.

Cost of revenue and gross profit

(amounts in thousands)	Three months ended June 30, 2022	Three months ended June 30, 2021	Change 2022 vs. 2021 $	Change 2022 vs. 2021 %	% of Revenue 2022	% of Revenue 2021
Cost of sales revenue	$ 50,661	$ 46,565	$ 4,096	8.8 %	49.0 %	45.8 %
Cost of rental revenue	6,457	4,663	1,794	38.5 %	6.3 %	4.6 %
Total cost of revenue	$ 57,118	$ 51,228	$ 5,890	11.5 %	55.3 %	50.4 %
Gross profit - sales revenue	$ 38,630	$ 43,739	$ (5,109)	-11.7 %	37.3 %	43.1 %
Gross profit - rental revenue	7,628	6,596	1,032	15.6 %	7.4 %	6.5 %
Total gross profit	$ 46,258	$ 50,335	$ (4,077)	-8.1 %	44.7 %	49.6 %
Gross margin percentage - sales revenue	43.3 %	48.4 %				
Gross margin percentage- rental revenue	54.2 %	58.6 %				
Total gross margin percentage	44.7 %	49.6 %				

Cost of sales revenue increased $4.1 million for the three months ended June 30, 2022 from the three months ended June 30, 2021, an increase of 8.8% from the comparable period. The increase in cost of sales revenue was primarily attributable to higher material prices and warranty costs. The second quarter of 2022 included $8.0 million of higher material costs associated with open-market purchases of semiconductor chips used in its batteries and POCs.

Cost of rental revenue increased $1.8 million for the three months ended June 30, 2022 from the three months ended June 30, 2021, an increase of 38.5% from the comparable period. The increase in cost of rental revenue was primarily attributable to an increase in total patients on service, which led to increased servicing costs and rental asset depreciation expense. Cost of rental revenue included $2.7 million of rental asset depreciation for the three months ended June 30, 2022 compared to $2.1 million for the three months ended June 30, 2021.

Gross margin on sales revenue decreased to 43.3% for the three months ended June 30, 2022 from 48.4% for the three months ended June 30, 2021. The decrease was primarily due to higher cost of goods sold per unit in the quarter, primarily related to increased material and warranty costs. The decrease was partially offset by higher average selling prices and decreased mix of domestic business-to-business sales, which have a lower gross margin than direct-to-consumer and international business-to-business sales. Total worldwide business-to-business sales revenue accounted for 54.5% of total sales revenue in the three months ended June 30, 2022 versus 54.7% in the three months ended June 30, 2021.

Rental revenue gross margin decreased to 54.2% for the three months ended June 30, 2022 from 58.6% for the three months ended June 30, 2021, primarily due to higher servicing costs and depreciation expense per patient on service, partially offset by higher Medicare reimbursement rates.

Research and development expense

(amounts in thousands)	Three months ended June 30, 2022	Three months ended June 30, 2021	Change 2022 vs. 2021 $	Change 2022 vs. 2021 %	% of Revenue 2022	% of Revenue 2021
Research and development expense	$ 6,064	$ 4,123	$ 1,941	47.1 %	5.9 %	4.1 %

Research and development expense increased $1.9 million for the three months ended June 30, 2022 from the three months ended June 30, 2021, an increase of 47.1% over the comparable period, primarily due to a $1.5 million increase in product development expenses and a $0.4 million increase in personnel-related expenses.

Sales and marketing expense

(amounts in thousands)	Three months ended June 30, 2022	Three months ended June 30, 2021	Change 2022 vs. 2021 $	Change 2022 vs. 2021 %	% of Revenue 2022	% of Revenue 2021
Sales and marketing expense	$ 30,388	$ 29,317	$ 1,071	3.7 %	29.4 %	28.9 %

Sales and marketing expense increased $1.1 million for the three months ended June 30, 2022 from the three months ended June 30, 2021, an increase of 3.7% from the comparable period, due to increases of $1.7 million of consulting fees, primarily for the development of the prescriber sales team, and $1.1 million in dues, fees and licenses, partially offset by a decrease of $1.7 million in personnel-related expenses. In the three months ended June 30, 2022, we spent $8.4 million in media and advertising costs versus $8.7 million in the comparative period in 2021.

General and administrative expense

	Three months ended June 30,		Change 2022 vs. 2021		% of Revenue	
(amounts in thousands)	**2022**	**2021**	**$**	**%**	**2022**	**2021**
General and administrative expense	$ 12,682	$ 5,224	$ 7,458	142.8 %	12.3 %	5.1 %

General and administrative expense increased $7.5 million for the three months ended June 30, 2022 from the three months ended June 30, 2021, an increase of 142.8% from the comparable period. The increase was primarily attributable to a $6.0 million decrease in the benefit from the change in fair value of the New Aera earnout liability and a $1.0 million increase in personnel-related expenses.

Other income (expense)

	Three months ended June 30,		Change 2022 vs. 2021		% of Revenue	
(amounts in thousands)	**2022**	**2021**	**$**	**%**	**2022**	**2021**
Interest income	$ 225	$ 29	$ 196	675.9 %	0.2 %	0.0 %
Other income (expense)	(722)	304	(1,026)	-337.5 %	-0.7 %	0.3 %
Total other income (expense), net	$ (497)	$ 333	$ (830)	-249.2 %	-0.5 %	0.3 %

Total other income (expense), net decreased $0.8 million for the three months ended June 30, 2022 from the three months ended June 30, 2021, a decrease of 249.2% from the comparable period, primarily attributable due to an increase of $1.0 million in net foreign currency losses.

Income tax expense

	Three months ended June 30,		Change 2022 vs. 2021		% of Revenue	
(amounts in thousands)	**2022**	**2021**	**$**	**%**	**2022**	**2021**
Income tax expense	$ 69	$ 6,902	$ (6,833)	-99.0 %	0.1 %	6.8 %
Effective income tax rate	*-2.0 %*	*57.5 %*				

Income tax expense decreased $6.8 million for the three months ended June 30, 2022 from the three months ended June 30, 2021, primarily resulting from the recording of a valuation allowance on the use of deferred tax assets otherwise attributable to the current period loss.

Our effective tax rate for the three months ended June 30, 2022 decreased compared to the three months ended June 30, 2021, primarily due to the recording of a valuation allowance on the use of deferred tax assets.

Net income (loss)

	Three months ended June 30,		Change 2022 vs. 2021		% of Revenue	
(amounts in thousands)	**2022**	**2021**	**$**	**%**	**2022**	**2021**
Net income (loss)	$ (3,442)	$ 5,102	$ (8,544)	-167.5 %	-3.3 %	5.0 %

Net income (loss) decreased $8.5 million for the three months ended June 30, 2022 from the three months ended June 30, 2021, a decrease of 167.5% from the comparable period. The decrease was primarily related to the change in fair value of the New Aera earnout liability, a decrease in gross profit and higher operating expense.

Comparison of six months ended June 30, 2022 and 2021

Revenue

(amounts in thousands)	Six months ended June 30, 2022	Six months ended June 30, 2021	Change 2022 vs. 2021 $	Change 2022 vs. 2021 %	% of Revenue 2022	% of Revenue 2021
Sales revenue	$ 156,693	$ 167,385	$ (10,692)	-6.4 %	85.3 %	88.8 %
Rental revenue	27,068	21,110	5,958	28.2 %	14.7 %	11.2 %
Total revenue	$ 183,761	$ 188,495	$ (4,734)	-2.5 %	100.0 %	100.0 %

Sales revenue decreased $10.7 million for the six months ended June 30, 2022 from the six months ended June 30, 2021, a decrease of 6.4% from the comparable period. The decrease was primarily attributable to supply chain constraints that mostly limited sales in our domestic business-to-business channel, partially offset by an increase in business-to-business international sales as well as improved average selling prices and sustained demand. We sold approximately 72,800 oxygen systems during the six months ended June 30, 2022 compared to approximately 101,800 oxygen systems sold during the six months ended June 30, 2021, a decrease of 28.5%. The decrease in the number of systems sold resulted from a decrease in sales in the domestic business-to-business channel, primarily due to supply chain constraints.

Rental revenue increased $6.0 million for the six months ended June 30, 2022 from the six months ended June 30, 2021, an increase of 28.2% from the comparable period. The increase in rental revenue was primarily related to higher rental patients on service and higher Medicare reimbursement rates.

(amounts in thousands) **Revenue by region and category**	Six months ended June 30, 2022	Six months ended June 30, 2021	Change 2022 vs. 2021 $	Change 2022 vs. 2021 %	% of Revenue 2022	% of Revenue 2021
Business-to-business domestic sales	$ 16,313	$ 58,301	$ (41,988)	-72.0 %	8.9 %	30.9 %
Business-to-business international sales	65,382	37,543	27,839	74.2 %	35.6 %	19.9 %
Direct-to-consumer domestic sales	74,998	71,541	3,457	4.8 %	40.8 %	38.0 %
Direct-to-consumer domestic rentals	27,068	21,110	5,958	28.2 %	14.7 %	11.2 %
Total revenue	$ 183,761	$ 188,495	$ (4,734)	-2.5 %	100.0 %	100.0 %

Domestic business-to-business sales decreased 72.0% for the six months ended June 30, 2022 compared to the six months ended June 30, 2021. The decrease was primarily due to the supply chain constraints that limited our ability to meet all customer demand and strategic sales channel optimization decisions, partially offset by improved average selling prices and sustained demand.

International business-to-business sales increased 74.2% for the six months ended June 30, 2022 compared to the six months ended June 30, 2021, mostly driven by increased average selling prices and improved demand primarily in Europe as we placed intentional focus on fulfilling European orders in our international business-to-business sales channel prior to the EU MDR certificate expiration. In the six months ended June 30, 2022, sales in Europe as a percentage of total international sales revenue increased to 94.7% versus 83.5% in the comparative period in 2021.

Domestic direct-to-consumer sales increased 4.8% for the six months ended June 30, 2022 compared to the six months ended June 30, 2021, primarily due to increased average selling prices versus the comparative period in the prior year. Inside sales representative productivity increased in the first half despite lower average inside sales representative headcount, which was down approximately 7.9% from the comparative period in 2021.

Domestic direct-to-consumer rentals increased 28.2% for the six months ended June 30, 2022 compared to the six months ended June 30, 2021, primarily due to an increase in patients on service and increased Medicare reimbursement rates due to the inflation adjustment effective January 1, 2022.

Cost of revenue and gross profit

(amounts in thousands)	Six months ended June 30, 2022	2021	Change 2022 vs. 2021 $	%	% of Revenue 2022	2021
Cost of sales revenue	$ 90,161	$ 89,200	$ 961	1.1 %	49.1 %	47.3 %
Cost of rental revenue	12,336	9,087	3,249	35.8 %	6.7 %	4.8 %
Total cost of revenue	$ 102,497	$ 98,287	$ 4,210	4.3 %	55.8 %	52.1 %
Gross profit - sales revenue	$ 66,532	$ 78,185	$ (11,653)	-14.9 %	36.2 %	41.5 %
Gross profit - rental revenue	14,732	12,023	2,709	22.5 %	8.0 %	6.4 %
Total gross profit	$ 81,264	$ 90,208	$ (8,944)	-9.9 %	44.2 %	47.9 %
Gross margin percentage - sales revenue	42.5 %	46.7 %				
Gross margin percentage- rental revenue	54.4 %	57.0 %				
Total gross margin percentage	44.2 %	47.9 %				

Cost of sales revenue increased $1.0 million for the six months ended June 30, 2022 from the six months ended June 30, 2021, an increase of 1.1% from the comparable period. The increase in cost of sales revenue was primarily attributable to higher material and warranty cost per unit and labor and overhead per unit. The first half of 2022 included $11.5 million of higher material costs associated with open-market purchases of semiconductor chips used in our batteries and POCs.

Cost of rental revenue increased $3.2 million for the six months ended June 30, 2022 from the six months ended June 30, 2021, an increase of 35.8% from the comparable period. The increase in cost of rental revenue was primarily attributable to an increase in total patients on service, which led to increased servicing costs and rental asset depreciation expense. Cost of rental revenue included $5.4 million of rental asset depreciation for the six months ended June 30, 2022 compared to $3.9 million for the six months ended June 30, 2021.

Gross margin on sales revenue decreased to 42.5% for the six months ended June 30, 2022 from 46.7% for the six months ended June 30, 2021. The decrease was primarily due to higher material and warranty per unit and increased labor and overhead costs caused by lower labor and overhead absorption mainly due to the temporary manufacturing shutdown in early 2022. The decrease was partially offset by higher average selling prices and decreased mix of domestic business-to-business sales, which have a lower gross margin than direct-to-consumer and international business-to-business sales. Total worldwide business-to-business sales revenue accounted for 52.1% of total sales revenue in the six months ended June 30, 2022 versus 57.3% in the six months ended June 30, 2021.

Rental revenue gross margin decreased to 54.4% for the six months ended June 30, 2022 from 57.0% for the six months ended June 30, 2021, primarily due to higher servicing costs and depreciation expense per patient on service, partially offset by higher Medicare reimbursement rates.

Research and development expense

(amounts in thousands)	Six months ended June 30, 2022	2021	Change 2022 vs. 2021 $	%	% of Revenue 2022	2021
Research and development expense	$ 11,428	$ 8,138	$ 3,290	40.4 %	6.2 %	4.3 %

Research and development expense increased $3.3 million for the six months ended June 30, 2022 from the six months ended June 30, 2021, an increase of 40.4% over the comparable period, primarily due to a $2.3 million increase in product development expenses and a $0.9 million increase in personnel-related expenses.

Sales and marketing expense

(amounts in thousands)	Six months ended June 30, 2022	2021	Change 2022 vs. 2021 $	%	% of Revenue 2022	2021
Sales and marketing expense	$ 58,427	$ 54,808	$ 3,619	6.6 %	31.8 %	29.1 %

Sales and marketing expense increased $3.6 million for the six months ended June 30, 2022 from the six months ended June 30, 2021, an increase of 6.6% from the comparable period, due to an increase of $3.8 million of consulting fees, mainly for the development of the prescriber sales team, $1.3 million in dues, fees and licenses, and $0.6 million in credit card and financing fees, partially offset by a decrease in personnel-related expenses of $2.1 million. In the six months ended June 30, 2022, we spent $16.3 million in media and advertising costs versus $16.3 million in the comparative period in 2021.

General and administrative expense

	Six months ended June 30,		Change 2022 vs. 2021		% of Revenue	
(amounts in thousands)	**2022**	**2021**	**$**	**%**	**2022**	**2021**
General and administrative expense	$ 27,871	$ 17,723	$ 10,148	57.3 %	15.2 %	9.4 %

General and administrative expense increased $10.1 million for the six months ended June 30, 2022 from the six months ended June 30, 2021, an increase of 57.3% from the comparable period. The increase was primarily attributable to a $6.4 million decrease in the benefit from the change in the fair value of the New Aera earnout liability and a $2.6 million increase in personnel-related expenses.

Other income (expense)

	Six months ended June 30,		Change 2022 vs. 2021		% of Revenue	
(amounts in thousands)	**2022**	**2021**	**$**	**%**	**2022**	**2021**
Interest income	$ 254	$ 86	$ 168	195.3 %	0.1 %	0.0 %
Other expense	(1,155)	(6)	(1,149)	-19150.0 %	-0.6 %	0.0 %
Total other income (expense), net	$ (901)	$ 80	$ (981)	-1226.3 %	-0.5 %	0.0 %

Total other income (expense), net decreased $1.0 million for the six months ended June 30, 2022 from the six months ended June 30, 2021, a decrease of 1226.3% from the comparable period, primarily attributable to an increase of $1.1 million in net foreign currency losses.

Income tax expense

	Six months ended June 30,		Change 2022 vs. 2021		% of Revenue	
(amounts in thousands)	**2022**	**2021**	**$**	**%**	**2022**	**2021**
Income tax expense	$ 293	$ 5,249	$ (4,956)	-94.4 %	0.2 %	2.8 %
Effective income tax rate	*-1.7 %*	*54.6 %*				

Income tax expense decreased $5.0 million for the six months ended June 30, 2022 from the six months ended June 30, 2021, primarily resulting from the recording of a valuation allowance on the use of deferred tax assets otherwise attributable to the current period loss.

Our effective tax rate for the six months ended June 30, 2022 decreased compared to the six months ended June 30, 2021, primarily due to the recording of a valuation allowance on the use of deferred tax assets.

Net income (loss)

	Six months ended June 30,		Change 2022 vs. 2021		% of Revenue	
(amounts in thousands)	**2022**	**2021**	**$**	**%**	**2022**	**2021**
Net income (loss)	$ (17,656)	$ 4,370	$ (22,026)	-504.0 %	-9.6 %	2.3 %

Net income (loss) decreased $22.0 million for the six months ended June 30, 2022 from the six months ended June 30, 2021, a decrease of 504.0% from the comparable period. The decrease in net income was primarily related to the a decrease in gross profit, change in fair value of the New Aera earnout liability, and higher operating expense.

Contractual obligations

We obtain individual components for our products from a wide variety of individual suppliers. Consistent with industry practice, we acquire components through a combination of purchase orders, supplier contracts, and open orders based on projected demand information. Where appropriate, the purchases are applied to inventory component prepayments that are outstanding with the respective supplier. As of June 30, 2022, we had purchase obligations with outside vendors and suppliers of approximately $116.5 million of which the timing varies depending on demand, current supply on hand and other factors. The obligations normally do not extend beyond twelve-month time frames.

Except as indicated above, there have been no other material changes, outside of the ordinary course of business, in our outstanding contractual obligations from those disclosed within "Management's Discussion and Analysis of Financial Condition and Results of Operations" section contained in our Annual Report on Form 10-K filed with the SEC on February 24, 2022.

Liquidity and capital resources

As of June 30, 2022, we had cash and cash equivalents of $223.6 million, which consisted of highly liquid investments with a maturity of three months or less. For the six months ended June 30, 2022 and 2021, we received $1.0 million and $10.9 million, respectively, in proceeds related to stock option exercises and our employee stock purchase plan.

Our principal uses of cash for liquidity and capital resources in the six months ended June 30, 2022 consisted of net cash used in operating activities of $12.6 million and capital expenditures of $9.3 million including additional rental equipment and other property, plant and equipment.

The COVID-19 pandemic and related PHE has not materially impacted our liquidity position to date, and we believe our current cash and cash equivalents provide us with a certain degree of stability and liquidity during this time of uncertainty. We believe that our current cash, cash equivalents and the cash to be generated from expected product sales and rentals will be sufficient to meet our projected operating and investing requirements for at least the next twelve months. However, our liquidity assumptions may prove to be incorrect, and we could utilize our available financial resources sooner than we currently expect. Our future funding requirements will depend on many factors, including market acceptance of our products; the cost of our research and development activities; payments from customers; the cost, timing, and outcome of litigation or disputes involving intellectual property rights, our products, employee relations, cyber security incidents, or otherwise; the cost and timing of acquisitions; the cost and timing of regulatory clearances or approvals; the cost and timing of establishing additional sales, marketing, and distribution capabilities; and the effect of competing technological and market developments. In the future, we may acquire businesses or technologies from third parties, and we may decide to raise additional capital through debt or equity financing to the extent we believe this is necessary to successfully complete these acquisitions. Our future capital requirements will also depend on many additional factors, including those set forth in the risk factors included in Item 1A. "Risk Factors" in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q filed with the SEC.

If we require additional funds in the future, we may not be able to obtain such funds on acceptable terms, or at all. In the future, we may also attempt to raise additional capital through the sale of equity securities or through equity-linked or debt financing arrangements. If we raise additional funds by issuing equity or equity-linked securities, the ownership of our existing stockholders will be diluted. If we raise additional financing by the incurrence of indebtedness, we will be subject to increased fixed payment obligations and could also be subject to restrictive covenants, such as limitations on our ability to incur additional debt, and other operating restrictions that could adversely impact our ability to conduct our business. Any future indebtedness we incur may result in terms that could be unfavorable to equity investors. There can be no assurances that we will be able to raise additional capital, which would adversely affect our ability to achieve our business objectives. In addition, if our operating performance during the next twelve months is below our expectations, our liquidity and ability to operate our business could be adversely affected.

The following tables show a summary of our cash flows and working capital for the periods and as of the dates indicated:

(amounts in thousands)	Six months ended June 30,		Change 2022 vs. 2021	
Summary of consolidated cash flows	**2022**	**2021**	**$**	**%**
Cash provided by (used in) operating activities	$ (12,567)	$ 20,129	$ (32,696)	-162.4 %
Cash provided by (used in) investing activities	822	(3,422)	4,244	124.0 %
Cash provided by (used in) financing activities	(209)	10,340	(10,549)	-102.0 %
Effect of exchange rates on cash	51	(159)	210	-132.1 %
Net increase (decrease) in cash and cash equivalents	$ (11,903)	$ 26,888	$ (38,791)	-144.3 %

(amounts in thousands) **Summary of working capital**	**June 30, 2022**	**December 31, 2021**
Total current assets	$ 315,447	$ 329,186
Total current liabilities	59,340	61,512
Net working capital	$ 256,107	$ 267,674

Operating activities

Historically, we derive operating cash flows from cash collected from the sales and rental of our products and services. These cash flows received are partially offset by our use of cash for operating expenses to support the growth of our business.

Net cash used in operating activities for the six months ended June 30, 2022 consisted primarily of our net loss of $17.7 million and the change in fair value of the earnout liability of $1.4 million, partially offset by non-cash expense items such as depreciation of equipment and leasehold improvements and amortization of intangibles of $11.6 million, provision for sales returns and doubtful accounts of $6.2 million, stock-based compensation expense of $5.7 million, provision for inventory obsolescence and other inventory losses of $1.6 million, and net loss on disposal of rental equipment and other fixed assets of $1.5 million. The net changes in operating assets and liabilities resulted in a net use of cash of $19.9 million.

Net cash provided by operating activities for the six months ended June 30, 2021 consisted primarily of our net income of $4.4 million as well as non-cash expense items, such as depreciation of equipment and leasehold improvements and amortization of our intangibles of $10.3 million, stock-based compensation expense of $5.8 million, provision for sales returns and doubtful accounts of $5.3 million, decrease in deferred tax assets of $5.3 million, provision for rental revenue adjustments of $2.1 million, provision for inventory obsolescence and other inventory losses of $0.9 million, and net loss on disposal of rental equipment and other fixed assets of $0.6 million; partially offset by the change in fair value of earnout liability of $7.8 million and net changes in operating assets and liabilities resulting in a net use of cash of $6.6 million.

Investing activities

Net cash provided by (used in) investing activities generally includes the production and purchase of rental assets, property, plant and equipment, and intangibles to support our expanding business as well as maturities or purchases of marketable securities.

For the six months ended June 30, 2022, we received $10.0 million in maturities of marketable securities, partially offset by $9.3 million invested in the production and purchase of rental assets and other property and equipment.

For the six months ended June 30, 2021, we invested $11.7 million in the production and purchase of rental assets and other property, equipment, and intangible assets, partially offset by $8.2 million we received in maturities of marketable securities.

We expect to continue investing in property, equipment and leasehold improvements as we expand our operations. Our business is inherently capital intensive. We expend significant manufacturing and production expense in connection with the development and production of our oxygen concentrator products and, in connection with our rental business, we incur expense in the deployment and maintenance of rental equipment to our patients. Investments will continue to be required in order to grow our sales and rental revenue and continue to supply and replace rental equipment to our rental patients on service.

Financing activities

Historically, we have funded our operations through our sales and rental revenue, the issuance of preferred and common stock, and the incurrence of indebtedness.

For the six months ended June 30, 2022, net cash used in financing activities consisted of the payment of employment taxes related to the vesting of restricted stock awards and restricted stock units of $1.2 million, partially offset by $1.0 million from the proceeds received from stock options that were exercised and purchases under our employee stock purchase program.

For the six months ended June 30, 2021, net cash provided by financing activities consisted of $10.9 million from the proceeds received from stock options that were exercised and purchases under our employee stock purchase program, partially offset by the payment of employment taxes related to the vesting of restricted stock awards and restricted stock units of $0.5 million.

Sources of funds

Our net cash used in operating activities in the six months ended June 30, 2022 was $12.6 million compared to net cash provided by operating activities of $20.1 million in the six months ended June 30, 2021. As of June 30, 2022, we had cash and cash equivalents of $223.6 million.

Use of funds

Our principal uses of cash are funding our new rental asset deployments and other capital purchases, operations, and other working capital requirements and, from time-to-time, the acquisition of businesses. Over the past several years, our cash flows from customer collections have remained consistent and our annual cash provided by operating activities has generally been a significant source of capital to the business, which we expect to continue in the future.

We may need to raise additional funds to support our investing operations, and such funding may not be available to us on acceptable terms, or at all. If we are unable to raise additional funds when needed, our operations and ability to execute our business strategy could be adversely affected. We may seek to raise additional funds through equity, equity-linked or debt financings. If we raise additional funds through the incurrence of indebtedness, such indebtedness would have rights that are senior to holders of our equity securities and could contain covenants that restrict our operations. Any additional equity financing may be dilutive to our stockholders.

Non-GAAP financial measures

EBITDA and Adjusted EBITDA are financial measures that are not calculated in accordance with U.S. GAAP. We define EBITDA as net income (loss) excluding interest income, interest expense, taxes and depreciation and amortization. Adjusted EBITDA also excludes stock-based compensation and change in fair value of earnout liability. Below, we have provided a reconciliation of EBITDA and Adjusted EBITDA to our net loss, the most directly comparable financial measure calculated and presented in accordance with U.S. GAAP. EBITDA and Adjusted EBITDA should not be considered alternatives to net income (loss) or any other measure of financial performance calculated and presented in accordance with U.S. GAAP. Our EBITDA and Adjusted EBITDA may not be comparable to similarly titled measures of other organizations because other organizations may not calculate EBITDA and Adjusted EBITDA in the same manner as we calculate these measures.

We include EBITDA and Adjusted EBITDA in this Quarterly Report on Form 10-Q because they are important measures upon which our management assesses our operating performance. We use EBITDA and Adjusted EBITDA as key performance measures because we believe they facilitate operating performance comparisons from period-to-period by excluding potential differences primarily caused by variations in capital structures, tax positions, the impact of depreciation and amortization expense on our fixed assets and intangible assets, the impact of stock-based compensation expense and the impact of the change in fair value of the earnout liability. Because EBITDA and Adjusted EBITDA facilitate internal comparisons of our historical operating performance on a more consistent basis, we also use EBITDA and Adjusted EBITDA for business planning purposes, to incentivize and compensate our management personnel, and in evaluating acquisition opportunities. In addition, we believe EBITDA and Adjusted EBITDA and similar measures are widely used by investors, securities analysts, ratings agencies, and other parties in evaluating companies in our industry as a measure of financial performance and debt-service capabilities.

Our uses of EBITDA and Adjusted EBITDA have limitations as analytical tools and should not be considered in isolation or as a substitute for analysis of our results as reported under U.S. GAAP. Some of these limitations are:

- EBITDA and Adjusted EBITDA do not reflect our cash expenditures for capital equipment or other contractual commitments;
- although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and EBITDA and Adjusted EBITDA do not reflect capital expenditure requirements for such replacements;
- EBITDA and Adjusted EBITDA do not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted EBITDA does not include changes in fair value of earnout liability related to our acquisitions; and
- other companies, including companies in our industry, may calculate EBITDA and Adjusted EBITDA measures differently, which reduces their usefulness as a comparative measure.

In evaluating EBITDA and Adjusted EBITDA, we anticipate that in the future we will incur expenses within these categories similar to this presentation. Our presentation of EBITDA and Adjusted EBITDA should not be construed as an inference that our future results will be unaffected by certain expenses. When evaluating our financial results, EBITDA and Adjusted EBITDA should be considered alongside other financial performance measures, including U.S. GAAP results.

The following table presents a reconciliation of EBITDA and Adjusted EBITDA to our net loss, the most comparable U.S. GAAP measure, for each of the periods indicated:

(amounts in thousands)	Three months ended June 30,		Six months ended June 30,	
Non-GAAP EBITDA and Adjusted EBITDA	**2022**	**2021**	**2022**	**2021**
Net income (loss)	$ (3,442)	$ 5,102	$ (17,656)	$ 4,370
Non-GAAP adjustments:				
Interest income	(225)	(29)	(254)	(86)
Provision for income taxes	69	6,902	293	5,249
Depreciation and amortization	5,848	5,241	11,608	10,339
EBITDA (non-GAAP)	2,250	17,216	(6,009)	19,872
Stock-based compensation	3,020	3,239	5,685	5,755
Change in fair value of earnout liability	(2,041)	(8,082)	(1,411)	(7,817)
Adjusted EBITDA (non-GAAP)	$ 3,229	$ 12,373	$ (1,735)	$ 17,810

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to various market risks, including fluctuation in foreign currency exchange rates and interest rates. Market risk is the potential loss arising from adverse changes in market rates and prices. We do not hold or issue financial instruments for trading purposes.

Foreign currency exchange risk

The principal market risk we face is foreign currency exchange risk. The majority of our revenue is denominated in U.S. dollars while the majority of our European sales are denominated in Euros. Our results of operations, certain balance sheet balances and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates. The volatility of exchange rates depends on many factors that we cannot forecast with reliable accuracy. We have experienced and will continue to experience fluctuations in our net income or loss as a result of transaction gains or losses related to revaluing certain current asset and current liability balances that are denominated in currencies other than the functional currency in which they are recorded. The effect of a 10% adverse change in exchange rates on foreign denominated cash, receivables and payables as of June 30, 2022 would not have had a material effect on our financial position, results of operations or cash flows. As our operations in countries outside of the United States grow, our results of operations and cash flows will be subject to fluctuations due to changes in foreign currency exchange rates, which could harm our business in the future.

We began entering into foreign exchange forward contracts in December 2015 to protect our forecasted U.S. dollar-equivalent earnings from adverse changes in foreign currency exchange rates. These hedging contracts reduce, but will not entirely eliminate, the impact of adverse currency exchange rate movements on revenue, cash, receivables and payables. We performed a sensitivity analysis assuming a hypothetical 10% adverse movement in foreign exchange rates to the hedging contracts and the underlying exposures described above. As of June 30, 2022, the analysis indicated that these hypothetical market movements would not have a material effect on our financial position, results of operations or cash flows. We estimate prior to any hedging activity that a 10% adverse change in exchange rates on our foreign denominated sales would have resulted in a $4.9 million decline in revenue for the six months ended June 30, 2022. We designate these forward contracts as cash flow hedges for accounting purposes. The fair value of the forward contract is separated into intrinsic and time values. The fair value of forward currency-exchange contracts is sensitive to changes in currency exchange rates. Changes in the time value are coded in other income (expense), net. Changes in the intrinsic value are recorded as a component of accumulated other comprehensive loss and subsequently reclassified into revenue to offset the hedged exposures as they occur.

Interest rate fluctuation risk

We had cash and cash equivalents of $223.6 million as of June 30, 2022, which consisted of highly liquid investments with a maturity of three months or less. The primary goals of our investment policy are liquidity and capital preservation. We do not enter into investments for trading or speculative purposes. We believe that we do not have any material exposure to changes in the fair value of these assets as a result of changes in interest rates due to the short-term nature of our cash and cash equivalents. Declines in interest rates, however, would reduce future investment income. We considered the historical volatility of short-term interest rates and determined that it was reasonably possible that an adverse change of 100 basis points could be experienced in the near term. A hypothetical 1.00% (100 basis points) increase in interest rates would not have materially impacted the fair value of our marketable securities as of June 30, 2021. If overall interest rates had increased or decreased by 1.00% (100 basis points), neither our interest expense nor our interest income would have been materially affected during the three or six months ended June 30, 2022 or June 30, 2021.

Item 4. Controls and Procedures

Evaluation of disclosure controls and procedures

The Company maintains a system of disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), which are designed to provide reasonable assurance that information required to be disclosed in the reports that the Company files or submits under the Exchange Act, is recorded, processed, summarized and reported accurately and completely within the time periods specified in the SEC’s rules and forms. These disclosure controls and procedures include, among other processes, controls and procedures designed to ensure that information required to be disclosed in the reports that the Company files or submits under the Exchange Act is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Due to inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Further, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions over time, or that the degree of compliance with the policies and procedures may deteriorate. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of June 30, 2022. Based upon the evaluation described above, our Chief Executive Officer and Chief Financial Officer concluded that, as of June 30, 2022, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in internal control over financial reporting

There has been no change in our internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Rule 13a-15 or 15d-15 that occurred during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Limitations on effectiveness of controls

In designing and evaluating the 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 its judgment in evaluating the benefits of possible controls and procedures relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Because of the inherent limitations in any control system, misstatements due to error or fraud may occur and not be detected.

Part II. OTHER INFORMATION

Item 1. Legal Proceedings

Civil Investigative Demand

On June 21, 2022, we received a civil investigative demand ("CID") from the United States Attorney's Office for the Northern District of Iowa. The CID states that it was issued in a False Claims Act investigation to determine whether there is or has been a violation of the False Claims Act and that the investigation involves concerns of inappropriate kickbacks provided by certain manufacturers of portable oxygen concentrators and related products in violation of the Anti-Kickback Statute. The CID followed informal requests from the United States Attorney's Office for the Northern District of Iowa begun in 2020, with which we voluntarily complied, to obtain information concerning our participation in (i) zero-interest or below market-rate loans through a third party lender to finance customer purchases; (ii) guaranteeing the obligation of a customer to a finance company in connection with financing of purchases of our equipment; and (iii) entering into an agreement with a customer that included marketing, exclusivity, discount, and favorable financing terms. We are cooperating in the investigation. We are currently unable to predict the outcome of this investigation or whether qui tam or other litigation is probable. Regardless of the outcome, this inquiry has the potential to have an adverse impact on us due to any related defense and settlement costs, diversion of management resources, and other factors.

Other Litigation

We are party to various legal proceedings arising in the normal course of business. We carry insurance, subject to specified deductibles under the policies, to protect against losses from certain types of legal claims. At this time, we do not anticipate that any of these other proceedings arising in the normal course of business will have a material adverse effect on our business. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

Item 1A. Risk Factors

The significant factors known to us that could materially adversely affect our business, financial condition, or operating results are described in the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2021, as filed with the SEC on February 24, 2022 and below. Any of these factors could result in a significant or material adverse effect on our results of operations or financial condition. Additional risk factors not presently known to us or that we currently deem immaterial may also impair our business or results of operations. As of the date of this Quarterly Report on Form 10-Q, there have been no material changes from the risk factors previously disclosed in our 2021 Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 24, 2022, which are incorporated by reference herein, except as disclosed below.

Risks related to our business and strategy

We obtain some of the components, subassemblies and completed products included in our products from a single source or a limited group of manufacturers or suppliers, and in some cases components required to manufacture and assemble our products are available in only limited supplies from limited manufacturers or suppliers, and the partial or complete loss of one or more of these manufacturers or suppliers or the further limitation on availability could cause significant production delays or stoppages, an inability to meet customer demand, substantial loss in revenue, and an adverse effect on our financial condition and results of operations.

We utilize single-source suppliers for some of the components and subassemblies we use in our Inogen One systems, our Inogen At Home systems, and our Tidal Assist® Ventilator (TAV®). For example, we have elected to source certain key components from single sources of supply, including our batteries, motors, valves, TAV-compatible stationary concentrators, and some molded plastic components. Many of our products also utilize components that are available from a limited number of suppliers. Our dependence on single-source or limited-source suppliers of components may expose us to several risks, including, among other things:

- our suppliers or their component sub-suppliers may be unable to meet demands due to global supply chain disruptions;
- we may experience delays in delivery by our suppliers due to customs clearing delays, shipping delays, scarcity of raw materials and components or changes in demand from us or their other customers;
- our suppliers may be unable to meet demands due to the effect of exposure to infectious diseases, epidemics or other public health emergencies, including the COVID-19 pandemic and related PHE or due to acts of terrorism, hostilities, military conflict or war, including the war in Ukraine;
- we may not be able to find new or alternative components, even at elevated prices, or reconfigure our system and manufacturing processes in a timely manner if the necessary components become unavailable, which could lead to a production slowdown or temporary stoppage;
- our suppliers may encounter financial hardships as a result of unfavorable economic and market conditions unrelated to our demand for components, which could inhibit their ability to fulfill our orders and meet our requirements;
- suppliers may fail to comply with regulatory requirements, be subject to lengthy compliance, validation or qualification periods, or make errors in manufacturing components that could negatively affect the performance or safety of our products, cause delays in supplying of our products to our customers, or result in regulatory enforcement against us or our suppliers;
- newly identified suppliers may not qualify under the stringent quality regulatory standards to which our business is subject, which could inhibit their ability to fulfill our orders and meet our requirements;
- we or our suppliers may not be able to respond to unanticipated changes in customer orders, and if orders do not match forecasts, we or our suppliers may have excess or inadequate inventory of materials and components;
- we may be subject to price fluctuations due to a lack of long-term supply arrangements for key components or changes in import tariffs, trade restrictions or barriers or other government actions that impact our ability to obtain such components;
- we or our suppliers may lose access to critical services, tools, moldings, and components, resulting in an interruption in the manufacture, assembly and shipment of our systems;
- our suppliers may be subject to allegations by other parties of misappropriation of proprietary information in connection with their supply of products to us, which could inhibit their ability to fulfill our orders and meet our requirements;
- fluctuations in demand for products that our suppliers manufacture for others may affect their ability or willingness to deliver components to us in a timely manner; and
- our suppliers may wish to discontinue supplying components or services to us.

We have experienced supply problems with one or more of our suppliers and may again experience problems in the future. For example, we have seen supply chain disruptions in the second half of 2021 through the second quarter of 2022 and expect to continue to see these disruptions through the remainder of 2022 and into 2023, primarily associated with semiconductor chips used in our batteries and printed circuit boards, which are components of our portable oxygen concentrators. However, we recognize that there could be supply shortages for other components used in our products. These shortages are being experienced across many industries, placing additional pressure on existing supplies. While we have taken steps to attempt to mitigate the impact of supply shortages, it has had and will likely continue to have an increased negative impact on our ability to manufacture products (including with respect to the production halt discussed below). We are continuing to focus our mitigation efforts on product redesign, seeking increased commitments on shipment dates from our regular suppliers, canvassing the open market for supplies, and using the price increases we implemented on September 1, 2021 and March 1, 2022 to help offset some of the increased costs. However, in spite of these efforts, we have been supply constrained and with these components facing extremely high demand, we expect continued challenges in terms of supply constraint and pricing inflation moving forward. Additionally, we believe that the war in Ukraine will result in added supply constraint pressures through at least the remainder of 2022.

The inflated costs related to the supply shortage negatively impacted our cost of goods sold in the third and fourth quarter of 2021 and the first half of 2022, and we expect this to have an increased impact on our material costs in the remainder of 2022. Even though we paid significant costs in the second half of 2021 and first half of 2022 associated with these chips, most of these costs increased our prepaid expense and inventory given that these components were either not yet delivered or not yet sold in finished products during the period. We believe based on our assessment and industry feedback that these supply shortages may continue through the remainder of 2022 and into 2023. In addition to the semiconductor chip limitations, we are continuing to see supply chain constraints for other components used in our products. As a result of the semiconductor chip shortages, we temporarily suspended manufacturing operations at our Texas and California locations from January 3, 2022 to February 7, 2022 and Foxconn, our Czech Republic-based OEM, suspended manufacturing due to the same supply constraints from January 3, 2022 to February 9, 2022. While we were able to resume manufacturing operations at all locations, we are still seeing challenges in terms of availability of supply and we believe the supply shortage continues to represent an increased risk to the business in the remainder of 2022 and into 2023, which may cause us to suspend manufacturing again in the future due to these shortages. As a result, in the interim we expect to be supply constrained and unable to meet all customer demand for our products. This may mean that some of our customers may seek other sources of products if we cannot meet their demand.

The FDA has released guidance that requires manufacturers of certain medical devices, including ventilation-related products under product code CAW, among others, to notify FDA of a permanent discontinuance or interruption in manufacturing of an applicable device under Section 506J of the Federal Food, Drug, and Cosmetic Act during the COVID-19 PHE. To the extent we experience an interruption in our manufacturing during the COVID-19 PHE that falls within the scope of this guidance, we would be required to notify FDA. This and other regulatory requirements could increase the cost of our operations and compliance.

In addition, we may be deemed to manufacture or contract to manufacture products that contain certain minerals that have been designated as “conflict minerals” under the Dodd-Frank Wall Street Reform and Consumer Protection Act. As a result, we may be required to perform due diligence to determine the origin of such minerals and disclose and report whether or not such minerals originated in the Democratic Republic of the Congo or adjoining countries. The implementation of these requirements could adversely affect the sourcing, availability, and pricing of minerals used in the manufacture of our products. In addition, we have incurred additional costs to comply with the disclosure requirements, including costs related to determining the source of any of the relevant minerals and metals used in our products. If any of these risks materialize, costs could significantly increase and our ability to meet demand for our products could be impacted. If we fail to comply with the applicable regulations, we could be required to pay civil penalties, face criminal prosecution and, in some cases, be prohibited from distributing our products in commerce until the products or component substances are brought into compliance. If we are unable to satisfy commercial demand for our products in a timely manner, our ability to generate revenue would be impaired, market acceptance of our products could be adversely affected, and customers may instead purchase or use alternative products. In addition, we could be forced to secure new or alternative components and subassemblies through a replacement supplier. Finding alternative sources for these components and subassemblies could be difficult in certain cases and may entail a significant amount of time and disruption. In some cases, we would need to change the components or subassemblies if we sourced them from an alternative supplier. This, in turn, could constitute a material modification or require a redesign of our products and, potentially, require additional FDA clearance or approval before we could use any materially modified or redesigned product with new components or subassemblies, thereby causing further costs and delays that could adversely affect our business, financial condition and results of operations.

The ongoing conflict between Russia and Ukraine as well as implications of supply chain challenges may adversely affect our business and results of operations. It is not possible to predict the implications of this conflict, which could also include but are not limited to further sanctions, uncertainty about economic and political stability, increases in inflation rate and energy prices, increased threat of cyberattacks, supply shortages, and adverse effects on currency exchange rates and financial markets. The war in Ukraine has adversely affected some shipping pathways and we anticipate that this conflict will result in further disruptions to our supply chain and shipping channels. We are continuing to monitor the situation in Ukraine and globally as well as assess its potential impact on our business. A significant escalation or further expansion of the conflict's current scope or related disruptions to the supply chain could have a material adverse effect on our business, financial condition, and results of operations.

If we are unable to manage our anticipated growth effectively, our business could be harmed.

We have previously experienced periods of rapid growth in short periods of time. These periods of rapid growth of our business have placed a significant strain on our managerial and operational resources and systems. For example, as our business has grown, we have seen the cost per generated lead trend higher than historical averages. In addition, many of the sales representatives we hired in 2018 were unable to meet sales targets and were thus transitioned out. To continue to grow our business, we must attract and retain capable personnel and manage and train them effectively, particularly related to sales representatives and supporting sales personnel. We must also upgrade our internal business processes and capabilities to create the scalability that a growing business demands.

Going forward, we plan to hire additional inside sales representatives at a more controlled pace across all three facilities to expand sales capacity. We have restarted our sales capacity expansion efforts with new sales representatives hired and expect sales representative headcount to be up in the second half of 2022. While we believe we are making the necessary changes to improve sales management infrastructure to support sales representative training and onboarding, it will take more time to evaluate whether these changes are effective in the long term, and to the extent they are not effective, it may negatively affect our financial condition and results of operations.

In addition, we plan to hire additional sales representatives in our prescriber sales organization, primarily through Ashfield, our contract sales organization, to enhance our go-to-market capabilities in the U.S. The employment market is very challenging and there is no guarantee that they, or we, will be able to hire all of the required employees to our prescriber sales organization in the future or retain existing staff. Additionally, Ashfield will provide access to its best-in-class data-driven sales management disciplines, proprietary prescriber insights, and analytics to support our growth strategy and drive performance in the clinician sales channel. While we believe that our investments in the prescriber sales organization will enhance our growth in direct-to-consumer sales and rental revenue, it will take time for these sales representatives to be fully trained and ramped up to full productivity, and it will take time for the sales tools to be implemented across our existing prescriber sales representatives. To the extent that the sales tools being implemented, or the sales representatives hired either through us or Ashfield are not effective or our relationship with Ashfield was to terminate, or the number of sales representatives does not reach the number anticipated, it may negatively affect our future growth and results of operations.

We also have experienced increased demand for our products in various markets associated with rising rates of COVID-19, since physicians may prescribe supplemental oxygen as a treatment for COVID-19. As a result, in these periods we saw increased demand for our products for applicable patients who may be treated in the home instead of an acute hospital setting. This demand is mostly being filled through our HME provider partners, who work closely with hospitals to discharge patients into a home treatment program. If this demand increase resumes and we cannot meet this demand, we may lose market share to competitors or lose customers, which may negatively affect our financial conditions and results of operations. In addition, even if we are able to meet any such increased demand, such an increase in business-to-business sales mix may negatively impact our gross margin as HME provider purchases have a significantly lower average selling price than direct-to-consumer purchases.

During 2019, we signed leases to expand our facilities located in Plano, Texas and Goleta, California, which commenced in 2021. Domestic expansion, combined with our use of a contract manufacturer in Europe to produce a portion of our Inogen One G3 and Inogen One G5 concentrators and perform product repairs, is expected to be sufficient to meet our manufacturing needs provided that these facilities remain operational. However, our anticipated growth may place additional strain on our supply chain and manufacturing facilities, resulting in an increased need for us to carefully monitor parts inventory, capable staffing and quality assurance. Any failure by us to manage the scalability of our process or other aspects of our growth effectively could have an adverse effect on our ability to achieve our development and commercialization goals and negatively affect our financial condition and results of operations.

We depend on the services of our senior executives and other key technical personnel, the loss of whom could negatively affect our business.

Our success depends upon the skills, experience and efforts of our senior executives and other key technical personnel, including certain members of our engineering, accounting and compliance staff as well as our sales and marketing personnel. Our President and Chief Executive Officer, Nabil Shabshab, joined us in February 2021, our Executive Vice President, Chief Commercial Officer, George Parr, joined us in April 2021, our Executive Vice President, Chief Technology Officer, Stanislav Glezer, joined us in June 2021, our Executive Vice President, General Counsel, Jason Somer, joined us in July 2021, and our Executive Vice President, Chief Financial Officer, Kristin Caltrider, joined us in March 2022.

If experienced employees leave, we could experience inefficiencies or a lack of business continuity due to loss of historical knowledge and a lack of familiarity of the new employees with business processes, operating requirements, policies and procedures. It is important to our success that these key employees quickly adapt to and excel in their new roles. If they are unable to do so, our business and financial results could be materially adversely affected. In addition, much of our corporate expertise is concentrated in relatively few employees, the loss of which for any reason could negatively affect our business. Competition for our highly skilled employees is intense and we cannot prevent the resignation of any employee. We have experienced increased turnover at all levels since the start of the COVID-19 pandemic and general labor shortages in various areas of our business, all of which could have a material adverse impact on our business. We may need to increase employee wages and benefits in order to attract and retain the personnel necessary to achieve our goals, and our business, operations, and financial results may suffer if we are unable to do so. In addition, the value to employees of equity awards that vest over time may be significantly affected by decreases in our stock price that are beyond our control and may at any time be insufficient to counteract more lucrative offers from other companies. We may face challenges in retaining and recruiting such individuals due to sustained declines in our stock price that could reduce the retention value of equity awards. We do not maintain "key man" life insurance on any of our senior executives. None of our senior executive team is bound by written employment contracts to remain with us for a specified period. In addition, we have not entered into non-compete agreements with members of our executive management team. The loss of any member of our executive management team could harm our ability to implement our business strategy and respond to the market conditions in which we operate.

Risks related to the regulatory environment

If we fail to obtain and maintain regulatory approval in foreign jurisdictions, our market opportunities will be limited.

Approximately 35.6% and 19.9% of our total revenue was from sales outside of the United States for the six months ended June 30, 2022 and June 30, 2021, respectively. We have sold our products in a total of 59 international countries and overseas regions outside of the United States through our wholly owned subsidiary, distributors and directly to large "house" accounts. In order to market our products in the European Union or other foreign jurisdictions, we must obtain and maintain separate regulatory approvals and comply with numerous and varying regulatory requirements. The approval procedure varies from country to country and can involve additional product testing. The time required to obtain approval abroad may be longer than the time required to obtain FDA clearance.

For example, the European Union requires that manufacturers of medical devices obtain the right to bear the "CE" conformity marking which designates compliance with existing directives and standards regulating the design, manufacture and distribution of medical devices in member countries of the European Union. In 2017, the European Union adopted the European Medical Device Regulation (Council Regulations 2017/745) which imposes stricter requirements for the marketing and sale of medical devices, including new clinical evaluation, quality system, and post-market surveillance requirements. The regulation had a three-year implementation period, with full application of the regulation occurring in May 2021 and replacing the pre-existing directives on medical devices in the European Union. Since May 2021, medical devices marketed in the European Union require certification according to these new requirements, except those devices with valid CE Marks, issued pursuant to the Medical Device Directive before May 2021, including our oxygen therapy products with CE Marks issued under the Medical Device Directive (MDD), may be placed on the market until May 2024. Only medical devices that comply with certain conformity requirements of the Medical Device Directive are currently allowed to be marketed within the European Union and our products will be required to comply with the European Medical Device Regulation (MDR). New products that failed to be certified with the MDR by May 2021 may not be marketed or sold in the European Union. Similarly, existing products with CE Marks issued under the MDD may not be placed on the market in the European Union after May 2024. The extension of the existing certificates under the MDD or obtaining a new certificate under the MDR is required for continued marketing in the European Union after May 18, 2022. Inogen products are commercialized in the European Union and United Kingdom under MDD certificates, which expired on May 18, 2022. The extension of the existing certificates under the MDD or obtaining a new certificate under the European MDR is required for continued marketing in the European Union after May 18, 2022. Our EU MDR Generic Device Group submission has been filed for our POCs and is under review. In addition, United Kingdom Conformity Assessed and the Swiss Medic Submission under MDD have been received and will be updated to MDR following the receipt of the corresponding certification in the EU. Derogation requests have also been filed in most EU countries. France granted permission in June 2022 for continuous commercialization of G4 and G5 POCS under MDR Articles 94/97 until the end of October 2022. Due to the expected reduced availability in the second half of 2022 due to the delay in MDR approval, we placed intentional focus on fulfilling European orders in our international business-to-business sales channel until May 18, 2022 when the MDD certificates expired.

The foreign regulatory approval process, including with respect to MDR, includes many of the risks associated with obtaining FDA clearance and we may not obtain foreign regulatory approvals on a timely basis, if at all. FDA clearance does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries. However, the failure to obtain clearance or approval in one jurisdiction may have a negative impact on our ability to obtain clearance or approval elsewhere. If we do not obtain or maintain necessary approvals to commercialize our products in markets outside the United States, we may be required to discontinue sales in those countries which would negatively affect our overall market penetration, revenues, results of operations and financial condition.

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

Unregistered Sales of Equity Securities

None.

Issuer Purchases of Equity Securities

We did not repurchase any shares of our common stock during the three months ended June 30, 2022.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit Number	Description	Incorporated by Reference From Form	Incorporated by Reference From Exhibit Number	Date Filed
31.1	Certification Pursuant to Exchange Act Rules 13a - 14(a) and 15d - 14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 of Chief Executive Officer	Filed herewith		
31.2	Certification Pursuant to Exchange Act Rules 13a - 14(a) and 15d - 14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 of Chief Financial Officer	Filed herewith		
32.1(1)	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 of Chief Executive Officer			
32.2(1)	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 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 Extension Calculation Linkbase Document			
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document			
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document			
101.DEF	Inline XBRL Taxonomy Extension Definition Document			
104	The cover page of this Quarterly Report on Form 10-Q, formatted in inline XBRL.			

(1)The Certifications attached as Exhibits 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of Inogen, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing.

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.

		INOGEN, INC.	
Dated:	August 4, 2022	By:	/s/ Nabil Shabshab Nabil Shabshab Chief Executive Officer President Director *(Principal Executive Officer)*
Dated:	August 4, 2022	By:	/s/ Kristin Caltrider Kristin Caltrider Executive Vice President, Chief Financial Officer Treasurer *(Principal Financial and Accounting Officer)*

Exhibit 31.1

Certification by the Chief Executive Officer Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002

I, Nabil Shabshab, certify that:

1.I have reviewed this Quarterly Report on Form 10-Q of Inogen, 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.

Dated: August 4, 2022	By:	/s/ Nabil Shabshab
		Nabil Shabshab Chief Executive Officer, President and Director (Principal Executive Officer)

Exhibit 31.2

Certification by the Chief Financial Officer Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002

I, Kristin Caltrider, certify that:

1.I have reviewed this Quarterly Report on Form 10-Q of Inogen, 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.

Dated: August 4, 2022	By:	/s/ Kristin Caltrider Kristin Caltrider Chief Financial Officer Executive Vice President Treasurer (Principal Financial Officer)

Exhibit 32.1

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

I, Nabil Shabshab, the chief executive officer of Inogen, Inc. (the "Company"), certify for the purposes of 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge,

(i) the Quarterly Report of the Company on Form 10-Q for the three months ended June 30, 2022 (the "Report"), fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

August 4, 2022	By:	/s/ Nabil Shabshab
		Nabil Shabshab
		Chief Executive Officer, President and Director

Exhibit 32.2

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

I, Kristin Caltrider, the chief financial officer of Inogen, Inc. (the "Company"), certify for the purposes of 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge,

(i) the Quarterly Report of the Company on Form 10-Q for the three months ended June 30, 2022 (the "Report"), fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

August 4, 2022	By:	/s/ Kristin Caltrider Kristin Caltrider Chief Financial Officer Executive Vice President Treasurer