# 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, 2020**

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: 001-38993

# HEALTH CATALYST, INC.
(Exact name of registrant as specified in its charter)

| | |
|---|---|
| **Delaware** | **45-3337483** |
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification Number) |

**3165 Millrock Drive #400**
Salt Lake City, UT 84121
(Address of principal executive offices, including zip code)

**(801) 708-6800**
(Registrant's telephone number, including area code)

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

| Title of each class | Trading Symbol(s) | Name of exchange on which registered |
|---|---|---|
| **Common Stock, par value $0.001 per share** | **HCAT** | **The 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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| | | | | | |
|---|---|---|---|---|---|
| Large accelerated filer | ☐ | Accelerated Filer | ☐ | Emerging growth company | ☒ |
| Non-accelerated Filer | ☒ | Smaller reporting 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 31, 2020, the Registrant had 39,711,745 shares of common stock outstanding.

**HEALTH CATALYST, INC.**

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**Special Note Regarding Forward-looking Statements**

As used in this Quarterly Report on Form 10-Q, unless expressly indicated or the context otherwise requires, references to "Health Catalyst," "we," "us," "our," "the Company," and similar references refer to Health Catalyst, Inc. and its consolidated subsidiaries. This Quarterly Report on Form 10-Q, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations," includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the "Securities Act", and the Securities Exchange Act of 1934, as amended, or the "Exchange Act". These forward-looking statements, which are subject to a number of risks, uncertainties, and assumptions, generally relate to future events or our future financial or operating performance. In some cases, you can identify these statements by forward-looking words such as "believe," "may," "will," "estimate," "continue," "anticipate," "design," "intend," "expect," "could," "plan," "potential," "predict," "seek," "should," "would," "target," "project," "contemplate," or the negative version of these words and other comparable terminology that concern our expectations, strategy, plans, intentions, or projections. Forward-looking statements contained in this Quarterly Report on Form 10-Q include, but are not limited to, statements about our:

- ability to attract new customers and retain and expand our relationships with existing customers;
- ability to expand our service offerings and develop new platform features;
- future financial performance, including trends in revenue, costs of revenue, gross margin, and operating expenses;
- ability to compete successfully in competitive markets;

- ability to respond to rapid technological changes;
- expectations and management of future growth;
- ability to enter new markets and manage our expansion efforts, particularly internationally;
- ability to attract and retain key employees, whom we refer to as team members;
- ability to effectively and efficiently protect our brand;
- ability to timely scale and adapt our infrastructure;
- ability to maintain, protect, and enhance our intellectual property and not infringe upon others' intellectual property;
- ability to successfully identify, acquire, and integrate companies and assets; and
- expectations regarding the impact of any natural disasters or public health emergencies, such as the COVID-19 pandemic on our business and results of operations.

These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including those described in the section titled "Risk Factors" in this Quarterly Report on Form 10-Q and as well as other documents that may be filed by us from time to time with the Securities and Exchange Commission (the SEC). Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all 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 forward-looking events and circumstances 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 and you should not place undue reliance on our 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. We undertake no obligation to update any forward-looking statements made in this Quarterly Report on Form 10-Q to reflect events or circumstances after the date of this Quarterly Report on Form 10-Q or to reflect new information or the occurrence of unanticipated events, except as required by law.

You should read this Quarterly Report on Form 10-Q in conjunction with the audited consolidated financial statements and the related notes thereto as of and for the year ended December 31, 2019, included in our Annual Report on Form 10-K.

## Part I. Financial Information

### Item 1. Financial Statements

**HEALTH CATALYST, INC.**

**Condensed Consolidated Balance Sheets**

*(in thousands, except share and per share data)*

| | As of June 30, 2020 | As of December 31, 2019 |
|---|---|---|
| | *(unaudited)* | |
| **Assets** | | |
| Current assets: | | |
| Cash and cash equivalents | $ 104,185 | $ 18,032 |
| Short-term investments | 248,932 | 210,245 |
| Accounts receivable, net[(1)] | 34,426 | 27,570 |
| Deferred costs | 455 | 937 |
| Prepaid expenses and other assets | 8,955 | 7,455 |
| Total current assets | 396,953 | 264,239 |
| Property and equipment, net | 3,835 | 4,295 |
| Intangible assets, net | 29,435 | 25,535 |
| Operating lease right-of-use assets | 15,417 | 3,787 |
| Goodwill | 18,419 | 3,694 |
| Other assets | 2,337 | 810 |
| Total assets | $ 466,396 | $ 302,360 |
| **Liabilities and stockholders' equity** | | |
| Current liabilities: | | |
| Accounts payable | $ 2,398 | $ 3,622 |
| Accrued liabilities | 7,487 | 8,944 |
| Acquisition-related consideration payable[(1)] | 3,164 | 2,192 |
| Deferred revenue[(1)] | 35,173 | 30,653 |
| Operating lease liabilities | 1,963 | 2,806 |
| Total current liabilities | 50,185 | 48,217 |
| Long-term debt | 163,480 | 48,200 |
| Acquisition-related consideration payable, net of current portion[(1)] | — | 1,860 |
| Deferred revenue, net of current portion | 2,176 | 1,459 |
| Operating lease liabilities, net of current portion | 13,913 | 1,654 |
| Contingent consideration liability | 1,457 | — |
| Other liabilities | 1,223 | 326 |
| Total liabilities | 232,434 | 101,716 |
| | | |
| Commitments and contingencies (Note 14) | | |
| | | |

| | | |
|---|---|---|
| Stockholders' equity: | | |
| Preferred stock, $0.001 par value per share; 25,000,000 shares authorized as of June 30, 2020 and December 31, 2019; no shares issued and outstanding as of June 30, 2020 and December 31, 2019 | — | — |
| Common stock, $0.001 par value per share; 500,000,000 shares authorized as of June 30, 2020 and December 31, 2019; 38,729,662 and 36,678,854 shares issued and outstanding as of June 30, 2020 and December 31, 2019, respectively | 39 | 37 |
| Additional paid-in capital | 889,054 | 811,049 |
| Accumulated deficit | (655,306) | (610,514) |
| Accumulated other comprehensive income | 175 | 72 |
| Total stockholders' equity | 233,962 | 200,644 |
| Total liabilities and stockholders' equity | $ 466,396 | $ 302,360 |

(1) Includes amounts attributable to related party transactions. See Note 16 for further details.

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

**HEALTH CATALYST, INC.**

**Condensed Consolidated Statements of Operations**

*(in thousands, except per share data)*

*(unaudited)*

| | Three Months Ended June 30, | | | | Six Months Ended June 30, | | | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | | 2019 | | 2020 | | 2019 | |
| Revenue[1]: | | | | | | | | |
| Technology | $ | 25,487 | $ | 20,085 | $ | 50,186 | $ | 40,233 |
| Professional services | | 17,772 | | 16,719 | | 38,189 | | 31,784 |
| Total revenue | | 43,259 | | 36,804 | | 88,375 | | 72,017 |
| Cost of revenue, excluding depreciation and amortization: | | | | | | | | |
| Technology | | 8,197 | | 7,044 | | 16,103 | | 13,796 |
| Professional services | | 14,932 | | 10,666 | | 31,094 | | 21,240 |
| Total cost of revenue, excluding depreciation and amortization | | 23,129 | | 17,710 | | 47,197 | | 35,036 |
| Operating expenses: | | | | | | | | |
| Sales and marketing | | 12,502 | | 10,385 | | 25,989 | | 20,858 |
| Research and development | | 12,061 | | 9,710 | | 25,149 | | 19,732 |
| General and administrative | | 8,113 | | 6,146 | | 17,814 | | 12,320 |
| Depreciation and amortization | | 3,094 | | 2,216 | | 5,971 | | 4,528 |
| Total operating expenses | | 35,770 | | 28,457 | | 74,923 | | 57,438 |
| Loss from operations | | (15,640) | | (9,363) | | (33,745) | | (20,457) |
| Loss on extinguishment of debt | | (8,514) | | — | | (8,514) | | (1,670) |
| Interest and other expense, net | | (3,025) | | (1,320) | | (3,646) | | (2,265) |
| Loss before income taxes | | (27,179) | | (10,683) | | (45,905) | | (24,392) |
| Income tax (benefit) provision | | 4 | | 11 | | (1,232) | | 22 |
| Net loss | $ | (27,183) | $ | (10,694) | $ | (44,673) | $ | (24,414) |
| Less: accretion of redeemable convertible preferred stock | | — | | 98,641 | | — | | 162,656 |
| Net loss attributable to common stockholders | $ | (27,183) | $ | (109,335) | $ | (44,673) | $ | (187,070) |
| Net loss per share attributable to common stockholders, basic and diluted | $ | (0.71) | $ | (21.98) | $ | (1.19) | $ | (38.29) |
| Weighted-average shares outstanding used in calculating net loss per share attributable to common stockholders, basic and diluted | | 38,131 | | 4,975 | | 37,620 | | 4,885 |

(1) Includes amounts attributable to related party transactions. See Note 16 for further details.

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

**HEALTH CATALYST, INC.**

**Condensed Consolidated Statements of Comprehensive Loss**
*(in thousands)*
*(unaudited)*

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| Net Loss | $ (27,183) | $ (10,694) | $ (44,673) | $ (24,414) |
| Other comprehensive income (loss): | | | | |
| Change in unrealized gain on investments | 113 | 7 | 110 | 10 |
| Change in foreign currency translation adjustment | 23 | — | (7) | |
| Comprehensive loss | $ (27,047) | $ (10,687) | $ (44,570) | $ (24,404) |

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

## HEALTH CATALYST, INC.

## Condensed Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)

*(in thousands, except share data)*

*(unaudited)*

Three Months Ended June 30, 2020

| | Preferred Stock | | Common Stock | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | Additional Paid-In Capital | Accumulated Deficit | Accumulated Other Comprehensive Income | Total Stockholders' Equity |
| Balance as of March 31, 2020 | — | $ — | 37,838,276 | $ 38 | $ 832,167 | $ (628,123) | $ 39 | $ 204,121 |
| Equity component of convertible senior notes, net of issuance costs | — | — | — | — | 61,213 | — | — | 61,213 |
| Purchase of Capped Calls related to issuance of convertible senior notes | — | — | — | — | (21,743) | — | — | (21,743) |
| Issuance of common stock under employee stock purchase plan | — | — | 97,113 | — | 2,408 | — | — | 2,408 |
| Vesting of restricted stock units | — | — | 74,692 | — | — | — | — | — |
| Exercise of stock options | — | — | 719,581 | 1 | 5,963 | — | — | 5,964 |
| Stock-based compensation | — | — | — | — | 9,046 | — | — | 9,046 |
| Net loss | — | — | — | — | — | (27,183) | — | (27,183) |
| Other comprehensive income | — | — | — | — | — | — | 136 | 136 |
| Balance as of June 30, 2020 | — | $ — | 38,729,662 | $ 39 | $ 889,054 | $ (655,306) | $ 175 | $ 233,962 |

Three Months Ended June 30, 2019

| | Redeemable Convertible Preferred Stock | | Common Stock | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | Additional Paid-In Capital | Accumulated Deficit | Accumulated Other Comprehensive Income | Total Stockholders' Deficit |
| Balance as of March 31, 2019 | 23,151,481 | $ 485,933 | 4,873,914 | $ 5 | $ — | $ (450,043) | $ 2 | $ (450,036) |
| Exercise of stock options | — | — | 128,512 | — | 817 | — | — | 817 |
| Stock-based compensation | — | — | — | — | 1,398 | — | — | 1,398 |
| Net loss | — | — | — | — | — | (10,694) | — | (10,694) |
| Other comprehensive income | — | — | — | — | — | — | 7 | 7 |
| Accretion of redeemable convertible preferred stock | — | 98,641 | — | — | (2,215) | (96,426) | — | (98,641) |
| Balance as of June 30, 2019 | 23,151,481 | $ 584,574 | 5,002,426 | $ 5 | $ — | $ (557,163) | $ 9 | $ (557,149) |

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

**HEALTH CATALYST, INC.**

**Condensed Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)**

*(in thousands, except share data)*

*(unaudited)*

| | Six Months Ended June 30, 2020 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Preferred Stock | | Common Stock | | Additional Paid-In Capital | Accumulated Deficit | Accumulated Other Comprehensive Income | Total Stockholders' Equity |
| | Shares | Amount | Shares | Amount | | | | |
| Balance as of December 31, 2019 | — | $ — | 36,678,854 | $ 37 | $ 811,049 | $ (610,514) | $ 72 | $ 200,644 |
| Impact of adopting the current expected credit loss standard | — | — | — | — | — | (119) | — | (119) |
| Issuance of common stock for acquisition consideration | — | — | 110,662 | — | 3,332 | — | — | 3,332 |
| Equity component of convertible senior notes, net of issuance costs | — | — | — | — | 61,213 | — | — | 61,213 |
| Purchase of Capped Calls related to issuance of convertible senior notes | — | — | — | — | (21,743) | — | — | (21,743) |
| Issuance of common stock under employee stock purchase plan | — | — | 97,113 | — | 2,408 | — | — | 2,408 |
| Vesting of restricted stock units | — | — | 74,692 | — | — | — | — | — |
| Exercise of stock options | — | — | 1,768,341 | 2 | 15,008 | — | — | 15,010 |
| Stock-based compensation | — | — | — | — | 17,787 | — | — | 17,787 |
| Net loss | — | — | — | — | — | (44,673) | — | (44,673) |
| Other comprehensive income | — | — | — | — | — | — | 103 | 103 |
| Balance as of June 30, 2020 | — | $ — | 38,729,662 | $ 39 | $ 889,054 | $ (655,306) | $ 175 | $ 233,962 |

| | Six Months Ended June 30, 2019 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Redeemable Convertible Preferred Stock | | Common Stock | | Additional Paid-In Capital | Accumulated Deficit | Accumulated Other Comprehensive (Loss) Income | Total Stockholders' Deficit |
| | Shares | Amount | Shares | Amount | | | | |
| Balance as of December 31, 2018 | 22,713,694 | $ 409,845 | 4,779,356 | $ 5 | $ — | $ (374,772) | $ (1) | $ (374,768) |
| Issuance of Series F redeemable convertible preferred stock, net of issuance costs of $115 | 437,787 | 12,073 | — | — | — | — | — | — |
| Exercise of stock options | — | — | 223,070 | — | 1,625 | — | — | 1,625 |
| Stock-based compensation | — | — | — | — | 3,054 | — | — | 3,054 |
| Net loss | — | — | — | — | — | (24,414) | — | (24,414) |
| Other comprehensive income | — | — | — | — | — | — | 10 | 10 |
| Accretion of redeemable convertible preferred stock | — | 162,656 | — | — | (4,679) | (157,977) | — | (162,656) |
| Balance as of June 30, 2019 | 23,151,481 | $ 584,574 | 5,002,426 | $ 5 | $ — | $ (557,163) | $ 9 | $ (557,149) |

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

**HEALTH CATALYST, INC.**

**Condensed Consolidated Statements of Cash Flows**
*(in thousands)*
*(unaudited)*

| | Six Months Ended June 30, | |
|---|---|---|
| | 2020 | 2019 |
| **Cash flows from operating activities** | | |
| Net loss | $ (44,673) | $ (24,414) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Depreciation and amortization | 5,971 | 4,528 |
| Loss on extinguishment of debt | 8,514 | 1,670 |
| Amortization of debt discount and issuance costs | 2,540 | 516 |
| Non-cash operating lease expense | 1,569 | 1,913 |
| Investment discount and premium amortization | 267 | (274) |
| Provision for expected credit losses | 836 | — |
| Stock-based compensation expense | 17,787 | 3,054 |
| Deferred tax benefit | (1,280) | — |
| Change in fair value of contingent consideration liability | (1,568) | — |
| Other | 71 | (34) |
| Change in operating assets and liabilities: | | |
| Accounts receivable, net | (7,179) | (6,776) |
| Deferred costs | 482 | (196) |
| Prepaid expenses and other assets | (2,493) | (55) |
| Accounts payable, accrued liabilities, and other liabilities | (1,056) | (1,644) |
| Deferred revenue | 4,475 | 9,676 |
| Operating lease liabilities | (1,783) | (1,605) |
| Net cash used in operating activities | (17,520) | (13,641) |
| **Cash flows from investing activities** | | |
| Purchase of short-term investments | (163,346) | (40,509) |
| Proceeds from the sale and maturity of short-term investments | 124,150 | 12,297 |
| Acquisition of business, net of cash acquired | (15,249) | — |
| Purchases of property and equipment | (1,067) | (1,063) |
| Purchase of intangible assets | (1,182) | (977) |
| Proceeds from the sale of property and equipment | 10 | 38 |
| Net cash used in investing activities | (56,684) | (30,214) |
| **Cash flows from financing activities** | | |
| Proceeds from convertible senior notes, net of issuance costs | 222,482 | — |
| Purchase of capped calls related to issuance of convertible senior notes | (21,743) | — |
| Proceeds from credit facilities, net of debt issuance costs | — | 47,169 |
| Repayment of credit facilities | (57,043) | (21,821) |

| | | |
|---|---|---|
| Proceeds from the issuance of redeemable convertible preferred stock, net of issuance costs | — | 12,073 |
| Proceeds from exercise of stock options | 15,010 | 1,625 |
| Proceeds from employee stock purchase plan | 2,408 | — |
| Payments of acquisition-related consideration | (748) | (773) |
| Payments of deferred offering costs | — | (2,030) |
| Net cash provided by financing activities | 160,366 | 36,243 |
| Effect of exchange rate changes | (9) | — |
| Net increase (decrease) in cash and cash equivalents | 86,153 | (7,612) |
| | | |
| Cash and cash equivalents at beginning of period | 18,032 | 28,431 |
| Cash and cash equivalents at end of period | $ 104,185 | $ 20,819 |
| | | |
| **Supplemental disclosures of non-cash investing and financing information** | | |
| Redeemable convertible preferred stock accretion | $ — | $ 162,656 |
| Deferred offering costs included in accounts payable and accrued liabilities | — | 1,168 |
| Purchase of intangible assets included in accounts payable and accrued liabilities | — | 1,304 |
| Purchase of property and equipment included in accounts payable and accrued liabilities | 207 | 10 |
| Operating lease right-of-use assets obtained in exchange for operating lease obligations | 13,037 | 581 |

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

## 1. Description of Business and Summary of Significant Accounting Policies

### Nature of operations

Health Catalyst, Inc. (Health Catalyst) was incorporated under the laws of Delaware in September 2011. We are a leading provider of data and analytics technology and services to healthcare organizations. Our Solution comprises a cloud-based data platform, analytics software, and professional services expertise. Our customers, which are primarily healthcare providers, use our Solution to manage their data, derive analytical insights to operate their organization, and produce measurable clinical, financial, and operational improvements.

### Basis of presentation

Our accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (GAAP) and the applicable regulations of the U.S. Securities and Exchange Commission (SEC) regarding interim financial reporting. Certain information and note disclosures normally included in annual financial statements prepared in accordance with GAAP have been condensed or omitted. Therefore, these unaudited condensed consolidated financial statements should be read in conjunction with our audited consolidated financial statements and the related notes thereto as of and for the year ended December 31, 2019 included in our Annual Report on Form 10-K.

*Reclassifications*

Certain prior year amounts on the condensed consolidated statements of cash flows have been reclassified to conform to the current year presentation. A reclassification was made to separately present the non-cash operating lease expense as a non-cash reconciling adjustment from net loss and the change in the operating lease liabilities due to cash payments as a change in operating assets and liabilities. This net change is not material and does not affect previously reported cash flows from operating activities in the condensed consolidated statements of cash flows. This reclassification had no effect on our other condensed consolidated financial statements for the six months ended June 30, 2020 and 2019.

### Interim Unaudited Condensed Consolidated Financial Statements

Our accompanying interim condensed consolidated balance sheet as of June 30, 2020, the interim condensed consolidated statements of operations for the three and six months ended June 30, 2020 and 2019, our interim condensed consolidated statements of redeemable convertible preferred stock and stockholders' equity (deficit) for the three and six months ended June 30, 2020 and 2019, and our interim condensed consolidated statements of cash flows for the six months ended June 30, 2020 and 2019 are unaudited. Our condensed consolidated balance sheet as of December 31, 2019 was derived from audited financial statements, but does not include all disclosures required by GAAP. Our interim unaudited condensed consolidated financial statements have been prepared on a basis consistent with our annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to state fairly the Company's financial position, its operations and cash flows for the periods presented. The historical results are not necessarily indicative of future results, and the results of operations for the three and six months ended June 30, 2020 are not necessarily indicative of the results to be expected for the full year or any other period.

### Initial Public Offering

On July 29, 2019, we closed our initial public offering of common stock (IPO) in which we issued and sold 8,050,000 shares (inclusive of the underwriters’ over-allotment option to purchase 1,050,000 shares, which was exercised on July 25, 2019) of common stock at $26.00 per share. We received net proceeds of $194.6 million after deducting underwriting discounts and commissions and before deducting offering costs of $4.6 million. Upon the closing of our IPO, all shares of our outstanding redeemable convertible preferred stock converted into 23,151,481 shares of common stock on a one-for-one basis.

**Stock Split**

On July 10, 2019, we effected a 1-for-2 reverse stock split of our capital stock. We have adjusted all references to share and per share amounts in the accompanying condensed consolidated financial statements and notes to reflect the reverse stock split.

**Principles of consolidation**

Our condensed consolidated financial statements include the accounts of Health Catalyst and its wholly-owned subsidiaries. Intercompany balances and transactions have been eliminated.

**Use of estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us 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 financial statements and the reported amounts of revenues and expenses during the reporting period. On an on-going basis, we evaluate our estimates, including those related to revenue recognition, provisions for expected credit losses, useful lives of property and equipment, capitalization and estimated useful life of internal-use software and other intangible assets, fair value of financial instruments, deferred tax assets, stock-based compensation, contingent consideration, the period of benefit for deferred contract acquisition costs, the incremental borrowing rate used for operating leases, and tax uncertainties. Actual results could differ from those estimates.

**Segment reporting**

Operating segments are identified as components of an enterprise about which separate discrete financial information is evaluated by the chief operating decision maker (the CODM) in assessing performance and making decisions regarding resource allocation. We operate our business in two operating segments that also represent our reportable segments. Our segments are (1) technology and (2) professional services. The CODM uses Adjusted Gross Profit (defined as revenue less cost of revenue that excludes depreciation, amortization, stock-based compensation expense, and certain other operating expenses) as the measure of our profit.

**Net loss per share**

Basic net loss per share is calculated by dividing net loss attributable to common stockholders by the weighted average number of shares of common stock outstanding. Net loss attributable to common stockholders is computed as net loss less accretion of redeemable convertible preferred stock. Diluted net loss per share attributable to common stockholders is calculated by giving effect to all potentially dilutive common stock equivalents outstanding for the period. For purposes of this calculation, stock options, restricted stock units (RSUs), restricted shares, and purchase rights committed under the employee stock purchase plan are considered to be common stock equivalents but have been excluded from the calculation of diluted net loss per share attributable to common stockholders as the effect is antidilutive.

Since we have the intent and ability to settle the principal amount of our convertible senior notes in cash and any excess in shares of our common stock, we use the treasury stock method for calculating any potential dilutive effect of the conversion spread on net income (loss) per share, if applicable. The conversion spread will have a potentially dilutive impact when the average market price of our common stock for a given period exceeds $30.60 per share. The capped calls are excluded from the calculation of diluted earnings per share, as they would be antidilutive under the treasury stock method.

Prior to our IPO, we computed basic and diluted net loss per share in conformity with the two-class method required for participating securities. The two-class method is an earnings allocation formula that treats a participating security as having rights to earnings that otherwise would have been available to holders of common stock. Redeemable convertible preferred stock and common stock were considered participating securities for purposes of this calculation. However, the two-class method did not impact the net loss per common share attributable to common stockholders as we were in a loss position for each of the periods presented and the redeemable convertible preferred stockholders did not have a contractual obligation to participate in losses.

**Revenue recognition**

We recognize revenue in accordance with Accounting Standards Codification Topic 606, *Revenue from Contracts with Customers (Topic 606)*. We derive our revenues primarily from technology subscriptions and professional services. We determine revenue recognition by applying the following steps:

- Identification of the contract, or contracts, with a customer;
- Identification of the performance obligations in the contract;
- Determination of the transaction price;
- Allocation of the transaction price to the performance obligations in the contract; and
- Recognition of revenue when, or as, we satisfy the performance obligation.

We recognize revenue net of any taxes collected from customers and subsequently remitted to governmental authorities.

**Technology revenue**

Technology revenue primarily consists of subscription fees charged to customers for access to use our technology. We provide customers access to our technology through either an all-access or limited-access, modular subscription. The majority of our subscription arrangements are cloud-based and do not provide customers the right to take possession of the technology or contain a significant penalty if the customer were to take possession of the technology. Revenue from cloud-based subscriptions is recognized ratably over the contract term beginning on the date that the service is made available to the customer. Most of our subscription contracts have up to a three-year term, of which the vast majority are terminable after one year upon 90 days' notice.

Subscriptions that allow the customer to take software on-premise without significant penalty are treated as time-based licenses. These arrangements generally include access to technology, access to unspecified future products, and maintenance and support. Revenue for upfront access to our technology library is recognized at a point in time when the technology is made available to the customer. Revenue for access to unspecified future products included in time-based license subscriptions is recognized ratably over the contract term beginning on the date that the access is made available to the customer.

We also have certain perpetual license arrangements. Revenue from these arrangements is recognized at a point in time upon delivery of the software.

Technology revenue also includes maintenance and support revenue which generally includes bug fixes, updates, and support services. Revenue related to maintenance and support is recognized over the contract term beginning on the date that the service is made available to the customer.

**Professional services revenue**

Professional services revenue primarily includes data and analytics services, domain expertise services, outsourcing services, and implementation services. Professional services arrangements typically include a fee for making full-time equivalent (FTE) services available to our customers on a monthly basis. FTE services generally consist of a blend of analytic engineers, analysts, and data scientists based on the domain expertise needed to best serve our customer. Professional services are typically considered distinct from the technology offerings and revenue is generally recognized as the service is provided using the “right to invoice” practical expedient.

**Contracts with multiple performance obligations**

Many of our contracts include multiple performance obligations. We account for performance obligations separately if they are capable of being distinct within the context of the contract. In these circumstances, the transaction price is allocated to separate performance obligations on a relative standalone selling price basis. We determine standalone selling prices based on the observable price a good or service is sold for separately when available. In cases where standalone selling prices are not directly observable, based on information available, we utilize the expected cost plus a margin, adjusted market assessment, or residual estimation method. We consider all information available including our overall pricing objectives, market conditions, and other factors, which may include customer demographics and the types of users.

Standalone selling prices are not directly observable for our all-access and limited-access technology arrangements, which are composed of cloud-based subscriptions, time-based licenses, and perpetual licenses. For these technology arrangements, we use the residual estimation method due to a limited number of standalone transactions and/or prices that are highly variable.

**Variable consideration**

We have also entered into at-risk and shared savings arrangements with certain customers whereby we receive variable consideration based on the achievement of measurable improvements which may include cost savings or performance against metrics. For these arrangements, we estimate revenue using the most likely amount that we will receive. Estimates are based on our historical experience and best judgment at the time to the extent it is probable that a significant reversal of revenue recognized will not occur. Due to the nature of our arrangements, certain estimates may be constrained until the uncertainty is further resolved.

**Contract balances**

Contract assets resulting from services performed prior to invoicing customers are recorded as unbilled accounts receivable and are presented on our condensed consolidated balance sheets in aggregate with accounts receivable. Unbilled accounts receivable generally become billable at contractually specified dates or upon the attainment of contractually defined milestones. As of June 30, 2020 and December 31, 2019, the unbilled accounts receivable included in accounts receivable on our condensed consolidated balance sheets was $2.5 million and $2.9 million, respectively.

We record contract liabilities as deferred revenue when cash payments are received or due in advance of performance. Deferred revenue primarily relates to the advance consideration received from the customer. As of June 30, 2020 and December 31, 2019, the total of current and non-current deferred revenue on our condensed consolidated balance sheets was $37.3 million and $32.1 million, respectively.

**Deferred Costs**

We capitalize sales commissions, and associated fringe costs, such as payroll taxes, paid to direct sales personnel and other incremental costs of obtaining contracts with customers, provided we expect to recover those costs. These costs are included in deferred costs presented on the condensed consolidated balance sheets. We determine that costs should be deferred based on our sales compensation plans when the commissions are incremental and would not have occurred absent the customer contract.

Commissions paid upon the initial acquisition of a contract are amortized on a straight-line basis over an estimated period of benefit of four years. Amortization is recognized on a straight-line basis commensurate with the pattern of revenue recognition. The period of benefit was estimated by considering factors such as estimated average customer life, the rate of technological change in our subscription service, and the impact of competition in our industry. As our average customer life significantly exceeded the rate of change in our technology, we concluded that the rate of change in the technology underlying our subscription service was the most significant factor in determining the period of benefit for which the asset relates. In evaluating the rate of change in our technology, we considered the competition in our industry, our commitment to continuous innovation, and the frequency of product, platform, and technology updates. We determined that the impact of competition in our industry is reflected in the period of benefit through the rate of technological change. Amortization of deferred contract acquisition costs is included within sales and marketing expense in the condensed consolidated statements of operations.

We defer certain costs to fulfill a contract when the costs are expected to be recovered, are directly related to in-process contracts and enhance resources that will be used in satisfying performance obligations in the future. These deferred fulfillment costs primarily consist of employee compensation incurred as part of the implementation of new contracts and are included in deferred costs presented on the condensed consolidated balance sheets. Amortization of deferred fulfillment costs is included within cost of revenue in the condensed consolidated statements of operations.

We periodically review these deferred costs to determine whether events or changes in circumstances have occurred that could impact the period of benefit. There were no impairment losses recorded during the periods presented.

**Cost of revenue, excluding depreciation and amortization**

Cost of technology revenue primarily consists of costs associated with hosting and supporting our technology, including third-party cloud computing and hosting costs, contractor costs, and salary and related personnel costs for our cloud services and support teams. Cost of professional services revenue primarily consists of salary and related personnel costs, travel-related costs, and independent contractor costs. Cost of revenue excludes costs related to depreciation and amortization.

**Cash and cash equivalents**

We consider all highly liquid investments purchased with a remaining maturity of three months or less at the time of acquisition to be cash equivalents.

**Short-term investments**

Our investment policy limits investments to highly-rated instruments that mature in less than 12 months. We classify our short-term investments as available for sale.

**Accounts receivable**

Accounts receivable are non-interest bearing and are recorded at the original invoiced amount less an allowance for credit losses based on the probability of future collections. We adopted ASU 2016-13 effective January 1, 2020. ASU 2016-13 replaces the existing incurred loss impairment model with an expected loss model which requires the use of forward-looking information to calculate credit loss estimates, which results in earlier recognition of credit losses. The allowance is based on our estimate of expected credit losses for outstanding trade accounts receivables and unbilled receivables. We determine expected credit losses based on historical write-off experience, an analysis of the aging of outstanding receivables, customer payment patterns, the establishment of specific reserves for customers in an adverse financial condition, and our expectations of changes in macro-economic conditions, including the current COVID-19 pandemic, that may impact the collectability of outstanding receivables. We reassess the adequacy of the allowance for credit losses each reporting period. The following table presents a rollforward of the allowance for credit losses (in thousands):

| | Allowance for Credit Losses on Accounts Receivable |
|---|---|
| Balance at January 1, 2020 | $ 534 |
| Current period provision for expected credit losses | 836 |
| Less: Write-offs, net of recoveries | (170) |
| Balance at June 30, 2020 | $ 1,200 |

**Property and equipment**

Property and equipment are stated at historical cost less accumulated depreciation. Repairs and maintenance costs that do not extend the useful life or improve the related assets are expensed as incurred. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. The estimated useful life of each asset category is as follows:

| | |
|---|---|
| Computer equipment | 2-3 years |
| Furniture and fixtures | 3 years |
| Leasehold improvements | Lesser of lease term or estimated useful life |
| Computer software | 2-3 years |
| Capitalized internal-use software costs | 2-3 years |

When there are indicators of potential impairment, we evaluate the recoverability of the carrying values by comparing the carrying amount of the applicable asset group to the estimated undiscounted future cash flows expected to be generated by the asset group over the remaining life of the primary long-lived asset in that group plus any residual value. If the carrying amount of the asset group exceeds its estimated undiscounted future net cash flows, an impairment charge is recognized based on the amount by which the carrying value of the long-lived assets exceeds the fair value of those assets. We did not incur any long-lived impairment charges for the three and six months ended June 30, 2020 and 2019.

### Intangible assets

Intangible assets include developed technologies, customer relationships, customer contracts, and trademarks that were acquired in business combinations and asset acquisitions. Intangible assets also include the purchase of third-party computer software. The intangible assets are amortized using the straight-line method over the assets' estimated useful lives. The estimated useful life of each asset category is as follows:

| | |
|---|---|
| Developed technologies | 2-10 years |
| Customer relationships and contracts | 6 years |
| Computer software licenses | 2-5 years |
| Trademarks | 2 years |

### Goodwill

We record goodwill as the difference between the aggregate consideration paid for a business combination and the fair value of the identifiable net tangible and intangible assets acquired. Goodwill is assessed for impairment annually or more frequently if indicators of impairment are present or circumstances suggest that impairment may exist. As of January 1, 2020, we adopted ASU 2017-04, which simplifies the goodwill impairment test by eliminating the second step from the goodwill impairment test. The first step of the goodwill impairment test compares the fair value of the reporting unit with its carrying amount, including goodwill. If the fair value of the reporting unit exceeds its carrying amount, the goodwill of the reporting unit is not considered impaired. If the carrying amount of the reporting unit exceeds its fair value, we would recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. There was no impairment of goodwill for the three and six months ended June 30, 2020 and 2019.

### Business combinations

We account for an acquisition as a business combination if we obtain control of a business. Assets and liabilities acquired in a business combination generally are recorded at fair value and any associated acquisition costs are expensed as incurred in general and administrative expenses.

### Advertising costs

All advertising costs are expensed as incurred. We recorded advertising costs of $0.3 million and $0.4 million for the three months ended June 30, 2020 and 2019, respectively, and $0.9 million and $1.1 million for the six months ended June 30, 2020 and 2019, respectively.

### Development costs and internal-use software

For technology products that are developed to be licensed externally, we determined that technological feasibility is reached shortly before the products are ready for general release. Any costs associated with software development between the time technological feasibility is reached and general release are inconsequential. We capitalize certain development costs incurred in connection with our internal-use software. These capitalized costs are primarily related to the software platforms that are hosted by us and accessed by our customers on a subscription basis. Costs incurred in the preliminary stages of development are expensed as incurred as research and development costs. Once an application has reached the development stage, internal and external costs, if direct and incremental, are capitalized until the software is substantially complete and ready for its intended use.

We also capitalize costs related to specific upgrades and enhancements when it is probable the expenditures will result in additional functionality. Capitalized costs are recorded as part of property and equipment. Maintenance and training costs are expensed as incurred. Internal-use software is amortized on a straight-line basis over its estimated useful life.

**Stock-based compensation**

Stock-based awards, including stock options and RSUs, are measured and recognized in our condensed consolidated financial statements based on the fair value of the award on the grant date. For awards subject to performance conditions, we record expense when the performance condition becomes probable. We record forfeitures of stock-based awards as the actual forfeitures occur.

We estimate the fair value of stock option awards on the grant date using the Black-Scholes option pricing model. We have issued two types of employee stock-based awards, standard and two-tier. Our standard stock-based awards vest solely on a service-based condition. For these awards, we recognize stock-based compensation expense on a straight-line basis over the vesting period. Two-tier employee stock-based awards, contain both a service-based condition and performance condition, defined as the earlier of (i) an acquisition or change in control of the company or (ii) upon the occurrence of an initial public offering by the Company. A change in control event and effective registration event are not deemed probable until consummated; accordingly, no expense is recorded related to two-tier stock-based awards until the performance condition becomes probable of occurring. Awards that contain both service-based and performance conditions are recognized using the accelerated attribution method once the performance condition is probable of occurring. The service-based condition is generally a service period of four years.

Stock-based compensation expense related to purchase rights issued under the 2019 Health Catalyst Employee Stock Purchase Plan (ESPP) is based on the Black-Scholes option-pricing model fair value of the estimated number of awards as of the beginning of the offering period. Stock-based compensation expense is recognized using the straight-line method over the offering period.

The compensation expense for non-employees is recognized, without changes in the fair value of the award, in the same period and in the same manner as though we had paid cash for the services, which is typically the vesting period of the respective award.

**Income taxes**

Deferred income tax balances are accounted for using the asset and liability method and reflect the effects of temporary differences between the financial reporting and tax bases of our assets and liabilities using enacted tax rates expected to apply when taxes are actually paid or recovered. In addition, deferred tax assets and liabilities are recorded for net operating loss (NOL) and credit carryforwards.

A valuation allowance is provided against deferred tax assets unless it is more likely than not that they will be realized based on all available positive and negative evidence. Such evidence includes, but is not limited to, recent cumulative earnings or losses, expectations of future taxable income by taxing jurisdiction, and the carry-forward periods available for the utilization of deferred tax assets.

We use a two-step approach to recognize and measure uncertain income tax positions. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates it is more likely than not that the position will be sustained upon audit. The second step is to measure the tax benefit as the largest amount, which is more than 50% likely of being realized upon ultimate settlement. We do not accrue interest and penalties related to unrecognized tax benefits within the provision for income taxes because we have NOLs. Significant judgment is required to evaluate uncertain tax positions.

Although we believe that we have adequately reserved for our uncertain tax positions, we can provide no assurance that the final tax outcome of these matters will not be materially different. We evaluate our uncertain tax positions on a regular basis and evaluations are based on a number of factors, including changes in facts and circumstances, changes in tax law, such as the Tax Cuts and Jobs Act of 2017, correspondence with tax authorities during the course of an audit, and effective settlement of audit issues.

To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made and could have a material impact on our financial condition and results of operations.

**Fair value of financial instruments**

The carrying amounts reported in our condensed consolidated balance sheets for cash, receivables, accounts payable, and current accrued expenses approximate fair values because of the immediate or short-term maturity of these financial instruments. The carrying value of acquisition-related consideration payable, operating lease liabilities, and long-term debt approximate fair value based on interest rates available for debt with similar terms at June 30, 2020 and December 31, 2019. Money market funds and short-term investments are measured at fair value on a recurring basis. Our contingent consideration liability is measured at fair value on a recurring basis based primarily on significant inputs not observable in the market.

Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

- Level 1- Quoted prices in active markets for identical assets or liabilities.

- Level 2- Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

- Level 3- Inputs that are generally unobservable and typically reflect management’s estimate of assumptions that market participants would use in pricing the asset or liability.

All of our financial instruments are valued using quoted prices in active markets or based on other observable inputs. For Level 2 securities, we use a third-party pricing service which provides documentation on an ongoing basis that includes, among other things, pricing information with respect to reference data, methodology, inputs summarized by asset class, pricing application, and corroborative information. Our contingent consideration liability is categorized as a Level 3 fair value measurement because we estimate projections during the earn out period utilizing various potential pay-out scenarios.

**Leases**

We determine if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use (ROU) assets, operating lease liabilities, and operating lease liabilities, net of current portion in our condensed consolidated balance sheets. We have adopted the short-term lease recognition exemption policy. All of our leasing commitments are classified either as operating leases or otherwise qualify as short-term leases with lease terms of 12 months or less.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As our lease contracts do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement date to determine the present value of lease payments. The operating lease ROU asset also includes any lease payments made and excludes lease executory costs. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise the applicable option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

We do not have lease agreements that contain non-lease components, which generally would be accounted for separately.

**Accounting pronouncements adopted**

*Goodwill impairment*

In January 2017, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2017-04, *Intangibles-Goodwill and Other - Simplifying the Test for Goodwill Impairment (Topic 350)*, that simplifies how an entity is required to test goodwill for impairment by eliminating the second step of the impairment test. The first step measures a goodwill impairment loss by comparing the fair value of a reporting unit to the carrying amount. If the carrying amount of the reporting unit exceeds its fair value, the carrying amount of goodwill is reduced by the excess reporting unit carrying amount up to the carrying amount of the goodwill. We adopted ASU 2017-04 as of January 1, 2020. The guidance applies to our reporting requirements in performing goodwill impairment testing; however, the adoption of this guidance did not have an impact on our condensed consolidated financial statements and related disclosures.

*Fair value measurements*

In August 2018, the FASB issued ASU 2018-13*, Fair Value Measurement (Topic 820), Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement*, which eliminates certain disclosure requirements for fair value measurements for all entities, requires public entities to disclose certain new information prospectively, including the ranges used to develop significant unobservable inputs for Level 3 fair value measurements, and modifies some disclosure requirements. We adopted ASU 2018-13 as of January 1, 2020. The adoption of this standard did not have a material impact on our condensed consolidated financial statements and related disclosures.

*Credit losses*

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326)*, which required the measurement and recognition of expected credit losses for certain financial instruments, which includes our accounts receivable and available-for-sale debt securities. ASU 2016-13 replaces the existing incurred loss impairment model with an expected loss model which requires the use of forward-looking information to calculate credit loss estimates, which results in earlier recognition of credit losses. We adopted ASU 2016-13 effective January 1, 2020. The adoption of the standard did not have a material impact on our condensed consolidated financial statements. The adoption adjustment was recorded to accumulated deficit, as seen in our condensed consolidated statements of redeemable convertible preferred stock and stockholders' equity.

*Implementation Costs Incurred in a Cloud Computing Arrangement*

In August 2018, the FASB issued ASU 2018-15, *Intangibles — Goodwill and Other — Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*. ASU 2018-15 aligns the requirements for capitalizing implementation costs in a cloud computing arrangement service contract with the requirements for capitalizing implementation costs incurred for an internal-use software license. We prospectively adopted ASU 2018-15 effective January 1, 2020. The adoption of this standard did not have a material impact on our condensed consolidated financial statements and related disclosures.

**Recent accounting pronouncements not yet adopted**

*Accounting for income taxes*

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740) - Simplifying the Accounting for Income Taxes*, which simplifies the accounting for income taxes, eliminates certain exceptions within Topic 740, and clarifies certain aspects of the current guidance to promote consistency among reporting entities. The new standard is effective for fiscal years beginning after December 15, 2021. Most amendments within the standard are required to be applied on a prospective basis, while certain amendments must be applied on a retrospective or modified retrospective basis. We are currently evaluating the impacts the provisions of this standard will have on our condensed consolidated financial statements and related disclosures.

*Accounting for convertible instruments*

In August 2020, the FASB issued ASU 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40)—Accounting For Convertible Instruments and Contracts in an Entity's Own Equity*. The new standard simplifies accounting for convertible instruments by removing major separation models required under current GAAP. Consequently, more convertible debt instruments will be reported as a single liability instrument with no separate accounting for embedded conversion features. The new standard removes certain settlement conditions that previously required derivative accounting. Consequently, more equity contracts will be permitted to qualify for the derivative scope exception. The new standard also simplifies the diluted net income per share calculation in certain areas and is effective for annual and interim periods beginning after December 15, 2021, and early adoption is permitted for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. We are currently evaluating the impacts the provisions of this standard will have on our condensed consolidated financial statements and related disclosures.

**2. Business Combinations**

On February 21, 2020, we acquired Able Health, Inc. (Able Health), a leading software-as-a-service provider of quality and regulatory measurement tracking and reporting to healthcare providers and risk-bearing entities, in a transaction accounted for as a business combination. The acquisition consideration transferred was $21.5 million and was comprised of net cash consideration of $15.2 million, Health Catalyst common shares with a fair value of $3.3 million, and contingent consideration based on achievement of Able Health specified incremental customer billings for the year ending December 31, 2020, with an initial fair value of $3.0 million. The acquisition consideration is subject to certain working capital escrow adjustments. The purchase resulted in Health Catalyst acquiring 100% ownership in Able Health. We believe this acquisition will strengthen Health Catalyst’s Quality and Regulatory Measures capabilities.

An additional 179,392 shares of our common stock subject to restriction agreements, or restricted shares, were issued pursuant to the terms of the acquisition agreement and 60,000 restricted stock units were issued in connection with the acquisition agreement. The value of these restricted shares and restricted stock units will be recognized as post-combination stock-based compensation expense over their respective vesting terms. The vesting of the restricted shares is subject to one year of continuous service by the applicable team members and shall vest on the one-year anniversary of the acquisition closing date and the service-based condition for the restricted stock units issued pursuant to the terms of the acquisition agreement is satisfied over two years with a 50% cliff vesting period of one year and ratable quarterly vesting thereafter. Refer to Note 12 for additional details related to our stock-based compensation.

The fair value measurement of contingent consideration that may be payable to Able Health’s former stockholders and the measurement of the acquired Able Health assets and assumed liabilities are determined based on estimates and assumptions that are judgmental in nature, including the timing and amount of projected future cash flows and market-participant discount rates reflecting risks inherent in the future cash flows.

The preliminary allocation of the consideration transferred is based on a preliminary valuation and is subject to potential adjustments. Balances subject to adjustment primarily include tax-related matters, including tax basis of acquired assets and liabilities. During the measurement period, we may record adjustments to the provisional amounts recognized in our initial accounting for the acquisition. We expect the allocation of the consideration transferred to be final within the measurement period (up to one year from the acquisition date). There were no measurement period adjustments recorded during the three and six months ended June 30, 2020.

The following table summarizes the acquisition-date fair value of consideration transferred and the identifiable assets purchased and liabilities assumed as part of our acquisition of Able Health (in thousands):

| | | |
|---|---|---|
| Assets acquired: | | |
| Accounts receivable | $ | 633 |
| Prepaid expenses and other assets | | 57 |
| Developed technologies | | 7,500 |
| Customer relationships | | 600 |
| Trademarks | | 100 |
| Total assets acquired | | 8,890 |
| Less liabilities assumed: | | |
| Accounts payable and other current liabilities | | 91 |
| Deferred revenue | | 762 |
| Net deferred tax liabilities | | 1,280 |
| Total liabilities assumed | | 2,133 |
| Total assets acquired, net | | 6,757 |
| Goodwill | | 14,725 |
| Total consideration transferred, net of cash acquired | $ | 21,482 |

The acquired intangible assets were valued utilizing either an income approach or a cost approach as deemed most applicable, and include customer relationships, developed technology, and trademarks that will be amortized on a straight-line basis over their estimated useful lives of six years, three years, and two years, respectively. The resulting goodwill from the Able Health acquisition was fully allocated to the technology reporting unit and is not deductible for income tax purposes. We expensed $0.9 million of acquisition transaction costs as incurred that are included in general and administrative expense in our condensed consolidated statements of operations.

Pro forma financial information has not been presented for this acquisition as the impact to our condensed consolidated financial statements was not material.

Revenue and income (loss) information for Able Health after the acquisition date through June 30, 2020 is not presented as the Able Health business was integrated into our operations immediately following the acquisition and is impracticable to quantify.

## 3. Revenue

### Disaggregation of revenue

The following table represents Health Catalyst’s revenue disaggregated by type of arrangement (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| Recurring technology | $ 25,487 | $ 20,085 | $ 50,186 | $ 40,233 |
| Professional services | 17,772 | 16,719 | 38,189 | 31,784 |
| Total revenue | $ 43,259 | $ 36,804 | $ 88,375 | $ 72,017 |

For the three months ended June 30, 2020 and 2019, and for the six months ended June 30, 2020 and 2019, 99.9%, 100%, 99.9%, and 100%, respectively, of revenue was related to contracts with customers located in the United States.

## 4. Goodwill and Intangible Assets

We operate our business in two operating segments that also represent our reporting units. Our reporting units are organized based on our technology and professional services. We have not incurred any goodwill impairment charges.

Goodwill by reporting unit is as follows (in thousands):

| | As of June 30, 2020 | As of December 31, 2019 |
|---|---|---|
| Technology | $ 17,637 | $ 2,912 |
| Professional services | 782 | 782 |
| Total goodwill | $ 18,419 | $ 3,694 |

As of June 30, 2020, intangible assets consisted of the following (in thousands):

| | Gross | Accumulated Amortization | Net |
|---|---|---|---|
| Developed technologies | $ 43,629 | $ (19,504) | $ 24,125 |
| Customer relationships and contracts | 4,764 | (3,162) | 1,602 |
| Computer software licenses | 7,227 | (3,598) | 3,629 |
| Trademarks | 200 | (121) | 79 |
| Total intangible assets | $ 55,820 | $ (26,385) | $ 29,435 |

As of December 31, 2019, intangible assets consisted of the following (in thousands):

| | Gross | Accumulated Amortization | Net |
|---|---|---|---|
| Developed technologies | $ 36,129 | $ (16,548) | $ 19,581 |
| Customer relationships and contracts | 4,164 | (2,773) | 1,391 |
| Computer software licenses | 7,114 | (2,576) | 4,538 |
| Trademarks | 100 | (75) | 25 |
| Total intangible assets | $ 47,507 | $ (21,972) | $ 25,535 |

The increase in goodwill and intangible assets is primarily due to our acquisition of Able Health. Intangible assets are amortized using the straight-line method over the estimated useful lives. Amortization expense of acquired intangible assets was $2.4 million and $1.5 million for the three months ended June 30, 2020, and 2019, respectively, and $4.5 million and $3.0 million for the six months ended June 30, 2020 and 2019, respectively. Amortization expense for intangible assets is included in depreciation and amortization in our condensed consolidated statements of operations.

## 5. Property and Equipment

Property and equipment consisted of the following (in thousands):

| | As of June 30, 2020 | As of December 31, 2019 |
|---|---|---|
| Computer equipment | $ 7,669 | $ 7,951 |
| Leasehold improvements | 2,630 | 2,234 |
| Furniture and fixtures | 1,028 | 1,030 |
| Capitalized internal-use software costs | 2,144 | 1,866 |
| Computer software | 972 | 972 |
| Capital lease equipment | 37 | 37 |
| Total property and equipment | 14,480 | 14,090 |
| Less: accumulated depreciation | (10,645) | (9,795) |
| Property and equipment, net | $ 3,835 | $ 4,295 |

Our long-lived assets are located in the United States. Depreciation expense totaled $0.7 million and $0.7 million for the three months ended June 30, 2020 and 2019, respectively, and $1.5 million and $1.5 million for the six months ended June 30, 2020 and 2019, respectively. Depreciation expense includes amortization of assets recorded under a capital lease and the amortization of capitalized internal-use software costs.

**6. Short-term Investments**

Our investment policy limits investments to highly-rated instruments that mature in less than 12 months. We classify our short-term investments as available for sale. Available-for-sale securities are recorded on our condensed consolidated balance sheets at fair market value and any unrealized gains or losses are reported as part of other comprehensive loss on our condensed consolidated statements of comprehensive loss.

We determine realized gains or losses on the sales of investments through the specific identification method and record such gains or losses as part of interest and other expense, net on our condensed consolidated statements of operations. We did not have significant realized gains or losses on investments during the three and six months ended June 30, 2020 and 2019. We measure the fair value of investments on a recurring basis.

Accrued interest receivables related to our available-for-sale securities of $1.2 million and $0.9 million as of June 30, 2020 and December 31, 2019 were included within prepaid expenses and other assets on our condensed consolidated balance sheets.

The following table summarizes, by major security type, our cash equivalents and short-term investments that are measured at fair value on a recurring basis (in thousands) as of June 30, 2020:

| | Amortized Cost | Unrealized Gains | Unrealized Losses | Fair Value | Cash equivalents | Short-term Investments |
|---|---|---|---|---|---|---|
| Money market funds | $ 101,384 | $ — | $ — | $ 101,384 | $ 101,384 | $ — |
| U.S. Treasury notes | 83,849 | 79 | — | 83,928 | — | 83,928 |
| Commercial paper | 51,832 | — | — | 51,832 | — | 51,832 |
| Corporate bonds | 86,205 | 56 | (6) | 86,255 | — | 86,255 |
| Asset-backed securities | 26,863 | 54 | — | 26,917 | — | 26,917 |
| Total | $ 350,133 | $ 189 | $ (6) | $ 350,316 | $ 101,384 | $ 248,932 |

The following table summarizes, by major security type, our cash equivalents and short-term investments that are measured at fair value on a recurring basis (in thousands) as of December 31, 2019:

| | Amortized Cost | Unrealized Gains | Unrealized Losses | Fair Value | Cash equivalents | Short-term Investments |
|---|---|---|---|---|---|---|
| Money market funds | $ 17,175 | $ — | $ — | $ 17,175 | $ 17,175 | $ — |
| US treasury notes | 58,130 | 34 | — | 58,164 | — | 58,164 |
| Commercial paper | 46,973 | — | — | 46,973 | — | 46,973 |
| Corporate bonds | 64,978 | 27 | (5) | 65,000 | — | 65,000 |
| Asset-backed securities | 40,090 | 18 | — | 40,108 | — | 40,108 |
| Total | $ 227,346 | $ 79 | $ (5) | $ 227,420 | $ 17,175 | $ 210,245 |

On a quarterly basis we evaluate unrealized losses on our available-for-sale debt securities and the related accrued interest receivables to determine whether a decline in the fair value below the amortized cost basis is due to credit-related factors or noncredit-related factors. We do not intend to sell investments that are in an unrealized loss position and it is not likely that we will be required to sell any investments before recovery of their amortized cost basis. As of June 30, 2020 and December 31, 2019, there were no material unrealized losses due to credit-related factors.

## 7. Fair Value of Financial Instruments

Assets and liabilities measured at fair value on a recurring basis as of June 30, 2020 were as follows (in thousands):

| | June 30, 2020 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Money market funds | $ 101,384 | $ — | $ — | $ 101,384 |
| U.S. Treasury notes | 83,928 | — | — | 83,928 |
| Commercial paper | — | 51,832 | — | 51,832 |
| Corporate bonds | — | 86,255 | — | 86,255 |
| Asset-backed securities | — | 26,917 | — | 26,917 |
| Contingent consideration | — | — | (1,457) | (1,457) |
| Total | $ 185,312 | $ 165,004 | $ (1,457) | $ 348,859 |

Assets measured at fair value on a recurring basis as of December 31, 2019 were as follows (in thousands):

| | December 31, 2019 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Money market funds | $ 17,175 | $ — | $ — | $ 17,175 |
| U.S. Treasury notes | 58,164 | — | — | 58,164 |
| Commercial paper | — | 46,973 | — | 46,973 |
| Corporate bonds | — | 65,000 | — | 65,000 |
| Asset-backed securities | $ — | $ 40,108 | $ — | $ 40,108 |
| Total | $ 75,339 | $ 152,081 | $ — | $ 227,420 |

As of December 31, 2019, there were no liabilities measured at fair value on a recurring basis. There were no transfers between Level 1 and Level 2 during the three and six months ended June 30, 2020 and 2019.

The Able Health acquisition consideration includes an estimate for contingent consideration of up to 145,036 shares of our common stock that will be issued if certain incremental billing targets for Able Health are met during an earn-out period that ends on December 31, 2020. The resulting contingent consideration liability is categorized as a Level 3 fair value measurement because we estimate projections during the earn-out period utilizing various potential pay-out scenarios. For the contingent consideration liability, we value the expected contingent consideration and the corresponding liability using the Monte Carlo method based on estimates of potential pay-out scenarios. Probabilities were applied to each potential scenario and the resulting values were discounted using a rate that considers weighted average cost of capital as well as a specific risk premium associated with the riskiness of the earn-out itself, the related projections, and volatility in the fair value of our common stock. The contingent consideration liability is classified as a component of non-current liabilities in our consolidated balance sheets as the contingent consideration will be settled in shares of our common stock. Changes to the contingent consideration liability are reflected as part of general and administrative expense in our consolidated statements of operations. Changes to the unobservable inputs could have a material impact on our condensed consolidated financial statements.

The following table sets forth a summary of the changes in the estimated fair value of the contingent consideration liability, which is measured at fair value on a recurring basis using significant unobservable inputs (Level 3) (in thousands):

| | Fair Value Measurements Using Significant Unobservable Inputs (Level 3) |
|---|---|
| Balance at December 31, 2019 | $ — |
| Contingent consideration liability from Able Health acquisition (see note 2) | 3,025 |
| Change in fair value of contingent consideration liability | (1,568) |
| Balance at June 30, 2020 | $ 1,457 |

## 8. Accrued liabilities

As of June 30, 2020 and December 31, 2019, accrued liabilities consisted of the following (in thousands):

| | As of June 30, 2020 | As of December 31, 2019 |
|---|---|---|
| Accrued compensation and benefit expenses | $ 2,744 | $ 4,278 |
| Interest payable | 1,198 | — |
| Other accrued liabilities | 3,545 | 4,666 |
| Total accrued liabilities | $ 7,487 | $ 8,944 |

## 9. Convertible Senior Notes and Credit Facilities

*Convertible Senior Notes*

On April 14, 2020, we issued $230.0 million in aggregate principal amount of 2.50% Convertible Senior Notes due 2025 (the Notes), in a private placement to qualified institutional buyers exempt from registration under the Securities Act (the Note Offering). The net proceeds from the issuance of the Notes were approximately $222.5 million, after deducting the initial purchasers' discounts and offering expenses payable by us.

The Notes are governed by an indenture (the Indenture) between us, as the issuer, and U.S. Bank National Association, as trustee. The Notes are our senior, unsecured obligations and accrue interest payable semiannually in arrears on April 15 and October 15 of each year, beginning on October 15, 2020, at a rate of 2.50% per year. The Notes will mature on April 15, 2025, unless earlier converted, redeemed, or repurchased. The Indenture does not contain any financial or operating covenants or restrictions on the payments of dividends, the incurrence of indebtedness, or the issuance or repurchase of securities by us or any of our subsidiaries.

We may not redeem the notes prior to April 20, 2023. On or after April 20, 2023, we may redeem, for cash, all or a portion of the notes, at our option, if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive), including the trading day immediately preceding the date on which we provide notice of redemption, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption at a redemption price equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. No sinking fund is provided for the notes.

The Notes have an initial conversion rate of 32.6797 shares of our common stock per $1,000 principal amount of Notes (which is equivalent to an initial conversion price of approximately $30.60 per share of our common stock). Following certain corporate events that occur prior to the maturity date, we will increase the conversion rate for a holder who elects to convert its Notes in connection with such corporate event. Additionally, upon the occurrence of a corporate event that constitutes a “fundamental change” per the Indenture, holders of the Notes may require the Company to repurchase for cash all or a portion of their Notes at a purchase price equal to 100% of the principal amount of the Notes plus accrued and unpaid interest.

Holders of the Notes may convert all or any portion of their Notes at any time prior to the close of business on October 14, 2024, in integral multiples of $1,000 principal amount, only under the following circumstances:

- During any calendar quarter commencing after the calendar quarter ended on June 30, 2020 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;

- During the five business day period after any five consecutive trading day period (the “measurement period”) in which the trading price as defined in the Indenture per $1,000 principal amount of Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day;

- If we call such notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date; or

- Upon the occurrence of specified corporate events described in the Indenture.

On or after October 15, 2024, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their Notes at the conversion rate at any time irrespective of the foregoing circumstances. Upon conversion, holders will receive cash, shares of our common stock or a combination of cash and shares of common stock, at our election.

During the three and six months ended June 30, 2020, the conditions allowing holders of the Notes to convert were not met. The Notes are therefore not currently convertible and are classified as long-term debt.

We account for the Notes as separate liability and equity components. We determined the carrying amount of the liability component as the present value of its cash flows using a discount rate of approximately 10% based on comparable debt transactions for similar companies. The estimated interest rate was applied to the Notes, which resulted in a fair value of the liability component of $166.7 million upon issuance, calculated as the present value of future contractual payments based on the $230.0 million aggregate principal amount. The excess of the principal amount of the liability component over its carrying amount, or the debt discount, is amortized to interest expense over the term of the Notes using the effective interest method. The $63.3 million difference between the gross proceeds received from issuance of the Notes of $230.0 million and the estimated fair value of the liability component represents the equity component, or the conversion option, of the Notes and was recorded in additional paid-in capital. The equity component is not remeasured as long as it continues to meet the conditions for equity classification.

We allocated issuance costs related to the issuance of the Notes to the liability and equity components using the same proportions as the initial carrying value of the Notes. Issuance costs attributable to the liability component were $5.5 million and are being amortized to interest expense using the effective interest method over the term of the Notes. Issuance costs attributable to the equity component were $2.1 million and are netted with the equity component of the Notes in stockholders’ equity on the condensed consolidated balance sheets.

The net carrying value of the liability component of the Notes was as follows (in thousands):

| | June 30, 2020 |
|---|---|
| Principal | $ 230,000 |
| Less: Unamortized debt discount | (61,250) |
| Less: Unamortized issuance costs | (5,270) |
| Net carrying amount | $ 163,480 |

The net carrying value of the equity component of the Notes was as follows (in thousands):

| | June 30, 2020 |
|---|---|
| Proceeds allocated to the conversion option (debt discount) | $ 63,270 |
| Less: Issuance costs | (2,057) |
| Net carrying amount | $ 61,213 |

The interest expense recognized related to the Notes was as follows (in thousands):

| | Three Months Ended June 30, 2020 | Six Months Ended June 30, 2020 |
|---|---|---|
| Contractual interest expense | $ 1,198 | $ 1,198 |
| Amortization of debt issuance costs and discount | 2,211 | 2,211 |
| Total | $ 3,409 | $ 3,409 |

*Capped Calls*

On April 8, 2020, concurrently with the pricing of the Notes, we entered into privately negotiated capped call transactions (Base Capped Calls) with certain option counterparties. In addition, in connection with the initial purchasers’ exercise in full of their option to purchase additional Notes, on April 9, 2020, we entered into additional capped call transactions (together with the Base Capped Calls, the Capped Calls) with each of the option counterparties. We used approximately $21.7 million of the net proceeds from the Note Offering to pay the cost of the Capped Calls and allocated issuance costs. The Capped Calls have initial cap prices of $42.00 per share, subject to certain adjustments. The Capped Calls are expected generally to reduce the potential dilution to our common stock upon any conversion of Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted Notes, as the case may be, with such reduction and/or offset subject to the cap price. The Capped Calls are separate transactions that we entered into with the option counterparties, and are not part of the terms of the Notes. As the Capped Call transactions are considered indexed to our own stock and are considered equity classified, they will be recorded in stockholders’ equity and will not be accounted for as derivatives. The cost incurred in connection with the Capped Calls was recorded as a reduction to additional paid-in capital on our condensed consolidated balance sheets.

*Credit Facilities*

As of December 31, 2019, our term credit facilities consisted of the following, excluding unamortized debt discount and issue costs of $1.8 million (in thousands):

| | Balance | Remaining Capacity | Interest Rate | Basis Rate |
|---|---|---|---|---|
| OrbiMed term loan | $ 50,000 | $ 30,000 | 10.00% | Higher of LIBOR plus 7.5% and 10.0% |
| SVB revolving line of credit | — | 5,000 | 5.25% | Prime plus 0.50% |
| Total credit facilities | 50,000 | $ 35,000 | | |
| Less: Current portion of credit facilities | — | | | |
| Credit facilities, less current portion | $ 50,000 | | | |

*OrbiMed term loan*

On February 6, 2019, we entered into a debt financing agreement (the Credit Agreement) with OrbiMed Royalty Opportunities II, LP (OrbiMed) where we obtained an $80.0 million senior term loan commitment, with $50.0 million available and up to an additional $30.0 million contingently available on or prior to March 31, 2020 (the Delayed Draw Commitment). We paid $2.4 million in fees related to the establishment of the OrbiMed term loan and incurred $0.3 million in debt issuance costs. The Delayed Draw Commitment was contingent upon our achievement of minimum levels of technology revenues ranging from technology revenues for the latest 12 months of at least $60.0 million to borrow up to $10.0 million, to a minimum of $80.0 million in technology revenues to borrow between $25.0 million and $30.0 million.

The contractual interest rate of the OrbiMed term loan was the higher of LIBOR plus 7.5% and 10.0%. Interest payments were required at the end of each month and monthly installment payments on principal begin in February 2023 and will be based on the then outstanding principal balance divided by 12. The maturity date of the OrbiMed term loan was February 6, 2024. Upon the payment of all or any portion of the principal amount on the OrbiMed term loan, we were required to pay an exit fee of 5% of the principal amount paid. This exit fee was being accreted as interest expense over the contractual term of the loan. As we elected to prepay the principal balance prior to the 48-month anniversary of the closing date we were required to pay a repayment premium of 9% of the principal balance prepaid.

Amounts borrowed under the OrbiMed term loan were secured by a first priority security interest in substantially all of our assets other than intellectual property. In the event of default, OrbiMed was able to accelerate amounts outstanding, terminate the credit facility, and foreclose on the collateral. The agreement also included a financial covenant requiring the achievement of minimum trailing twelve-month revenue amounts as well as certain other financial and non-financial covenants. We were in compliance with these covenants under the terms of the OrbiMed term loan as of April 14, 2020.

*Extinguishment of OrbiMed term loan*

On April 14, 2020, we used $57.0 million of proceeds from the Note Offering to prepay in full all outstanding indebtedness, including prepayment penalties, under the Credit Agreement and terminated the Credit Agreement. We recorded a loss on debt extinguishment of $8.5 million during the three months ended June 30, 2020, including $1.5 million unamortized debt discounts and issuance costs related to the OrbiMed term loan and $7.0 million of repayment fees.

*SVB revolving line of credit*

In June 2016, we signed a Loan and Security Agreement with Silicon Valley Bank (SVB) which established a revolving line of credit based on a formula amount. On February 6, 2019, we amended the Loan and Security Agreement with SVB which reduced the revolving line of credit to a current maximum of $5.0 million with an obligation to maintain a minimum of $5.0 million cash or cash equivalents on deposit with SVB to maintain the assurance of future credit availability. The line may have been increased to $10.0 million upon request and approval by SVB. The maturity date of the revolving line of credit was amended to be February 6, 2021.

*Extinguishment of SVB revolving line of credit*

On April 8, 2020, we entered into a Pay-Off Letter Agreement with SVB, pursuant to which we paid to SVB immaterial termination costs, representing all amounts due and owing under the Amended and Restated Loan and Security Agreement (the Loan Agreement), dated as of October 6, 2017, with SVB, in exchange for, among other things, (i) full discharge of all of our obligations under the Loan Agreement; and (ii) release of security interests and other liens granted to or held by SVB as a security for our obligations.

## 10. Stockholders' Equity (Deficit)

### Amendment and Restatement of Certificate of Incorporation

In connection with the IPO, the certificate of incorporation of Health Catalyst was amended and restated to, among other things, provide for the (i) authorization of 500,000,000 shares of common stock with a par value of $0.001 per share; (ii) authorization of 25,000,000 shares of undesignated preferred stock that may be issued from time to time; and (iii) establishment of a classified board of directors, divided into three classes, each of whose members will serve for staggered three-year terms.

### Preferred Stock

Our board of directors has the authority, without further action by our stockholders, to issue up to 25,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, and privileges thereof, including voting rights. As of June 30, 2020 and December 31, 2019, no shares of this preferred stock were issued and outstanding.

### Common stock

We had 500,000,000 shares of $0.001 par value common stock authorized, of which 38,729,662 and 36,731,632 shares were legally issued and outstanding as of June 30, 2020 and December 31, 2019, respectively. The shares legally issued and outstanding as of December 31, 2019 included 52,778 shares issued to former employees with notes determined to be substantively nonrecourse and, as such, for accounting purposes were not considered to be outstanding shares of common stock. These notes were repaid in full by the former employees during the six months ended June 30, 2020, and the shares issued are included in the outstanding shares of common stock for accounting purposes as of June 30, 2020. Each share of common stock has the right to one vote on all matters submitted to a vote of stockholders. The holders of common stock are also entitled to receive dividends whenever funds are legally available and when declared by the board of directors, subject to prior rights of holders of all classes of stock outstanding having priority rights as to dividends. No dividends have been declared or paid on our common stock through June 30, 2020.

## 11. Net Loss Per Share

The following table presents the calculation of basic and diluted net loss per share attributable to common stockholders (in thousands, except share and per share amounts):

| | Three Months Ended June 30, 2020 | Three Months Ended June 30, 2019 | Six Months Ended June 30, 2020 | Six Months Ended June 30, 2019 |
|---|---|---|---|---|
| Numerator: | | | | |
| Net loss attributable to common stockholders | $ (27,183) | $ (109,335) | $ (44,673) | $ (187,070) |
| Denominator: | | | | |
| Weighted-average number of shares used in calculating net loss per share attributable to common stockholders, basic and diluted | 38,130,932 | 4,974,515 | 37,619,965 | 4,885,350 |
| Net loss per share attributable to common stockholders, basic and diluted | $ (0.71) | $ (21.98) | $ (1.19) | $ (38.29) |

During the three and six months ended June 30, 2020 and 2019, we incurred net losses and, therefore, the effect of our stock options, restricted stock units, purchase rights committed or shares issued under our employee stock purchase plan, restricted shares, common stock warrants, and redeemable convertible preferred stock (as converted) were not included in the calculation of diluted net loss per share attributable to common stockholders as the effect would be anti-dilutive. The following table contains share totals with a potentially dilutive impact:

| | As of June 30, 2020 | As of June 30, 2019 |
|---|---|---|
| Redeemable convertible preferred stock | — | 23,151,481 |
| Common stock options | 5,882,786 | 8,031,898 |
| Restricted stock units | 2,104,713 | 37,500 |
| Employee stock purchase plan | — | — |
| Restricted shares | 179,392 | — |
| Common stock warrants | — | 255,336 |
| Total potentially dilutive securities | 8,166,891 | 31,476,215 |

The conversion spread of the Notes will have a potentially dilutive impact when the average market price of our common stock for a given period exceeds the conversion price of $30.60 per share. During the three and six months ended June 30, 2020 and 2019, our weighted average common stock price was below the conversion price of the Notes. Capped Calls are excluded from the calculation of diluted earnings per share, as they would be antidilutive.

## 12. Stock-Based Compensation

In 2011, our board of directors adopted the Health Catalyst, Inc. 2011 Stock Incentive Plan (2011 Plan), which provided for the direct award, sale of shares, and granting of RSUs and options for our common stock to our directors, team members, or consultants. In connection with our IPO, our board of directors adopted the 2019 Stock Option and Incentive Plan (2019 Plan). The 2019 Plan provides flexibility to our compensation committee to use various equity-based incentive awards as compensation tools to motivate our workforce, including the grant of incentive and nonstatutory stock options, restricted and unrestricted stock, RSUs, and stock appreciation rights to our directors, team members, or consultants.

We have initially reserved 2,756,607 shares of our common stock (2,500,000 under the 2019 Plan and 256,607 shares under the 2011 Plan that were available immediately prior to the IPO registration date). The 2019 Plan provides that the number of shares reserved available for issuance under the plan will automatically increase each January 1, beginning on January 1, 2020, by 5% of the outstanding number of shares of our common stock on the immediately preceding December 31, or such lesser number of shares as determined by our compensation committee. As of January 1, 2020, there were an additional 1,836,581 shares reserved for issuance under the 2019 Plan.

As of June 30, 2020 and December 31, 2019, there were 13,109,459 and 11,272,878 shares authorized for grant, respectively, and 2,666,996 and 2,309,370 shares available for grant, respectively, under the 2019 Plan and 2011 Plan (collectively the Stock Incentive Plan).

All options were granted with an exercise price determined by the board of directors that was equal to the estimated fair value of our common stock at the date of grant, based on the information known on the date of grant. Subject to certain exceptions defined in the Stock Incentive Plan related to an employee's termination, options generally expire on the tenth anniversary of the applicable grant date.

We have issued two types of employee stock-based awards, standard and two-tier. Our standard stock-based awards vest solely on a service-based condition. For these awards, we recognize stock-based compensation based on the grant date fair value of the awards and recognize that cost using the straight-line method over the requisite service period of the award. Two-tier employee stock-based awards contain both a service-based condition and performance condition, defined as the earlier of (i) an acquisition or change in control of the company or (ii) upon the occurrence of our initial public offering. A change in control event and effective registration event are not deemed probable until consummated; accordingly, no expense is recorded related to two-tier stock-based awards until the performance condition becomes probable of occurring. Awards which contain both service-based and performance conditions are recognized using the accelerated attribution method once the performance condition is probable of occurring. The service-based condition is generally a service period of four years. Upon closing our IPO, we recorded cumulative share-based compensation expense using the accumulated attribution method for two-tier employee stock-based awards for which the service condition had been satisfied at that date.

The fair value of options, which vest in accordance with service schedules, is estimated on the date of grant using the Black-Scholes option pricing model. Prior to our IPO, the absence of an active market for our common stock required us to estimate the fair value of our common stock for purposes of granting stock-based awards, including stock options and RSUs, and for determining stock-based compensation expense for the periods presented. We obtained contemporaneous third-party valuations to assist in determining the estimated fair value of our common stock. These contemporaneous third-party valuations used the methodologies, approaches, and assumptions consistent with the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*. Expected volatilities are based on historical volatilities of comparable companies when our own historical volatility is not available for a sufficient time period. The expected term of the options is based on the simplified method outlined in the SEC Staff accounting guidance, under which we estimate the term as the average of the option's contractual term and the option's weighted average vesting period. The risk-free rate represents the yield on U.S. Treasury bonds with maturity equal to the expected term of the granted option. We account for forfeitures as they occur. All standard stock-based awards outstanding at June 30, 2020 and December 31, 2019 are expected to vest according to their specific schedules.

The measurement date for non-employee awards is the date of grant. The compensation expense for non-employees is recognized, without changes in the fair value of the award, in the same period and in the same manner as though we had paid cash for the services, which is typically the vesting period of the respective award.

The following two tables summarize our total stock-based compensation expense by award type and where the stock-based compensation expense was recorded in our consolidated statements of operations (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| Options | $ 1,934 | $ 1,398 | $ 4,476 | $ 3,054 |
| Restricted stock units | 5,293 | — | 10,410 | — |
| Employee stock purchase plan | 476 | — | 968 | — |
| Restricted shares | 1,343 | — | 1,933 | — |
| Total stock-based compensation | $ 9,046 | $ 1,398 | $ 17,787 | $ 3,054 |

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| Cost of revenue | $ 1,093 | $ 171 | $ 2,085 | $ 352 |
| Sales and marketing | 3,309 | 497 | 6,491 | 1,280 |
| Research and development | 2,080 | 213 | 3,962 | 435 |
| General and administrative | 2,564 | 517 | 5,249 | 987 |
| Total stock-based compensation | $ 9,046 | $ 1,398 | $ 17,787 | $ 3,054 |

**Stock Options**

There were no stock options granted during the three and six months ended June 30, 2020. The fair value of our prior year option grants was estimated at the grant date using the Black-Scholes option-pricing model based on the following weighted average assumptions:

| | Three Months Ended June 30, | Six Months Ended June 30, |
|---|---|---|
| | 2019 | 2019 |
| Expected volatility | 43.8% | 43.8%-44.5% |
| Expected term (in years) | 6.3 | 6.3 |
| Risk-free interest rate | 2.4% | 2.4%-2.5% |
| Expected dividends | — | — |

A summary of the share option activity under the 2019 Plan for the six months ended June 30, 2020, is as follows:

| | Time-Based Option Shares | Weighted Average Exercise Price | Weighted Average Remaining Contractual Life in Years | Aggregate Intrinsic Value (in thousands) |
|---|---|---|---|---|
| Outstanding at January 1, 2020 | 7,847,716 | $ 10.67 | | |
| Options exercised | (1,768,341) | 8.49 | | |
| Options cancelled/forfeited | (196,589) | 11.73 | | |
| Outstanding at June 30, 2020 | 5,882,786 | $ 11.29 | 7.3 | $ 105,176 |
| Vested and expected to vest as of June 30, 2020 | 5,882,786 | $ 11.29 | 7.3 | $ 105,176 |
| Vested and exercisable as of June 30, 2020 | 3,364,332 | $ 10.47 | 6.6 | $ 62,915 |

The aggregate intrinsic value of stock options exercised was $35.6 million for the six months ended June 30, 2020. The total grant-date fair value of stock options vested during the six months ended June 30, 2020 was $6.2 million. As of June 30, 2020, approximately $11.1 million of unrecognized compensation expense related to our stock options is expected to be recognized over a remaining weighted-average period of 2.0 years.

The options exercised for accounting purposes during the six months ended June 30, 2020 include 52,778 of shares issued to former employees with notes determined to be substantively nonrecourse, which were repaid in full during the period.

**Restricted Stock Units**

The service-based condition for RSUs is generally satisfied over four years with a 25% cliff vesting period of one year and ratable quarterly vesting thereafter. The following table sets forth the outstanding RSUs and related activity for the six months ended June 30, 2020:

| | Restricted Stock Units | Weighted Average Grant Date Fair Value |
|---|---|---|
| Unvested and outstanding at January 1, 2020 | 503,861 | $ 37.57 |
| RSUs granted | 1,734,444 | 33.28 |
| RSUs vested | (74,692) | 40.02 |
| RSUs forfeited | (58,900) | 34.50 |
| Unvested and outstanding at June 30, 2020 | 2,104,713 | $ 34.04 |

As of June 30, 2020, we had $62.2 million of unrecognized stock-based compensation expense related to outstanding RSUs expected to be recognized over a remaining weighted-average period of 3.3 years.

**Employee Stock Purchase Plan**

In connection with our IPO in July 2019, our board of directors adopted the ESPP and a total of 750,000 shares of common stock were initially reserved for issuance under the ESPP. The number of shares of common stock available for issuance under the ESPP will be increased on the first day of each calendar year beginning January 1, 2020 and each year thereafter until the ESPP terminates. The number of shares of common stock reserved and available for issuance under the ESPP shall be cumulatively increased by the least of (i) 750,000 shares, (ii) one percent of the number of shares of common stock issued and outstanding on the immediately preceding December 31, and (iii) such lesser number of shares of common stock as determined by the ESPP Administrator. As of January 1, 2020, there were an additional 367,316 shares reserved for issuance under the ESPP.

The ESPP generally provides for six-month offering periods, the exception being the first offering period. The offering periods generally start on the first trading day after June 30 and December 31 of each year.

The ESPP permits participants to elect to purchase shares of common stock through fixed percentage contributions from eligible compensation during each offering period, not to exceed 15% of the eligible compensation a participant receives during an offering period or accrue at a rate which exceeds $25,000 of the fair value of the stock (determined on the option grant date(s)) for each calendar year. A participant may purchase the lowest of (a) a number of shares of common stock determined by dividing such participant’s accumulated payroll deductions on the exercise date by the option price, (b) 2,500 shares; or (c) such other lesser maximum number of shares as shall have been established by the Administrator in advance of the offering period. Amounts deducted and accumulated by the participant will be used to purchase shares of common stock at the end of each offering period. The purchase price of the shares will be 85% of the lower of the fair value of common stock on the first trading day of each offering period or on the purchase date, except for the first offering period, for which the purchase price will be 85% of the lower of (i) the IPO price or (ii) the fair value of common stock on the purchase date.

Participants may end their participation at any time during an offering period and will be paid their accumulated contributions that have not been used to purchase shares of common stock. Participation ends automatically upon termination of employment.

The fair value of the purchase right for the ESPP option is estimated on the date of grant using the Black-Scholes model with the following assumptions for the current offering period:

| | Six Months Ended June 30, |
|---|---|
| | 2020 |
| Expected volatility | 54.9% |
| Expected term (in months) | 6 |
| Risk-free interest rate | 1.6% |
| Expected dividends | — |

During the six months ended June 30, 2020, we issued 97,113 shares under the ESPP, with a weighted-average purchase price per share of $24.79. Total cash proceeds from the purchase of shares under the ESPP during the six months ended June 30, 2020 were $2.4 million. As of June 30, 2020, 885,437 shares are available for future issuance under the ESPP.

**Restricted Shares**

As part of the Able Health acquisition that closed on February 21, 2020, 179,392 shares of our common stock were issued pursuant to the terms of the acquisition agreement and are a stock-based compensation arrangement subject to a restriction agreement. The vesting of those shares is subject to one year of continuous service by the applicable team members and shall vest on the one-year anniversary of the acquisition closing date.

As of June 30, 2020, we had $3.5 million of unrecognized stock-based compensation expense related to outstanding restricted shares expected to be recognized over a weighted average period of 0.6 years.

## 13. Income Taxes

The tax provision for interim periods is determined using an estimate of our annual effective tax rate, adjusted for discrete items, if any, that arise during the period. Each quarter, we update our estimate of the annual effective tax rate, and if the estimated annual effective tax rate changes, we make a cumulative adjustment in such period. The quarterly tax provision and the estimate of our annual effective tax rate are subject to variation due to several factors, including variability in our loss before income taxes, the mix of jurisdictions to which such income or loss relates, changes in how we conduct business, and tax law developments.

For the three months ended June 30, 2020 and 2019, our estimated effective tax rate was 0.0% and (0.1)%, respectively. For the six months ended June 30, 2020 and 2019, our estimated effective tax rate was 2.7% and (0.1)%, respectively. The variations between our estimated effective tax rate and the U.S. statutory rate are primarily due to our full valuation allowance.

We consider all available evidence to evaluate the recovery of deferred tax assets, including historical levels of income, legislative developments, and risks associated with estimates of future taxable income. We have provided a full valuation allowance for our net deferred tax assets as of June 30, 2020 and December 31, 2019, due to the uncertainty surrounding the future realization of such assets and the cumulative losses we have generated.

The income tax benefit of $1.2 million recorded for the six months ended June 30, 2020, is primarily related to the discrete deferred tax benefit attributable to the release of a portion of the valuation allowance during the first quarter of 2020. The release of valuation allowance is attributable to the acquisition of Able Health, which resulted in deferred tax liabilities that, upon acquisition, allowed us to recognize certain deferred tax assets of $1.3 million that had previously been offset by a valuation allowance.

We recognize tax benefits from uncertain tax positions when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. We believe that we have provided adequate reserves for income tax uncertainties in all open tax years. We do not anticipate material changes in the total amount of our unrecognized tax benefits within 12 months of the reporting date.

On March 27, 2020, the Coronavirus Aid, Relief and Economic Security (CARES) Act was enacted and signed into U.S. law to provide economic relief to individuals and businesses facing economic hardship as a result of the COVID-19 pandemic. Changes in tax laws or rates are accounted for in the period of enactment. We are continuing to analyze these legislative developments and believe that the income tax provisions of the CARES Act do not have a significant impact on our current taxes, deferred taxes, or uncertain tax positions. The CARES Act also provides for the deferral of an employer’s portion of social security payroll taxes for the remainder of 2020. Under the CARES Act, half of the deferred amount will have to be paid in each of December 2021 and December 2022. We began deferring the social security payroll tax match in April 2020.

## 14. Commitments and Contingencies

### Lease commitments

We lease office space and certain equipment under operating leases that expire between 2020 and 2031. The terms of the leases provide for rental payments on a graduated scale, options to renew the leases (one to five years), landlord incentives or allowances, and periods of free rent. In March 2020, we entered into a lease for office space in South Jordan, Utah, that will become our new company headquarters. This new lease for office space is intended to replace our current headquarters in Salt Lake City, Utah, the lease for which expires December 31, 2020. This new lease will require total lease payments of $31.7 million with a non-cancelable lease term of 11 years, excluding renewal options.

Lease payments will be required beginning January 1, 2021, however, we took initial possession of the first 64,910 square feet of the new headquarters in June 2020 to begin leasehold improvements, which resulted in a right-of-use asset and corresponding operating lease liability of $13.0 million, and commencement of operating lease expense. We expect the accounting lease commencement date for an additional 53,297 square feet of the new headquarters lease to begin in the third quarter of 2020. According to the terms of this new lease agreement, our leased square footage will expand between 2022 and 2023 resulting in $2.8 million of additional required future lease payments. We shall have the right to sublease all, or a portion, of this leased office space provided that certain terms and conditions are met.

Our operating lease expense for the three months ended June 30, 2020 and 2019 was $0.8 million and the operating lease expense for the six months ended June 30, 2020 and 2019 was $1.6 million.

Maturities of lease liabilities under operating leases that had commenced as of June 30, 2020 are as follows (in thousands):

| Year ending December 31: | | |
|---|---|---|
| 2020 (remaining six months) | $ | 1,348 |
| 2021 | | 2,274 |
| 2022 | | 1,981 |
| 2023 | | 1,992 |
| 2024 | | 1,734 |
| Thereafter | | 11,073 |
| Total lease payments | | 20,402 |
| Less: Imputed interest | | (4,526) |
| Total lease liability | $ | 15,876 |

As of June 30, 2020 and December 31, 2019 the weighted-average remaining operating lease term was 9.8 years and 2.2 years, respectively, and the weighted-average operating lease discount rate was 5.1% and 5.6%, respectively.

**Litigation**

Liabilities for loss contingencies arising from claims, assessments, litigation, fines, penalties, and other sources are recorded when it is probable that a liability has been incurred and the amount can be reasonably estimated. Legal costs incurred in connection with loss contingencies are expensed as incurred.

We are involved in legal proceedings from time to time that arise in the normal course of business. As of June 30, 2020 and December 31, 2019, there were no significant outstanding claims against us.

## 15. Deferred Revenue and Performance Obligations

Deferred revenue includes advance customer payments and billings in excess of revenue recognized. For the three months ended June 30, 2020 and 2019, 43% and 37%, respectively, of the revenue recognized was included in deferred revenue at the beginning of the period. For the six months ended June 30, 2020 and 2019, 19% and 24%, respectively, of the revenue recognized was included in deferred revenue at the beginning of the period.

**Transaction price allocated to the remaining performance obligations**

Most of our technology and professional services contracts have up to a three-year term, of which the vast majority are terminable after one year upon 90 days' notice. For arrangements that do not allow the customer to cancel within one year or less, we expect to recognize $44.2 million of revenue on unsatisfied performance obligations as of June 30, 2020. We expect to recognize approximately 85% of the remaining performance obligations over the next 24 months, with the balance recognized thereafter.

## 16. Related Parties

We have entered into arrangements with a customer where a member of the customer's management is currently a member of our board of directors. An executive of a Partners HealthCare affiliate has served on our board of directors since January 2018. We recognized revenue from this related party of $0.4 million and $0.7 million for the three months ended June 30, 2020 and 2019, respectively. We recognized revenue from this related party of $1.1 million and $1.4 million for the six months ended June 30, 2020 and 2019, respectively.

As of June 30, 2020 and December 31, 2019, we had receivables from this related party of $0.4 million and $0.6 million, respectively, and deferred revenue with this related party of $0.1 million and $0.5 million, respectively. As of June 30, 2020 and December 31, 2019, we also had acquisition-related consideration payable to this related party for a prior year asset acquisition. This asset acquisition occurred prior to this entity becoming a related party. The acquisition-related consideration payable to this related party was $1.2 million and $1.2 million as of June 30, 2020 and December 31, 2019, respectively.

We have also entered into revenue arrangements with customers that are also our investors. None of these customers hold a significant amount of ownership in our equity interests.

## 17. Segments

We operate our business in two operating segments that also represent our reportable segments. Our business is organized based on our technology offerings and professional services. Accordingly, our segments are:

- Technology - Our technology segment (Technology) includes our data platform, analytics applications and support services. Technology generates revenues primarily from contracts that are cloud-based subscription arrangements, time-based license arrangements, and maintenance and support fees; and

- Professional Services - Our professional services segment (Professional Services) is generally the combination of data and analytics, domain expertise, outsourcing, and implementation services to deliver expertise to our customers to more fully configure and utilize the benefits of our Technology offerings.

Revenues and cost of revenues generally are directly attributed to our segments. All segment revenues are from our external customers. Asset and other balance sheet information at the segment level is not reported to our Chief Operating Decision Maker.

Segment revenue and Adjusted Gross Profit for the three and six months ended June 30, 2020 and 2019 were as follows (in thousands):

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| **Revenue** | | | | |
| Technology | $ 25,487 | $ 20,085 | $ 50,186 | $ 40,233 |
| Professional Services | 17,772 | 16,719 | 38,189 | 31,784 |
| Total | $ 43,259 | $ 36,804 | $ 88,375 | $ 72,017 |

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| **Adjusted Gross Profit** | | | | |
| Technology | $ 17,493 | $ 13,072 | $ 34,462 | $ 26,501 |
| Professional Services | 3,730 | 6,193 | 8,801 | 10,940 |
| Total reportable segments Adjusted Gross Profit | 21,223 | 19,265 | 43,263 | 37,441 |
| Less Adjusted Gross Profit reconciling items: | | | | |
| Stock-based compensation | (1,093) | (171) | (2,085) | (352) |
| Post-acquisition restructuring costs[1] | — | — | — | (108) |
| Less other reconciling items: | | | | |
| Sales and marketing | (12,502) | (10,385) | (25,989) | (20,858) |
| Research and development | (12,061) | (9,710) | (25,149) | (19,732) |
| General and administrative | (8,113) | (6,146) | (17,814) | (12,320) |
| Depreciation and amortization | (3,094) | (2,216) | (5,971) | (4,528) |
| Debt extinguishment costs | (8,514) | — | (8,514) | (1,670) |
| Interest and other expense, net | (3,025) | (1,320) | (3,646) | (2,265) |
| Net loss before income taxes | $ (27,179) | $ (10,683) | $ (45,905) | $ (24,392) |

(1) Post-acquisition restructuring costs included in the Adjusted Gross Profit reconciliation above relate to severance charges following the acquisition of Medicity.

## 18. Subsequent Events

*Acquisition of Healthfinch, Inc.*

On July 31, 2020, we completed a business combination by acquiring Healthfinch, Inc. (Healthfinch), a Madison, Wisconsin-based company that provides a workflow integration engine delivering insights and analytics into EMR workflows to automate physicians' ability to close patient care gaps in real-time, pursuant to the Agreement and Plan of Merger (the Acquisition Agreement), dated July 8, 2020. We believe this acquisition will strengthen Health Catalyst's existing Population Health capabilities.

Pursuant to the Acquisition Agreement, we acquired all of the equity interests in Healthfinch for preliminary consideration of approximately $45 million, consisting of approximately $17 million in cash and 796,370 shares of our common stock issued on the closing date at $34.90 per share. The final purchase price consideration will also include an estimate for contingent consideration based on certain earnout performance targets for Healthfinch during an earn-out period that ends on July 31, 2021. The fair value estimate of contingent consideration is in the early stages of analysis. The purchase price is also subject to certain working capital adjustments, which are expected to be finalized within 90 days of the closing date.

Given the recent timing of the closing of this business combination, we are in the process of identifying and measuring the value of the assets acquired and liabilities assumed. We plan to disclose the preliminary purchase price allocation estimates and other related information in our Form 10-Q for the quarterly period ended September 30, 2020.

*Vitalware LLC Acquisition Agreement*

On August 11, 2020, we entered into an acquisition agreement to acquire all of the equity interests in Vitalware LLC, a Delaware limited liability company, for an aggregate purchase price of approximately $120 million, consisting of approximately $70 million in cash and 1,487,210 shares of our common stock, plus a potential earnout of up to $30 million if certain earnout performance targets are met during an earnout period ending on March 31, 2021. We expect the acquisition, which is subject to customary closing conditions, will close in the third or fourth quarter of 2020.

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

*The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements, the accompanying notes, and other financial information included elsewhere in this Quarterly Report on Form 10-Q. This discussion contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results could differ materially from those forward-looking statements below. Factors that could cause or contribute to those differences include, but are not limited to, those identified below and those discussed in "Risk Factors" and "Special Note Regarding Forward-looking Statements."*

### Overview

We are a leading provider of data and analytics technology and services to healthcare organizations and we currently employ more than 900 team members. Our Solution comprises a cloud-based data platform, analytics software, and professional services expertise. Our customers, which are primarily healthcare providers, use our Solution to manage their data, derive analytical insights to operate their organization, and produce measurable clinical, financial, and operational improvements. We envision a future where all healthcare decisions are data informed.

Highlights from the three and six months ended June 30, 2020:

- We recognized total revenue of $43.3 million and $36.8 million for the three months ended June 30, 2020 and 2019, respectively, and $88.4 million and $72.0 million for the six months ended June 30, 2020 and 2019, respectively. The growth in revenue was primarily due to revenue from new customers and existing customers paying higher technology access fees from contractual, annual escalators.

- We incurred net losses of $(27.2) million and $(10.7) million for the three months ended June 30, 2020 and 2019, respectively, and $(44.7) million and $(24.4) million for the six months ended June 30, 2020 and 2019, respectively.

- Our Adjusted EBITDA was $(4.2) million and $(5.7) million for the three months ended June 30, 2020 and 2019, respectively, and $(10.2) million and $(12.4) million for the six months ended June 30, 2020 and 2019, respectively. See "Key Financial Metrics—Reconciliation of Non-GAAP Financial Measures" for more information about this financial measure, including the limitations of such measure and a reconciliation to the most directly comparable measure calculated in accordance with GAAP.

See "Key Factors Affecting Our Performance" for more information about important opportunities and challenges related to our business.

**COVID-19 Impact**

In March 2020, the World Health Organization declared COVID-19 a global pandemic. This pandemic, which has continued to spread, and the related adverse public health developments, including orders to shelter-in-place, travel restrictions, and mandated business closures, have adversely affected workforces, organizations, governments, customers, economies, and financial markets globally, leading to an economic downturn and increased market volatility. It has also disrupted the normal operations of many businesses, including ours. COVID-19 has disrupted and we believe will continue to disrupt the normal operations of our customers, which are primarily healthcare providers. Given the unknown timeline and the near-term uncertainty of COVID-19 on our business, there continues to be uncertainty as to the extent to which the global COVID-19 pandemic may adversely impact our business operations, financial performance, and results of operations at this time. COVID-19 has also disrupted and we believe will continue to disrupt the normal operations of our customers, which are primarily healthcare providers. That said, we are also encouraged to witness growing evidence over the last couple of months that the healthcare provider ecosystem is increasingly more well equipped and prepared to respond to the ongoing pandemic, including through its treatment efficacy, supply chain logistics, capacity planning, and broader operational optimization.

We are fortunate to have a highly recurring revenue model in which greater than 90% of our revenue is recurring in nature. As such, we expect that the impact of COVID-19 on our total revenue will be relatively muted in 2020. Additionally, we benefit from a high level of technology revenue predictability, especially our all-access DOS subscription customers that have built-in, contractual technology revenue escalators. We also have developed a number of technology and services solutions designed specifically to support healthcare providers during the COVID-19 pandemic. Importantly, since the onset of the COVID-19 pandemic, our customers' overall usage of our data platform has never been higher. We are pleased that we have experienced no DOS Subscription Customer churn as a result of COVID-19 and believe the factors mentioned above should help us continue to drive high levels of customer retention. Likewise, given these factors, we would anticipate minimal impact on our technology dollar-based retention as a result of COVID-19.

Many of our healthcare provider customers were challenged financially as the COVID-19 pandemic delayed higher margin elective procedures. In order to support our customers through the near-term financial strain they were experiencing, with the goal of strengthening our long-term customer partnerships, during the three and six months ended June 30, 2020, there were situations where we temporarily provided our Professional Services at a discounted rate. This resulted in lower Professional Services revenue growth, Adjusted Professional Services Gross Margin, and Professional Services net retention relative to historical performance. The temporary professional services discounts was the primary driver for the decrease in our Adjusted Professional Services Gross Margin from 37% for the three months ended June 30, 2019 to 21% for the three months ended June 30, 2020. We anticipate that these temporary discounts will also negatively impact our Adjusted Professional Services Gross Margin for the three months ended September 30, 2020, however, the impact should be limited compared to the three months ended June 30, 2020. We do not anticipate these temporary discounts to be significant beyond that time frame.

We signed multiple new DOS subscription customers during the first half of 2020. However, as a result of the financial and operational strain and procurement distraction realized by the majority of health systems in the first half of 2020 due to the COVID-19 pandemic, our first-half 2020 number of net new DOS subscription customer additions was lower than we originally anticipated entering the year.

Any negative impact to 2020 total revenue caused by the COVID-19 pandemic has resulted and may continue to result in a negative impact to our 2020 Adjusted EBITDA. We have and continue to plan to partially offset any negative total revenue impact through cost containment efforts, resulting in less of a negative Adjusted EBITDA impact compared to the negative total revenue impact. Importantly, in our response to the COVID-19 pandemic, we remain centrally committed to our team members, ensuring they stay at the center of the Health Catalyst Flywheel. As such, any cost containment efforts implemented will have a bias towards non-headcount related items.

Over the long run, we believe that this global pandemic highlights the need for data and analytics, both at the healthcare provider level and the state and national healthcare infrastructure level.

## Key Financial Metrics

We regularly review a number of metrics, including the following key financial metrics, to manage our business and evaluate our operating performance compared to that of other companies in our industry:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| | (in thousands, except percentages) | | (in thousands, except percentages) | |
| Total revenue | $ 43,259 | $ 36,804 | $ 88,375 | $ 72,017 |
| Adjusted Technology Gross Profit | $ 17,493 | $ 13,072 | $ 34,462 | $ 26,501 |
| Adjusted Technology Gross Margin | 69 % | 65 % | 69 % | 66 % |
| Adjusted Professional Services Gross Profit | $ 3,730 | $ 6,193 | $ 8,801 | $ 10,940 |
| Adjusted Professional Services Gross Margin | 21 % | 37 % | 23 % | 34 % |
| Total Adjusted Gross Profit | $ 21,223 | $ 19,265 | $ 43,263 | $ 37,441 |
| Total Adjusted Gross Margin | 49 % | 52 % | 49 % | 52 % |
| Adjusted EBITDA | $ (4,188) | $ (5,749) | $ (10,159) | $ (12,429) |

We monitor the key metrics set forth in the preceding table to help us evaluate trends, establish budgets, measure the effectiveness and efficiency of our operations, and determine employee incentives. Adjusted Gross Profit, Adjusted Gross Margin, and Adjusted EBITDA are non-GAAP financial measures, which we discuss in more detail below.

### *Reconciliation of Non-GAAP Financial Measures*

In addition to our results determined in accordance with GAAP, we believe certain non-GAAP measures, including Adjusted Gross Profit, Adjusted Gross Margin, and Adjusted EBITDA, are useful in evaluating our operating performance. We use this non-GAAP financial information to evaluate our ongoing operations, as a component in determining employee bonus compensation, and for internal planning and forecasting purposes. We believe that non-GAAP financial information, when taken collectively, may be helpful to investors because it provides consistency and comparability with past financial performance. However, non-GAAP financial information is presented for supplemental informational purposes only, has limitations as an analytical tool and should not be considered in isolation or as a substitute for financial information presented in accordance with GAAP. In addition, other companies, including companies in our industry, may calculate similarly-titled non-GAAP measures differently or may use other measures to evaluate their performance, all of which could reduce the usefulness of our non-GAAP financial measures as tools for comparison. A reconciliation is provided below for each non-GAAP financial measure to the most directly comparable financial measure stated in accordance with GAAP. Investors are encouraged to review the related GAAP financial measures and the reconciliation of these non-GAAP financial measures to their most directly comparable GAAP financial measures, and not to rely on any single financial measure to evaluate our business.

#### *Adjusted Gross Profit and Adjusted Gross Margin*

Adjusted Gross Profit is a non-GAAP financial measure that we define as revenue less cost of revenue, excluding depreciation and amortization and excluding stock-based compensation, and post-acquisition restructuring costs, as applicable. We define Adjusted Gross Margin as our Adjusted Gross Profit divided by our revenue. We believe Adjusted Gross Profit and Adjusted Gross Margin are useful to investors as they eliminate the impact of certain non-cash expenses and allow a direct comparison of these measures between periods without the impact of non-cash expenses and certain other non-recurring operating expenses. We believe these non-GAAP measures are useful in evaluating our operating performance compared to that of other companies in our industry, as these metrics generally eliminate the effects of certain items that may vary from company to company for reasons unrelated to overall profitability.

See above for information regarding the limitations of using our Adjusted Gross Profit and Adjusted Gross Margin as financial measures. The following is a reconciliation of our Adjusted Gross Profit to revenue, the most directly comparable financial measure calculated in accordance with GAAP, for the three months ended June 30, 2020 and 2019.

| | Three Months Ended June 30, 2020 (in thousands, except percentages) | | |
|---|---|---|---|
| | Technology | Professional Services | Total |
| Revenue | $ 25,487 | $ 17,772 | $ 43,259 |
| Cost of revenue, excluding depreciation and amortization | (8,197) | (14,932) | (23,129) |
| Gross profit, excluding depreciation and amortization | 17,290 | 2,840 | 20,130 |
| Add: | | | |
| Stock-based compensation | 203 | 890 | 1,093 |
| Adjusted Gross Profit | $ 17,493 | $ 3,730 | $ 21,223 |
| Gross margin, excluding depreciation and amortization | 68 % | 16 % | 47 % |
| Adjusted Gross Margin | 69 % | 21 % | 49 % |

| | Three Months Ended June 30, 2019 (in thousands, except percentages) | | |
|---|---|---|---|
| | Technology | Professional Services | Total |
| Revenue | $ 20,085 | $ 16,719 | $ 36,804 |
| Cost of revenue, excluding depreciation and amortization | (7,044) | (10,666) | (17,710) |
| Gross profit, excluding depreciation and amortization | 13,041 | 6,053 | 19,094 |
| Add: | | | |
| Stock-based compensation | 31 | 140 | 171 |
| Adjusted Gross Profit | $ 13,072 | $ 6,193 | $ 19,265 |
| Gross margin, excluding depreciation and amortization | 65 % | 36 % | 52 % |
| Adjusted Gross Margin | 65 % | 37 % | 52 % |

Adjusted Technology Gross Margin increased from 65% for the three months ended June 30, 2019 to 69% for the three months ended June 30, 2020. We expect Adjusted Technology Gross Margin to fluctuate and potentially decline in the near term, primarily due to additional costs associated with transitioning customers from on-premise and our managed data centers to third-party hosted data centers with Microsoft Azure.

Adjusted Professional Services Gross Margin decreased from 37% for the three months ended June 30, 2019 to 21% for the three months ended June 30, 2020, due primarily to professional services discounts provided to support our customers through the near-term financial strain they have experienced related to COVID-19. Our professional services are comprised of data and analytics services, domain expertise services, outsourcing services, and implementation services. While the majority of our professional services revenue is generated from data and analytic services and domain expertise services, the delivery mix between these services in a given quarter can lead to fluctuations in our Adjusted Professional Services Gross Margin. Adjusted Professional Services Gross Margin may fluctuate and potentially decline in the near term due to changes in the mix of services we provide and additional compensation costs related to an increase in headcount.

We anticipate Adjusted Gross Margin will generally increase over the long term though it may fluctuate period to period.

The following is a reconciliation of our Adjusted Gross Profit to revenue, the most directly comparable financial measure calculated in accordance with GAAP, for the six months ended June 30, 2020 and 2019.

| | Six Months Ended June 30, 2020 (in thousands, except percentages) | | |
|---|---|---|---|
| | Technology | Professional Services | Total |
| Revenue | $ 50,186 | $ 38,189 | $ 88,375 |
| Cost of revenue, excluding depreciation and amortization | (16,103) | (31,094) | (47,197) |
| Gross profit, excluding depreciation and amortization | 34,083 | 7,095 | 41,178 |
| Add: | | | |
| Stock-based compensation | 379 | 1,706 | 2,085 |
| Adjusted Gross Profit | $ 34,462 | $ 8,801 | $ 43,263 |
| Gross margin, excluding depreciation and amortization | 68 % | 19 % | 47 % |
| Adjusted Gross Margin | 69 % | 23 % | 49 % |

| | Six Months Ended June 30, 2019 (in thousands, except percentages) | | |
|---|---|---|---|
| | Technology | Professional Services | Total |
| Revenue | $ 40,233 | $ 31,784 | $ 72,017 |
| Cost of revenue, excluding depreciation and amortization | (13,796) | (21,240) | (35,036) |
| Gross profit, excluding depreciation and amortization | 26,437 | 10,544 | 36,981 |
| Add: | | | |
| Stock-based compensation | 64 | 288 | 352 |
| Post-acquisition restructuring costs(1) | — | 108 | 108 |
| Adjusted Gross Profit | $ 26,501 | $ 10,940 | $ 37,441 |
| Gross margin, excluding depreciation and amortization | 66 % | 33 % | 51 % |
| Adjusted Gross Margin | 66 % | 34 % | 52 % |

(1) Post-acquisition restructuring costs included in the Adjusted Gross Profit reconciliation above relate to severance charges following the 2018 acquisition of Medicity.

Adjusted Technology Gross Margin increased from 66% for the six months ended June 30, 2019 to 69% for the six months ended June 30, 2020. Adjusted Professional Services Gross Margin decreased from 34% for the six months ended June 30, 2019 to 23% for the six months ended June 30, 2020, due primarily to professional services discounts provided to support our customers through the near-term financial strain they have experienced related to COVID-19.

***Adjusted EBITDA***

Adjusted EBITDA is a non-GAAP financial measure that we define as net loss adjusted for interest and other expense, net, loss on debt extinguishment, income tax provision (benefit), depreciation and amortization, stock-based compensation, acquisition transaction costs, change in fair value of contingent consideration liability, duplicate headquarters rent expense, and post-acquisition restructuring costs when they are incurred. Duplicate headquarters rent expense, added as a reconciling item in this period, relates to our corporate headquarters relocation announced in March 2020. For GAAP accounting purposes the new headquarters lease commenced in June 2020, however, the current headquarters lease does not end until December 31, 2020 and payments on the new headquarters lease are not required until the contractual lease commencement in January 2021. We believe Adjusted EBITDA provides investors with useful information on period-to-period performance as evaluated by management and comparison with our past financial performance. We believe Adjusted EBITDA is useful in evaluating our operating performance compared to that of other companies in our industry, as this metric generally eliminates the effects of certain items that may vary from company to company for reasons unrelated to overall operating performance.

See above for information regarding the limitations of using our Adjusted EBITDA as a financial measure. The following is a reconciliation of our Adjusted EBITDA to net loss, the most directly comparable financial measure calculated in accordance with GAAP, for the three and six months ended June 30, 2020 and 2019.

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| | (in thousands) | | (in thousands) | |
| Net loss | $ (27,183) | $ (10,694) | $ (44,673) | $ (24,414) |
| Add: | | | | |
| Interest and other expense, net | 3,025 | 1,320 | 3,646 | 2,265 |
| Loss on extinguishment of debt | 8,514 | — | 8,514 | 1,670 |
| Income tax provision (benefit) | 4 | 11 | (1,232) | 22 |
| Depreciation and amortization | 3,094 | 2,216 | 5,971 | 4,528 |
| Stock-based compensation | 9,046 | 1,398 | 17,787 | 3,054 |
| Acquisition transaction costs(1) | 396 | — | 1,271 | — |
| Change in fair value of contingent consideration liability(2) | (1,209) | — | (1,568) | — |
| Duplicate headquarters rent expense(3) | 125 | — | 125 | — |
| Post-acquisition restructuring costs(4) | — | — | — | 446 |
| Adjusted EBITDA | $ (4,188) | $ (5,749) | $ (10,159) | $ (12,429) |

(1) Acquisition transaction costs relate to legal, diligence, valuation, and other third-party fees incurred as part of the acquisition of Able Health and Healthfinch, Inc. For additional details refer to Note 2 in our condensed consolidated financial statements.
(2) The change in fair value of contingent consideration liability relates to changes in the estimated fair value of shares of our common stock that will be issued if certain incremental billing targets for Able Health are met during an earn-out period that ends on December 31, 2020. For additional details refer to Note 7 in our condensed consolidated financial statements.
(3) Duplicate rent expense for our corporate headquarters relocation.
(4) Post-acquisition restructuring costs relate to severance charges following the 2018 acquisition of Medicity.

**Key Factors Affecting Our Performance**

We believe that our future growth, success, and performance are dependent on many factors, including those set forth below. While these factors present significant opportunities for us, they also represent the challenges that we must successfully address in order to grow our business and improve our results of operations.

- ***Impact of COVID-19 pandemic.*** The COVID-19 pandemic has adversely affected workforces, organizations, governments, customers, economies, and financial markets globally, leading to an economic downturn and increased market volatility. It has also disrupted the normal operations of many businesses, including ours. This outbreak, as well as intensified measures undertaken to contain the spread of COVID-19, could decrease healthcare industry spending, adversely affect demand for our technology and services, cause one or more of our customers to file for bankruptcy protection or go out of business, cause one or more of our customers to fail to renew, terminate, or renegotiate their contracts, affect the ability of our sales team to travel to potential customers and the ability of our professional services teams to conduct in-person services and trainings, impact expected spending from new customers, negatively impact collections of accounts receivable, and harm our business, results of operations, and financial condition. It is not possible for us to predict the duration or magnitude of the adverse results of the outbreak and its effects on our business, results of operations, or financial condition at this time.

- ***Add new customers.*** While we anticipate that the COVID-19 pandemic may impact the rate at which we add new customers for the rest of the fiscal year, we have rapidly developed a number of technology and services solutions designed specifically to support healthcare providers during the COVID-19 pandemic, and we believe this may enable us to acquire some level of new customers during the COVID-19 pandemic. Our potential customer base is generally in the early stages of data and analytics adoption and maturity. We expect to further penetrate the market over time as potential customers invest in commercial data and analytics solutions. As one of the first data platform and analytics vendors focused specifically on healthcare organizations, we have an early-mover advantage and strong brand awareness. Our customers are large, complex organizations who typically have long procurement cycles which may lead to declines in the pace of our new customer additions.

- ***Leverage recent product and services offerings to drive expansion.*** We believe that our ability to expand within our customer base will enable us to drive growth. Over the last three years, we have developed and deployed several new analytics applications including CORUS, Touchstone, Patient Safety Monitor, Population Builder, and others. Because we are in the early stages of certain of our applications' lifecycles and maturity, we do not have enough information to know the impact on revenue growth by upselling these applications and associated services to current and new customers.

- ***Changing revenue mix***. Our technology and professional services offerings have materially different gross margin profiles. While our professional services offerings help our customers achieve measurable improvements and make them stickier, they have lower gross margins than our technology revenue. For the six months ended June 30, 2020, our technology revenue and professional services revenue represented 57% and 43% of total revenue, respectively. Changes in our revenue mix between the two offerings would impact future Total Adjusted Gross Margin. Furthermore, changes within the types of professional services we offer over time can have a material impact on our Adjusted Professional Services Gross Margin, impacting our future Total Adjusted Gross Margin. See "Key Financial Metrics—Reconciliation of Non-GAAP Financial Measures" for more information.

- ***Transitions to Microsoft Azure as DOS hosting provider.*** We incur hosting fees related to providing DOS through a cloud-based environment hosted by Microsoft Azure. We also operate a private data center where we host DOS for certain customers and we maintain a small number of customers that have deployed DOS on-premise. We are in the process of transitioning customers we host in our private data center and who deployed DOS on-premise to Azure-hosted environments. The Azure cloud provides customers with more advanced DOS product functionality and a more seamless customer experience; however, hosting customers in Azure is more costly than our private data center on a per-customer basis. This transition will result in higher cost of technology revenue and provide a headwind against increases in Adjusted Technology Gross Margin.

- ***Impact of Medicity acquisition on growth.*** Our customer base includes over 50 health systems and regional healthcare information exchanges added in the Medicity acquisition. Historically, Medicity customers have generated a lower Dollar-based Retention Rate than DOS Subscription Customers and we expect flat to declining revenue from Medicity customers in the foreseeable future. If our cross-sell efforts and technology integration strategies are successful, this could offset revenue declines from Medicity customers. Overall, the impact of the Medicity acquisition could negatively impact our revenue growth rates over time.

## Components of Our Results of Operations

### *Revenue*

We derive our revenue from sales of technology and professional services. For the three months ended June 30, 2020 and 2019, technology represented 59% and 55% of total revenue, respectively, and professional services represented 41% and 45%, of total revenue, respectively. For the six months ended June 30, 2020 and 2019, technology represented 57% and 56% of total revenue, respectively, and professional services represented 43% and 44%, of total revenue, respectively.

*Technology revenue.* Technology revenue primarily consists of subscription fees charged to customers for access to use our data platform and analytics applications. We provide customers access to our technology through either an all-access or limited-access, modular subscription. Most of our subscription contracts are cloud-based and have up to a three-year term, of which the vast majority are terminable after one year upon 90 days' notice. A majority of our DOS Subscription Customers access our technology through all-access subscriptions, which in the vast majority of cases have built-in annual escalators for technology access fees. Also included in technology revenue is the maintenance and support we provide, which generally includes updates and support services.

*Professional services revenue.* Professional services revenue primarily includes analytics services, domain expertise services, outsourcing services, and implementation services. Professional services arrangements typically include a fee for making full-time equivalent (FTE) services available to our customers on a monthly basis. FTE services generally consist of a blend of analytic engineers, analysts, and data scientists based on the domain expertise needed to best serve our customers.

### *Deferred revenue*

Deferred revenue consists of customer billings in advance of revenue being recognized from our technology and professional services arrangements. We primarily invoice our customers for technology arrangements annually or quarterly in advance. Amounts anticipated to be recognized within one year of the balance sheet date are recorded as deferred revenue and the remaining portion is recorded as deferred revenue, net of current portion on our condensed consolidated balance sheets.

### *Cost of revenue, excluding depreciation and amortization*

*Cost of technology revenue.* Cost of technology revenue primarily consists of costs associated with hosting and supporting our technology, including third-party cloud computing and hosting costs, contractor costs, and salary and related personnel costs for our cloud services and support teams.

Although we expect cost of technology revenue to increase in absolute dollars as we transition customers to third-party hosted data centers with Microsoft Azure and increase headcount to accommodate growth, we anticipate cost of technology revenue as a percentage of technology revenue will generally decrease over the long term. We expect cost of technology revenue as a percentage of technology revenue to fluctuate and potentially increase in the near term, primarily due to additional costs associated with transitioning customers from on-premise and our managed data centers to Microsoft Azure.

*Cost of professional services revenue.* Cost of professional services revenue consists primarily of costs related to delivering our team's expertise in analytics, strategic advisory, improvement, and implementation services. These costs primarily include salary and related personnel costs, travel-related costs, and outside contractor costs. We expect cost of professional services revenue to increase in absolute dollars as we increase headcount to accommodate growth.

***Operating expense***

*Sales and marketing.* Sales and marketing expenses primarily include salary and related personnel costs for our sales, marketing, and account management teams, lead generation, marketing events, including our Healthcare Analytics Summit (HAS), marketing programs, and outside contractor costs associated with the sale and marketing of our offerings.

We plan to continue to invest in sales and marketing to grow our customer base, expand in new markets, and increase our brand awareness. The trend and timing of sales and marketing expenses will depend in part on the timing of our expansion into new markets and marketing campaigns. We expect that sales and marketing expenses will increase in absolute dollars in future periods, but decrease as a percentage of our revenue over the long term. Our sales and marketing expenses may fluctuate as a percentage of our revenue from period to period due to the timing and extent of these expenses.

*Research and development.* Research and development expenses primarily include salary and related personnel costs for our data platform and analytics applications teams, subscriptions, and outside contractor costs associated with the development of products.

We have developed an open, flexible, and scalable data platform. We plan to continue to invest in research and development to develop new solutions and enhance our applications library. We expect that research and development expenses will increase in absolute dollars in future periods, but decrease as a percentage of our revenue over the long term. Our research and development expenses may fluctuate as a percentage of our revenue from period to period due to the timing and extent of these expenses.

*General and administrative.* General and administrative expenses primarily include salary and related personnel costs for our legal, finance, people operations, IT, and other administrative teams, including certain executives. General and administrative expenses also include facilities, subscriptions, corporate insurance, outside legal, accounting, directors' fees, and the change in fair value of contingent consideration liability.

Due to the closing of our IPO on July 29, 2019, we expect to incur additional costs as a result of operating as a public company, including costs related to compliance and reporting obligations of public companies, and increased costs for insurance, investor relations, and corporate governance. As a result, we expect our general and administrative expenses to increase in absolute dollars for the foreseeable future, but decrease as a percentage of our revenue over the long term. Our general and administrative expenses may fluctuate as a percentage of our revenue from period to period due to the timing and extent of these expenses.

*Depreciation and amortization.* Depreciation and amortization expenses are primarily attributable to our capital investment and consist of fixed asset depreciation, amortization of intangibles considered to have definite lives, and amortization of capitalized internal-use software costs.

***Interest and other expense, net***

Interest and other expense, net primarily consists of interest income from our investment holdings and interest expense. Interest expense is primarily attributable to the Notes, our now extinguished term loan, and imputed interest on acquisition-related consideration payable. It also includes the amortization of discounts on debt and amortization of deferred financing costs related to our various debt arrangements.

***Income tax provision (benefit)***

Income tax provision (benefit) consists of U.S. federal, state, and foreign income taxes. Because of the uncertainty of the realization of the deferred tax assets, we have a full valuation allowance for our net deferred tax assets, including net operating loss carryforwards (NOLs) and tax credits related primarily to research and development.

As of December 31, 2019, we had federal and state NOLs of $269.1 million and $215.2 million, respectively, which will begin to expire for federal and state tax purposes in 2032 and 2024, respectively. Our existing NOLs may be subject to limitations arising from ownership changes and, if we undergo an ownership change in the future, our ability to utilize our NOLs and tax credits could be further limited by Sections 382 and 383 of the Code. Future changes in our stock ownership, many of which are outside of our control, could result in an ownership change under Sections 382 and 383 of the Code. Our NOLs and tax credits may also be limited under similar provisions of state law.

On March 27, 2020, the Coronavirus Aid, Relief and Economic Security (CARES) Act was enacted and signed into U.S. law to provide economic relief to individuals and businesses facing economic hardship as a result of the COVID-19 pandemic. Changes in tax laws or rates are accounted for in the period of enactment. We are continuing to analyze these legislative developments and believe that the income tax provisions of the CARES Act do not have a significant impact on our current taxes, deferred taxes, or uncertain tax positions. The CARES Act also provides for the deferral of an employer’s portion of social security payroll taxes for the remainder of 2020. Under the CARES Act, half of the deferred amount will have to be paid in each of December 2021 and December 2022. We began deferring the social security payroll tax match in April 2020.

### Results of Operations

The following tables set forth our consolidated results of operations data and such data as a percentage of total revenue for each of the periods indicated:

| | Three Months Ended June 30, 2020 | Three Months Ended June 30, 2019 | Six Months Ended June 30, 2020 | Six Months Ended June 30, 2019 |
|---|---|---|---|---|
| | (in thousands) | | (in thousands) | |
| Revenue: | | | | |
| Technology | $ 25,487 | $ 20,085 | $ 50,186 | $ 40,233 |
| Professional services | 17,772 | 16,719 | 38,189 | 31,784 |
| Total revenue | 43,259 | 36,804 | 88,375 | 72,017 |
| Cost of revenue, excluding depreciation and amortization shown below: | | | | |
| Technology(1) | 8,197 | 7,044 | 16,103 | 13,796 |
| Professional services(1)(3) | 14,932 | 10,666 | 31,094 | 21,240 |
| Total cost of revenue, excluding depreciation and amortization | 23,129 | 17,710 | 47,197 | 35,036 |
| Operating expenses: | | | | |
| Sales and marketing(1)(3) | 12,502 | 10,385 | 25,989 | 20,858 |
| Research and development(1)(3) | 12,061 | 9,710 | 25,149 | 19,732 |
| General and administrative(1)(2)(4)(5) | 8,113 | 6,146 | 17,814 | 12,320 |
| Depreciation and amortization | 3,094 | 2,216 | 5,971 | 4,528 |
| Total operating expenses | 35,770 | 28,457 | 74,923 | 57,438 |
| Loss from operations | (15,640) | (9,363) | (33,745) | (20,457) |
| Loss on extinguishment of debt | (8,514) | — | (8,514) | (1,670) |
| Interest and other expense, net | (3,025) | (1,320) | (3,646) | (2,265) |
| Loss before income taxes | (27,179) | (10,683) | (45,905) | (24,392) |
| Income tax (benefit) provision | 4 | 11 | (1,232) | 22 |
| Net loss | $ (27,183) | $ (10,694) | $ (44,673) | $ (24,414) |

(1) Includes stock-based compensation expense, as follows:

| | Three Months Ended June 30, 2020 | Three Months Ended June 30, 2019 | Six Months Ended June 30, 2020 | Six Months Ended June 30, 2019 |
|---|---|---|---|---|
| **Stock-Based Compensation Expense:** | (in thousands) | | (in thousands) | |
| Cost of revenue, excluding depreciation and amortization: | | | | |
| Technology | $ 203 | $ 31 | $ 379 | $ 64 |
| Professional services | 890 | 140 | 1,706 | 288 |
| Sales and marketing | 3,309 | 497 | 6,491 | 1,280 |
| Research and development | 2,080 | 213 | 3,962 | 435 |
| General and administrative | 2,564 | 517 | 5,249 | 987 |
| Total | $ 9,046 | $ 1,398 | $ 17,787 | $ 3,054 |

(2) Includes acquisition transaction costs, as follows:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| **Acquisition transaction costs:** | (in thousands) | | (in thousands) | |
| Cost of revenue, excluding depreciation and amortization: | | | | |
| Technology | $ — | $ — | $ — | $ — |
| Professional services | — | — | — | — |
| Sales and marketing | — | — | — | — |
| Research and development | — | — | — | — |
| General and administrative | 396 | — | 1,271 | — |
| Total | $ 396 | $ — | $ 1,271 | $ — |

(3) Includes post-acquisition restructuring costs, as follows:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| **Post-Acquisition Restructuring Costs:** | (in thousands) | | (in thousands) | |
| Cost of revenue, excluding depreciation and amortization: | | | | |
| Technology | $ — | $ — | $ — | $ — |
| Professional services | — | — | — | 108 |
| Sales and marketing | — | — | — | 306 |
| Research and development | — | — | — | 32 |
| General and administrative | — | — | — | — |
| Total | $ — | $ — | $ — | $ 446 |

(4) Includes the change in fair value of contingent consideration liability, as follows:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| **Change in fair value of contingent consideration liability:** | (in thousands) | | (in thousands) | |
| Cost of revenue, excluding depreciation and amortization: | | | | |
| Technology | $ — | $ — | $ — | $ — |
| Professional services | — | — | — | — |
| Sales and marketing | — | — | — | — |
| Research and development | — | — | — | — |
| General and administrative | (1,209) | — | (1,568) | — |
| Total | $ (1,209) | $ — | $ (1,568) | $ — |

(5) Includes duplicate headquarters rent expense, as follows:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| **Duplicate Headquarters Rent Expense:** | (in thousands) | | (in thousands) | |
| Cost of revenue, excluding depreciation and amortization: | | | | |
| Technology | $ — | $ — | $ — | $ — |
| Professional services | — | — | — | — |
| Sales and marketing | — | — | — | — |
| Research and development | — | — | — | — |
| General and administrative | 125 | — | 125 | — |
| Total | $ 125 | $ — | $ 125 | $ — |

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| Revenue: | | | | |
| Technology | 59 % | 55 % | 57 % | 56 % |
| Professional services | 41 | 45 | 43 | 44 |
| Total revenue | 100 | 100 | 100 | 100 |
| Cost of revenue, excluding depreciation and amortization shown below: | | | | |
| Technology | 19 | 19 | 18 | 19 |
| Professional service | 34 | 29 | 35 | 30 |
| Total cost of revenue, excluding depreciation and amortization | 53 | 48 | 53 | 49 |
| Operating expenses | | | | |
| Sales and marketing | 29 | 28 | 29 | 29 |
| Research and development | 28 | 26 | 29 | 28 |
| General and administrative | 19 | 17 | 20 | 17 |
| Depreciation and amortization | 7 | 6 | 7 | 6 |
| Total operating expenses | 83 | 77 | 85 | 80 |
| Loss from operations | (36) | (25) | (38) | (29) |
| Loss on extinguishment of debt | (20) | — | (10) | (2) |
| Interest and other expense, net | (7) | (4) | (4) | (3) |
| Loss before income taxes | (63) | (29) | (52) | (34) |
| Income tax (benefit) provision | — | — | (1) | — |
| Net loss | (63)% | (29)% | (51)% | (34)% |

**Discussion of the Three Months Ended June 30, 2020 and 2019**

***Revenue***

| | Three Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Revenue: | | | | |
| Technology | $ 25,487 | $ 20,085 | $ 5,402 | 27 % |
| Professional services | 17,772 | 16,719 | 1,053 | 6 % |
| Total revenue | $ 43,259 | $ 36,804 | $ 6,455 | 18 % |
| Percentage of revenue: | | | | |
| Technology | 59 % | 55 % | | |
| Professional services | 41 | 45 | | |
| Total | 100 % | 100 % | | |

Total revenue was $43.3 million for the three months ended June 30, 2020, compared to $36.8 million for the three months ended June 30, 2019, an increase of $6.5 million, or 18%.

Technology revenue was $25.5 million, or 59% of total revenue, for the three months ended June 30, 2020, compared to $20.1 million, or 55% of total revenue, for the three months ended June 30, 2019. The revenue growth was primarily from new DOS Subscription Customers and additional revenue from existing customers paying higher technology access fees from contractual, annual escalators, and new offerings of expanded support services.

Professional services revenue was $17.8 million, or 41% of total revenue, for the three months ended June 30, 2020, compared to $16.7 million, or 45% of total revenue, for the three months ended June 30, 2019. The professional services revenue growth is primarily due to implementation, analytics, outsourcing, and other improvement services being provided to new DOS Subscription Customers and expanded deployment of services with existing customers. This growth was largely offset by professional services discounts provided to support our customers through the near-term financial strain they have experienced related to COVID-19.

***Cost of revenue, excluding depreciation and amortization***

| | Three Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Cost of revenue, excluding depreciation and amortization: | | | | |
| Technology | $ 8,197 | $ 7,044 | $ 1,153 | 16 % |
| Professional services | 14,932 | 10,666 | 4,266 | 40 % |
| Total cost of revenue, excluding depreciation and amortization | $ 23,129 | $ 17,710 | $ 5,419 | 31 % |
| Percentage of total revenue | 53 % | 48 % | | |

Cost of technology revenue, excluding depreciation and amortization, was $8.2 million for the three months ended June 30, 2020, compared to $7.0 million for the three months ended June 30, 2019, an increase of $1.2 million, or 16%. The increase in cost of technology revenue was primarily due to $0.7 million in increased cloud computing and hosting costs largely from the expanded use of Microsoft Azure to serve existing and new customers and an increase of $0.3 million in salary and related personnel costs from an increase in cloud services and support headcount.

Cost of professional services revenue was $14.9 million for the three months ended June 30, 2020, compared to $10.7 million for the three months ended June 30, 2019, an increase of $4.3 million, or 40%. This increase was primarily due to a $4.0 million increase in salary and related personnel costs from additional professional services headcount and additional stock-based compensation of $0.8 million, which were partially offset by a decrease in travel-related expenses of $0.6 million.

***Operating Expenses***

*Sales and marketing*

| | Three Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Sales and marketing | $ 12,502 | $ 10,385 | $ 2,117 | 20 % |
| Percentage of total revenue | 29 % | 28 % | | |

Sales and marketing expenses were $12.5 million for the three months ended June 30, 2020, compared to $10.4 million for the three months ended June 30, 2019, an increase of $2.1 million, or 20%. The increase was primarily due to a $2.8 million increase in stock-based compensation and a $0.8 million increase in the provision for credit losses, which were partially offset by a decrease in travel-related expenses of $0.8 million and a decrease in salary and related personnel costs of $0.4 million.

Sales and marketing expense as a percentage of total revenue increased from 28% for the three months ended June 30, 2019 to 29% for the three months ended June 30, 2020.

*Research and development*

| | Three Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Research and development | $ 12,061 | $ 9,710 | $ 2,351 | 24 % |
| Percentage of total revenue | 28 % | 26 % | | |

Research and development expenses were $12.1 million for the three months ended June 30, 2020, compared to $9.7 million for the three months ended June 30, 2019, an increase of $2.4 million, or 24%. The increase was primarily due to an increase of $1.9 million in stock-based compensation and an increase of $0.6 million in salary and related personnel costs from additional development team headcount.

Research and development expense as a percentage of revenue increased from 26% in the three months ended June 30, 2019 to 28% in the three months ended June 30, 2020.

*General and administrative*

| | Three Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| General and administrative | $ 8,113 | $ 6,146 | $ 1,967 | 32 % |
| Percentage of total revenue | 19 % | 17 % | | |

General and administrative expenses were $8.1 million for the three months ended June 30, 2020, compared to $6.1 million for the three months ended June 30, 2019, an increase of $2.0 million, or 32%. The increase was primarily due to increases of $2.0 million in stock-based compensation, $0.4 million in acquisition-related transaction costs, and insurance costs of $0.3 million, which were offset by the decrease in the fair value of our contingent consideration liability of $1.2 million.

General and administrative expense as a percentage of revenue increased from 17% in the three months ended June 30, 2019 to 19% in the three months ended June 30, 2020.

*Depreciation and amortization*

| | Three Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Depreciation and amortization | $ 3,094 | $ 2,216 | $ 878 | 40 % |
| Percentage of total revenue | 7 % | 6 % | | |

Depreciation and amortization expenses were $3.1 million for the three months ended June 30, 2020, compared to $2.2 million for the three months ended June 30, 2019, an increase of $0.9 million, or 40%. This increase was primarily due to the amortization of acquired intangible assets.

Depreciation and amortization expense as a percentage of revenue increased from 6% in the three months ended June 30, 2019 to 7% in the three months ended June 30, 2020.

*Loss on extinguishment of debt*

| | Three Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Loss on extinguishment of debt | $ (8,514) | $ — | $ (8,514) | n/m[(1)] |

(1) Not meaningful.

On April 14, 2020, we used $57.0 million of proceeds from the Notes offering to prepay in full all outstanding indebtedness, including prepayment penalties, under the Credit Agreement and terminate the Credit Agreement. We recorded a loss on debt extinguishment of approximately $8.5 million during the three months ended June 30, 2020, including approximately $1.5 unamortized debt discounts and issuance costs related to the OrbiMed term loan and $7.0 million of repayment fees.

*Interest and other expense, net*

| | Three Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Interest income | $ 620 | 395 | $ 225 | 57 % |
| Interest expense | (3,709) | (1,735) | (1,974) | 114 % |
| Other income | 64 | 20 | 44 | 220 % |
| Total interest and other expense, net | $ (3,025) | $ (1,320) | $ (1,705) | 129 % |

Interest and other expense, net decreased $1.7 million, or 129%, for the three months ended June 30, 2020, compared to the three months ended June 30, 2019. This decrease is primarily due to an increase in interest expense of $2.0 million due to the increase in net borrowings resulting from the Notes Offering that occurred in April 2020, which was partially offset by an increase in interest income of $0.2 million due to the increase in cash equivalents and short-term investments from the IPO proceeds received in July 2019 and net proceeds from the Notes offering.

*Income tax provision*

| | Three Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Income tax (benefit) provision | $ 4 | $ 11 | $ (7) | n/m[(1)] |

(1) Not meaningful.

Income tax provision consists of current and deferred taxes for U.S. federal, state, and foreign income taxes. As we have a full valuation allowance on deferred tax assets, our income tax provision typically consists primarily of minimal state and foreign income taxes.

**Discussion of the Six Months Ended June 30, 2020 and 2019**

***Revenue***

| | Six Months Ended June 30, 2020 | Six Months Ended June 30, 2019 | $ Change | % Change |
|---|---|---|---|---|
| | (in thousands, except percentages) | | | |
| Revenue: | | | | |
| Technology | $ 50,186 | $ 40,233 | $ 9,953 | 25 % |
| Professional services | 38,189 | 31,784 | 6,405 | 20 % |
| Total revenue | $ 88,375 | $ 72,017 | $ 16,358 | 23 % |
| Percentage of revenue: | | | | |
| Technology | 57 % | 56 % | | |
| Professional services | 43 | 44 | | |
| Total | 100 % | 100 % | | |

Total revenue was $88.4 million for the six months ended June 30, 2020, compared to $72.0 million for the six months ended June 30, 2019, an increase of $16.4 million, or 23%.

Technology revenue was $50.2 million, or 57% of total revenue, for the six months ended June 30, 2020, compared to $40.2 million, or 56% of total revenue, for the six months ended June 30, 2019. The revenue growth was primarily from new DOS Subscription Customers and additional revenue from existing customers paying higher technology access fees from contractual, annual escalators, and new offerings of expanded support services.

Professional services revenue was $38.2 million, or 43% of total revenue, for the six months ended June 30, 2020, compared to $31.8 million, or 44% of total revenue, for the six months ended June 30, 2019. The professional services revenue growth is primarily due to implementation, analytics, outsourcing, and other improvement services being provided to new DOS Subscription Customers and expanded deployment of services with existing customers. This growth was partially offset by professional services discounts provided to support our customers through the near-term financial strain they have experienced related to COVID-19.

***Cost of revenue, excluding depreciation and amortization***

| | Six Months Ended June 30, 2020 | Six Months Ended June 30, 2019 | $ Change | % Change |
|---|---|---|---|---|
| | (in thousands, except percentages) | | | |
| Cost of revenue, excluding depreciation and amortization: | | | | |
| Technology | $ 16,103 | $ 13,796 | $ 2,307 | 17 % |
| Professional services | 31,094 | 21,240 | 9,854 | 46 % |
| Total cost of revenue, excluding depreciation and amortization | $ 47,197 | $ 35,036 | $ 12,161 | 35 % |
| Percentage of total revenue | 53 % | 48 % | | |

Cost of technology revenue, excluding depreciation and amortization, was $16.1 million for the six months ended June 30, 2020, compared to $13.8 million for the six months ended June 30, 2019, an increase of $2.3 million, or 17%. The increase in cost of technology revenue was primarily due to $1.5 million in increased cloud computing and hosting costs largely from the expanded use of Microsoft Azure to serve existing and new customers and an increase of $0.6 million in salary and related personnel costs from an increase in cloud services and support headcount.

Cost of professional services revenue was $31.1 million for the six months ended June 30, 2020, compared to $21.2 million for the six months ended June 30, 2019, an increase of $9.9 million, or 46%. This increase was primarily due to a $8.3 million increase in salary and related personnel costs from additional professional services headcount and additional stock-based compensation of $1.4 million, which were partially offset by a decrease in travel-related expenses of $0.4 million.

***Operating Expenses***

*Sales and marketing*

| | Six Months Ended June 30, 2020 | Six Months Ended June 30, 2019 | $ Change | % Change |
|---|---|---|---|---|
| | (in thousands, except percentages) | | | |
| Sales and marketing | $ 25,989 | $ 20,858 | $ 5,131 | 25 % |
| Percentage of total revenue | 29 % | 29 % | | |

Sales and marketing expenses were $26.0 million for the six months ended June 30, 2020, compared to $20.9 million for the six months ended June 30, 2019, an increase of $5.1 million, or 25%. The increase was primarily due to a $5.2 million increase in stock-based compensation and a $0.9 million increase in the provision for credit losses, which were partially offset by a decrease in travel-related expenses of $0.6 million and a decrease in salary and related personnel costs of $0.7 million.

Sales and marketing expense as a percentage of total revenue remained consistent at 29% for the six months ended June 30, 2019 and for the six months ended June 30, 2020.

*Research and development*

| | Six Months Ended June 30, 2020 | Six Months Ended June 30, 2019 | $ Change | % Change |
|---|---|---|---|---|
| | (in thousands, except percentages) | | | |
| Research and development | $ 25,149 | $ 19,732 | $ 5,417 | 27 % |
| Percentage of total revenue | 29 % | 28 % | | |

Research and development expenses were $25.1 million for the six months ended June 30, 2020, compared to $19.7 million for the six months ended June 30, 2019, an increase of $5.4 million, or 27%. The increase was primarily due to an increase of $3.5 million in stock-based compensation and an increase of $1.6 million in salary and related personnel costs from additional development team headcount.

Research and development expense as a percentage of revenue increased from 28% in the six months ended June 30, 2019 to 29% in the six months ended June 30, 2020.

*General and administrative*

| | Six Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| General and administrative | $ 17,814 | $ 12,320 | $ 5,494 | 45 % |
| Percentage of total revenue | 20 % | 17 % | | |

General and administrative expenses were $17.8 million for the six months ended June 30, 2020, compared to $12.3 million for the six months ended June 30, 2019, an increase of $5.5 million, or 45%. The increase was primarily due to increases of $4.3 million in stock-based compensation, $1.3 million in acquisition-related transaction costs, and insurance costs of $0.7 million, which were offset by the decrease in the fair value of our contingent consideration liability of $1.6 million.

General and administrative expense as a percentage of revenue increased from 17% in the six months ended June 30, 2019 to 20% in the six months ended June 30, 2020.

*Depreciation and amortization*

| | Six Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Depreciation and amortization | $ 5,971 | $ 4,528 | $ 1,443 | 32 % |
| Percentage of total revenue | 7 % | 6 % | | |

Depreciation and amortization expenses were $6.0 million for the six months ended June 30, 2020, compared to $4.5 million for the six months ended June 30, 2019, an increase of $1.4 million, or 32%. This increase was primarily due to the amortization of acquired intangible assets.

Depreciation and amortization expense as a percentage of revenue increased from 6% in the six months ended June 30, 2019 to 7% in the six months ended June 30, 2020.

*Loss on extinguishment of debt*

| | Six Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Loss on extinguishment of debt | $ (8,514) | $ (1,670) | $ (6,844) | n/m[1] |

(1) Not meaningful.

On April 14, 2020, we used $57.0 million of proceeds from the Note Offering to prepay in full all outstanding indebtedness, including prepayment penalties, under the Credit Agreement and terminate the Credit Agreement. We recorded a loss on debt extinguishment of debt of approximately $8.5 million during the six months ended June 30, 2020, including approximately $1.5 unamortized debt discounts and issuance costs related to the OrbiMed term loan and $7.0 million of repayment fees.

On February 6, 2019, we entered into the OrbiMed Credit Facility and simultaneously borrowed $50.0 million. The use of proceeds from the OrbiMed senior term loan included an immediate repayment of our $20.0 million term loan from SVB that required a prepayment premium of $0.5 million and the write-off of deferred debt issuance costs of $1.2 million, resulting in a $1.7 million loss on extinguishment of debt during the six months ended June 30, 2019.

*Interest and other expense, net*

| | Six Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Interest income | $ 1,608 | 688 | $ 920 | 134 % |
| Interest expense | (5,313) | (2,982) | (2,331) | 78 % |
| Other income | 59 | 29 | 30 | 103 % |
| Total interest and other expense, net | $ (3,646) | $ (2,265) | $ (1,381) | 61 % |

Interest and other expense, net increased $1.4 million, or 61%, for the six months ended June 30, 2020, compared to the six months ended June 30, 2019. This increase is primarily due to an increase in interest expense of $2.3 million due to the increase in net borrowings resulting from the Notes Offering that occurred in April 2020, which was partially offset by an increase in interest income of $0.9 million due to the increase in cash equivalents and short-term investments from the IPO proceeds received in July 2019 and net proceeds from the Notes Offering.

*Income tax provision*

| | Six Months Ended June 30, | | | |
|---|---|---|---|---|
| | 2020 | 2019 | $ Change | % Change |
| | (in thousands, except percentages) | | | |
| Income tax (benefit) provision | $ (1,232) | $ 22 | $ (1,254) | n/m(1) |

(1) Not meaningful.

Income tax provision consists of current and deferred taxes for U.S. federal, state, and foreign income taxes. As we have a full valuation allowance on deferred tax assets, our income tax provision typically consists primarily of minimal state and foreign income taxes.

The income tax benefit of $1.2 million recorded for the six months ended June 30, 2020, is primarily related to the discrete deferred tax benefit attributable to the release of a portion of the valuation allowance during the quarter. The release of valuation allowance is attributable to the acquisition of Able Health, which resulted in deferred tax liabilities that, upon acquisition, allowed us to recognize certain deferred tax assets of approximately $1.3 million that had previously been offset by a valuation allowance.

## Liquidity and Capital Resources

As of June 30, 2020, we had cash, cash equivalents, and short-term investments of $353.1 million, which were held for working capital and other general corporate purposes, which may include potential acquisitions and strategic transactions. Our cash equivalents and short-term investments are comprised primarily of money market funds, U.S. treasury notes, commercial paper, corporate bonds, and asset-backed securities.

Since inception, we have financed our operations primarily from the proceeds we received through private sales of equity securities, payments received from customers under technology and professional services arrangements, borrowings under our loan and security agreements, our 2019 IPO, and our recent offering of convertible senior notes. Our future capital requirements will depend on many factors, including our pace of new customer growth and expanded customer relationships, technology and professional services renewal activity, and the timing and extent of spend to support the expansion of sales, marketing, and development activities. In the event that additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us, or at all. If we are unable to raise additional capital when desired, our business, results of operations, and financial condition would be adversely affected.

*Convertible Senior Notes*

On April 14, 2020, we issued $230.0 million in aggregate principal amount of 2.50% Convertible Senior Notes due 2025 (the Notes), pursuant to an Indenture dated April 14, 2020, with U.S. Bank National Association, as trustee, in a private offering to qualified institutional buyers. We received net proceeds from the sale of the Notes of $222.5 million, after deducting the initial purchasers' discounts and offering expenses payable by us.

The Notes are senior, unsecured obligations and accrue interest payable semiannually in arrears on April 15 and October 15 of each year, beginning on October 15, 2020, at a rate of 2.50% per year. The Notes will mature on April 15, 2025, unless earlier converted, redeemed, or repurchased. The Notes are convertible into cash, shares of our common stock, or a combination of cash and shares of our common stock, with the form of consideration determined at our election. The conversion rate is initially 32.6797 shares of our common stock per $1,000 principal amount of Notes (which is equivalent to an initial conversion price of approximately $30.60 per share of our common stock).

*Capped Calls*

On April 8, 2020, concurrently with the pricing of the Notes, we entered into privately negotiated capped call transactions (the Base Capped Calls) with certain financial institutions, or option counterparties. In addition, in connection with the initial purchasers' exercise in full of their option to purchase additional Notes, on April 9, 2020, we entered into additional capped call transactions (together with the Base Capped Calls, the Capped Calls) with each of the option counterparties. We used approximately $21.6 million of the net proceeds from the Note Offering to pay the cost of the Capped Calls. The Capped Calls have initial cap prices of $42.00 per share, subject to certain adjustments. The Capped Calls are expected generally to reduce the potential dilution to our common stock upon any conversion of Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted Notes, as the case may be, with such reduction and/or offset subject to the cap price.

Refer to Note 9 of our condensed consolidated financial statements for additional details regarding the private offering of the Notes and the Capped Calls.

*Initial public offering*

On July 29, 2019, we closed our IPO in which we issued and sold 8,050,000 shares (inclusive of the underwriters' over-allotment option to purchase 1,050,000 shares, which was exercised on July 25, 2019) of common stock at $26.00 per share. We received net proceeds of $194.6 million after deducting underwriting discounts and commissions and before deducting offering costs of $4.6 million.

*OrbiMed financings*

On February 6, 2019, we entered into the Credit Agreement with OrbiMed that established a senior term loan facility of up to $80.0 million under certain conditions. The contractual interest rate is the higher of LIBOR plus 7.5% and 10.0%. On February 6, 2019, we borrowed $50.0 million under the Credit Agreement with principal payments due beginning in 2023, and we simultaneously repaid our $20.0 million term loan from SVB in full. In addition, we repaid in full the outstanding balance of $1.3 million under the SVB revolving line of credit.

Additionally, on February 6, 2019, we sold 437,787 shares of our Series F redeemable convertible preferred stock for a purchase price of $12.2 million. The effect of the OrbiMed debt proceeds, the Series F stock issuance, and the repayment of the SVB term loan resulted in a net increase in cash, cash equivalents, and short-term investments of $38.7 million, net of fees and debt prepayment premiums.

On April 14, 2020, we used $57.0 million of proceeds from the Note Offering to prepay in full all outstanding indebtedness, including prepayment penalties, under the Credit Agreement with OrbiMed, dated February 6, 2019, as amended, and terminate the Credit Agreement.

*SVB revolving line of credit*

In June 2016, we signed a Loan and Security Agreement with SVB which established a revolving line of credit based on a formula amount. On February 6, 2019, we amended the Loan Agreement with SVB which reduced the revolving line of credit to a current maximum of $5.0 million with an obligation to maintain a minimum of $5.0 million cash or cash equivalents on deposit with SVB to maintain the assurance of future credit availability. The line may be increased to $10.0 million upon request and approval by SVB. The maturity date of the revolving line of credit was amended to be February 6, 2021.

On April 8, 2020, we entered into a Pay-Off Letter Agreement with SVB, pursuant to which we paid to SVB immaterial termination costs, representing all amounts due and owing under the Loan Agreement, dated as of October 6, 2017, with SVB, in exchange for, among other things, (i) full discharge of all of our obligations under the Loan Agreement; and (ii) release of security interests and other liens granted to or held by SVB as a security for our obligations.

We believe our existing cash, cash equivalents and marketable securities and amounts available under our revolving credit facility will be sufficient to meet our working capital and capital expenditure needs over at least the next 12 months, though we may require additional capital resources in the future.

***Cash Flows***

The following table summarizes our cash flows for the six months ended June 30, 2020 and 2019:

| | Six Months Ended June 30, | |
|---|---|---|
| | 2020 | 2019 |
| | (in thousands) | |
| Net cash used in operating activities | $ (17,520) | $ (13,641) |
| Net cash used in investing activities | (56,684) | (30,214) |
| Net cash provided by financing activities | 160,366 | 36,243 |
| Effect of exchange rate changes | (9) | — |
| Net increase (decrease) in cash and cash equivalents | $ 86,153 | $ (7,612) |

*Operating Activities*

Our largest source of operating cash flows is cash collections from our customers for technology and professional services arrangements. Our primary uses of cash from operating activities are for employee-related expenses, marketing expenses, and technology costs.

For the six months ended June 30, 2020, net cash used in operating activities was $17.5 million, which included a net loss of $44.7 million. Non-cash adjustments primarily consisted of $6.0 million in depreciation and amortization of property, equipment, and intangible assets, $17.8 million in stock-based compensation, the $8.5 million loss on extinguishment of debt, the $2.5 million amortization of debt discount and issuance costs, the $1.6 million change in fair value of contingent consideration liability, and the $1.3 million deferred tax benefit.

For the six months ended June 30, 2019, net cash used in operating activities was $13.6 million, which included a net loss of $24.4 million. Non-cash charges primarily consisted of $4.5 million in depreciation and amortization of property, equipment, and intangible assets, $3.1 million in stock-based compensation, and the $1.7 million loss on extinguishment of debt.

*Investing Activities*

Net cash used in investing activities for the six months ended June 30, 2020 of $56.7 million was primarily due to $163.3 million used to purchase short-term investments, the net cash consideration used to acquire Able Health of $15.2 million, and $2.2 million in purchases of property, equipment, and intangible assets, reduced by the $124.2 million provided from the sale and maturity of short-term investments.

Net cash used in investing activities for the six months ended June 30, 2019 of $30.2 million primarily was due to $40.5 million used to purchase short-term investments and $2.0 million in purchases of property, equipment, and intangible assets, reduced by $12.3 million provided from the sale and maturity of short-term investments.

*Financing Activities*

Net cash provided by financing activities for the six months ended June 30, 2020 of $160.4 million was primarily the result of $222.5 million in net proceeds from the private offering of the Notes, $15.0 million in stock option exercise proceeds, and $2.4 million in proceeds from our ESPP, reduced by the $57.0 million payoff of the OrbiMed Credit Facility, $21.7 million used to purchase Capped Calls, including issuance costs, and the $0.7 million in payments of acquisition-related obligations.

Net cash provided by financing activities for the six months ended June 30, 2019 of $36.2 million was primarily the result of $47.2 million in net proceeds drawn under the OrbiMed Credit Facility, $12.1 million in proceeds from the sale and issuance of Series F redeemable convertible preferred stock, and $1.6 million in stock option exercise proceeds, reduced by the $21.8 million payoff of the SVB debt, and $0.8 million in payments of acquisition-related obligations.

**Contractual Obligations and Commitments**

*Lease agreement for new headquarters*

During the three months ended June 30, 2020, we entered into a lease for office space in South Jordan, Utah, that will become our new company headquarters. This new lease will require future lease payments of approximately $31.7 million with a non-cancelable lease term of 11 years, excluding renewal options. Lease payments will commence beginning January 1, 2021, however, we took initial possession of the first 64,910 square feet of the new headquarters in June 2020 to begin leasehold improvements, resulting in the accounting lease commencement date for this first phase. According to the terms of this new lease agreement our leased square footage will expand between 2022 and 2023 resulting in approximately $2.8 million of additional required future lease payments. We shall have the right to sublease all, or a portion, of this leased office space provided that certain terms and conditions are met. We also anticipate greater than $10.0 million of capital expenditure for leasehold improvements, computer equipment, and furniture and fixtures for the new headquarters.

Refer to Note 14 of our condensed consolidated financial statements for additional details regarding this new lease commitment.

The following table presents a summary of our payments due under contractual arrangements as of June 30, 2020, including the new operating lease described above:

| | Payments Due by Period | | | | |
|---|---|---|---|---|---|
| | Total | Less than 1 Year | 1 to 3 Years | 3 to 5 Years | More than 5 Years |
| | (in thousands) | | | | |
| Convertible senior notes[1] | $ 258,750 | $ 5,750 | $ 11,500 | $ 241,500 | $ — |
| Operating lease obligations[2] | 37,611 | 3,392 | 6,845 | 6,714 | 20,660 |
| Acquisition-related consideration | 3,250 | 3,250 | — | — | — |
| Total | $ 299,611 | $ 12,392 | $ 18,345 | $ 248,214 | $ 20,660 |

(1) On April 14, 2020, we issued $230.0 million in aggregate principal amount of 2.50% Convertible Senior Notes due 2025. The contractual commitment amounts above include interest payments of $28.8 million.

(2) We lease our facilities under long-term operating leases, which expire at various dates through 2031.

The contractual commitment amounts in the table above are associated with agreements that are enforceable and legally binding and that specify all significant terms, including fixed or minimum services to be used, fixed, minimum or variable price provisions and the approximate timing of the transaction.

*Private offering of convertible senior notes*

On April 14, 2020, we issued $230.0 million in aggregate principal amount of 2.50% Convertible Senior Notes due 2025, pursuant to an Indenture dated April 14, 2020, with U.S. Bank National Association, as trustee, in a private offering to qualified institutional buyers. We received net proceeds from the sale of the Notes of $222.5 million, after deducting the initial purchasers’ discounts and offering expenses payable by us.

We used $57.0 million of proceeds from the Notes Offering to prepay in full all outstanding indebtedness, including prepayment penalties, under the Credit Agreement with OrbiMed, dated February 6, 2019, as amended, and terminate the Credit Agreement, which had provided us with a term loan of up to $80.0 million due on February 6, 2024, at an interest rate of the higher of LIBOR plus 7.5% and 10.0%.

Refer to Note 9 of our condensed consolidated financial statements for additional details regarding the private offering of the Notes and related events.

There have been no other material changes to our contractual obligations since December 31, 2019.

## Off-Balance Sheet Arrangements

As of June 30, 2020, we did not have any relationships with unconsolidated organizations or financial partnerships, such as structured finance or special purpose entities that would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

## Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with GAAP. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related disclosures. To the extent that there are material differences between these estimates and actual results, our financial condition or results of operations would be affected. We base our estimates on past experience and other assumptions that we believe are reasonable under the circumstances, and we evaluate these estimates on an ongoing basis. Critical accounting policies and estimates are those that we consider critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

Due to the COVID-19 pandemic, there has been uncertainty and disruption in the global economy and financial markets. We are not aware of any specific event or circumstance that would require updates to our estimates or judgments or require us to revise the carrying value of our assets or liabilities as of the date of issuance of this Quarterly Report on Form 10-Q. These estimates may change as new events occur and additional information is obtained. Actual results could differ materially from these estimates under different assumptions or conditions. We will continue to actively monitor the impact of the COVID-19 pandemic and other factors on expected credit losses.

There have been no material changes to our critical accounting policies and estimates as previously disclosed in our Annual Report on Form 10-K, filed with the SEC on February 28, 2020. See "Note 1—Description of Business and Summary of Significant Accounting Policies" of our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for more information regarding the Company's significant accounting policies.

## JOBS Act Accounting Election

We currently meet the definition of an emerging growth company, as defined in the Jumpstart Our Business Startups Act (JOBS Act). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards, and therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

On the last business day of our second quarter in fiscal year 2020, the aggregate worldwide market value of shares of common stock held by our non-affiliate stockholders exceeded $700 million. As a result, as of December 31, 2020, we will be considered a large accelerated filer as defined in Rule 12b-2 under the Exchange Act, and we will cease to be an emerging growth company as defined in the JOBS Act. We will no longer be exempt from the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002, as amended, and our independent registered public accounting firm will evaluate and report on the effectiveness of internal control over financial reporting.

## Recent Accounting Pronouncements

See "Note 1—Description of Business and Summary of Significant Accounting Policies" to our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for more information regarding recently issued accounting pronouncements.

## Item 3. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to certain market risks in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in interest rates but may include foreign currency exchange risk and inflation in the future.

### *Interest Rate Risk*

We had cash, cash equivalents, and short-term investments of $353.1 million as of June 30, 2020, which are held for working capital purposes. We do not make investments for trading or speculative purposes.

Our cash equivalents and short-term investments are subject to market risk due to changes in factors such as interest rates, market liquidity, and credit ratings. Fixed rate securities may have their market value adversely affected due to a rise in interest rates, while floating rate securities may produce less income than expected if interest rates fall. Due in part to these factors, our future investment income may fluctuate due to changes in interest rates or we may suffer losses in principal if we are forced to sell securities that decline in market value due to changes in interest rates or other factors. However, because we classify our investments as “available for sale,” no gains or losses are recognized due to changes in interest rates unless such securities are sold prior to maturity or declines in fair value are determined to result in a loss from deterioration in credit quality.

Under our debt agreements, we pay interest on any outstanding balances based on variable market rates. A significant increase in these market rates may adversely affect our results of operations.

As of June 30, 2020, a hypothetical 100 basis point change in interest rates would not have had a material impact on the value of our cash equivalents or investment portfolio. Fluctuations in the value of our cash equivalents and investment portfolio caused by a change in interest rates (gains or losses on the carrying value) are recorded in other comprehensive income and are realized only if we sell the underlying securities prior to maturity, or otherwise recognized in our condensed consolidated statement of operations, if an investment in an available-for-sale debt security is in a loss position and the loss is attributable to a decline in credit quality.

### *Foreign Currency Exchange Risk*

Our reporting currency is the U.S. dollar, and the functional currency of our subsidiaries is typically their local currency. Our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates, particularly changes in the Singapore Dollar. Due to the relatively small size of our international operations to date, our foreign currency exposure has been fairly limited and thus we have not instituted a hedging program. We are considering the costs and benefits of initiating such a program and may in the future hedge balances and transactions denominated in currencies other than the U.S. dollar as we expand international operations.

Today, our international sales contracts are generally denominated in U.S. dollars, while our international operating expenses are often denominated in local currencies. In the future, an increasing portion of our international sales contracts may be denominated in local currencies. Additionally, as we expand our international operations a larger portion of our operating expenses will be denominated in local currencies. Therefore, fluctuations in the value of the U.S. dollar and foreign currencies may affect our results of operations when translated into U.S. dollars.

### *Inflation Risk*

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

## Item 4. Controls and Procedures

### Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as defined in Rule 13a–15(e) and Rule 15d–15(e) under the Exchange Act that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

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, 2020. Based on the evaluation of our disclosure controls and procedures as of June 30, 2020, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

### Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We have not experienced any material impact to our internal controls over financial reporting despite the fact that most of our employees are currently working remotely due to the COVID-19 pandemic. We are continually monitoring and assessing the effects that the COVID-19 pandemic may have on our internal controls to minimize the impact on their design and operating effectiveness.

### Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered 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. These inherent limitations include the realities that judgments in decision making can be faulty and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

## Part II. Other Information

### Item 1. Legal Proceedings

We are, from time to time, subject to legal proceedings and claims arising from the normal course of business activities, and an unfavorable resolution of any of these matters could materially affect our future business, results of operations, financial condition, and cash flows.

Future litigation may be necessary, among other things, to defend ourselves or our users by determining the scope, enforceability, and validity of third-party proprietary rights or to establish our proprietary rights. The results of any current or future litigation cannot be predicted with certainty, and 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

*You should carefully consider the following risk factors, in addition to the other information contained in this Quarterly Report on Form 10-Q, including the section of this report titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes. If any of the events described in the following risk factors and the risks described elsewhere in this report occurs, our business, operating results and financial condition could be seriously harmed. This Quarterly Report on Form 10-Q also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of factors that are described below and elsewhere in this report.*

### Risks Related to Our Business

***We operate in a highly competitive industry, and if we are not able to compete effectively, our business and results of operations will be harmed.***

The market for healthcare solutions is intensely competitive. We compete across various segments within the healthcare market, including with respect to data analytics and technology platforms, healthcare consulting, care management and coordination, population health management, and health information exchange. Competition in our market involves rapidly changing technologies, evolving regulatory requirements and industry expectations, frequent new product introductions, and changes in customer requirements. If we are unable to keep pace with the evolving needs of our customers and continue to develop and introduce new applications and services in a timely and efficient manner, demand for our Solution may be reduced and our business and results of operations will be adversely affected.

We face competition from industry-agnostic analytics companies and EHR companies, such as Epic Systems and Cerner. We also compete with other large, well-financed, and technologically sophisticated entities. Some of our current large competitors, such as Optum Analytics and IBM, have greater name recognition, longer operating histories, significantly greater resources than we do, and/or more established distribution networks and relationships with healthcare providers. As a result, our current and potential competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards, or customer requirements. In addition, current and potential competitors have established, and may in the future establish, cooperative relationships with vendors of complementary products, or services to increase the availability of their products or services to the marketplace. Current or future competitors may consolidate to improve the breadth of their products, directly competing with our Solution. Accordingly, new competitors may emerge that have greater market share, larger customer bases, greater breadth and volume of data, more widely adopted proprietary technologies, broader offerings, greater marketing expertise, greater financial resources, and larger sales forces than we have, which could put us at a competitive disadvantage.

Further, in light of these advantages, even if our Solution is more effective than the product or service offerings of our competitors, current or potential customers might select competitive products and services in lieu of purchasing our Solution. We face competition from niche vendors, who offer stand-alone products and services, and from existing enterprise vendors, including those currently focused on software products, which have information systems in place with customers in our target markets. These existing enterprise vendors may now, or in the future, offer or promise products or services with less functionality than our Solution, but offer ease of integration with existing systems and that leverage existing vendor relationships. Increased competition is likely to result in pricing pressures, which could negatively impact our sales, profitability, or market share.

Our patient engagement, population health, and care coordination services face competition from a wide variety of market participants. For example, certain health systems have developed their own population health and care coordination systems. If we fail to distinguish our offerings from the other options available to healthcare providers, the demand for and market share of those offerings may decrease.

***We may be unable to successfully execute on our growth initiatives, business strategies, or operating plans.***

We are continually executing a number of growth initiatives, strategies, and operating plans designed to enhance our business. For example, we recently expanded our data analytics services into the payor and life sciences markets. We may not be able to successfully complete these growth initiatives, strategies, and operating plans and realize all of the benefits, including growth targets and cost savings, that we expect to achieve or it may be more costly to do so than we anticipate. A variety of factors could cause us not to realize some or all of the expected benefits. These factors include, among others, delays in the anticipated timing of activities related to such growth initiatives, strategies, and operating plans, increased difficulty and cost in implementing these efforts, including difficulties in complying with new regulatory requirements and the incurrence of other unexpected costs associated with operating the business. Moreover, our continued implementation of these programs may disrupt our operations and performance. As a result, we cannot assure you that we will realize these benefits. If, for any reason, the benefits we realize are less than our estimates or the implementation of these growth initiatives, strategies, and operating plans adversely affect our operations or cost more or take longer to effectuate than we expect, or if our assumptions prove inaccurate, our business, financial condition, and results of operations may be materially adversely affected.

***If we fail to effectively manage our growth and organizational change, our business and results of operations could be harmed.***

We have experienced, and may continue to experience, rapid growth and organizational change, which has placed, and may continue to place, significant demands on our management, operational, and financial resources. In addition, if we fail to successfully integrate new team members, it could harm our culture. We must continue to maintain, and may need to enhance, our information technology infrastructure and financial and accounting systems and controls, as well as manage expanded operations in geographically distributed locations, which will place additional demands on our resources and operations. We also must attract, train, and retain a significant number of qualified sales and marketing personnel, professional services personnel, software engineers, technical personnel, service offering personnel, and management personnel. This will require us to invest in and commit significant financial, operational, and management resources to grow and change in these areas without undermining the corporate culture that has been critical to our growth so far. If we do not achieve the benefits anticipated from these investments, or if the realization of these benefits is delayed, our results of operations may be adversely affected. If we fail to provide effective customer training on our Solution and high-quality customer support, our business and reputation could suffer. Failure to manage our growth effectively could lead us to over-invest or under-invest in technology and operations; result in weaknesses in our infrastructure, systems, or controls; give rise to operational mistakes, losses, or loss of productivity or business opportunities; reduce customer or user satisfaction; limit our ability to respond to competitive pressures; and result in loss of team members and reduced productivity of remaining team members. Our growth could require significant capital expenditures and may divert financial resources and management attention from other projects, such as the development of new or enhanced services or the acquisition of suitable businesses or technologies. If our management is unable to effectively manage our growth, our expenses may increase more than expected, our revenue could decline or may grow more slowly than expected, and we may be unable to implement our business strategy.

***The recent global coronavirus (COVID-19) outbreak could harm our business, results of operations, and financial condition.***

In March 2020, the World Health Organization declared COVID-19 a global pandemic. This pandemic, which has continued to spread, and the related adverse public health developments, including orders to shelter-in-place, travel restrictions, and mandated business closures, have adversely affected workforces, organizations, governments, customers, economies, and financial markets globally, leading to an economic downturn and increased market volatility. It has also disrupted the normal operations of many businesses, including ours. This outbreak, as well as intensified measures undertaken to contain the spread of COVID-19, could decrease healthcare industry spending, adversely affect demand for our technology and services, cause one or more of our customers to file for bankruptcy protection or go out of business, cause one or more of our customers to fail to renew, terminate, or renegotiate their contracts, affect the ability of our sales team to travel to potential customers and the ability of our professional services teams to conduct in-person services and trainings, impact expected spending from new customers, negatively impact collections of accounts receivable, and harm our business, results of operations, and financial condition. Further, the sales cycle for a new customer of our technology and services, which has averaged 11 months, could lengthen, resulting in a potentially longer delay between increasing operating expenses and the generation of corresponding revenue, if any. We cannot predict with any certainty whether and to what degree the disruption caused by the COVID-19 pandemic and reactions thereto will continue and expect to face difficulty accurately predicting our internal financial forecasts. The outbreak also presents challenges as our entire workforce is currently working remotely and shifting to assisting new and existing customers who are also generally working remotely. It is not possible for us to predict the duration or magnitude of the adverse results of the outbreak and its effects on our business, results of operations, or financial condition at this time.

***If we do not continue to innovate and provide services that are useful to customers and users, we may not remain competitive, and our revenue and results of operations could suffer.***

The market for healthcare in the United States is in the early stages of structural change and is rapidly evolving toward a more value-based care model. Our success depends on our ability to keep pace with technological developments, satisfy increasingly sophisticated customer and user requirements, and sustain market acceptance. Our future financial performance will depend in part on growth in this market and on our ability to adapt to emerging demands of this market, including adapting to the ways our customers or users access and use our Solution. Although we have built eight new software analytics applications in the last three years, we may not be able to sustain this rate of innovation. Our competitors are constantly developing products and services that may become more efficient or appealing to our customers or users. As a result, we must continue to invest significant resources in research and development in order to enhance our existing services and introduce new high-quality services and applications that customers will want, while offering our Solution at competitive prices. If we are unable to predict user preferences or industry changes, or if we are unable to modify our Solution on a timely or cost-effective basis, we may lose customers and users. Our results of operations would also suffer if our innovations are not responsive to the needs of our customers, are not appropriately timed with market opportunity, or are not effectively brought to market, including as the result of delayed releases or releases that are ineffective or have errors or defects. As technology continues to develop, our competitors may be able to offer results that are, or that are perceived to be, substantially similar to, or better than, those generated by our Solution. This may force us to compete on additional service attributes and to expend significant resources in order to remain competitive.

***Our business could be adversely affected if our customers are not satisfied with our Solution.***

We depend on customer satisfaction to succeed with respect to our cloud-based solutions. Our sales organization is dependent on the quality of our offerings, our business reputation, and the strong recommendations from existing customers. If our cloud-based software does not function reliably or fails to meet customer expectations in terms of performance and availability, customers could assert claims against us or terminate their contracts with us or publish negative feedback. This could damage our reputation and impair our ability to attract or retain customers. Furthermore, we provide professional services to customers to support their use of our applications and to achieve measurable clinical, financial, and operational improvements.

Any failure to maintain high-quality professional services, or a market perception that we do not maintain high-quality professional services, could harm our reputation, adversely affect our ability to sell our Solution to existing and prospective customers, and harm our business, results of operations and financial condition.

***If our existing customers do not continue or renew their contracts with us, renew at lower fee levels or decline to purchase additional technology and services from us, it could have a material adverse effect on our business, financial condition, and results of operations.***

We expect to derive a significant portion of our revenue from the renewal of existing customer contracts and sales of additional technology and services to existing customers. As part of our growth strategy, for instance, we have recently focused on expanding our Solution among current customers. As a result, selling additional technology and services is critical to our future business, revenue growth, and results of operations.

Factors that may affect our ability to sell additional technology and services include, but are not limited to, the following:

- the price, performance, and functionality of our Solution;
- the availability, price, performance, and functionality of competing solutions;
- our ability to develop and sell complementary technology and services;
- the stability, performance, and security of our hosting infrastructure and hosting services;
- our ability to continuously deliver measurable improvements;
- health systems’ demand for professional services to augment their internal data analytics function;
- changes in healthcare laws, regulations, or trends;
- the business environment of our customers and, in particular, headcount reductions by our customers; and
- the impact of any natural disasters or public health emergencies, such as the COVID-19 pandemic.

We enter into subscription contracts with our customers for access to our Solution. Many of these contracts have initial terms of one to three years. Most of our customers have no obligation to renew their subscriptions for our Solution after the initial term expires. Although we have long-term contracts with many customers, these contracts may be terminated by the customer before their term expires for various reasons, such as changes in the regulatory landscape and poor performance by us, subject to certain conditions. For example, after a specified period, certain of these contracts are terminable for convenience by our customers, subject to providing us with prior notice. Certain of our contracts may be terminated by the customer immediately following repeated failures by us to provide specified levels of service over periods ranging from six months to more than a year. Certain of our contracts may be terminated immediately by the customer if we lose applicable third-party licenses, go bankrupt, or lose our liability insurance. If any of our contracts with our customers are terminated, we may not be able to recover all fees due under the terminated contract and we will lose future revenue from that customer, which may adversely affect our results of operations. We expect that future contracts will contain similar provisions.

In addition, our customers may negotiate terms less advantageous to us upon renewal, which may reduce our revenue from these customers. Our future results of operations also depend, in part, on our ability to upgrade and enhance our Solution. If our customers fail to renew their contracts, renew their contracts upon less favorable terms, or at lower fee levels or fail to purchase new technology and services from us, our revenue may decline or our future revenue growth may be constrained.

***Our Solution is dependent on our ability to source data from third parties, and such third parties could take steps to block our access to data, which could impair our ability to provide our Solution or limit the effectiveness of our Solution.***

Our data platform requires us to source data from multiple clinical, financial, and operational data sources, which sources are also typically third-party vendors of our customers. The functioning of our analytics applications and our ability to perform analytics services is predicated on our ability to establish interfaces that download the relevant data from these source systems on a repeated basis and in a reliable manner. We may encounter vendors that engage in information blocking practices that may inhibit our ability to access the relevant data on behalf of customers. A final rule that was published on May 1, 2020 (the Final Rule), pursuant to the 21st Century Cures Act, finalizes anti-information blocking provisions that prohibit practices that are likely to interfere with access, exchange, or use of electronic health information. The Final Rule allows for certain exceptions such as allowing vendors to charge a reasonable cost for access to interoperability elements of its technology to enable data access. These rules will not go into effective until November 2, 2020, with an additional period of enforcement discretion of three months, pursuant to an announcement by the Office of the National Coordinator as a result of resources being focused on the COVID-19 pandemic. After the Final Rule is being enforced, it will initially apply to subsets of data for the first 18 months of implementation prior to applying to all EHI. While the Final Rule is intended to limit information blocking practices, it is unclear whether the exceptions and safe harbors to the Final Rule will be interpreted broadly and/or in other ways that limit the practical effectiveness of the Final Rule. Since this rule has not yet been enforced and may not be enforced until February 2021, healthcare organizations and vendors may adapt interpretations of the 21st Century Cures Act, or the Final Rule that justify the continuation of various information blocking practices. If we face limitations on the development of data interfaces and other information blocking practices, our data access and ability to download relevant data may be limited, which could adversely affect our ability to provide our Solution as effectively as possible. Any steps we take to enforce the anti-information blocking provisions of the 21st Century Cures Act could be costly, could distract management attention from the business, and could have uncertain results.

***Failure by our customers to obtain proper permissions and waivers may result in claims against us or may limit or prevent our use of data, which could harm our business.***

We require our customers to provide necessary notices and to obtain necessary permissions and waivers for use and disclosure of the information that we receive, and we require contractual assurances from them that they have done so and will do so. If they do not obtain necessary permissions and waivers, then our use and disclosure of information that we receive from them or on their behalf may be restricted or prohibited by state, federal or international privacy or data protection laws, or other related privacy and data protection laws. This could impair our functions, processes, and databases that reflect, contain, or are based upon such data and may prevent the use of such data, including our ability to provide such data to third parties that are incorporated into our service offerings. Furthermore, this may cause us to breach obligations to third parties to whom we may provide such data, such as third-party service or technology providers that are incorporated into our service offerings. In addition, this could interfere with or prevent data sourcing, data analyses, or limit other data-driven activities that benefit us. Moreover, we may be subject to claims, civil and/or criminal liability or government or state attorneys general investigations for use or disclosure of information by reason of lack of valid notice, permission, or waiver. These claims, liabilities or government or state attorneys general investigations could subject us to unexpected costs and adversely affect our financial condition and results of operations.

***If our security measures are breached or unauthorized access to customer data is otherwise obtained, our Solution may be perceived as not being secure, customers may reduce the use of or stop using our Solution, and we may incur significant liabilities.***

Our Solution involves the storage and transmission of our customers’ proprietary information, including personal or identifying information regarding patients and their protected health information (PHI). As a result, unauthorized access or security breaches as a result of third-party action, employee error, malfeasance, or otherwise could result in the loss or inappropriate use of information, litigation, indemnity obligations, damage to our reputation, and other liability such as government or state Attorney General investigations.

Because the techniques used to obtain unauthorized access or sabotage systems change frequently and generally are not identified until they are launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. Moreover, the detection, prevention, and remediation of known or unknown security vulnerabilities, including those arising from third-party hardware or software, may result in additional direct or indirect costs and management time.

Any or all of these issues could adversely affect our ability to attract new customers, cause existing customers to elect to not renew their subscriptions, result in reputational damage, or subject us to third-party lawsuits, regulatory fines, mandatory disclosures, or other action or liability, which could adversely affect our results of operations. Our general liability insurance may not be adequate to cover all potential claims to which we are exposed and may not be adequate to indemnify us for liability that may be imposed or the losses associated with such events, and in any case, such insurance may not cover all of the specific costs, expenses, and losses we could incur in responding to and remediating a security breach. A security breach of another significant provider of cloud-based solutions may also negatively impact the demand for our Solution.

***Our results of operations have in the past fluctuated and may continue to fluctuate significantly, and if we fail to meet the expectations of analysts or investors, our stock price and the value of an investment in our common stock could decline substantially.***

Our results of operations are likely to fluctuate, and if we fail to meet or exceed the expectations of securities analysts or investors, the trading price of our common stock could decline. Moreover, our stock price may be based on expectations of our future performance that may be unrealistic or that may not be met. Some of the factors that could cause our revenue and results of operations to fluctuate from quarter to quarter include:

- the extent to which our Solution achieves or maintains market acceptance;
- our ability to introduce new applications, updates, and enhancements to our existing applications on a timely basis;
- new competitors and the introduction of enhanced products and services from new or existing competitors;
- the length of our contracting and implementation cycles and our fulfillment periods for our Solution;
- the mix of revenue generated from professional services as compared to technology subscriptions;
- the financial condition of our current and future customers;
- changes in customer budgets and procurement policies;
- changes in regulations or marketing strategies;
- the amount and timing of our investment in research and development activities;
- the amount and timing of our investment in sales and marketing activities;
- technical difficulties or interruptions to our DOS platform or analytics applications;
- our ability to hire and retain qualified personnel;
- changes in the regulatory environment related to healthcare;
- regulatory compliance costs;
- the timing, size, and integration success of potential future acquisitions;

- unforeseen legal expenses, including litigation and settlement costs; and
- buying patterns of our customers and the related seasonality impacts on our business.

Many of these factors are not within our control, and the occurrence of one or more of them might cause our results of operations to vary widely. As such, we believe that quarter-to-quarter comparisons of our revenue and results of operations may not be meaningful and should not be relied upon as an indication of future performance.

A significant portion of our operating expense is relatively fixed in nature in the short term, and planned expenditures are based in part on expectations regarding future revenue and profitability. Accordingly, unexpected revenue shortfalls, lower-than-expected revenue increases as a result of planned expenditures, and longer-than-expected impact on profitability and margins as a result of planned expenditures may decrease our gross margins and profitability and could cause significant changes in our results of operations from quarter to quarter. In addition, our future quarterly results of operations may fluctuate and may not meet the expectations of securities analysts or investors. If this occurs, the trading price of our common stock could fall substantially, either suddenly or over time.

***Our pricing may change over time and our ability to efficiently price our Solution will affect our results of operations and our ability to attract or retain customers.***

In the past, we have adjusted our prices as a result of offering new applications and services and customer demand. In the fourth quarter of 2018, we began to introduce new pricing for our Solution to new customers, the full effect of which we expect would be realized in future years. While we determined these prices based on prior experience and feedback from customers, our assessments may not be accurate and we could be underpricing or overpricing our Solution, which may require us to continue to adjust our pricing model. Furthermore, as our applications and services change, then we may need to, or choose to, revise our pricing as our prior experience in those areas will be limited. For example, we introduced our subscription model in 2015, and we may need to continually refine our pricing model. Such changes to our pricing model or our inability to efficiently price our Solution could harm our business, results of operations, and financial condition and impact our ability to predict our future performance.

***If our Solution fails to provide accurate and timely information, or if our content or any other element of our Solution is associated with faulty clinical decisions or treatment, we could have liability to customers, members, clinicians, or patients, which could adversely affect our results of operations.***

Our applications, content, and services may be used by customers to support clinical decision-making by providers and interpret information about patient medical histories, treatment plans, medical conditions, and the use of particular medications. If our applications, content, or services are associated with faulty clinical decisions or treatment, then customers or their patients could assert claims against us that could result in substantial costs to us, harm our reputation in the industry, and cause demand for our Solution to decline.

Our analytics services may be used by our customers to inform clinical decision-making, provide access to patient medical histories, and assist in creating patient treatment plans. Therefore, if data analyses are presented incorrectly in our applications or they are incomplete, or if we make mistakes in the capture or input of these data, adverse consequences, including death, may occur and give rise to product liability, medical malpractice liability, and other claims against us by customers, clinicians, patients, or others. We often have little control over data accuracy, yet a court or government agency may take the position that our storage and display of health information exposes us to personal injury liability or other liability for wrongful delivery or handling of healthcare services or erroneous health information.

Our clinical guidelines, algorithms, and protocols may be viewed as providing healthcare professionals with guidance on care management, care coordination, or treatment decisions. If our content, or content we obtain from third parties, contains inaccuracies, or we introduce inaccuracies in the process of implementing third-party content, it is possible that patients, physicians, consumers, the providers of the third-party content, or others may sue us if they are harmed as a result of such inaccuracies. We cannot assure you that our software development, editorial, and other quality control procedures will be sufficient to ensure that there are no errors or omissions in any particular content or our software or algorithms.

The assertion of such claims and ensuing litigation, regardless of its outcome, could result in substantial cost to us, divert management's attention from operations, damage our reputation, and decrease market acceptance of our Solution. We attempt to limit by contract our liability for damages, have our customers assume responsibility for clinical treatment, diagnoses, medical oversight, and dosing decisions, and require that our customers assume responsibility for medical care and approve key algorithms, clinical guidelines, clinical protocols, and data. Despite these precautions, the allocations of responsibility and limitations of liability set forth in our contracts may not be enforceable, be binding upon patients, or otherwise protect us from liability for damages. Furthermore, general liability and errors and omissions insurance coverage and medical malpractice liability coverage may not continue to be available on acceptable terms or may not be available in sufficient amounts to cover one or more large claims against us. In addition, the insurer might disclaim coverage as to any future claim. One or more large claims could exceed our available insurance coverage.

If any of these events occur, they could materially adversely affect our business, financial condition, or results of operations.

Although we carry insurance covering medical malpractice claims in amounts that we believe are appropriate in light of the risks attendant to our business, successful medical liability claims could result in substantial damage awards that exceed the limits of our insurance coverage. In addition, professional liability insurance is expensive and insurance premiums may increase significantly in the future, particularly as we expand our Solution. As a result, adequate professional liability insurance may not be available to our providers or to us in the future at acceptable costs or at all.

Any claims made against us that are not fully covered by insurance could be costly to defend against, result in substantial damage awards against us and divert the attention of our management and our providers from our operations, which could have a material adverse effect on our business, financial condition, and results of operations. In addition, any claims may adversely affect our business or reputation.

***We rely on third-party providers, including Microsoft Azure, for computing infrastructure, network connectivity, and other technology-related services needed to deliver our Solution. Any disruption in the services provided by such third-party providers could adversely affect our business and subject us to liability.***

Our DOS platform and analytics applications are hosted from and use computing infrastructure provided by third parties, including Microsoft Azure and Flexential, and other computing infrastructure service providers. We have migrated and expect to continue to migrate a significant portion of our computing infrastructure needs to Microsoft Azure. We have made and expect to continue to make substantial investments in transitioning customers from our own managed data center to Microsoft Azure. We anticipate that this transition will increase the cost of hosting our technology and negatively impact our technology gross margin. We currently expect our planned transitions to be substantially complete by the end of 2020. Such migrations are risky and may cause disruptions to our Solution, service outages, downtime, or other problems and may increase our costs. Despite precautions taken during such transitions, any unsuccessful transition of technology may impair customers' use of our technology which may cause greater costs or downtime and which may lead to, among other things, customer dissatisfaction and non-renewals.

Our computing infrastructure service providers have no obligation to renew their agreements with us on commercially reasonable terms or at all. If we are unable to renew these agreements on commercially reasonable terms, or if one of our computing infrastructure service providers is acquired, we may be required to transition to a new provider and we may incur significant costs and possible service interruption in connection with doing so.

Problems faced by our computing infrastructure service providers, including those operated by Microsoft, could adversely affect the experience of our customers. Microsoft Azure has also had and may in the future experience significant service outages. Additionally, if our computing infrastructure service providers are unable to keep up with our growing needs for capacity, this could have an adverse effect on our business. For example, a rapid expansion of our business could affect our service levels or cause our third-party hosted systems to fail. Our agreements with third-party computing infrastructure service providers may not entitle us to service level credits that correspond with those we offer to our customers.

Any changes in third-party service levels at our computing infrastructure service providers, or any related disruptions or performance problems with our Solution, could adversely affect our reputation and may damage our customers' stored files, result in lengthy interruptions in our services, or result in potential losses of customer data. Interruptions in our services might reduce our revenue, cause us to issue refunds to customers for prepaid and unused subscriptions, subject us to service level credit claims and potential liability, allow our customers to terminate their contracts with us, or adversely affect our renewal rates.

***We rely on Internet infrastructure, bandwidth providers, data center providers, other third parties, and our own systems for providing services to our users, and any failure or interruption in the services provided by these third parties or our own systems could expose us to litigation, potentially require us to issue credits to our customers, and negatively impact our relationships with users or customers, adversely affecting our brand and our business.***

In addition to the services we provide from our offices, we serve our customers primarily from third-party data-hosting facilities. These facilities are vulnerable to damage or interruption from earthquakes, floods, fires, power loss, telecommunications failures, and similar events. They are also subject to break-ins, sabotage, intentional acts of vandalism, and similar misconduct. Their systems and servers could also be subject to hacking, spamming, ransomware, computer viruses or other malicious software, denial of service attacks, service disruptions, including the inability to process certain transactions, phishing attacks and unauthorized access attempts, including third parties gaining access to users' accounts using stolen or inferred credentials or other means, and may use such access to prevent use of users' accounts. Despite precautions taken at these facilities, the occurrence of a natural disaster or an act of terrorism, a decision to close the facilities without adequate notice, or other unanticipated problems at two or more of the facilities could result in lengthy interruptions in our services. Even with our disaster recovery arrangements, our services could be interrupted.

Our ability to deliver our Internet- and telecommunications-based services is dependent on the development and maintenance of the infrastructure of the Internet and other telecommunications services by third parties. This includes maintenance of a reliable network backbone with the necessary speed, data capacity, and security for providing reliable Internet access and services and reliable mobile device, telephone, facsimile, and pager systems, all at a predictable and reasonable cost. We have experienced and expect that we will experience interruptions and delays in services and availability from time to time.

We rely on internal systems as well as third-party vendors, including data center, bandwidth, and telecommunications equipment or service providers, to provide our services. We do not maintain redundant systems or facilities for some of these services. In the event of a catastrophic event with respect to one or more of these systems or facilities, we may experience an extended period of system unavailability, which could negatively impact our relationship with users or customers. To operate without interruption, both we and our service providers must guard against:

- damage from fire, power loss, and other natural disasters;

- communications failures;

- software and hardware errors, failures, and crashes;
- security breaches, computer viruses, ransomware, and similar disruptive problems; and
- other potential interruptions.

Any disruption in the network access, telecommunications, or co-location services provided by these third-party providers or any failure of or by these third-party providers or our own systems to handle the current or higher volume of use could significantly harm our business. We exercise limited control over these third-party vendors, which increases our vulnerability to problems with the services they provide.

Any errors, failures, interruptions, or delays experienced in connection with these third-party technologies and information services or our own systems could negatively impact our relationships with users and customers, adversely affect our brands and business, and expose us to third-party liabilities. The insurance coverage under our policies may not be adequate to compensate us for all losses that may occur. In addition, we cannot provide assurance that we will continue to be able to obtain adequate insurance coverage at an acceptable cost.

The reliability and performance of the Internet may be harmed by increased usage or by denial-of-service attacks. The Internet has experienced a variety of outages and other delays as a result of damages to portions of its infrastructure, and it could face outages and delays in the future. These outages and delays could reduce the level of Internet usage as well as the availability of the Internet to us for delivery of our Internet-based services.

We typically provide service level commitments under our customer contracts. If we fail to meet these contractual commitments, we could be obligated to provide credits or refunds for prepaid amounts related to unused subscription services or face contract terminations, which could adversely affect our results of operations.

Finally, recent changes in law could impact the cost and availability of necessary Internet infrastructure. Increased costs and/or decreased availability would negatively affect our results of operations.

***If we fail to provide effective professional services and high-quality customer support, our business and reputation would suffer.***

Our professional services and high-quality, ongoing customer support are important to the successful marketing and sale of our products and services and for the renewal of existing customer agreements. Providing these services and support requires that our professional services and support personnel have healthcare, technical, and other knowledge and expertise, making it difficult for us to hire qualified personnel and scale our professional services and support operations. The demand on our customer support organization will increase as we expand our business and pursue new customers, and such increased support could require us to devote significant development services and support personnel, which could strain our team and infrastructure and reduce our profit margins. If we do not help our customers quickly resolve any post-implementation issues and provide effective ongoing customer support, our ability to sell additional products and services to existing and future customers could suffer and our reputation would be harmed.

***Our sales cycles can be long and unpredictable, and our sales efforts require a considerable investment of time and expense. If our sales cycle lengthens or we invest substantial resources pursuing unsuccessful sales opportunities, our results of operations and growth would be harmed.***

Our sales process entails planning discussions with prospective customers, analyzing their existing solutions and identifying how these potential customers can use and benefit from our Solution. The sales cycle for a new customer, from the time of prospect qualification to the completion of the first sale, has averaged 11 months and in some cases has exceeded 24 months. We spend substantial time, effort and money in our sales efforts without any assurance that our efforts will result in the sale of our Solution.

In addition, our sales cycle and timing of sales can vary substantially from customer to customer because of various factors, including the discretionary nature of potential customers' purchasing and budget decisions, the announcement or planned introduction of new analytics applications or services by us or our competitors, and the purchasing approval processes of potential customers. If our sales cycle lengthens or we invest substantial resources pursuing unsuccessful sales opportunities, our results of operations and growth would be harmed.

***Our DOS platform or our analytics applications may not operate properly, which could damage our reputation, give rise to claims against us, or divert application of our resources from other purposes, any of which could harm our business and results of operations.***

Proprietary software development is time-consuming, expensive, and complex. Unforeseen difficulties can arise. We may encounter technical obstacles, and it is possible that we will discover additional problems that prevent our applications from operating properly.

If our systems do not function reliably or fail to meet user or customer expectations in terms of performance, customers could assert liability claims against us or attempt to cancel their contracts with us, and members could choose to terminate their use of our Solution. This could damage our reputation and impair our ability to attract or retain customers and members.

Information services as complex as those we offer have, in the past, contained, and may in the future develop or contain, undetected defects, vulnerabilities, or errors. We cannot be assured that material performance problems or defects in our software will not arise in the future. Errors may result from sources beyond our control, including the receipt, entry, or interpretation of patient information; the interface of our software with legacy systems that we did not develop; or errors in data provided by third parties. Despite testing, defects or errors may arise in our existing or new software or service processes following introduction to the market.

Customers rely on our Solution to collect, manage, and report clinical, financial, and operational data, and to provide timely and accurate information regarding medical treatment and care delivery patterns. They may have a greater sensitivity to service errors and security vulnerabilities than customers of software products in general. Clinicians may also rely on our predictive models for care delivery prioritization, and to inform treatment protocols. Limitations of liability and disclaimers that purport to limit our liability for damages related to defects in our software or content which we may include in our subscription and services agreements may not be enforced by a court or other tribunal or otherwise effectively protect us from related claims. In most cases, we maintain liability insurance coverage, including coverage for errors and omissions. However, it is possible that claims could exceed the amount of our applicable insurance coverage or that this coverage may not continue to be available on acceptable terms or insufficient amounts.

In light of this, defects, vulnerabilities, and errors and any failure by us to identify and address them could result in loss of revenue or market share; liability to customers, members, their patients, or others; failure to achieve market acceptance or expansion; diversion of development and management resources; delays in the introduction of new services; injury to our reputation; and increased service and maintenance costs. Defects, vulnerabilities, or errors in our software and service processes might discourage existing or potential customers or members from purchasing services from us. Correction of defects, vulnerabilities, or errors could prove to be impossible or impracticable. The costs incurred in correcting any defects, vulnerabilities, or errors or in responding to resulting claims or liability may be substantial and could adversely affect our results of operations.

***If we are not able to maintain and enhance our reputation and brand recognition, our business and results of operations will be harmed.***

We believe that maintaining and enhancing our reputation and brand recognition is critical to our relationships with existing customers and to our ability to attract new customers. The promotion of our brands may require us to make substantial investments and we anticipate that, as our market becomes increasingly competitive, these marketing initiatives may become increasingly difficult and expensive. Our marketing activities may not be successful or yield increased revenue, and to the extent that these activities yield increased revenue, the increased revenue may not offset the expenses we incur and our results of operations could be harmed.

In addition, any factor that diminishes our reputation or that of our management, including failing to meet the expectations of our customers, or any adverse publicity surrounding one of our investors or customers, could make it substantially more difficult for us to attract new customers. If we do not successfully maintain and enhance our reputation and brand recognition, our business may not grow and we could lose our relationships with customers, which would harm our business, results of operations, and financial condition.

***We employ third-party licensed software and software components for use in or with our Solution, and the inability to maintain these licenses or the presence of errors in the software we license could limit the functionality of our Solution and result in increased costs or reduced service levels, which would adversely affect our business.***

Our software applications might incorporate or interact with certain third-party software and software components (other than open-source software), such as data visualization software, obtained under licenses from other companies. We pay these third parties a license fee or royalty payment. We anticipate that we will continue to use such third-party software in the future.

Although we believe that there are commercially reasonable alternatives to the third-party software we currently make available, this may not always be the case, or it may be difficult or costly to replace. Furthermore, these third parties may increase the price for licensing their software, which could negatively impact our results of operations. Our use of additional or alternative third-party software could require customers to enter into license agreements with third parties. In addition, if the third-party software we make available has errors or otherwise malfunctions, or if the third-party terminates its agreement with us, the functionality of our Solution may be negatively impacted and our business may suffer.

***We derive a significant portion of our revenue from our largest customers. The loss, termination, or renegotiation of any contract could negatively impact our results.***

Historically, we have relied on a limited number of customers for a significant portion of our total revenue and accounts receivable. Our three largest customers during 2019 comprised 4.6%, 3.6%, and 3.6% of our revenue, or 11.8% in the aggregate. Our three largest customers during 2018 comprised 7.6%, 5.4%, and 4.5% of our revenue, or 17.5% in the aggregate. The sudden loss of any of our largest customers or the renegotiation of any of our largest customer contracts could adversely affect our results of operations. In the ordinary course of business, we engage in active discussions and renegotiations with our customers in respect of the solutions we provide and the terms of our customer agreements, including our fees. As our customers' businesses respond to market dynamics and financial pressures, and as our customers make strategic business decisions in respect of the lines of business they pursue and programs in which they participate, we expect that certain of our customers will, from time to time, seek to restructure their agreements with us. In the ordinary course, we renegotiate the terms of our agreements with our customers in connection with renewals or extensions of these agreements. These discussions and future discussions could result in reductions to the fees and changes to the scope of services contemplated by our original customer contracts and consequently could negatively impact our revenue, business, and prospects.

Because we rely on a limited number of customers for a significant portion of our revenue, we depend on the creditworthiness of these customers. Our customers are subject to a number of risks including reductions in payment rates from governmental payors, higher than expected health care costs, and lack of predictability of financial results when entering new lines of business. If the financial condition of our customers declines, our credit risk could increase. Should one or more of our significant customers declare bankruptcy, be declared insolvent, or otherwise be restricted by state or federal laws or regulation from continuing in some or all of their operations, this could adversely affect our ongoing revenue, the collectability of our accounts receivable, and affect our bad debt reserves and net income.

***We may not grow at the rates we historically have achieved or at all, even if our key metrics may indicate growth.***

We have experienced significant growth in the last five years. Future revenue may not grow at these same rates or may decline. Our future growth will depend, in part, on our ability to grow our revenue from existing customers, to complete sales to potential future customers, to expand our customer and member bases, to develop new solutions, and to expand internationally. We can provide no assurances that we will be successful in executing on these growth strategies or that we will continue to grow our revenue or to generate net income. Our historical results may not be indicative of future performance. Our ability to execute on our existing sales pipeline, create additional sales pipelines, and expand our customer base depends on, among other things, the attractiveness of our Solution relative to those offered by our competitors, our ability to demonstrate the value of our existing and future services, and our ability to attract and retain a sufficient number of qualified sales and marketing leadership and support personnel. In addition, our existing customers may be slower to adopt our Solution than we currently anticipate, which could adversely affect our results of operations and growth prospects.

***Changes in the healthcare industry could affect the demand for our Solution, cause our existing contracts to be terminated, and negatively impact the process of negotiating future contracts.***

As the healthcare industry evolves, changes in our customer and vendor bases may reduce the demand for our Solution, result in the termination of existing contracts or certain services provided under existing contracts, and make it more difficult to negotiate new contracts on terms that are acceptable to us.

For example, the increasing market share of EHR companies in data analytic services at hospital systems may cause our existing customers to terminate contracts with us in order to engage EHR companies to provide these services. Similarly, customer and vendor consolidation results in fewer, larger entities with increased bargaining power and the ability to demand terms that are unfavorable to us. If these trends continue, we cannot assure you that we will be able to continue to maintain or expand our customer base, negotiate contracts with acceptable terms, or maintain our current pricing structure, and our revenue may decrease.

General reductions in expenditures by healthcare organizations, or reductions in such expenditures within market segments that we serve, could have similar impacts with regard to our Solution. Such reductions may result from, among other things, reduced governmental funding for healthcare; a decrease in the number of, or the market exclusivity available to, new drugs coming to market; or adverse changes in business or economic conditions affecting healthcare payors or providers, the pharmaceutical industry, or other healthcare companies that purchase our services (e.g., changes in the design of health plans). In addition, changes in government regulation of the healthcare industry could potentially negatively impact our existing and future contracts. Any of these changes could reduce the purchase of our Solution by such customers, reducing our revenue and possibly requiring us to materially revise our offerings. In addition, our customers' expectations regarding pending or potential industry developments may also affect their budgeting processes and spending plans with respect to our Solution.

***Because we generally recognize technology and professional services revenue ratably over the term of the contract for our services, a significant downturn in our business may not be reflected immediately in our results of operations, which increases the difficulty of evaluating our future financial performance.***

We generally recognize technology and professional services revenue ratably over the term of a contract. As a result, a substantial portion of our revenue is generated from contracts entered into during prior periods. Consequently, a decline in new contracts in any quarter may not affect our results of operations in that quarter but could reduce our revenue in future quarters. Additionally, the timing of renewals or non-renewals of a contract during any quarter may only affect our financial performance in future quarters. For example, the non-renewal of a subscription agreement late in a quarter will have minimal impact on revenue for that quarter but will reduce our revenue in future quarters. Accordingly, the effect of significant declines in sales may not be reflected in our short-term results of operations, which would make these reported results less indicative of our future financial results. By contrast, a non-renewal occurring early in a quarter may have a significant negative impact on revenue for that quarter and we may not be able to offset a decline in revenue due to non-renewal with revenue from new contracts entered into in the same quarter. In addition, we may be unable to quickly adjust our costs in response to reduced revenue.

***The estimates of market opportunity and forecasts of market growth included herein may prove to be inaccurate, and even if the markets in which we compete achieve the forecasted growth, our business may not grow at similar rates, or at all.***

Market opportunity estimates and growth forecasts included herein are subject to significant uncertainty and are based on assumptions and estimates which may not prove to be accurate. The estimates and forecasts included herein relating to the size and expected growth of our target market may prove to be inaccurate. Even if the markets in which we compete meet the size estimates and growth forecasts included herein, our business may not grow at similar rates, or at all. Our growth is subject to many factors, including our success in implementing our business strategy, which is subject to many risks and uncertainties.

***We have experienced significant net losses since inception, we expect to incur losses in the future, and we may not be able to generate sufficient revenue to achieve and maintain profitability.***

We have incurred significant net losses in the past, including net losses of $60.1 million and $62.0 million in the years ended December 31, 2019 and 2018, respectively. We had an accumulated deficit of $610.5 million as of December 31, 2019. We expect our costs will increase over time as we continue to invest to grow our business and build relationships with customers, develop our platform, develop new solutions, and operate as a public company. These efforts may prove to be more expensive than we currently anticipate, and we may not succeed in increasing our revenue sufficiently to offset these higher expenses.

As a result, we may need to raise additional capital through equity and debt financings in order to fund our operations. To date, we have financed our operations principally from the sale of redeemable convertible preferred stock, revenue from sales of our Solution and the incurrence of indebtedness. We may also fail to improve the gross margins of our business. If we are unable to effectively manage these risks and difficulties as we encounter them, our business, financial condition, and results of operations would be adversely affected. Our failure to achieve or maintain profitability could negatively impact the value of our common stock.

***Because competition for our target employees is intense, we may not be able to attract and retain the highly skilled employees we need to support our continued growth.***

To continue to execute on our growth plan, we must attract and retain highly qualified personnel. Competition for such personnel is intense, especially for senior sales executives and software engineers with high levels of experience in designing and developing applications and consulting and analytics services. We may not be successful in attracting and retaining qualified personnel. We have from time to time in the past experienced, and we expect to continue to experience in the future, difficulty in hiring and retaining highly skilled employees with appropriate qualifications. In addition, our search for replacements for departed employees may cause uncertainty regarding the future of our business, impact employee hiring and retention, and adversely impact our revenue, results of operations, and financial condition. Many of the companies with which we compete for experienced personnel have greater resources than we have. In addition, in making employment decisions, particularly in the Internet and high-technology industries, job candidates often consider the value of the equity awards they may receive in connection with their employment. Volatility in the price of our stock or failure to obtain stockholder approval for increases in the number of shares available for grant under our equity plans may, therefore, adversely affect our ability to attract or retain key employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could be severely harmed.

***We depend on our senior management team, and the loss of one or more of our executive officers or key employees or an inability to attract and retain highly skilled employees could adversely affect our business.***

Our success depends largely upon the continued services of our key executive officers and recruitment of additional highly skilled employees. From time to time, there may be changes in our senior management team resulting from the hiring or departure of executives, which could disrupt our business. Several of our senior leaders are active members of the Church of Jesus Christ of Latter-Day Saints. There is a risk that in the future, one or more of these individuals could receive a call to serve in a full-time capacity for the church. This has already occurred with one of the two co-founders of our company, Steven Barlow, who in November 2016 was called to serve from June 2017 to June 2020 in a full-time capacity. At the time of his call, he was serving as the President of our professional services organization and was one of the most senior leaders of our company. In connection with this call to serve, Mr. Barlow took a leave-of-absence from his company responsibilities starting in March 2017, and his leave of absence will likely extend until August 2020. Hiring executives with needed skills or the replacement of one or more of our executive officers or other key employees would likely involve significant time and costs and may significantly delay or prevent the achievement of our business objectives.

In addition, competition for qualified management in our industry is intense. Many of the companies with which we compete for management personnel have greater financial and other resources than we do. We have not entered into term-based employment agreements with our executive officers. All of our employees are “at-will” employees, and their employment can be terminated by us or them at any time, for any reason. The departure of key personnel could adversely affect the conduct of our business. In such event, we would be required to hire other personnel to manage and operate our business, and there can be no assurance that we would be able to employ a suitable replacement for the departing individual, or that a replacement could be hired on terms that are favorable to us. In addition, volatility or lack of performance in our stock price may affect our ability to attract replacements should key personnel depart. If we are not able to retain any of our key management personnel, our business could be harmed.

***Our corporate culture has contributed to our success, and if we cannot maintain this culture as we grow, we could lose the innovation, creativity, and teamwork fostered by our culture, which could harm our business.***

We believe that our corporate culture has been an important contributor to our success, which we believe fosters innovation, teamwork, and passion for providing high levels of customer satisfaction. Most of our employees have been with us for fewer than three years as a result of our rapid growth. As we continue to grow, we must effectively integrate, develop, and motivate a growing number of new employees. As a result, we may find it difficult to maintain our corporate culture, which could limit our ability to innovate and operate effectively. Any failure to preserve our culture could also negatively affect our ability to retain and recruit personnel, maintain our performance, or execute on our business strategy.

***Servicing our Notes may require a significant amount of cash, and we may not have sufficient cash or the ability to raise the funds necessary to settle conversions of the Notes in cash, repay the Notes at maturity, or repurchase the Notes as required.***

On April 14, 2020, we issued $230.0 million in aggregate principal amount of 2.50% Convertible Senior Notes (the Notes) due 2025, pursuant to an Indenture dated April 14, 2020, with U.S. Bank National Association, as trustee, in a private offering to qualified institutional buyers. We received net proceeds from the Notes of $222.5 million, after deducting the initial purchasers' discounts and offering expenses payable by us.

The Notes are governed by an indenture (the Indenture) between us, as the issuer, and U.S. Bank National Association, as trustee. The Notes are our are our senior, unsecured obligations and accrue interest payable semiannually in arrears on April 15 and October 15 of each year, beginning on October 15, 2020, at a rate of 2.50% per year. The Notes will mature on April 15, 2025, unless earlier converted, redeemed, or repurchased. The Indenture does not contain any financial covenants or restrictions on the payments of dividends, the incurrence of indebtedness, or the issuance or repurchase of securities by us or any of our subsidiaries.

A holder may convert all or any portion of its Notes, at its option, subject to certain conditions and during certain periods, into cash, shares of our common stock or a combination of cash and shares of our common stock, with the form of consideration determined at our election. Noteholders will have the right to require us to repurchase all or a portion of their notes at 100% of the principal amount of Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the repurchase date, upon the occurrence of certain events. The conversion rate is initially 32.6797 shares of our common stock per $1,000 principal amount of Notes (which is equivalent to an initial conversion price of approximately $30.60 per share of our common stock). If the Notes have not previously been converted, redeemed or repurchased, we will be required to repay the Notes in cash at maturity.

Our ability to make required cash payments in connection with redemptions or conversions of the Notes, repurchase the Notes upon the occurrence of certain events, or to repay or refinance the Notes at maturity will depend on market conditions and our future performance, which is subject to economic, financial, competitive, and other factors beyond our control. We also may not use the cash proceeds we raised through the issuance of the Notes in an optimally productive and profitable manner. Since inception, our business has generated net losses, and we may continue to incur significant losses. As a result, we may not have enough available cash or be able to obtain financing at the time we are required to repurchase or repay the Notes or pay cash with respect to Notes being converted.

In addition, our ability to repurchase or to pay cash upon conversion or at maturity of the Notes may be limited by law or regulatory authority or by other agreements governing our future indebtedness. Our failure to repurchase Notes upon the occurrence of certain events or to pay cash upon conversion or at maturity of the Notes as required by the Indenture would constitute a default under the Indenture. A default under the Indenture or the occurrence of certain events that allow Noteholders to require repurchase could also lead to a default under agreements governing our future indebtedness and could have a material adverse effect on our business, results of operations, and financial condition. If the payment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Notes or to pay cash upon conversion or at maturity of the Notes.

***We are subject to counterparty risk with respect to the Capped Calls.***

In connection with the issuance of the Notes, we entered into the Capped Calls with certain option counterparties. We used approximately $21.6 million of the net proceeds from the Note Offering to pay the cost of the Capped Calls and allocated issuance costs. The Capped Calls have initial cap prices of $42.00 per share, subject to certain adjustments. The Capped Calls are expected generally to reduce the potential dilution to our common stock upon any conversion of Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted Notes, as the case may be, with such reduction and/or offset subject to the cap price. The Capped Calls are separate transactions that we entered into with the option counterparties, and are not part of the terms of the Notes. The option counterparties are financial institutions or affiliates of financial institutions, and we will be subject to the risk that one or more of such option counterparties may default under the Capped Calls.

Our exposure to the credit risk of the option counterparties will not be secured by any collateral. If any option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under the Capped Calls. Our exposure will depend on many factors but, generally, the increase in our exposure will be correlated to the increase in our common stock market price and in the volatility of the market price of our common stock. In addition, upon a default by any option counterparty, we may suffer adverse tax consequences and dilution with respect to our common stock. We can provide no assurance as to the financial stability or viability of any option counterparty.

***The Capped Calls may affect the value of our common stock.***

In connection with the issuance of the Notes, we entered into the Capped Calls with the option counterparties. The Capped Calls are expected generally to reduce the potential dilution to our common stock upon any conversion of the Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted Notes, as the case may be.

From time to time, the option counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivative transactions with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the Notes. This activity could cause or avoid an increase or a decrease in the market price of our common stock.

***If we raise additional capital through debt financing, the terms of any new debt could further restrict our ability to operate our business.***

If we raise any additional debt financing, the terms of such additional debt could further restrict our operating and financial flexibility by subjecting us to customary affirmative and negative covenants, indemnification provisions, and events of default. Further, if we are liquidated, the lender’s rights to repayment would be senior to the rights of the holders of our common stock to receive any proceeds from the liquidation. Any declaration by a lender of an event of default could significantly harm our business and prospects and could cause the price of our common shares to decline.

***We may acquire other companies or technologies, which could divert our management’s attention, result in dilution to our stockholders, and otherwise disrupt our operations and we may have difficulty integrating any such acquisitions successfully or realizing the anticipated benefits therefrom, any of which could have an adverse effect on our business, financial condition, and results of operations.***

We may seek to acquire or invest in businesses, applications, and services, or technologies that we believe could complement or expand our Solution, enhance our technical capabilities, or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating, and pursuing suitable acquisitions, whether or not they are consummated. We have in the past and may in the future have difficulty integrating acquired businesses. For example, in June 2018 we acquired the interoperability services of the Medicity business and in February 2020 we acquired Able Health, both of which we are in the process of integrating with our other services. We may have difficulty cross-selling our Solution to acquired customers, and we may have difficulty integrating newly acquired team members.

We have limited experience in acquiring other businesses. If we acquire additional businesses, we may not be able to integrate the acquired personnel, operations, and technologies successfully, or effectively manage the combined business following the acquisition. We also may not achieve the anticipated benefits from the acquired business due to a number of factors, including, but not limited to:

- inability to integrate or benefit from acquired technologies or services in a profitable manner;
- unanticipated costs or liabilities associated with the acquisition;
- difficulty integrating the accounting systems, operations, and personnel of the acquired business;

- difficulties and additional expenses associated with supporting legacy products and hosting infrastructure of the acquired business;
- difficulty converting the customers of the acquired business onto our platform and contract terms, including disparities in the revenue, licensing, support, or professional services model of the acquired company;
- diversion of management's attention from other business concerns;
- adverse effects on our existing business relationships with business partners and customers as a result of the acquisition;
- the potential loss of key employees;
- use of resources that are needed in other parts of our business; and
- use of substantial portions of our available cash to consummate the acquisition.

In addition, a significant portion of the purchase price of companies we acquire may be allocated to acquired goodwill and other intangible assets, which must be assessed for impairment at least annually. In the future, if our acquisitions do not yield expected returns, we may be required to take charges to our results of operations based on this impairment assessment process, which could adversely affect our results of operations.

Acquisitions could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our results of operations. In addition, if an acquired business fails to meet our expectations, our business, financial condition, and results of operations may suffer.

Also, the anticipated benefit of any acquisition may not materialize or may be prohibited by contractual obligations we may enter into in the future with lenders or other third parties. Additionally, future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, or amortization expenses or write-offs of goodwill, any of which could harm our financial condition. We cannot predict the number, timing or size of future acquisitions, or the effect that any such transactions might have on our results of operations.

***Any failure to protect our intellectual property rights could impair our ability to protect our proprietary technology and our brand.***

Our success and ability to compete depend in part upon our intellectual property. As of December 31, 2019, we had filed applications for a number of patents, and we have nine issued U.S., three issued Canadian patents, one issued Great Britain patent, and one issued European patent. We also had twenty-six registered trademarks in the United States, Canada, and China. We also rely on copyright and trademark laws, trade secret protection, and confidentiality or license agreements with our employees, customers, partners, and others to protect our intellectual property rights. However, the steps we take to protect our intellectual property rights may be inadequate. For example, other parties, including our competitors, may independently develop similar technology, duplicate our services, or design around our intellectual property and, in such cases, we may not be able to assert our intellectual property rights against such parties. Further, our contractual arrangements may not effectively prevent disclosure of our confidential information or provide an adequate remedy in the event of unauthorized disclosure of our confidential information, and we may be unable to detect the unauthorized use of, or take appropriate steps to enforce, our intellectual property rights.

We make business decisions about when to seek patent protection for a particular technology and when to rely upon trade secret protection, and the approach we select may ultimately prove to be inadequate. Even in cases where we seek patent protection, there is no assurance that the resulting patents will effectively protect every significant feature of our Solution, technology, or proprietary information, or provide us with any competitive advantages. Moreover, we cannot guarantee that any of our pending patent applications will issue or be approved. The United States Patent and Trademark Office and various foreign governmental patent agencies also require compliance with a number of procedural, documentary, fee payment, and other similar provisions during the patent application process and after a patent has issued. There are situations in which noncompliance can result in abandonment or lapse of the patent, or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If this occurs, our competitors might be able to enter the market, which would have a material adverse effect on our business. Effective trademark, copyright, patent, and trade secret protection may not be available in every country in which we conduct business. Further, intellectual property law, including statutory and case law, particularly in the United States, is constantly developing, and any changes in the law could make it harder for us to enforce our rights.

In order to protect our intellectual property rights, we may be required to spend significant resources to monitor and protect these rights. Litigation brought to protect and enforce our intellectual property rights could be costly, time-consuming, and distracting to management and could result in the impairment or loss of portions of our intellectual property. Furthermore, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims, and countersuits attacking the validity and enforceability of our intellectual property rights.

An adverse determination of any litigation proceedings could put our intellectual property at risk of being invalidated or interpreted narrowly and could put our related pending patent applications at risk of not issuing. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential or sensitive information could be compromised by disclosure in the event of litigation. In addition, during the course of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Negative publicity related to a decision by us to initiate such enforcement actions against a customer or former customer, regardless of its accuracy, may adversely impact our other customer relationships or prospective customer relationships, harm our brand and business, and could cause the market price of our common stock to decline. Our failure to secure, protect, and enforce our intellectual property rights could adversely affect our brand and our business.

***We may be sued by third parties for alleged infringement of their proprietary rights or misappropriation of intellectual property.***

There is considerable patent and other intellectual property development activity in our industry. Our future success depends in part on not infringing upon the intellectual property rights of others. Our competitors, as well as a number of other entities and individuals, including so-called non-practicing entities (NPEs), may own or claim to own intellectual property relating to our Solution. From time to time, third parties may claim that we are infringing upon their intellectual property rights or that we have misappropriated their intellectual property. For example, in some cases, very broad patents are granted that may be interpreted as covering a wide field of healthcare data storage and analytics solutions or machine learning and predictive modeling methods in healthcare. As competition in our market grows, the possibility of patent infringement, trademark infringement, and other intellectual property claims against us increases. In the future, we expect others to claim that our Solution and underlying technology infringe or violate their intellectual property rights. In a patent infringement claim against us, we may assert, as a defense, that we do not infringe the relevant patent claims, that the patent is invalid or both. The strength of our defenses will depend on the patents asserted, the interpretation of these patents, and our ability to invalidate the asserted patents. However, we could be unsuccessful in advancing non-infringement and/or invalidity arguments in our defense. In the United States, issued patents enjoy a presumption of validity, and the party challenging the validity of a patent claim must present clear and convincing evidence of invalidity, which is a high burden of proof. Conversely, the patent owner need only prove infringement by a preponderance of the evidence, which is a lower burden of proof.

We may be unaware of the intellectual property rights that others may claim cover some or all of our technology or services. Because patent applications can take years to issue and are often afforded confidentiality for some period of time there may currently be pending applications, unknown to us, that later result in issued patents that could cover one or more aspects of our technology and services. Any claims or litigation could cause us to incur significant expenses and, whether or not successfully asserted against us, could require that we pay substantial damages, ongoing royalty or license payments, or settlement fees, prevent us from offering our Solution or using certain technologies, require us to re-engineer all or a portion of our platform, or require that we comply with other unfavorable terms. We may also be obligated to indemnify our customers or business partners or pay substantial settlement costs, including royalty payments, in connection with any such claim or litigation and to obtain licenses, modify applications, or refund fees, which could be costly. Even if we were to prevail in such a dispute, any litigation regarding our intellectual property could be costly and time-consuming and divert the attention of our management and key personnel from our business operations.

***Economic uncertainties or downturns in the general economy or the industries in which our customers operate could disproportionately affect the demand for our Solution and negatively impact our results of operations.***

General worldwide economic conditions have experienced significant downturns during the last ten or more years, and market volatility and uncertainty remain widespread, making it potentially very difficult for our customers and us to accurately forecast and plan future business activities. During challenging economic times, our customers may have difficulty gaining timely access to sufficient credit or obtaining credit on reasonable terms, which could impair their ability to make timely payments to us and adversely affect our revenue.

If that were to occur, our financial results could be harmed. Further, challenging economic conditions may impair the ability of our customers to pay for the applications and services they already have purchased from us and, as a result, our write-offs of accounts receivable could increase. We cannot predict the timing, strength, or duration of any economic slowdown or recovery. If the condition of the general economy or markets in which we operate worsens, our business could be harmed.

***Our Solution utilizes open-source software, and any failure to comply with the terms of one or more of these open-source licenses could adversely affect our business.***

We use software modules licensed to us by third-party authors under “open-source” licenses in our Solution. Some open-source licenses contain affirmative obligations or restrictive terms that could adversely impact our business, such as restrictions on commercialization or obligations to make available modified or derivative works of certain open-source code. If we were to combine our proprietary software with certain open-source software subject to these licenses in a certain manner, we could, under certain open-source licenses, be required to release or otherwise make available the source code to our proprietary software to the public. This would allow our competitors to create similar products with lower development effort and time and ultimately could result in a loss of product sales for us.

Although we employ practices designed to manage our compliance with open-source licenses and protect our proprietary source code, we may inadvertently use open-source software in a manner we do not intend and that could expose us to claims for breach of contract and intellectual property infringement. If we are held to have breached the terms of an open-source software license, we could be required to, among other things, seek licenses from third parties to continue offering our products on terms that are not economically feasible, pay damages to third parties, to re-engineer our products, to discontinue the sale of our products if re-engineering cannot be accomplished on a timely basis, or to make generally available, in source code form, a portion of our proprietary code, any of which could adversely affect our business, results of operations, and financial condition. The terms of many open-source licenses have not been interpreted by U.S. courts, and, as a result, there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to commercialize our Solution.

***Taxing authorities may successfully assert that we should have collected or in the future should collect sales and use, value-added or similar transactional taxes, and we could be subject to liability with respect to past or future sales, which could adversely affect our results of operations.***

We do not collect sales and use, value-added, and similar transactional taxes in all jurisdictions in which we have sales, based on our belief that such taxes are not applicable or that we are not required to collect such taxes with respect to the jurisdiction. Sales and use, value-added, and similar tax laws and rates vary greatly by jurisdiction. Certain jurisdictions in which we do not collect such taxes may assert that such taxes are applicable, which could result in tax assessments, penalties, and interest, and we may be required to collect such taxes in the future. Such tax assessments, penalties, interest or future requirements, increase in tax rates, or a combination of the foregoing may result in an increase in our sales and similar transactional taxes, increase administrative burdens or costs, or otherwise adversely affect our business, results of operations, or financial condition.

***Unanticipated changes in our effective tax rate and additional tax liabilities, including as a result of our international operations or implementation of new tax rules, could harm our future results.***

We are subject to income taxes in the United States and are expanding into various foreign jurisdictions that are subject to income tax. Our domestic and international tax liabilities are subject to the allocation of expenses in differing jurisdictions and complex transfer pricing regulations administered by taxing authorities in various jurisdictions. Tax rates in the jurisdictions in which we operate may change as a result of factors outside of our control or relevant taxing authorities may disagree with our determinations as to the income and expenses attributable to specific jurisdictions. In addition, changes in tax and trade laws, treaties or regulations, or their interpretation or enforcement, have become more unpredictable and may become more stringent, which could materially adversely affect our tax position.

Forecasting our estimated annual effective tax rate is complex and subject to uncertainty, and there may be material differences between our forecasted and actual effective tax rate. Our effective tax rate could be adversely affected by changes in the mix of earnings and losses in countries with differing statutory tax rates, certain non-deductible expenses, the valuation of deferred tax assets and liabilities, adjustments to income taxes upon finalization of tax returns, changes in available tax attributes, decision to repatriate non-U.S. earnings for which we have not previously provided for U.S. taxes, and changes in federal, state, or international tax laws and accounting principles.

Finally, we may be subject to income tax audits throughout the world. An adverse resolution of one or more uncertain tax positions in any period could have a material impact on our results of operations or financial condition for that period.

***If we are unable to implement and maintain effective internal controls over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be adversely affected.***

As a public company, we are required to maintain internal controls over financial reporting and to report any material weaknesses in such internal controls. Section 404 of the Sarbanes-Oxley Act requires that we evaluate and determine the effectiveness of our internal controls over financial reporting. However, we are not currently required to comply with the SEC rules that implement Section 404 of the Sarbanes-Oxley Act and are therefore not required to make a formal assessment of the effectiveness of our internal control over financial reporting for that purpose.

As a public company, we are required to provide an annual management report on the effectiveness of our internal control over financial reporting commencing with our second annual report on Form 10-K. Many of the internal controls we have implemented pursuant to the Sarbanes-Oxley Act are process controls with respect to which a material weakness may be found whether or not any error has been identified in our reported financial statements. This may be confusing to investors and result in damage to our reputation, which may harm our business. Additionally, the proper design and assessment of internal controls over financial reporting are subject to varying interpretations, and, as a result, application in practice may evolve over time as new guidance is provided by regulatory and governing bodies and as common practices evolve. This could result in continuing uncertainty regarding the proper design and assessment of internal controls over financial reporting and higher costs necessitated by ongoing revisions to internal controls.

We must continue to monitor and assess our internal control over financial reporting. If in the future we have any material weaknesses, we may not detect errors on a timely basis and our financial statements may be materially misstated. Additionally, if in the future we are unable to comply with the requirements of Section 404 of the Sarbanes-Oxley Act in a timely manner, are unable to assert that our internal controls over financial reporting are effective, identify material weaknesses in our internal controls over financial reporting, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal controls over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports, and the market price of our common stock could be adversely affected, and we could become subject to investigations by the stock exchange on which our securities are listed, the SEC, or other regulatory authorities, which could require additional financial and management resources.

***Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations.***

As of December 31, 2019, we had net operating loss (NOL) carryforwards for federal and state income tax purposes of approximately $269.1 million and $215.2 million, respectively, which may be available to offset taxable income in the future, and which expire in various years beginning in 2032 for federal purposes if not utilized. The state NOLs will expire depending upon the various rules in the states in which we operate. A lack of future taxable income would adversely affect our ability to utilize these NOLs before they expire. In general, under Section 382 of the Internal Revenue Code of 1986, as amended (the Code) a corporation that undergoes an "ownership change" (as defined under Section 382 of the Code and applicable Treasury Regulations) is subject to limitations on its ability to utilize its pre-change NOLs to offset its future taxable income.

We may experience a future ownership change under Section 382 of the Code that could affect our ability to utilize the NOLs to offset our income. Furthermore, our ability to utilize NOLs of companies that we have acquired or may acquire in the future may be subject to limitations. There is also a risk that due to regulatory changes, such as suspensions on the use of NOLs or other unforeseen reasons, our existing NOLs could expire or otherwise be unavailable to reduce future income tax liabilities, including for state income tax purposes. Certain provisions of the Tax Act (as defined below), as amended by the CARES Act, also limit the use of NOLs, as discussed further below. For these reasons, we may not be able to utilize a material portion of our NOLs, even if we attain profitability, which could potentially result in increased future tax liability to us and could adversely affect our results of operations and financial condition.

***Comprehensive tax reform legislation could adversely affect our business and financial condition.***

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the Tax Act) was signed into law. The Tax Act contains, among other things, significant changes to corporate taxation, including (i) a reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, (ii) a limitation of the tax deduction for interest expense to 30% of adjusted earnings (except for certain small businesses) (increased to 50% by the CARES Act for taxable years beginning in 2019 and 2020), (iii) a limitation of the deduction for NOLs in taxable years beginning after December 31, 2020 to 80% of current year taxable income in respect of NOLs generated during or after 2018 and elimination of net operating loss carrybacks for NOLs arising in tax years ending after December 31, 2020, (iv) a one-time tax on offshore earnings at reduced rates regardless of whether they are repatriated, (v) immediate deductions for certain new investments instead of deductions for depreciation expense over time, and (vi) a modification or repeal of many business deductions and credits. For federal NOLs arising in tax years beginning after December 31, 2017, the Tax Act (as modified by the CARES Act) limits a taxpayer's ability to utilize federal NOL carryforwards in taxable years beginning after December 31, 2020 to 80% of taxable income. In addition, federal NOLs arising in tax years ending after December 31, 2017 can be carried forward indefinitely, but carryback of federal NOLs arising in tax years ending after December 31, 2020 is generally prohibited. It is uncertain if and to what extent various states will conform to the newly enacted federal tax law. We will continue to examine the impact the Tax Act and CARES Act may have on our results of operations and financial condition.

***Future litigation against us could be costly and time-consuming to defend and could result in additional liabilities.***

We may from time to time be subject to legal proceedings and claims that arise in the ordinary course of business, such as claims brought by our customers in connection with commercial disputes and employment claims made by our current or former employees. Claims may also be asserted by or on behalf of a variety of other parties, including government agencies, patients or vendors of our customers, or stockholders. Any litigation involving us may result in substantial costs, operationally restrict our business, and may divert management's attention and resources, which may seriously harm our business, overall financial condition, and results of operations. Insurance may not cover existing or future claims, be sufficient to fully compensate us for one or more of such claims, or continue to be available on terms acceptable to us. A claim brought against us that is uninsured or underinsured could result in unanticipated costs, thereby reducing our results of operations and resulting in a reduction in the trading price of our stock.

***Changes in accounting principles may cause previously unanticipated fluctuations in our financial results, and the implementation of such changes may impact our ability to meet our financial reporting obligations.***

We prepare our financial statements in accordance with U.S. GAAP which are subject to interpretation or changes by the Financial Accounting Standards Board (FASB), the SEC, and other various bodies formed to promulgate and interpret appropriate accounting principles. New accounting pronouncements and changes in accounting principles have occurred in the past and are expected to occur in the future which may have a significant effect on our financial results. Furthermore, any difficulties in implementation of changes in accounting principles, including the ability to modify our accounting systems, could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors' confidence in us.

## Risks Related to Governmental Regulation

***Government regulation of healthcare creates risks and challenges with respect to our compliance efforts and our business strategies.***

The healthcare industry is highly regulated and is subject to changing political, legislative, regulatory, and other influences. Existing and new laws and regulations affecting the healthcare industry, or changes to existing laws and regulations, including the potential amendment or repeal of all or parts of the Affordable Care Act (ACA), could create unexpected liabilities for us, cause us to incur additional costs, and restrict our operations. Reforming the healthcare industry has been a priority for U.S. politicians, and key members of the legislative and executive branches have proposed a wide variety of potential changes and policy goals. Certain changes to laws impacting our industry, or perceived intentions to do so, could affect our business and results of operations.

Many healthcare laws are complex, and their application to specific services and relationships may not be clear. In particular, many existing healthcare laws and regulations, when enacted, did not anticipate the data analytics and improvement services that we provide, and these laws and regulations may be applied to our Solution in ways that we do not anticipate, particularly as we develop and release new and more sophisticated solutions. Our failure to accurately anticipate the application of these laws and regulations, or our other failure to comply with them, could create significant liability for us, result in adverse publicity, and negatively affect our business. Some of the risks we face from healthcare regulation are described below:

- *False Claims Laws*. There are numerous federal and state laws that prohibit submission of false information, or the failure to disclose information, in connection with submission and payment of physician claims for reimbursement. For example, the federal civil False Claims Act prohibits, among other things, individuals or entities from knowingly presenting, or causing to be presented, to the U.S. federal government, claims for payment or approval that are false or fraudulent, or knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim. In addition, the government may assert that a claim including items and services resulting from a violation of the U.S. federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act. If our advisory services to customers are associated with action by customers that is determined or alleged to be in violation of these laws and regulations, it is possible that an enforcement agency would also try to hold us accountable. Any determination by a court or regulatory agency that we have violated these laws could subject us to significant civil or criminal penalties, invalidate all or portions of some of our customer contracts, require us to change or terminate some portions of our business, require us to refund portions of our services fees, subject us to additional reporting requirements and oversight under a corporate integrity agreement or similar agreement to resolve allegations of noncompliance with these laws, cause us to be disqualified from serving customers doing business with government payors, and have an adverse effect on our business. Our customers' failure to comply with these laws and regulations in connection with our services could result in substantial liability (including, but not limited to, criminal liability), adversely affect demand for our Solution, and force us to expend significant capital, research and development, and other resources to address the failure.

- *Health Data Privacy Laws*. There are numerous federal and state laws related to health information privacy. In particular, the federal Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act (HITECH) and their implementing regulations, which we collectively refer to as HIPAA, include privacy standards that protect individual privacy by limiting the uses and disclosures of PHI and implementing data security standards that require covered entities to implement administrative, physical, and technological safeguards to ensure the confidentiality, integrity, availability, and security of PHI in electronic form. HIPAA also specifies formats that must be used in certain electronic transactions, such as admission and discharge messages. By processing and maintaining PHI on behalf of our covered entity customers, we are a HIPAA business associate and mandated by HIPAA to enter into written agreements with our covered entity clients – known as BAAs – that require us to safeguard PHI. BAAs typically include:

- a description of our permitted uses of PHI;
- a covenant not to disclose that information except as permitted under the BAA and to require that our subcontractors, if any, are subject to the substantially similar restrictions;
- assurances that reasonable and appropriate administrative, physical, and technical safeguards are in place to prevent misuse of PHI;
- an obligation to report to our customer any use or disclosure of PHI other than as provided for in the BAA;
- a prohibition against our use or disclosure of PHI if a similar use or disclosure by our customer would violate the HIPAA standards;
- the ability of our customers to terminate the underlying support agreement if we breach a material term of the BAA and are unable to cure the breach;
- the requirement to return or destroy all PHI at the end of our services agreement; and
- access by the Department of Health and Human Services (HHS) to our internal practices, books, and records to validate that we are safeguarding PHI.

In addition, we are also required to maintain BAAs, which contain similar provisions, with our subcontractors that access or otherwise process PHI on our behalf.

We may not be able to adequately address the business risks created by HIPAA implementation. Furthermore, we are unable to predict what changes to HIPAA or other laws or regulations might be made in the future or how those changes could affect our business or the costs of compliance. For example, in 2018, the HHS Office for Civil Rights published a Request for Information in the Federal Register seeking comments on a number of areas in which HHS is considering making both minor and significant modifications to the HIPAA privacy and security standards to, among other things, improve care coordination. We are unable to predict what, if any, impact the changes in such standards will have on our compliance costs or our Solution.

Finally, some of our analytics applications, for example one of our benchmarking applications, require that we obtain permissions consistent with HIPAA to provide “data aggregation services” and the right to create de-identified information and to use and disclose such de-identified information. We will also require large sets of de-identified information to enable us to continue to develop machine learning algorithms that enhance our Solution. If we are unable to secure these rights in customer BAAs or as a result of any future changes to HIPAA or other applicable laws, we may face limitations on the use of PHI and our ability to use de-identified information that could negatively affect the scope of our Solution as well as impair our ability to provide upgrades and enhancements to our Solution.

We outsource important aspects of the storage and transmission of customer and member information, and thus rely on third parties to manage functions that have material cyber-security risks. We attempt to address these risks by requiring outsourcing subcontractors who handle customer information to sign BAAs contractually requiring those subcontractors to adequately safeguard PHI in a similar manner that applies to us and in some cases by requiring such outsourcing subcontractors to undergo third-party security examinations as well as to protect the confidentiality of other sensitive customer information. In addition, we periodically hire third-party security experts to assess and test our security measures. However, we cannot be assured that these contractual measures and other safeguards will adequately protect us from the risks associated with the storage and transmission of customer proprietary information and PHI.

In addition to the HIPAA privacy and security standards, most states have enacted patient confidentiality laws that protect against the disclosure of confidential medical and other personally identifiable information (PII) and many states have adopted or are considering new privacy laws, including legislation that would mandate new privacy safeguards, security standards, and data security breach notification requirements. Such state laws, if more stringent than HIPAA requirements, are not preempted by the federal requirements, and we are required to comply with them.

Failure by us to comply with any of the federal and state standards regarding patient privacy and/or privacy more generally may subject us to penalties, including significant civil monetary penalties and, in some circumstances, criminal penalties. In addition, such failure may injure our reputation and adversely affect our ability to retain customers and attract new customers.

Even an unsuccessful challenge by regulatory authorities of our activities could result in adverse publicity and could require a costly response from us.

- *Anti-Kickback and Anti-Bribery Laws*. There are federal and state laws that prohibit payment for patient referrals, patient brokering, remuneration of patients, or billing based on referrals between individuals or entities that have various financial, ownership, or other business relationships with healthcare providers. In particular, the federal Anti-Kickback Statute prohibits offering, paying, soliciting, or receiving anything of value, directly or indirectly, for the referral of patients covered by Medicare, Medicaid, and other federal healthcare programs or the leasing, purchasing, ordering, or arranging for or recommending the lease, purchase, or order of any item, good, facility, or service covered by these programs. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Some enforcement activities focus on below or above market payments for federally reimbursable health care items or services as evidence of the intent to provide a kickback. Many states also have similar anti-kickback laws that are not necessarily limited to items or services for which payment is made by a federal healthcare program. In addition, the federal anti-referral law—the Stark Law—is very complex in its application, and prohibits physicians (and certain other healthcare professionals) from making a referral for a designated health service to a provider in which the referring healthcare professional (or spouse or any immediate family member) has a financial or ownership interest, unless an enumerated exception applies. The Stark Law also prohibits the billing for services rendered resulting from an impermissible referral. Many states also have similar anti-referral laws that are not necessarily limited to items or services for which payment is made by a federal healthcare program and may include patient disclosure requirements. Moreover, both federal and state laws prohibit bribery and similar behavior. Any determination by a state or federal regulatory agency that we or any of our customers, vendors, or partners violate or have violated any of these laws could subject us to significant civil or criminal penalties, require us to change or terminate some portions of our business, require us to refund portions of our services fees, subject us to additional reporting requirements and oversight under a corporate integrity agreement or similar agreement to resolve allegations of noncompliance with these laws, cause us to be disqualified from serving customers doing business with government payors, and have an adverse effect on our business. Even an unsuccessful challenge by regulatory authorities of our activities could result in adverse publicity and could require a costly response from us.

- *Corporate Practice of Medicine Laws and Fee-Splitting Laws*. Many states have laws prohibiting physicians from practicing medicine in partnership with non-physicians, such as business corporations. In some states, including New York, these take the form of laws or regulations prohibiting splitting of physician fees with non-physicians or others. Any determination by a state court or regulatory agency that our service contracts with our clients violate these laws could subject us to civil or criminal penalties, invalidate all or portions of some of those contracts, require us to change or terminate some portions of our business, require us to refund portions of our services fees, and have an adverse effect on our business. Even an unsuccessful challenge by regulatory authorities of our activities could result in adverse publicity and could require a costly response from us.

- *Medical Professional Regulation*. The practice of most healthcare professions requires licensing under applicable state law. In addition, the laws in some states prohibit business entities from practicing medicine. We employ and contract with physicians who assist our customers with the customers' care coordination, care management, population health management, and patient safety activities. We do not intend to provide medical care, treatment, or advice. However, any determination that we are acting in the capacity of a healthcare provider and acted improperly as a healthcare provider may result in additional compliance requirements, expense, and liability to us, and require us to change or terminate some portions of our business.

- *Medical Device Laws*. The FDA may regulate medical or health-related software, including machine learning functionality and predictive algorithms, if such software falls within the definition of a "device" under the federal Food, Drug, and Cosmetic Act (FDCA). However, the FDA exercises enforcement discretion for certain low-risk software, as described in its guidance documents for Mobile Medical Applications, General Wellness: Policy for Low Risk Devices, and Medical Device Data Systems, Medical Image Storage Devices, and Medical Image Communications Devices. In addition, in December of 2016, President Obama signed into law the 21st Century Cures Act, which included exemptions for certain medical-related software, including software used for administrative support functions at a healthcare facility, software intended for maintaining or encouraging a healthy lifestyle, EHR software, software for transferring, storing, or displaying medical device data or in vitro diagnostic data, and certain clinical decision support software. The FDA has also issued draft guidance documents to clarify how it intends to interpret and apply the new exemptions under the 21st Century Cures Act. Although we believe that our software products are currently not subject to active FDA regulation, we continue to follow the FDA's developments in this area. There is a risk that the FDA could disagree with our determination or that the FDA could develop new final guidance documents that would subject our Solution to active FDA oversight. If the FDA determines that any of our current or future analytics applications are regulated as medical devices, we would become subject to various requirements under the FDCA and the FDA's implementing regulations. Depending on the functionality and FDA classification of our analytics applications, we may be required to:

    - register and list our analytics applications with the FDA;
    - notify the FDA and demonstrate substantial equivalence to other products on the market before marketing our analytics applications;
    - submit a de novo request to the FDA to down-classify our analytics applications prior to marketing; or
    - obtain FDA approval by demonstrating safety and effectiveness before marketing our analytics applications.

The FDA can impose extensive requirements governing pre- and post-market conditions, such as service investigation and others relating to approval, labeling, and manufacturing. In addition, the FDA can impose extensive requirements governing software development controls and quality assurance processes.

These laws and regulations may change rapidly, and it is frequently unclear how they apply to our business. Any failure of our products or services to comply with these laws and regulations could result in substantial civil or criminal liability and could, among other things, adversely affect demand for our services, force us to expend significant capital, research and development, and other resources to address the failure, invalidate all or portions of some of our contracts with our customers, require us to change or terminate some portions of our business, require us to refund portions of our revenue, cause us to be disqualified from serving customers doing business with government payors, and give our customers the right to terminate our contracts with them, any one of which could have an adverse effect on our business. Additionally, the introduction of new services may require us to comply with additional, yet undetermined, laws and regulations.

The security measures that we and our third-party vendors and subcontractors have in place to ensure compliance with privacy and data protection laws may not protect our facilities and systems from security breaches, acts of vandalism or theft, computer viruses, misplaced or lost data, programming and human errors, or other similar events. Under the HITECH Act, as a business associate, we may also be liable for privacy and security breaches and failures of our subcontractors. Even though we provide for appropriate protections through our agreements with our subcontractors, we still have limited control over their actions and practices. A breach of privacy or security of individually identifiable health information by a subcontractor may result in an enforcement action, including criminal and civil liability, against us. We are not able to predict the extent of the impact such incidents may have on our business.

Our failure to comply may result in criminal and civil liability because the potential for enforcement action against business associates is now greater. Enforcement actions against us could be costly and could interrupt regular operations, which may adversely affect our business. While we have not received any notices of violation of the applicable privacy and data protection laws and believe we are in compliance with such laws, there can be no assurance that we will not receive such notices in the future.

There is ongoing concern from privacy advocates, regulators, and others regarding data protection and privacy issues, and the number of jurisdictions with data protection and privacy laws has been increasing. Also, there are ongoing public policy discussions regarding whether the standards for deidentified, anonymous, or pseudonymized health information are sufficient, and the risk of re-identification sufficiently small, to adequately protect patient privacy. We expect that there will continue to be new proposed laws, regulations, and industry standards concerning privacy, data protection, and information security in the United States, including the California Consumer Privacy Act, which went into effect January 1, 2020, and we cannot yet determine the impact such laws, regulations, and standards may have on our business. Future laws, regulations, standards, and other obligations, and changes in the interpretation of existing laws, regulations, standards, and other obligations could impair our or our customers' ability to collect, use, or disclose information relating to consumers, which could decrease demand for our platform, increase our costs, and impair our ability to maintain and grow our customer base and increase our revenue. New laws, amendments to or re-interpretations of existing laws and regulations, industry standards, contractual obligations, and other obligations may require us to incur additional costs and restrict our business operations. In view of new or modified federal, state, or foreign laws and regulations, industry standards, contractual obligations, and other legal obligations, or any changes in their interpretation, we may find it necessary or desirable to fundamentally change our business activities and practices or to expend significant resources to modify our software or platform and otherwise adapt to these changes.

Any failure or perceived failure by us to comply with federal or state laws or regulations, industry standards, or other legal obligations, or any actual or suspected security incident, whether or not resulting in unauthorized access to, or acquisition, release, or transfer of personally identifiable information or other data, may result in governmental enforcement actions and prosecutions, private litigation, fines, and penalties or adverse publicity and could cause our customers to lose trust in us, which could have an adverse effect on our reputation and business. We may be unable to make such changes and modifications in a commercially reasonable manner or at all, and our ability to develop new products and features could be limited. Any of these developments could harm our business, financial condition, and results of operations. Privacy and data security concerns, whether valid or not valid, may inhibit market adoption of our platform.

Further, on May 1, 2020, ONC and CMS finalized and published complementary new rules to support access, exchange, and use of EHI, referred to as the Final Rule. The Final Rule is intended to clarify provisions of the 21st Century Cures Act regarding interoperability and information blocking, and, subject to the interpretations of the Final Rule and exceptions to what constitutes information blocking, may create significant new requirements for health care industry participants. The Final Rule requires certain electronic health record technology to incorporate standardized application programming interfaces (APIs) to allow individuals to securely and easily access structured EHI using smartphone applications. The Final Rule also implements provisions of the 21st Century Cures Act requiring that patients be provided with electronic access to all of their EHI (structured and/or unstructured) at no cost.

Finally, the Final Rule also implements the information blocking provisions of the 21st Century Cures Act, subject to eight exceptions that will not be considered information blocking as long as specific conditions are met. The impact of the Final Rule on our business is unclear at this time, due to, among other things, uncertainty regarding the interpretation of safe harbors and exceptions to the Final Rule by industry participants and regulators.

The Final Rule focuses on health plans, payors, and health care providers and proposes measures to enable patients to move from health plan to health plan, provider to provider, and have both their clinical and administrative information travel with them.

It is unclear whether the Final Rule may benefit us in that certain EHR vendors will no longer be permitted to interfere with our attempts at integration, but the rules may also make it easier for other similar companies to enter the market, creating increased competition, and reducing our market share. It is unclear at this time what the costs of compliance with the proposed rules, if adopted, would be, and what additional risks there may be to our business.

***Due to the particular nature of certain services we provide or the manner in which we provide them, we may be subject to additional government regulation and foreign government regulation.***

While our Solution is primarily subject to government regulations pertaining to healthcare, certain aspects of our Solution may require us to comply with regulatory schema from other areas. Examples of such regulatory schema include:

- *Antitrust Laws*. Our national cloud-based network allows us access to cost and pricing data for a large number of providers in most regional markets, as well as to the contracted rates for third-party payors. To the extent that our Solution enables providers to compare their cost and pricing data with those of their competitors, those providers could collude to increase the pricing for their services, to reduce the compensation they pay their employees, or to collectively negotiate agreements with third parties. Similarly, if payors are able to compare their contracted rates of payment to providers, those payors may seek to reduce the amounts they might otherwise pay. Such actions may be deemed to be anti-competitive and a violation of federal antitrust laws. To the extent that we are deemed to have enabled such activities, we could be subject to fines and penalties imposed by the U.S. Department of Justice or the FTC and be required to curtail or terminate the services that permitted such collusion.

- *Consumer Protection Regulation*. Federal and state government bodies and agencies have adopted or are considering adopting laws and regulations regarding the collection, use, and dissemination of data, and the presentation of website or other electronic content, which may require compliance with certain standards for notice, choice, security, and access. California adopted the California Consumer Privacy Act (CCPA), which went into effect on January 1, 2020. The CCPA has been characterized as the first “GDPR-like” privacy statute to be enacted in the United States because it mirrors a number of the key provisions of the GDPR (discussed below). The CCPA establishes a new privacy framework for covered businesses by creating an expanded definition of personal information, establishing new data privacy rights for consumers in the state of California, imposing special rules on the collection of consumer data from minors, and creating a new and potentially severe statutory damages framework for violations of the CCPA and for businesses that fail to implement reasonable security procedures and practices to prevent data breaches. If we fail to comply with any of these privacy laws that apply to us, and are subject to the aforementioned penalties, our business and financial results could be adversely affected.

- *Foreign Corrupt Practices Act (FCPA) and Foreign Anti-Bribery Laws*. The FCPA makes it illegal for U.S. persons, including U.S. companies, and their subsidiaries, directors, officers, employees, and agents, to promise, authorize or make any corrupt payment, or otherwise provide anything of value, directly or indirectly, to any foreign official, any foreign political party or party official, or candidate for foreign political office to obtain or retain business. Violations of the FCPA can also result in violations of other U.S. laws, including anti-money laundering, mail and wire fraud, and conspiracy laws. There are severe penalties for violating the FCPA. In addition, the Company may also be subject to other non-U.S. anti-corruption or anti-bribery laws, such as the U.K. Bribery Act 2010. If our employees, contractors, vendors, or partners fail to comply with the FCPA and/or foreign anti-bribery laws, we may be subject to penalties or sanctions, and our ability to develop new prospects and retain existing customers could be adversely affected.

- *Economic Sanctions and Export Controls*. Economic and trade sanctions programs that are administered by the U.S. Treasury Department's Office of Foreign Assets Control (OFAC) prohibit or restrict transactions to or from, and dealings with specified countries and territories, their governments, and in certain circumstances, with individuals and entities that are specially designated nationals of those countries, and other sanctioned persons, including narcotics traffickers and terrorists or terrorist organizations. As federal, state and foreign legislative regulatory scrutiny and enforcement actions in these areas increase, we expect our costs to comply with these requirements will increase as well. Failure to comply with any of these requirements could result in the limitation, suspension or termination of our services, imposition of significant civil and criminal penalties, including fines, and/or the seizure and/or forfeiture of our assets. Further, our Solution incorporates encryption technology. This encryption technology may be exported from the United States only with the required export authorizations, including by a license, a license exception or other appropriate government authorizations. Such solutions may also be subject to certain regulatory reporting requirements. Various countries also regulate the import of certain encryption technology, including through import permitting and licensing requirements, and have enacted laws that could limit our customers' ability to import our Solution into those countries. Governmental regulation of encryption technology and of exports and imports of encryption products, or our failure to obtain required approval for our Solution, when applicable, could harm our international sales and adversely affect our revenue. Compliance with applicable regulatory requirements regarding the provision of our Solution, including with respect to new applications, may delay the introduction of our Solution in various markets or, in some cases, prevent the provision of our Solution to some countries altogether.

- *GDPR and Foreign Data Privacy Protection Laws*. In addition, several foreign governments have regulations dealing with the collection and use of personal information obtained from their residents. For example, in the European Union, (EU), the General Data Protection Regulation (GDPR) went into effect on May 25, 2018. If we or our vendors fail to comply with the applicable EU privacy laws, we could be subject to government enforcement actions and significant penalties against us. GDPR introduced new data protection requirements in the EU relating to the consent of the individuals to whom the personal data relates, the information provided to the individuals, the documentation we must retain, the security and confidentiality of the personal data, data breach notification and the use of third-party processors in connection with the processing of personal data. GDPR has increased our responsibility and potential liability in relation to personal data that we process, and we may be required to put in place mechanisms to ensure compliance with GDPR. Data protection authorities of the different EU Member States may interpret GDPR differently, and guidance on implementation and compliance practices are often updated or otherwise revised, which adds to the complexity of processing personal data in the EU. Any failure by us to comply with GDPR could result in proceedings or actions against us by governmental entities or others, which may subject us to significant penalties and negative publicity, require us to change our business practices, and increase our costs and severely disrupt our business. Similarly, Canada's Personal Information and Protection of Electronic Documents Act provides Canadian residents with privacy protections in regard to transactions with businesses and organizations in the private sector and sets out ground rules for how private-sector organizations may collect, use, and disclose personal information in the course of commercial activities. Foreign governments may attempt to apply such laws extraterritorially or through treaties or other arrangements with U.S. governmental entities. Other jurisdictions besides the EU and Canada are similarly introducing or enhancing laws and regulations relating to privacy and data security, which enhances risks relating to compliance with such laws. Furthermore, as we enter into business arrangements in countries outside of the United States, we will need to be prepared to comply with applicable local privacy laws. The GDPR and other changes in laws or regulations associated with the enhanced protection of certain types of personal data, such as healthcare data or other sensitive information, could greatly increase our cost of providing our products and services or even prevent us from offering certain services in jurisdictions that we operate.

- *Regulatory Certification*. We must obtain certification from governmental agencies, such as the Agency for Healthcare Research and Quality (AHRQ) to sell certain of our analytics applications and services in the United States. We cannot be certain that our Solution will continue to meet these standards. The failure to comply with these certification requirements could result in the loss of certification, which could restrict our Solution offerings and cause us to lose customers.

We cannot be certain that the privacy policies and other statements regarding our practices will be found sufficient to protect us from liability or adverse publicity relating to the privacy and security of personal information. Whether and how existing local and international privacy and data protection laws in various jurisdictions apply to the Internet and other online technologies is still uncertain and may take years to resolve. Current and future privacy laws and regulations, if drafted or interpreted broadly, could be deemed to apply to the technology we use and could restrict our information collection methods or decrease the amount and utility of the information that we would be permitted to collect. The costs of compliance with, and the other burdens imposed by, these and other laws or regulatory actions may prevent us from selling our Solution, or increase the costs of doing so, and may affect our ability to invest in or jointly develop our analytics applications. In addition, a determination by a court or government agency that any of our practices, or those of our agents, do not meet these standards could result in civil and/or criminal liability, result in adverse publicity, and adversely affect our business.

***The healthcare regulatory and political framework is uncertain and evolving.***

Healthcare laws and regulations are rapidly evolving and may change significantly in the future, which could adversely affect our financial condition and results of operations. For example, in March 2010, the Patient Protection and ACA was adopted, which is a healthcare reform measure that provides healthcare insurance for approximately 30 million more Americans. The ACA includes a variety of healthcare reform provisions and requirements that substantially changed the way healthcare is financed by both governmental and private insurers, which may significantly impact our industry and our business. Many of the provisions of the ACA phase in over the course of the next several years, and we may be unable to predict accurately what effect the ACA or other healthcare reform measures that may be adopted in the future, including amendments to the ACA, will have on our business. On December 14, 2018, a U.S. District Court Judge in the Northern District of Texas, ruled that the individual mandate is a critical and inseverable feature of the ACA, and therefore, because it was repealed as part of the Tax Act, the remaining provisions of the ACA are invalid as well. On December 18, 2019, the Fifth Circuit U.S. Court of Appeals held that the individual mandate is unconstitutional, and remanded the case to the lower court to reconsider its earlier invalidation of the full ACA. Pending review, the ACA remains in effect, but it is unclear at this time what effect the latest ruling will have on the status of the ACA.

***Our business could be adversely impacted by changes in laws and regulations related to the Internet or changes in access to the Internet generally.***

The future success of our business depends upon the continued use of the Internet as a primary medium for communication, business applications, and commerce. Federal or state government bodies or agencies have in the past adopted, and may in the future adopt, laws or regulations affecting the use of the Internet as a commercial medium. Legislators, regulators, or government bodies or agencies may also make legal or regulatory changes or interpret or apply existing laws or regulations that relate to the use of the Internet in new and materially different ways. Changes in these laws, regulations or interpretations could require us to modify our platform in order to comply with these changes, to incur substantial additional costs or divert resources that could otherwise be deployed to grow our business, or expose us to unanticipated civil or criminal liability, among other things.

In addition, government agencies and private organizations have imposed, and may in the future impose, additional taxes, fees or other charges for accessing the Internet or commerce conducted via the Internet. Internet access is frequently provided by companies that have significant market power and could take actions that degrade, disrupt or increase the cost of our customers' use of our platform, which could negatively impact our business. Net neutrality rules, which were designed to ensure that all online content is treated the same by Internet service providers and other companies that provide broadband services were repealed by the Federal Communications Commission effective June 2018. The repeal of the net neutrality rules could force us to incur greater operating expenses or our customers' use of our platform could be adversely affected, either of which could harm our business and results of operations.

These developments could limit the growth of Internet-related commerce or communications generally or result in reductions in the demand for Internet-based platforms and services such as ours, increased costs to us or the disruption of our business. In addition, as the Internet continues to experience growth in the numbers of users, frequency of use and amount of data transmitted, the use of the Internet as a business tool could be adversely affected due to delays in the development or adoption of new standards and protocols to handle increased demands of Internet activity, security, reliability, cost, ease-of-use, accessibility, and quality of service. The performance of the Internet and its acceptance as a business tool has been adversely affected by "viruses," "worms," and similar malicious programs and the Internet has experienced a variety of outages and other delays as a result of damage to portions of its infrastructure. If the use of the Internet generally, or our platform specifically, is adversely affected by these or other issues, we could be forced to incur substantial costs, demand for our platform could decline, and our results of operations and financial condition could be harmed.

**Risks Related to Ownership of Our Common Stock**

***We have a limited operating history in an evolving industry which makes it difficult to evaluate our current business future prospects and increases the risk of your investment.***

We launched operations in 2008 and we acquired Medicity in June 2018. Our limited operating history, in particular with respect to the Medicity business, makes it difficult to effectively assess or forecast our future prospects. You should consider our business and prospects in light of the risks and difficulties we encounter or may encounter. These risks and difficulties include our ability to cost-effectively acquire new customers and retain existing customers, maintain the quality of our technology infrastructure that can efficiently and reliably handle the requirements of our customers and the deployment of new features and solutions and successfully compete with other companies that are currently in, or may enter, the healthcare solution space. Additional risks include our ability to effectively manage growth, responsibly use the data that customers share with us, process, store, protect, and use personal data in compliance with governmental regulation, contractual obligations, and other legal obligations related to privacy and security and avoid interruptions or disruptions in our service or slower than expected load times for our platform. If we fail to address the risks and difficulties that we face, including those associated with the challenges listed above, our business and our results of operations will be adversely affected.

***The market price of our common stock may be volatile and may decline regardless of our operating performance, and you may lose all or part of your investments.***

The market price of our common stock may fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- overall performance of the equity markets and/or publicly-listed technology companies;
- actual or anticipated fluctuations in our net revenue or other operating metrics;
- changes in the financial projections we provide to the public or our failure to meet these projections;
- failure of securities analysts to initiate or maintain coverage of us, changes in financial estimates by any securities analysts who follow our company, or our failure to meet the estimates or the expectations of investors;
- the economy as a whole and market conditions in our industry;
- rumors and market speculation involving us or other companies in our industry;

- announcements by us or our competitors of significant innovations, acquisitions, strategic partnerships, joint ventures, or capital commitments;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- lawsuits threatened or filed against us;
- recruitment or departure of key personnel;
- other events or factors, including those resulting from war, incidents of terrorism, or responses to these events; and
- the expiration of contractual lock-up or market standoff agreements.

In addition, extreme price and volume fluctuations in the stock markets have affected and continue to affect many technology companies' stock prices. Often, their stock prices have fluctuated in ways unrelated or disproportionate to the companies' operating performance. In the past, stockholders have filed securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business, and harm our business.

Moreover, because of these fluctuations, comparing our results of operations on a period-to-period basis may not be meaningful. You should not rely on our past results as an indication of our future performance. This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our net revenue or results of operations fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated net revenue or earnings forecasts that we may provide.

***We are an emerging growth company, and any decision on our part to comply only with certain reduced reporting and disclosure requirements applicable to emerging growth companies could make our common stock less attractive to investors.***

We are an emerging growth company, and, for as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to "emerging growth companies," including:

- not being required to have our independent registered public accounting firm attest to our internal control over financial reporting under Section 404 of the Sarbanes Oxley Act;
- reduced disclosure obligations regarding executive compensation in our periodic reports and annual report on Form 10-K; and
- exemptions from the requirements of holding a non-binding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We could be an emerging growth company for up to five years following the completion of our IPO. Our status as an emerging growth company will end as soon as any of the following takes place:

- the last day of the fiscal year in which we have more than $1.07 billion in annual revenue;
- the date we qualify as a "large accelerated filer," with at least $700 million of equity securities held by non-affiliates;

- the date on which we have issued, in any three-year period, more than $1.0 billion in non-convertible debt securities; or

- the last day of the fiscal year ending after the fifth anniversary of the completion of our IPO.

We cannot predict if investors will find our common stock less attractive if we choose to rely on the exemptions afforded emerging growth companies. If some investors find our common stock less attractive because we rely on any of these exemptions, there may be a less active trading market for our common stock and the market price of our common stock may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this accommodation allowing for delayed adoption of new or revised accounting standards, and therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

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

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. Securities and industry analysts do not currently, and may never, publish research on our company. If few securities analysts commence coverage of us, or if industry analysts cease coverage of us, the trading price for our common stock could be negatively affected. If one or more of the analysts who cover us downgrade our common stock or publish inaccurate or unfavorable research about our business, our common stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us on a regular basis, demand for our common stock could decrease, which might cause our common stock price and trading volume to decline.

***Our management has broad discretion in the use of proceeds from our IPO and the Note Offering and our use may not produce a positive rate of return.***

The principal purposes of our IPO were to increase our capitalization and financial flexibility, create a public market for our stock and thereby enable access to the public equity markets by our employees and stockholders, obtain additional capital, and strengthen our position in the healthcare data analytics applications and services market. We used a portion of the Note Offering proceeds to pay the cost of the capped call transactions related thereto and to prepay in full all outstanding indebtedness under our credit agreement with OrbiMed. We cannot specify with certainty our plans for the use of the net proceeds we received from these offerings. However, we intend to use the net proceeds we received from our IPO for working capital and other general corporate purposes. We may also use a portion of the net proceeds from these offerings for the acquisition of, or investment in, technologies, solutions or businesses that complement our business. Our management has broad discretion over the specific use of the net proceeds we received in these offerings and might not be able to obtain a significant return, if any, on investment of these net proceeds. Investors will need to rely upon the judgment of our management with respect to the use of proceeds. If we do not use the net proceeds that we received in our IPO and the Note Offering effectively, our business, results of operations, and financial condition could be harmed.

***Our issuance of additional capital stock in connection with financings, acquisitions, investments, our stock incentive plans or otherwise will dilute all other stockholders.***

We expect to issue additional capital stock in the future that will result in dilution to all other stockholders. We expect to grant equity awards to employees, directors, and consultants under our stock incentive plans. We may also raise capital through equity financings in the future. As part of our business strategy, we may acquire or make investments in complementary companies, products, or technologies and issue equity securities to pay for any such acquisition or investment, such as our issuance of equity securities in connection with our acquisition of Able Health in February 2020. Any such issuances of additional capital stock may cause stockholders to experience significant dilution of their ownership interests and the per-share value of our common stock to decline.

***The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain executive management and qualified board members.***

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934 (the Exchange Act), the listing standards of Nasdaq and other applicable securities rules and regulations. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting, and financial compliance costs, make some activities more difficult, time-consuming, and costly, and place significant strain on our personnel, systems, and resources. For example, the Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and results of operations. As a result of the complexity involved in complying with the rules and regulations applicable to public companies, our management's attention may be diverted from other business concerns, which could harm our business, results of operations, and financial condition.

Although we have already hired additional employees to assist us in complying with these requirements, we may need to hire more employees in the future or engage outside consultants, which will increase our operating expenses.

In addition, changing laws, regulations, and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs, and making some activities more time-consuming. These laws, regulations, and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest substantial resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from business operations to compliance activities. If our efforts to comply with new laws, regulations, and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

We also expect that being a public company and these new rules and regulations will make it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

As a result of disclosure of information in filings required of a public company, our business and financial condition is more visible, which may result in an increased risk of threatened or actual litigation, including by competitors and other third parties. If such claims are successful, our business and results of operations could be harmed, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and harm our business, results of operations, and financial condition.

The individuals who now constitute our senior management team have limited experience managing a publicly-traded company and limited experience complying with the increasingly complex laws pertaining to public companies. Our senior management team may not successfully or efficiently manage our transition to a public company that is subject to significant regulatory oversight and reporting obligations.

***We do not intend to pay dividends on our common stock and, consequently, the ability of common stockholders to achieve a return on investment will depend on appreciation, if any, in the price of our common stock.***

You should not rely on an investment in our common stock to provide dividend income. We have never declared or paid any dividends on our capital stock. We intend to retain any earnings to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. In addition, the terms of any future credit facility or financing we obtain may contain, terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. As a result, common stockholders may only receive a return on investment if the market price of our common stock increases.

***Provisions in our charter documents and under Delaware law could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove our current board of directors, and limit the market price of our common stock.***

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws, include provisions that:

- provide that our board of directors is classified into three classes of directors with staggered three-year terms;
- permit the board of directors to establish the number of directors and fill any vacancies and newly-created directorships;
- require super-majority voting to amend some provisions in our amended and restated certificate of incorporation and amended and restated bylaws;
- authorize the issuance of “blank check” preferred stock that our board of directors could use to implement a stockholder rights plan;
- provide that only a majority of our board of directors will be authorized to call a special meeting of stockholders;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- provide that the board of directors is expressly authorized to make, alter, or repeal our bylaws; and
- advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted upon by stockholders at annual stockholder meetings.

Moreover, Section 203 of the Delaware General Corporation Law may discourage, delay, or prevent a change in control of our company.

Section 203 imposes certain restrictions on mergers, business combinations, and other transactions between us and holders of 15% or more of our common stock.

***Our amended and restated bylaws designate a state or federal court located within the State of Delaware as the exclusive forum for certain litigation that may be initiated by our stockholders, which could limit stockholders' ability to obtain a favorable judicial forum for disputes with us.***

Our amended and restated bylaws provide, to the fullest extent permitted by law, that a state or federal court located within the State of Delaware will be the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation, or our amended and restated bylaws; or
- any action asserting a claim against us that is governed by the internal affairs doctrine.

This exclusive forum provision will not apply to any causes of action arising under the Securities Act or the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Nothing in our amended and restated bylaws precludes stockholders that assert claims under the Securities Act or the Exchange Act from bringing such claims in state or federal court, subject to applicable law. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision which will be contained in our amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, results of operations, and financial condition.

***We could be subject to securities class action litigation.***

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because technology and healthcare technology companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

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

### Use of Proceeds from Convertible Senior Notes

In April 2020, we completed our private placement of $230.0 million aggregate principal of Notes, including the exercise in full by the initial purchasers of the Notes of their option to purchase up to an additional $30.0 million principal amount of Notes. The Notes are our senior unsecured obligations. The Notes were issued pursuant to an Indenture, dated April 14, 2020, between us and U.S. Bank National Association as trustee.

We received net proceeds from the sale of the Notes of $222.5 million, after deducting the initial purchasers' discounts and commissions and the offering expenses payable by us. We used approximately $21.6 million of the net proceeds to pay the cost of the capped call transactions related thereto and $57.0 million of the net proceeds to prepay in full all outstanding indebtedness, including prepayment penalties, under our credit agreement with OrbiMed. We intend to use the remainder of the net proceeds for working capital and other general corporate purposes. We may also use a portion of the net proceeds for the acquisition of, or investment in, technologies, solutions or businesses that complement our business.

## Item 6. Exhibits

| Exhibit Number | Description of Document | Incorporated by Reference from Form | Incorporated by Reference from Exhibit Number | Date Filed |
|---|---|---|---|---|
| 4.1 | Indenture, dated as of April 14, 2020, by and between Health Catalyst, Inc. and U.S. Bank National Association, as Trustee. | 8-K | 4.1 | April 14, 2020 |
| 4.2 | Form of Global Note, representing Health Catalyst, Inc.'s 2.50% Convertible Senior Notes due 2025 (included as Exhibit A to the Indenture filed as Exhibit 4.1). | 8-K | 4.2 | April 14, 2020 |
| 4.3 | Form of common stock certificate. | S-1/A | 4.1 | July 12, 2019 |
| 10.1 | Form of Confirmation for Capped Call Transactions. | 8-K | 10.1 | April 14, 2020 |
| 31.1 | Certification of Chief Executive Officer 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. | Filed herewith | | |
| 31.2 | Certification of Chief Financial Officer 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. | Filed herewith | | |
| 32.1^ | Certifications of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. | Furnished herewith | | |
| 101.SCH | Inline XBRL Taxonomy Extension Schema Document | Filed herewith | | |
| 101.CAL | Inline XBRL Taxonomy Extension Calculation Linkbase Document | Filed herewith | | |
| 101.DEF | Inline XBRL Taxonomy Extension Definition Linkbase Document | Filed herewith | | |
| 101.LAB | Inline XBRL Taxonomy Extension Label Linkbase Document | Filed herewith | | |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase Document | Filed herewith | | |
| 104 | Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101) | Filed herewith | | |

^ The certifications attached as Exhibit 32.1 accompanying this Quarterly Report on Form 10-Q, are deemed furnished and not filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of Health Catalyst, 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 Act of 1934, the Registrant has duly caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned, thereunto duly authorized.

| Signature | Title | Date |
|---|---|---|
| /s/ J. Patrick Nelli<br>J. Patrick Nelli | Chief Financial Officer<br>*(Principal Financial Officer and Principal Accounting Officer)* | August 11, 2020 |

**Exhibit 31.1**

**CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF
THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Daniel Burton, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Health Catalyst, 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(s) 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)) 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) 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

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

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

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

Date: August 11, 2020

/s/ Daniel Burton

Daniel Burton
Chief Executive Officer
*(Principal Executive Officer)*

**Exhibit 31.2**

**CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF
THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, J. Patrick Nelli, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Health Catalyst, 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(s) 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)) 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) 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

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

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

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

Date: August 11, 2020

/s/ J. Patrick Nelli

J. Patrick Nelli
Chief Financial Officer
*(Principal Financial Officer and
Principal Accounting Officer)*

**Exhibit 32.1**

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

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Daniel Burton, Chief Executive Officer of Health Catalyst, Inc. (the "Company"), and J. Patrick Nelli, Chief Financial Officer of the Company, each hereby certifies that, to the best of his knowledge:

1 The Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2020, to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2 The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 11, 2020

/s/ Daniel Burton

Daniel Burton
Chief Executive Officer
*(Principal Executive Officer)*

/s/ J. Patrick Nelli

J. Patrick Nelli
Chief Financial Officer
*(Principal Financial Officer and
Principal Accounting Officer)*