UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

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

For the year ended December 31, 2022

OR

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

For the transition period from to

Commission file number 001-37888

Tabula Rasa HealthCare, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**45-5726437**
(State of incorporation)	(I.R.S. Employer Identification No.)
228 Strawbridge Drive, Suite 100	
Moorestown, NJ 08057	**(866) 648-2767**
(Address of Principal Executive Offices, including Zip Code)	(Registrant's Telephone Number, including Area Code)

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

Title of Each Class	**Trading Symbol**	**Name of Each Exchange on Which Registered**
Common Stock, par value $0.0001 per share	TRHC	The Nasdaq Stock Market, LLC
Preferred Stock Purchase Rights		The Nasdaq Stock Market, LLC

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically, every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T 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 ☐
Non-accelerated filer ☒	Smaller reporting company ☒
	Emerging growth company ☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b). ☐

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

The aggregate market value of the voting common stock held by non-affiliates of the registrant was approximately $49,483,939 as of June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter, computed based on the closing price on such date.

As of February 28, 2023, the Registrant had 26,870,660 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive proxy statement to be filed subsequently and delivered to stockholders in connection with the 2023 annual meeting of stockholders are incorporated herein by reference in response to Part III of this Annual Report on Form 10-K to the extent stated herein. Such proxy statement will be filed with the Securities and Exchange Commission within 120 days of the Registrant's fiscal year ended December 31, 2022.

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Special Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of federal securities laws, including Section 27A of the Securities Act of 1933, as amended ("Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended ("Exchange Act"). All statements that do not relate to historical or current facts are forward-looking statements. These forward-looking statements involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Many of these statements appear, in particular, under the headings *Business* and *Management's Discussion and Analysis of Financial Condition and Results of Operations* included in Item 1 of Part I and Item 7 of Part II, respectively. Forward-looking statements are often identified by the use of words such as, but not limited to, "anticipate," "believe," "can," "continue," "could," "estimate," "expect," "intend," "may," "might," "will," "plan," "project," "seek," "should," "target," "would," and similar expressions or variations intended to identify forward-looking statements. The forward-looking statements in this Annual Report on Form 10-K include, among other things, statements about:

- our expectations regarding industry and market trends, including the expected growth and continued structural change and consolidation in the market for healthcare in the United States;
- our expectations about the growth of Programs of All-Inclusive Care for the Elderly ("PACE") organizations;
- our expectations about private payers establishing their own at-risk programs;
- the advantages of our solutions as compared to those of competitors;
- our estimates about our financial performance;
- the visibility into future cash flows from our business model;
- our ability to reduce expenses as a result of our disposition of non-core businesses;
- our growth strategy, including our ability to grow our client base;
- our plans to further penetrate existing markets and enter new markets;
- expectations of earnings, revenue, and other financial items;
- plans, strategies, and objectives of management for future operations;
- our ability to establish and maintain intellectual property rights;
- our ability to retain and hire necessary associates and appropriately staff our operations;
- future capital expenditures;
- future economic conditions or performance;
- our plans to pursue strategic acquisitions and partnerships;
- our plans to expand and enhance our solutions; and
- our estimates regarding capital requirements and needs for additional financing.

These statements are based on the beliefs and assumptions of our management based on information currently available to management. Such forward-looking statements are subject to risks, uncertainties and other important factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include but are not limited to the risks and uncertainties listed below under "Risk Factors Summary" and further described under the heading "Risk Factors" in Part I, Item 1A of this Report, as such risk factors may be amended, supplemented or superseded from time to time by other reports we file with the United States Securities and Exchange Commission.

Risk Factor Summary

The following is a summary of the risks and uncertainties that could materially adversely affect our financial condition, results of operations, cash flows, and competitive position.

Risks Relating to Our Business and Industry

- The continued evolution of the healthcare industry in the United States, or U.S.;
- Our inability to continue offering innovative products and services;
- The competitive nature of the medication management market;
- Our historic significant net losses;

- Our failure to effectively manage our future growth;
- Our failure to continue to grow at the rates we've achieved historically or at all;
- Our dependence on medication revenue from sales of prescription medications;
- Our dependence on revenue from PACE organizations;
- Consolidation in the healthcare industry;
- Failure by PACE organization clients to meet applicable penetration benchmarks;
- Dependence on the growth of our clients;
- Our dependence on our ten largest clients and the loss of one or more of these clients or the reduction in demands or change in contract terms relating to one or more of these clients;
- Our practice of billing our clients and recognizing revenue over the term of the contract;
- Our potential inability to attract new clients;
- Our inability to maintain and enhance our reputation and brand recognition;
- Our failure to produce positive outcomes and cost reductions for our clients;
- Our dependence on positive references from existing clients for marketing;
- The unpredictability of our sales and implementation cycle;
- Any failure to offer high-quality client support services;
- The failure of our proprietary products and services to operate properly;
- Adverse drug events that may arise as a result of recommendations made by our services;
- Our dependence on a group purchasing organization;
- The expiration of the EMTM Pilot Program;
- Restrictions to license or share data and integrate third-party technologies;
- Data loss or corruption due to failures or errors in our systems;
- Our inability, or the inability of our third-party vendors, to safeguard the privacy of confidential data;
- Our reliance on internet infrastructure, bandwidth providers, and third parties;
- Our reliance on third-party vendors to host and maintain our technology platform;
- The potential loss of one or more of our executive officers or key employees, an inability to attract and retain highly skilled employees, or the impact of recent departures of one or more of our executive officers or key employees;
- The potential lack of additional capital to support business growth;
- Adverse impacts due to changes in tax laws;
- The potential that we could be subject to additional state and local taxation;
- Risks associated with our review of potential strategic alternatives and potential divestitures;
- The impact of activist shareholder activity, including on our strategic direction;
- Potential litigation, investigations, or government proceedings and the impact on our business or management;
- Risks associated with sales to clients outside the U.S. or clients with international operations; and
- The impact of the COVID-19 pandemic and other public health crises.

Risks Relating to Our Intellectual Property

- Our inability to obtain, maintain, and enforce intellectual property protection for our technology and products;

- Our inability to adequately protect our trademarks, trade names, and domain names;
- The potential that we could incur substantial costs as a result of any infringement claim;
- Risks relating to our use of open source software;
- Risks relating to intellectual property lawsuits and litigation; and
- Our inability to protect the confidentiality of our trade secrets, know-how, and other proprietary information.

Risks Relating to Industry Regulation and Other Legal Compliance Matters

- The uncertain and evolving nature of the healthcare regulatory and political framework;
- Restrictions imposed by data privacy and security laws, regulations, and contractual obligations;
- Costs associated with compliance with state and federal statutes and regulations relating to the healthcare industry;
- Further modifications to the Medicare Part D program and changes in pricing benchmarks; and
- Legislative or regulatory initiatives relating to climate change or other environment, social and governance ("ESG") matters.

Risks Relating to Our Common Stock

- The influence of executive officers, directors, and principal stockholders over all matters submitted to stockholders for approval;
- Provisions of Delaware law that may discourage, delay, or prevent someone from acquiring us or merging with us;
- Our exclusive forum provision;
- The volatility of our common stock;
- Our inability to implement effective internal control over financial reporting;
- Our historic lack of cash dividends;
- The potential limited ability to use net operating loss carryforwards ("NOLs"); and
- Our stockholder rights plan could discourage a transaction that stockholders may find favorable.

Risks Relating to Our Convertible Senior Subordinated Notes

- Our inability to generate cash flow required to pay our substantial debt;
- Our potential to incur substantially more debt;
- Our inability to settle conversions of the 2026 Convertible Notes;
- The impact of the conditional conversion feature of the 2026 Convertible Notes on our financial condition;
- The impact of the accounting method for convertible debt securities that may be settled in cash; and
- Our entry into convertible note hedge and warrant transactions.

You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements.

Unless the context requires otherwise, the terms the "Company," "Tabula Rasa HealthCare," "we," "us," and "our" mean Tabula Rasa HealthCare, Inc., a Delaware corporation, and its consolidated subsidiaries.

Websites Used in This Report

Website addresses referenced in this Annual Report on Form 10-K are provided for convenience only, and the content on the referenced websites does not constitute a part of, and shall not be deemed incorporated by reference into, this Annual Report on Form 10-K.

Trademarks Used in This Report

Trademarks or service marks owned by us, when first used in each item of this report, appear with an initial capital and are followed by the symbol ® or ™, as applicable. In subsequent uses of the marks in the item, the symbols may be omitted.

Part I

Item 1. Business

Overview

Tabula Rasa HealthCare, Inc. is a healthcare technology company advancing the safe use of medications by creating solutions designed to empower pharmacists, providers, and patients to optimize medication regimens. Our advanced proprietary technology, MedWise®, identifies causes of and risks for medication-related problems, including adverse drug events ("ADEs"), so that healthcare professionals can minimize harm and reduce medication-related risks. Our software and services help drive valued-based care by improving patient outcomes and lowering healthcare costs through reduced hospitalizations, emergency department visits, and healthcare utilization. Our vision and mission are supported by our experienced leadership team, our significant investments in our technology, services, and people, and partnerships with our healthcare clients including health plans and provider organizations to manage the most complex and vulnerable individuals.

We operate our business through two segments, CareVention HealthCare and MedWise HealthCare.

Our CareVention HealthCare segment provides our clients, primarily organizations with PACE, with medication fulfillment services, cloud-based software, pharmacy benefit management ("PBM") solutions, and clinical pharmacist services at the point-of-care. PACE is a Centers for Medicare & Medicaid Services ("CMS") sponsored program providing comprehensive medical and social services to adults aged 55 and older who need a nursing facility level of care but can live safely in community settings. Our clients include ArchCare Senior Life, Trinity Health, Palm Beach PACE, St. Paul's PACE, and Welbe Health. We access the market through a number of different service lines and brands, including CareKinesis®, Capstone Risk Adjustment Services, CareVention Consulting™, PACElogic™, TruChart®, PeakTPA, PersonifilRx®, and Pharmastar®.

Our largest CareVention HealthCare revenue offering is our medication fulfillment services, which are built around our advanced proprietary MedWise technology, designed to enable clinicians to increase patient safety, create individualized medication regimens, promote adherence, and eliminate unnecessary prescriptions. Our medication fulfillment and adherence packaging services utilize MedWise technology to reduce medication-related risk for the high-cost, high-risk PACE population. The CareVention HealthCare suite of offerings also includes risk adjustment services, PBM solutions, cloud-based electronic health records solutions, and third-party administration services, which are all specifically tailored to the PACE market. Our CareVention HealthCare segment serves more than 150 healthcare organizations.

The CareVention HealthCare segment revenue model is primarily based on payments for charges and dispensing fees for medication fulfillment, payments on a per-member, per-month ("PMPM") basis, payments on a subscription basis, and payments on a per claim basis.

Our MedWise HealthCare segment provides technology-enabled solutions to promote medication safety and adherence to improve patient outcomes and reduce healthcare costs. The technology-enabled solutions revenue model is primarily based on payments on a PMPM basis, payments on a subscription basis, and payments on a fee-for-service basis for each medication safety review and clinical assessment completed.

As described further below under "Divestiture of Non-Core Businesses," we completed the sale of our PrescribeWellness business in 2022 and completed the sales of our DoseMe and SinfoníaRx businesses in January and March 2023, respectively. These non-core businesses collectively comprised the majority of our MedWise HealthCare segment during 2022, with PrescribeWellness representing the most significant portion of this segment, and these

divestitures represented a strategic business shift having a significant effect on our Company's operations and financial results.

Substantially all of our revenue is recognized in the U.S., and substantially all of our assets are located in the U.S.

Industry and Market

We believe demographic, legislative, and regulatory trends support our long-term growth targets. Our core market is the U.S. senior population, defined as individuals 65 years and older, which represent a large and growing segment within the U.S. as seniors are living longer with the current life expectancy in 2023 at 79.1 years according to the United Nations. According to the U.S. Census Bureau, the population of U.S. seniors is expected to grow to 73.1 million by 2030, up from 56.1 million in 2020, and to increase as a percentage of the population from 17% to 21% over the same period.

We believe there is a significant opportunity to scale our business by addressing the growing need to optimize medication regimens for seniors. An April 2020 report from the Lown Institute noted that polypharmacy (defined as the simultaneous use of five or more medications) has reached "epidemic proportions." The Lown Institute also stated in that report that 40% of seniors are taking five or more prescription medications to treat the growing prevalence of multiple chronic conditions, including heart disease, diabetes, asthma, high blood pressure, and cancer.

Our solutions, as evidenced by a number of peer-reviewed publications, result in improved outcomes for the individual and a material reduction in the total cost of care for health plans. Medicare provides health insurance for individuals 65 and older and in 2021 Medicare spending totaled $829 billion. Medicare spending is expected to grow to $1.8 trillion in 2031 due to growing Medicare enrollment increased use of services and intensity of care, and rising healthcare costs.

From a legislative and regulatory perspective, we believe there are important drivers to support future growth including: the long-term transition to value-based care, led by CMS, which established a goal to reach 100% of Medicare beneficiaries in some type of value-based model by 2025; CMS Medicare Part C and Part D Star Ratings, which are published annually and measure the quality of health and drug services received by consumers; and a number of bills introduced in the U.S. House of Representatives and Senate focused on increasing the number of individuals that have access to PACE, our largest market today, including: the House and Senate including the Elizabeth Dole VA Home and Community Based Services for Veterans and Caregivers Act of 2022; the PACE Part D Choice Act; and the PACE Plus Act.

Our Growth Strategy

We continue to progress toward the long-term growth strategy that we articulated in early 2020. Continued achievement of this long-term growth is based on two key tenets:

1) Further penetration of the PACE market by:

    a. Leveraging our existing client base, which includes more than 80% of all PACE participants utilizing at least one of our solutions and cross-selling to increase our average revenue per participant;

    b. Organic member growth within our existing clients based upon (i) the growing number of individuals enrolling in Medicare and Medicaid, (ii) the evolution from the National PACE Association's PACE 2.0 initiative to the PACE 200K project, which is designed to significantly increase enrollment to 200,000 by 2028, as compared to 63,606 as of December 2022 according to the National PACE Association, and (iii) the growing influence of for-profit PACE operators such as InnovAge and WelbeHealth; and

    c. Continued investments in our offerings to attract new PACE members and, more broadly, managed care organizations and at-risk provider groups with a focus on the more than 12 million dual-eligible beneficiaries.

Our PACE clients had a combined patient census of 53,430, an increase of 7.4%, at the end of 2022, as compared to 49,769 and 44,947 patients at the end of 2021 and 2020, respectively. The 10.7% growth in patient census for 2021, as compared to 2020, benefited from inorganic growth from the October 2020 acquisition of Personica.

2) Accelerating the adoption of our MedWise software and clinical pharmacy programs by health plans across all lines of business, including Medicare Part C and Part D, Medicaid managed care, and commercial clients.

Further Penetrate the Programs of All-Inclusive Care for the Older Adult Market

We believe that we are the market leader in providing medication risk management services to PACE, a CMS-sponsored program through which participating healthcare organizations provide fully integrated healthcare services on an at-risk basis for older adults, most of whom are dually eligible for Medicare and Medicaid. Our medication management, together with pharmacy fulfillment PACE clients, cover approximately 32% of the total PACE enrollees nationwide reported by the National PACE Association at the end of 2022, as compared to 30% at the end of 2021.

We have organized our PACE offerings under our CareVention HealthCare segment that offers a comprehensive set of solutions, including medication management services and fulfillment, PBM solutions, risk adjustment services, third-party administrator services, and electronic health records software. By organizing our sales and marketing resources, we have streamlined efforts to facilitate cross-selling and increase the adoption of our services.

We believe that we have a significant opportunity to continue to grow within the PACE market, and we expect our PACE clients to continue to grow organically to cover more eligible lives through expansion of existing sites and new PACE center locations. Based on recent industry data, there are 2.2 million PACE-eligible individuals in the U.S., which equates to a current penetration rate of approximately 3%. In 2023, the National PACE Association will launch its PACE 200K project with the goal of 200,000 participants by 2028.

Continue Expansion into the Payer and At-Risk Provider Markets

We believe that the growth of government healthcare programs and the shift to value-based care models are creating opportunities to capture growing portions of the expanding healthcare market. Accordingly, we are actively targeting at-risk, value-based markets, including managed care organizations, physician provider groups, and self-insured employer groups. We have recently started leveraging our CareVention HealthCare portfolio of services to secure contracts with a number of start-up Medicare Advantage plans and at-risk provider groups, and we expect to continue to further penetrate the broader Medicare and Medicaid market with our solutions

Continue to Innovate and Expand Platform Offerings to Meet Evolving Market Needs

We believe our strategic investments in human capital, technology, and services position us to continue to pursue rapid innovation and expand our medication risk management solutions and other platform offerings to the broader healthcare marketplace. For example, we developed the MedWise Risk Score™ (the "MRS") and launched associated high-throughput medication risk stratification technology for identification of patients in need of clinical intervention.

Divestiture of Non-Core Businesses

In February 2022, we announced plans to evaluate non-core assets to refocus our corporate strategy and increase stockholder value, and we commenced an initial plan to sell the DoseMe business, which we acquired in January 2019. In March 2022, we completed our evaluation of additional divestiture opportunities and commenced plans to sell the SinfoníaRx and PrescribeWellness businesses, acquired in September 2017 and March 2019, respectively. As described further below, we completed our sales of the PrescribeWellness, DoseMe, and SinfoníaRx business in August 2022, January 2023, and March 2023, respectively. We determined that these businesses met the requirements to be classified as held for sale and discontinued operations as of March 31, 2022, and the DoseMe and SinfoníaRx businesses continued to meet such requirements as of December 31, 2022. Accordingly, the accompanying consolidated financial statements in this Annual Report on Form 10-K have been recast for all periods presented to reflect the assets, liabilities, revenue, and expenses related to these businesses as discontinued operations.

On August 1, 2022 (the "PW Sale Date"), we completed the sale of our unincorporated PrescribeWellness business division (the "PrescribeWellness Business"), and the assets, properties, and rights that were primarily used or held for use in connection with the PrescribeWellness Business, and the KD Assets (as defined below), to Transaction Data Systems, Inc. ("TDS"). On the PW Sale Date, we also completed the acquisition of certain intellectual property from karmadata, Inc. ("KD"), which had historically been licensed to us (the "KD Assets"). The KD Assets acquired were simultaneously transferred to TDS on the PW Sale Date. The purchase consideration included $125 million in cash, subject to certain customary post-closing adjustments, of which $118.6 million was paid directly to us and $5.9 million was paid to KD on the PW Sale Date. In October 2022, TDS also paid us $1.5 million for certain customary post-closing adjustments. We are also entitled to receive up to $15.0 million in contingent consideration based upon the PrescribeWellness Business's achievement of certain performance-based metrics during the fiscal years ending December 31, 2023 and 2024.

On January 20, 2023, we entered into a Share and Asset Purchase Agreement to sell our unincorporated DoseMe business (the "DoseMe Business"), and the assets, properties, and rights that are primarily used or held for use in connection with the DoseMe Business. The purchase consideration included $2.0 million in cash, subject to certain customary post-closing adjustments, and a note receivable of $3.0 million with an annual interest rate of 7%, which matures on January 20, 2027.

On March 2, 2023, we entered into an Asset Purchase Agreement to sell our unincorporated SinfoníaRx business (the "SinfoníaRx Business"), and the assets, properties, and rights that are primarily used or held for use in connection with the SinfoníaRx Business. The purchase consideration included $1.4 million in cash, subject to certain customary post-closing adjustments, and a note receivable of $3.6 million with an annual interest rate of 3%, which matures on December 31, 2023. We may also be entitled to receive up to $1.0 million in contingent consideration based upon potential regulatory changes affecting the business.

We used the cash proceeds from the sale of the PrescribeWellness Business to pay off our line of credit with Western Alliance Bank (the "2020 Credit Facility") and increase our liquidity. The remaining cash proceeds, along with cash proceeds received and promissory notes from the divestitures of the DoseMe and SinfoníaRx businesses, will provide our Company with the financial flexibility to optimize our capital structure, as well as to focus on our core value-based care business and our MedWise science, including our offerings targeted at the PACE market.

When the Company commenced plans to sell the PrescribeWellness, DoseMe, and SinfoníaRx businesses, these businesses collectively comprised the majority of our MedWise HealthCare segment, with PrescribeWellness representing the most significant portion of this segment. The disposition of these non-core businesses represents the completion of our previously-announced strategic business shift.

Strategic Review

On September 13, 2022, we entered into a cooperation agreement (the "Cooperation Agreement") with a significant stockholder, pursuant to which, among other matters, we agreed to effect certain changes to our management team and the composition of our Board of Directors (the "Board") and implement certain corporate governance changes. In connection with the Cooperation Agreement, we also formed a Strategic Review Committee, which oversaw the Company's strategic process relating to the sale of the non-core assets described above and continues to oversee management's exploration of other strategic alternatives and value-creation opportunities with a view toward maximizing stockholder value. For further information regarding the Cooperation Agreement, refer to Note 21, "Related Party Transactions," in the notes to the consolidated financial statements in this Annual Report on Form 10-K.

Our Software and Services

Our Software

Our cloud-based software applications are designed to assist prescribers and pharmacists with patient engagement, identification, and prioritization of high-risk patients, clinical decision support, documentation of clinical interactions, ordering medications and lab tests, and care management.

Most of our personalized medication risk management services are based on our MedWise® Science. For each patient, MedWise Science incorporates personal medical history data, summarizes the aggregate risk of the patient's medications based on proprietary algorithms, and provides patient-specific clinical alerts for risk, including cognitive impairment, sedation, heart rhythm problems, and unintentional overdose. MedWise results may be utilized by prescribers independently or analyzed by our pharmacists to optimize patient medication regimens. Elements of MedWise are currently available in *EireneRx®, TruChart®,* and *PACElogic™*.

EireneRx

EireneRx is our cloud-based medication decision-support and e-prescribing platform. It includes an order entry module used by healthcare organizations to access patient medication-related information and our personalized proprietary MedWise Science on demand. *EireneRx* provides a shared patient medication profile that enables client-clinicians and our pharmacists to collaborate on medication management in real time. *EireneRx* provides MedWise dashboards, as well as a secure instant messaging feature, through which our pharmacists and PACE clinicians can communicate. *EireneRx* is integrated with our prescription fulfillment pharmacies and is capable of transmitting prescriptions to community pharmacies in the U.S.

TruChart

TruChart offers electronic health records ("EHR"), care coordination, and financial management in one program, allowing PACE programs to track measurable outcomes in defined timeframes for the populations they serve. Developed specifically for PACE, *TruChart* is a comprehensive, scalable, and secure technology solution that delivers PACE functionality. *TruChart* covers end-to-end functionality to manage care coordination, enrollments, authorizations, utilization management, scheduling, claims payment, interfaces, and reporting.

PACElogic

PACElogic delivers neatly organized, real-time shareable workflows covering all aspects of operations for PACE organizations and other small health plans. Capable of integrating with any EHR, *PACElogic* also delivers value as a robust, stand-alone solution. *PACElogic* offers an array of best-of-breed features, including EHR, customer relationship management, claims adjudication, electronic data interchange, care management, coordination and planning, integration with community-based providers, and all federal and state required reporting. *PACElogic* brings clinical and non-clinical data together into a unified health plan management system.

Our Services

Our clinical pharmacist collaboration service, prescription fulfillment, and adherence packaging service, health plan management services, including risk adjustment and third-party administrator services, and pharmacy benefit management services are designed to improve patient experiences and outcomes and contain costs. The revenue models under these service contracts typically include a fee assessed for each medication review, payments on a PMPM basis, payments on a subscription basis, and charges and dispensing fees for medication fulfillment.

Clinical Pharmacist Collaboration

We have teams of clinical pharmacists dedicated to performing medication safety reviews (the "MSRs"). These interventions include one-on-one consultations with patients, as well as communications with prescribers. Clinical pharmacist recommendations can include guidance based on the clinical application of pharmacogenomic test results, assessment of the MedWise findings and of patient medical history, and optimization of medication regimens. Our clinical pharmacists provide these personalized medication recommendations through real-time digital and verbal communications. We provide clinical decision support, medication safety recommendations, and adherence support for patients nationwide.

Prescription Fulfillment and Adherence Packaging

We operate four prescription fulfillment pharmacies strategically located to efficiently distribute medications nationwide. Informed by each patient's personalized MedWise Matrix, we package medications, synchronize fills, and aggregate doses by day and time-of-day. These measures increase the ease of adherence by patients to their optimized

medication regimens. Using robotic dispensing machines, our scalable, high-performance systems allow for an array of medication packaging options that include multi-dose, deep-well cards and multi-dose pouches.

Health Plan Management

Our health plan management services include risk adjustment services through our Capstone Risk Adjustment Services offerings and third-party administration services through our PeakTPA service offerings.

Long-term optimization of risk adjustment outcomes is complex and, for many organizations, significantly affects financial performance. We take a prospective approach to risk adjustment beyond the typical strategy of providing retrospective reviews and claims data analysis. We specialize in helping clients optimize processes and systems to capture timely, complete, and accurate data. Through these services, we help PACE and other healthcare organizations remain compliant with regulations, make reliable comparisons to internal and external benchmarks and identify high-volume/high-cost issues for quality program initiatives.

We provide third-party administrator services that optimize health plans' financial management functions and fulfill regulatory requirements. Our expertise in health plan management, particularly in PACE, enables our clients to focus on delivering high-quality care to their members. Our services include enrollment management, accounts receivable, claims adjudication, risk adjustment data submission, encounter data processing and submission, and Medicare Part D data submission.

Pharmacy Benefit Management Solutions

We provide PBM solutions to PACE and commercial organizations. These capabilities cover a broad range of administrative and clinical functions, including: claims processing, rebate administration and direct and indirect renumeration reporting, drug utilization review programs, prescription drug event management, compliance and audit risk, plan-to-plan management, annual Medicare Part D bids, coordination of benefits, true out-of-pocket cost support, and government and state-level reporting.

Our Clients

Our clients are typically at-risk healthcare organizations, primarily PACE organizations, managed-care organizations, government and commercial health plans, and other provider groups. We have strong and long-standing relationships with our clients, in many cases providing services under multi-year contracts. As of December 31, 2022, our largest segment, our CareVention HealthCare segment, served more than 150 healthcare organizations, predominantly PACE organizations.

PACE Organizations

PACE, a federal and state collaboration, is one of only three established models serving the more than 12 million dual-eligible patient population in the U.S. and focuses on preventing institutional-based placement. PACE embodies many of the characteristics and trends affecting the healthcare industry as a whole: specifically, value-based payment models and the desire for seniors to age in place. We believe we are the market-leader in providing medication risk management technology and services to PACE organizations, which are responsible for individuals who typically have complex medication regimens. Our PACE clients utilizing our medication risk management and pharmacy fulfillment services covered approximately 32% of the total PACE enrollees nationwide at the end of 2022. In addition, we also provide a suite of complementary solutions to assist PACE organizations with clinical, financial, and administrative operations.

Managed Care Organizations

According to CMS, at the end of 2022, 53.0 million Americans were enrolled in Medicare Part C (i.e., Medicare Advantage) and Part D (Prescription Drug Plan or PDP), a 3.0% increase as compared to the end of 2021, driven by growth in Medicare Advantage. In the past decade, the number of beneficiaries enrolled in Medicare Advantage ("MA") plans has more than doubled to 29.6 million in 2022. MA enrollment increased 8.4% in 2022 and total enrollment is expected to grow to more than 40 million by 2030. The Congressional Budget Office projects that MA will increase to nearly 51% of total Medicare enrollment or more than 80 million Americans by 2030. According to

Medicaid.gov, there were 47.6 million adult lives covered under Medicaid as of October 2022, which represents an increase of 3.4 million lives since the end of 2021. According to the Kaiser Family Foundation, 156.2 million Americans, or 49% of the country's total population, are covered under employer-sponsored health insurance. Many of the health plans with which we currently contract have multiple lines of business spanning Medicare, Medicaid, and the self-funded employer market. We currently provide a range of clinical programs, including MSRs, to these markets. We believe our solutions are broadly applicable throughout the managed care landscape, including to self-funded employer groups.

At-Risk Provider Groups

We contract with at-risk provider groups across the country to provide risk adjustment services, care transition support, and comprehensive medication management services. With respect to our comprehensive medication management services, we risk-stratify patient cohorts for these groups and identify patients at risk for medication problems. We then collaborate with these groups on interventions to mitigate that risk. These interventions are performed by our clinical teams, or in some cases, by employees of the at-risk provider who we have trained and certified.

Intellectual Property

We create, own, and maintain various intellectual property assets that, in the aggregate, are of material importance to our business. Our intellectual property assets include: six issued patents and nineteen pending patent applications related to our innovations, products, and services; trademarks related to our brands, products, and services; copyrights in software, documentation, content, and databases; and trade secrets relating to data processing, statistical methodologies, data security, and other aspects of our business. We are licensed to use certain technology and other intellectual property rights owned and controlled by others, and, similarly, other companies are licensed on a nonexclusive basis to use certain technology and other intellectual property rights owned and controlled by us.

We rely on patent, copyright, trademark, and trade secret laws, as well as confidentiality agreements, licenses, and other agreements with employees, consultants, vendors, and clients to protect our intellectual property. We also seek to control access to and distribution of our proprietary software, confidential information and know-how, technology, and other intellectual property. We have seven issued patents: (i) U.S. Pat. No. 8,392,220, entitled "Medication Management System and Method" and issued on March 5, 2013; (ii) U.S. Pat. No. 10,720,241, entitled "Medication Risk Mitigation System and Method" and issued on July 21, 2020; (iii) U.S. Pat. No. 10,890,577, entitled "Treatment Methods Having Reduced Drug-Related Toxicity and Methods of Identifying the Likelihood of Patient Harm from Prescribed Medications" and issued on January 12, 2021; (iv) Japanese Pat. 7042256, entitled "Methods of Treatment Having Reduced Drug-Related Toxicity and Methods of Identifying the Likelihood of Patient Harm Arising from Prescribed Medications" and issued on March 16, 2022, (v) Mexico Pat. 389003, entitled "Methods of Treatment Having Reduced Drug-Related Toxicity and Methods of Identifying the Likelihood of Patient Harm Arising from Prescribed Medications" and issued on January 3, 2022 and (vi) Chinese Pat. 110022908, entitled "Methods of Treatment Having Reduced Drug-Related Toxicity and Methods of Identifying the Likelihood of Patient Harm Arising from Prescribed Medications" and issued on April 5, 2022 and (vii) U.S. Pat. 11,361,856, entitled "Population-based Medication Risk Stratification and Personalized Medication Risk Score" and issued on June 14, 2022 . We also have six non-provisional patent applications pending in the United States, comprising: (i) Application No. 15/008,555, filed on January 28, 2016 and relating to a medication risk mitigation matrix system, (ii) Application No. 16/928,557, filed on July 14, 2020, and relating to medication risk mitigation matrix systems and methods, (iii) Application No. 17/143,936, filed on January 7, 2021, relates to treatment methods having reduced drug-related toxicity and methods for identifying patient harm. This application also has related foreign counterpart pending applications in Canada, Hong Kong, Mexico, and Europe. Application No. 16/760,631, filed on April 30, 2020, relates to population-based medication risk stratification. This application also has related foreign counterpart applications in Canada, Europe, Hong Kong, and Singapore. Application No. 16/870,517, filed on May 8, 2020, is related to population-based medication risk stratification. We have pending application No. 17/837,841, filed on June 10, 2022 and entitled "Population-based Medication Risk Stratification and Personalized Medication Risk Score". We have a pending PCT application no. PCT/US2021/057063, entitled "System and Method of Processing Pharmaceutical Substance Data" and filed October 28, 2021. We also have a pending design patent application, Application No. 29/746,708835,609, filed on April 20, 2022 related to a novel graphical user interface. We own copyright registrations in connection with the following software: EireneRx, PACElogic, CaseLogic, Mobile Workforce Manager, and Enterprise Services.

We own and use trademarks in connection with products and services, including both unregistered common law marks and issued trademark registrations in the U.S. Our material trademarks, service marks, and other marks include: EireneRx®, Carekinesis®, Medication Risk Mitigation by CareKinesis®, MedWise®, MedWise Advisor®, MedWise Risk Score™, NiaRx®, CareVentions®, Tabula Rasa HealthCare®, Medliance®, Medication Risk Mitigation™, Medication Risk Mitigation Matrix™, Peak PACE Solutions™, Mediture®, TruChart®, Cognify™, PACElogic™, PersonifilRx®, Personifil®, and Pharmastar®.

Our Competitive Landscape

We compete with a broad and diverse set of businesses. We believe that the competitive landscape is highly fragmented with no single competitor offering our novel, multi-drug interaction software and similarly expansive capabilities and solution offerings. Our competitive advantage is largely based on our proprietary multi-drug interaction software, healthcare industry expertise, breadth and depth of services, intellectual property, including six patents issued or pending, ease of use, reputation, innovation, security, price, reliability, and client service. Our multi-drug interaction software has been developed over the course of three decades. A competitive challenge is to demonstrate to our existing and potential clients the value of utilizing our platforms rather than developing or assembling their own alternative capabilities or utilizing providers who offer a subset of our services. However, we believe that the combination of our competitive strengths and successful culture of innovation, including the real-world-tested nature of our solutions and subject matter expertise of our team members, makes it time- and cost-prohibitive for our clients or competitors to replace or replicate all that we offer.

Current industry participants that offer medication risk management services include large and small healthcare data analytics and consulting companies, community and long-term care pharmacies, national pharmacy providers, health plans, genomic testing labs, and healthcare information technology companies. Many of our competitors' solutions are regulatory-driven, retrospective in nature, and offer no intervention at the point of care. The services offered by these organizations may include e-prescribing and EHRs utilizing antiquated drug interaction analysis, lab-based genomic evaluation, basic risk stratification solutions, and other traditional approaches to MTM. Many health plans attempt to address non-adherence solely through outreach efforts, which often require in-house or third-party consultants and have low success rates. Many genomic testing labs lack the ability to apply patient test results in a useful way at the point of care. Post-acute providers typically employ pharmacist consultants to review prescription regimens every 30 days, which is retrospective in nature and generally less effective in improving patient outcomes. Furthermore, typical prescription fulfillment models are reimbursed on a fee-for-service basis and are incentivized based on prescription dispensing volumes. Our clients partner with us to mitigate and prevent medication problems, lower healthcare costs, and improve overall health outcomes, which often involve utilizing our software to optimize prescription regimens.

While we believe that no competitor provides a similar breadth and depth of solutions, we nevertheless compete with other companies' specific products or solutions and markets or care settings. For example, traditional, single drug-to-drug interaction databases are provided by Wolters Kluwer, Elsevier, and Hearst Health. Additional competitors across both of our major market segments include our health plan clients that opt to in-source clinical programs (such as MTM), as well as external vendors such as Cardinal Health, Adhere Health, RxAnte, Cureatr, Aspen RxHealth, Clarest Health, Pack4U, and MedWatchers. We expect that competition will continue to increase as a result of consolidation in both the information technology and healthcare industries. The continued growth in healthcare spending, the ongoing shift to value-based payment models, such as PACE and Medicare Advantage, and changes in government regulation may draw increasing attention and generate new competitors, such as management consultants, traditional technology companies, and start-ups that may enter the market.

Regulatory Environment

We operate in a highly regulated industry and our business operations must comply with a number of complex and evolving federal and state agency requirements. While we believe we comply in all material respects with applicable healthcare laws and regulations, these laws can vary significantly from jurisdiction to jurisdiction, and the state and federal interpretation of existing laws and regulations, and their enforcement, may change from time to time. Additionally, a state or federal government enforcement body may disagree that we are in material compliance with applicable healthcare laws and regulations. Federal and state legislatures also may enact various legislative proposals that could materially impact certain aspects of our business.

To date, there has been no material adverse effect to our consolidated financial statements or competitive positions as a result of these government regulations. Refer to "Risks Related to Industry Regulation and Other Legal Compliance Matters" in the "Risk Factors" section included in Item 1A. of Part I of this Annual Report on Form 10-K for further discussion of the potential impacts of government regulation on our business.

A non-exhaustive list of federal and state statutes, regulations, sub-regulatory guidance, and contractual provisions that may apply to our business activities includes:

Healthcare Legislation

In 2010, Congress passed major health reform legislation, mostly through the Affordable Care Act ("ACA"). Generally, the ACA was designed to expand coverage for the uninsured while containing overall healthcare costs. Following passage, the U.S. government has issued numerous rules and regulations to implement the provisions of the ACA. While not all of these rules, regulations, and reforms affect our business directly, many continue to affect the coverage and plan designs that are or will be provided by many of our clients.

The Biden administration and the United States Congress are considering a number of legislative and regulatory proposals that could, if passed into law, impact the healthcare system, the ACA, and/or the Medicare and Medicaid programs. Congress is considering legislation to increase the number of individuals covered by the Medicare or Medicaid programs, reduce prescription drug costs, increase price transparency for consumers, restrict the sale of certain classes of drugs, and reform medication management practices. While not all of the potential legislation, if enacted, would affect our business directly, much of it could indirectly impact some or many of our business arrangements, if not directly. In addition, regulatory agencies have separately implemented price transparency rules for hospitals and insurers that, while not impacting our business directly, could change the way we interact with these entities. Given that legislative and regulatory change is still being formulated, we cannot predict with any certainty the outcome of any future legislation or regulation.

There has been a trend in federal and state legislation aimed at lowering costs for drug products, including by requiring pharmaceutical companies to disclose information about their pricing and production and marketing costs, and heightened governmental scrutiny over the manner in which pharmaceutical manufacturers set prices for their marketed products. There have been several presidential executive orders and U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. For example, on October 10, 2018 the Patient Right to Know Drug Prices Act (for private plans) and the Know the Lowest Price Act (for Medicare Parts C and D) were signed into law, which prohibited health plans from restricting pharmacies from informing individuals regarding prices for certain drugs.

On August 15, 2022, the Inflation Reduction Act of 2022 was signed into law by President Biden. This legislation is intended to lower prescription drug costs for people with Medicare and reduce drug spending by the federal government. The prescription drug provisions included in the Inflation Reduction Act will require the federal government to negotiate prices for some drugs covered under Medicare Part B and Part D with the highest total spending, beginning in 2026, and require drug companies to pay rebates to Medicare if prices rise faster than inflation for drugs used by Medicare beneficiaries, beginning in 2023. We are unable at this time to assess any impact this legislation may have on our business.

PACE Organizations

Our partnership with PACE organizations is a significant source of our current revenue stream. The PACE program is a unique, comprehensive managed care benefit for older adults, most of whom are dually eligible for Medicare and Medicaid benefits, provided by a not-for-profit or public entity. The PACE program features a comprehensive medical and social service delivery system using an interdisciplinary team approach in an adult day health center that is supplemented by in-home and referral services in accordance with participants' needs. Financing for the program is capped, which allows providers to deliver all needed services rather than only those reimbursable under Medicare and Medicaid fee-for-service plans. PACE is a program under Medicare, and states can elect to provide PACE services to Medicaid program beneficiaries as an optional Medicaid benefit. The PACE program becomes the sole

source of Medicaid and Medicare benefits for PACE participants. According to the National PACE Association, as of January 2023, there are 149 PACE programs operating in 32 states.

HIPAA Healthcare Fraud Provisions

In addition to privacy protections, the Health Insurance Portability and Accountability Act of 1996 ("HIPAA") created and expanded federal criminal statutes regarding fraud. Specifically, the HIPAA healthcare fraud statute prohibits, among other things, knowingly and willfully executing or attempting to execute a scheme to defraud any healthcare benefit program, or to obtain by false or fraudulent pretenses any of the money or property owned by a healthcare benefit program, knowingly and willfully embezzling or stealing from a healthcare benefit program, and willfully obstructing a criminal investigation of a healthcare offense. The HIPAA healthcare fraud statutes also prohibit, among other things, concealing a material fact or making a materially false statement in connection with the delivery of or payment for healthcare benefits, items, or services. The ACA amended the intent standard for certain healthcare fraud statutes under HIPAA, like the federal Anti-Kickback Statute ("AKS"), such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Noncompliance with the AKS can result in exclusion from the Medicare, Medicaid or other governmental programs and civil and criminal penalties.

The AKS is broad, and it prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. To create better clarity, the Office of the Inspector General ("OIG") of the U.S. Department of Health and Human Services ("HHS") has issued regulations as "safe harbor" guidelines which if met in form and substance, will assure healthcare providers that they will not be prosecuted for violation of the Anti-kickback Statute. The OIG issued a final rule on November 20, 2020, as part of the Regulatory Sprint to Coordinated Care initiative by HHS that, among other things, established new "safe harbors" under the AKS for certain value-based compensation arrangements. Although full compliance with these provisions ensures against prosecution under the AKS, the failure of a transaction or arrangement to fit within a specific safe harbor does not necessarily mean that the transaction or arrangement is illegal or that prosecution under the AKS will be pursued.

State and Federal Data Privacy and Security Laws

We process, collect, use, and disclose individual patient data directly or for our clients and, therefore, we are subject to various laws protecting privacy and security of that patient information. Certain businesses of our company qualify as a "Covered Entity" under HIPAA, and others qualify as a "Business Associate" to our partners who are Covered Entities. We are required to comply with HIPAA and the Health Information Technology for Economic and Clinical Health ("HITECH") Act as implemented through regulations promulgated thereunder by HHS, which include the HIPAA Omnibus Final Rule, the HIPAA Privacy Rule and the HIPAA Security Rule. HIPAA generally requires Covered Entities and their Business Associates (each as defined therein) to adopt certain safeguards to ensure the privacy and security of protected health information, or PHI, and to limit uses and disclosures of such PHI to those permissible under the law. When Covered Entities utilize Business Associates to provide services, pursuant to which the Business Associate may access the Covered Entity's PHI, the parties must enter into a Business Associate Agreement through which the Business Associate must contractually agree to safeguard PHI in certain ways and to notify the Covered Entity of improper uses or disclosures of PHI.

Covered Entities and Business Associates are required to have written policies and procedures addressing HIPAA compliance and must designate a Security Officer to oversee the development and implementation of the policies and procedures related to the safeguards to protect privacy of electronic PHI. Covered Entities must also designate a Privacy Officer (as defined in HIPAA), although the Privacy Officer and the Security Officer may be the same person. As part of their security policies and procedures, Covered Entities and Business Associates are required to conduct periodic risk assessments to identify vulnerabilities to electronic PHI. Additionally, Covered Entities and Business Associates are required to train all employees on their HIPAA policies and procedures. Further, in the event of a breach of PHI as defined by HIPAA, Covered Entities must notify affected individuals, HHS, and sometimes the media, and must take steps to mitigate damage, and they may be subject to fines and penalties. HIPAA violations can result in significant civil monetary penalties and/or imprisonment for up to ten years depending on the facts surrounding the violation.

Many states also have similar data privacy and security laws that track federal requirements or impose different and/or more stringent conditions for use and disclosure of PHI. Failure to comply with these laws may also result in the imposition of significant civil and/or criminal penalties. The California Consumer Privacy Act of 2018 (the "CCPA") imposes rules governing how businesses handle personal data of California residents. Companies that do business in California are, as of January 1, 2020, required to disclose the types of data they collect, the purpose for the data collection, and how the data will be used and to expand organizational responsibilities pertaining to individual rights, accountability, and governance. In November 2020, California voters passed the California Privacy Rights and Enforcement Act of 2020 ("CPRA"), which was effective on January 1, 2023. The CPRA expands the CCPA and establishes a California regulatory agency dedicated to enforcing data privacy compliance requirements. Other states are considering legislation similar to the CCPA and the CPRA, which could expand our data protection obligations.

Federal and State Oversight of Medical Devices, Genomic Testing, Drugs, and Controlled Substances

Some technologies and software applications used in connection with healthcare analytics and genomic testing and analysis are considered medical devices and are subject to regulation by the Food and Drug Administration (the "FDA"). The 21st Century Cures Act (Pub. L. 114-255) ("Cures Act"), enacted in December 2016, included certain changes to the Federal Food, Drug, and Cosmetic Act to exempt certain medical-related software from FDA regulation. In December 2017, the FDA issued a draft guidance document describing the FDA's proposed interpretation of the exemption under the Cures Act for clinical decision support, ("CDS"), software. The FDA issued the final version of this CDS software guidance document in September 2022, which represents a more conservative interpretation of the CDS software exemption under the Cures Act. The 2022 final guidance also does not include any policies of enforcement discretion. Although we believe that our technologies and software are not subject to active FDA regulation, there is a risk that the FDA could disagree. If the FDA determines that any of our current or future services, technologies, or software applications are regulated by the FDA as medical devices, we would become subject to various statutes, regulations, and policies enforced by the FDA and other governmental authorities, including both pre-market and post-market requirements, and we would need to ensure that the affected services, technologies, and/or software comply with such requirements. The FDA could also require that we cease marketing and/or recall the affected services, technologies, and/or software unless and until they comply with the FDA's requirements.

Clinical laboratories that perform human genomic testing are subject to oversight by CMS and state regulators. The laboratories that we contract with for genomic testing must comply with federal and state laws and regulations applicable to clinical laboratories and genomic testing, including the Clinical Laboratory Improvement Amendments and the Eliminating Kickbacks in Recovery Act of 2018 ("EKRA"). To date, there have been no regulations implementing EKRA proposed by the Department of Justice.

The Drug Enforcement Administration ("DEA"), the FDA, and state regulators, such as state boards of pharmacy, regulate drug and controlled substance packaging, repackaging, purchasing, handling, storage, distribution, security, and dispensing activities. Our prescription fulfillment pharmacies must comply with the applicable FDA, DEA, and state statutes, regulations, and policies. In addition, our prescription fulfillment pharmacies may be subject to periodic audits by the FDA, the DEA, and state regulators to assess our compliance with these requirements.

Noncompliance with applicable federal or state requirements, as described above, can result in an enforcement action that could substantially harm our business.

Anti-Kickback Laws

The federal AKS makes it unlawful for individuals or entities, among other things, to knowingly and willfully solicit, offer, receive, or pay any kickback, bribe, or other remuneration, directly or indirectly, overtly or covertly, in cash or in kind, in exchange for or to induce or reward the referral of an individual to a person for the furnishing or arranging for the furnishing of any item or service for which payment may be made in whole or in part under a federal healthcare program, or the purchase, lease, or order, or arranging for or recommending purchasing, leasing, or ordering, of any good, facility, service, or item for which payment may be made in whole or in part under a federal healthcare program. Penalties for violations include criminal penalties and civil sanctions such as fines, imprisonment, and possible exclusion from federal healthcare programs.

The AKS is applicable to us as operators of specialty pharmacies, contractors to health plans and providers, and contractors to various federal healthcare program payers. When our compensation arrangements implicate the AKS, we evaluate whether we believe they fall within one of the safe harbors. If not, we consider the factors to identify the intent behind such arrangements and the relative risk of fraud and abuse. We also design business models that seek to reduce the risk that any such arrangements might be viewed as abusive and trigger AKS scrutiny or claims.

In addition to the federal AKS, many states have anti-kickback prohibitions that may apply to arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payers.

Federal and State Self-Referral Laws

The Stark Law prohibits a physician who has a financial relationship, or who has an immediate family member who has a financial relationship, with entities providing designated health services, or DHS, from referring Medicare and Medicaid patients to such entities for the furnishing of DHS, unless an exception applies. The Stark Law also prohibits the entity from billing for any such prohibited referral. Unlike the AKS, the Stark Law is violated if the financial arrangement does not meet an applicable exception, regardless of any intent by the parties to induce or reward referrals or the reasons for the financial relationship and the referral.

We evaluate when these physician (or immediate family member) financial arrangements are created to ensure we do not enter into a prohibited financial relationship and design structures that satisfy exceptions under the Stark Law.

Our business may implicate federal and state physician self-referral laws to the extent our pharmacy, a designated health services entity, has financial arrangements in the form of ownership, investment, or compensation with referring physicians or a referring physician's immediate family member. Our pharmacy may have compensation arrangements with physicians who serve on its Clinical Advisory Panel and who order designated health services for patients enrolled in a PACE program. If any such compensation arrangements exist, we believe such compensation arrangements fall within an exception to the physician self-referral prohibition.

A number of states have statutes and regulations that prohibit the same general types of conduct as those prohibited by the Stark Law, but some have even broader applications, extending beyond Medicare and Medicaid programs and including commercial and self-payers.

Federal and State False Claims Acts

The federal false claims and civil monetary penalties laws, including the civil False Claims Act, impose criminal and civil liability on individuals and entities that, among other things, knowingly submit, or cause to be submitted, false or fraudulent claims for payment to the federal government or knowingly make, or cause to be made, a false statement in order to have a false claim paid. The civil False Claims Act provides for treble damages and mandatory and significant minimum penalties per false claim or statement ($13,507 to $27,018 per false claim). The *qui tam* or whistleblower provisions of the civil False Claims Act permit a private individual to bring actions on behalf of the federal government alleging that the defendant has submitted a false claim to the federal government, and to share in any monetary recovery. Our future activities relating to the manner in which we sell and market our services may be subject to scrutiny under these laws. False Claims Act *qui tam* lawsuits in healthcare are common, although the government often declines to pursue such actions following investigation. Analogous state false claims laws also may apply to our sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payers.

Other State Laws

The vast majority of, if not all, states have laws regulating licensure, registration and certification of pharmacies, pharmacists, pharmacy technicians, other pharmacy personnel, and health insurance administrators. We are licensed in all states that require such licensure in which we do business and believe that we substantially comply with all state licensing laws applicable to our business. Where required by law, we also have pharmacists licensed in all states in which we dispense. If we violate state pharmacy licensure laws or engage in conduct prohibited under our license, we could be subject to enforcement action, including but not limited to, suspension or loss of such pharmacy license.

The DEA, as well as some similar state agencies, requires our pharmacy locations to individually register in order to handle controlled substances, including prescription pharmaceuticals. Federal and various state laws also regulate specific labeling, reporting, and record-keeping related to controlled substances. We maintain DEA registrations for each of our facilities that require such registration and follow procedures intended to comply with all applicable federal and state requirements regarding dispensing controlled substances.

Human Capital

Our success is built upon our dedicated and passionate employees who strive to transform the communities we serve by delivering excellent service, utilizing advanced technology, and delivering results. We believe that our success is largely dependent upon our ability to attract and retain qualified employees. We are focused on recruiting a diverse talent pool, promoting leadership development and performance management, and maintaining positive relations with our employees. As of December 31, 2022, we had 1,027 employees. None of our employees are represented by labor unions or subject to collective bargaining agreements and substantially all of our employees currently work in the United States. We believe that we have been successful to date in attracting skilled and experienced professionals.

Diversity & Inclusion

We continue to focus on building a high performing organization with an engaging work culture and have established initiatives to support this strategic priority. We embrace differences, diversity, and varying perspectives among our employee base, and we are an equal opportunity employer. We have a zero-tolerance policy regarding any type of harassment and discrimination. We believe in respecting every employee and expect our staff to show respect for everyone.

We believe that our company culture relies on collaboration and input from multiple perspectives. We also believe that building upon our diversity, equity, and inclusion ("DEI") initiatives is key to engaging in responsible business practices. Our DEI committee provides training for all of our employees, and we offer employee resource groups. As of December 31, 2022, 68% of our employees and 56% of our managers self-identified as female. Moreover, as of December 31, 2022, 55% of our Board self-identified as diverse.

Employee Engagement

We strongly believe that our success depends, in part, on open and regular communication with employees to help foster a high-performing and engaged workforce. We use a variety of channels to facilitate open and direct communication to help ensure that employees fully understand the Company's long-term strategy, annual goals, and how their work contributes to the Company's success.

Available Information

We file our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and all amendments to those reports with the SEC. You may obtain copies of these documents by accessing the SEC's website at www.sec.gov. In addition, as soon as reasonably practicable after such materials are furnished to the SEC, we make copies of these documents available to the public, free of charge, through our website. Our website address is www.trhc.com.

Financial Information

For required financial information related to our operations, please refer to our consolidated financial statements, including the notes thereto, included with this Annual Report on Form 10-K.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below together with all of the other information contained in this Annual Report on Form 10-K, including the section of this report titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited consolidated financial statements and the related notes. We cannot assure you that any of the events discussed in the risk factors below will not occur. The occurrence of any of the events or developments described below could have a material and adverse impact on our business, results of operations, financial condition, cash flows and future prospects and, if any such event were to happen, our future prospects could be materially and adversely affected. If any of such events were to happen, the trading price of our common stock could decline, and you could lose all or part of your investment. The risks described below represent the material risks known to us at the time of this filing. These risks are not the only ones that we may face, and additional risks or uncertainties not known to us or that we currently deem immaterial may also impair our business and future prospects. Please also refer to "Special Note Regarding Forward-Looking Statements" in this Annual Report on Form 10-K.

Risks Relating to Our Business and Industry

The healthcare industry in the U.S. is rapidly evolving, which makes it difficult to forecast demand for our technology-enabled products and services. If we are not successful in promoting the benefits of our products and services, our growth may be limited.

The healthcare industry in the U.S. is rapidly evolving. We believe demand for our products and services has been driven in large part by price pressure in traditional fee-for-service healthcare, a regulatory environment that is incentivizing value-based care models, the movement toward patient-centricity and personalized healthcare and advances in technology. Widespread acceptance of the value-based care model is critical to our future growth and success. A reduction in the growth of value-based care or patient-centric models could reduce the demand for our products and services and result in a lower revenue growth rate or decreased revenue.

It is uncertain whether the market for technology-enabled healthcare products and services will achieve and sustain high levels of demand and market adoption. Our future financial performance will depend in part on growth in this market and on our ability to adapt to the emerging demands of our clients. It is difficult to predict the future growth rate and size of our target markets. If the estimates and assumptions we use to determine the size of our target markets are inaccurate, our future growth rate may be impacted.

Our success depends to a substantial extent on the willingness of healthcare organizations to increase their use of our technology and our ability to demonstrate the value of our technology to our existing clients and potential clients. If healthcare organizations do not recognize or acknowledge the benefits of our products and services or if we are unable to continue to reduce healthcare costs and drive positive health outcomes, then the market for our products and services might not develop at all, or it might develop more slowly than we expect.

If we are unable to offer innovative products and services or our products and services fail to keep pace with our clients' needs, our clients may terminate or fail to renew their agreements with us, and our revenue and results of operations may suffer.

Our success depends on providing innovative, high-quality products and services that healthcare providers and payers use to improve clinical, financial, and operational performance. If we cannot adapt to rapidly evolving industry standards, technology, and increasingly sophisticated and varied client needs, our existing technology could become undesirable, obsolete, or harm our reputation. In order to remain competitive, we must continue to invest significant resources in our personnel and technology in a timely and cost-effective manner to enhance our existing products and services and introduce new high-quality products and services that existing clients and potential new clients will want. We are continuously involved in a number of projects to develop new products and services, including the further expansion and refinement of our proprietary MedWise offerings. If our innovations are not responsive to the needs of our existing clients or potential new clients, are not appropriately timed with market opportunity, are not effectively brought to market, or are a significant increase to our operating costs, we may lose existing clients or be unable to obtain new clients and our results of operations may suffer. In addition, the introduction of new solutions by competitors, the emergence of new industry standards, or the development of entirely new technologies to replace existing offerings could render our existing or future solutions obsolete.

The medication management market is highly competitive, and we may be unable to compete successfully against new entrants and established companies with greater resources and/or existing business relationships with our current and potential customers.

The medication management market is intensely competitive. We expect continued and increased competition from current and future competitors, many of which have significantly greater financial, technical, marketing, and other resources than we do. The competitive challenges we face in the medication management market include, but are not limited to, the following:

- certain competitors may offer or have the ability to offer a broader range of solutions in the marketplace that we are unable to match;
- certain competitors may develop alternative solutions to the customer problems our products are designed to solve that may provide a better customer outcome or a lower cost of operation;
- certain competitors may develop new features or capabilities for their products not previously offered that could compete directly with our products;
- competitive pressures could result in increased price competition for our products and services, fewer customer orders, and reduced gross margins, any of which could harm our business;
- current and potential competitors may make strategic acquisitions or establish cooperative relationships among themselves or with third parties, including larger, more established healthcare supply companies, thereby increasing their ability to develop and offer a broader suite of products and services to address the needs of our prospective customers;
- our competitive environment has recently experienced a significant degree of consolidation, which could lead to competitors developing new business models that require us to adapt how we market, sell, or distribute our products;
- other established or emerging companies may enter the medication management and supply chain solutions market, or the medication adherence market, with products and services that are preferred by our current and potential customers based on factors such as features, capabilities, or cost;
- our competitors may develop, license, or incorporate new or emerging technologies or devote greater resources to the development, promotion, and sale of their products and services than we do;
- certain competitors have greater brand name recognition and a more extensive installed base of medication and supply dispensing systems or other products and services than we do, and such advantages could be used to increase their market share;
- certain competitors may have existing business relationships with our current and potential customers, which may cause these customers to purchase medication and supply dispensing systems or automation solutions from these competitors; and
- our competitors may secure products and services from suppliers on more favorable terms or secure exclusive arrangements with suppliers or buyers that may impede the sales of our products and services.

We have incurred significant net losses and we may not be able to generate net income in the future, and may have difficulty obtaining financing on favorable terms, or at all.

We have incurred net losses since our inception. As of December 31, 2022, we had an accumulated deficit of $407.9 million. Substantially all of our operating losses resulted from $159.3 million of stock-based compensation expense, $119.2 million amortization of acquired intangibles, $61.9 million of impairment charges primarily related to

our long-lived assets, goodwill and operating lease right-of-use assets, $51.8 million of change in fair value of contingent consideration expense and receivable, a $6.4 million loss on extinguishment of debt, and a $2.9 million loss related to the sale of the PrescribeWellness Business. Our ability to generate net income is dependent upon, among other things, the acceptance of our products and services by, and the strength of, our existing and potential clients. These efforts may prove more expensive than we currently anticipate, and we may not succeed in increasing our revenue sufficiently to offset these higher expenses. We are unable to accurately predict when, or if, we will be able to achieve profitability. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. If we are not able to achieve or maintain positive cash flow in the long term, we may require additional financing, which may not be available on favorable terms or at all and/or which may be dilutive to our stockholders. If we are unable to achieve or maintain profitability or positive cash flow, the value of our common stock could be negatively impacted.

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

We have expanded our operations significantly since our inception. For example, we grew from 241 employees in 2016 to 1,027 employees as of December 31, 2022. Our revenue from continuing operations grew from $94.8 million for the year ended December 31, 2016 to $299.5 million for the year ended December 31, 2022. If we do not effectively manage our growth as we continue to expand, the quality of our products and services could suffer and our revenue could decline. Our growth to date has increased the significant demands on our management, our operational and financial systems, IT infrastructure, security mechanisms and other resources. In order to successfully expand our business, we must effectively recruit, integrate, and motivate new employees, while maintaining the beneficial aspects of our corporate culture. If we fail to effectively manage our hiring needs and successfully integrate our new hires, our efficiency and ability to meet our forecasts and our employee morale, productivity, and retention could suffer, and our business and results of operations could be harmed. We must also continue to improve our existing systems for operational and financial management, including our reporting systems, procedures, and controls. These improvements could require significant capital expenditures and place increasing demands on our management. We may not be successful in managing or expanding our operations or in maintaining adequate financial and operating systems and controls. If we do not successfully manage these processes, our business and results of operations could be harmed.

We may not grow at the rates we have achieved historically or at all, even if our key metrics may indicate growth, which could cause the market price of our common stock to decline.

We have experienced significant growth in revenues in the past several 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 clients, to complete sales to new clients, and to expand our client base in the healthcare industry and with provider and payer organizations. We may not be successful in executing on our growth strategies and may not continue to grow our revenue at similar rates as we have in the past. Our ability to execute on our existing sales pipeline, create additional sales pipelines, and expand our client base depends on the attractiveness of our products and services relative to those offered by our competitors, our ability to demonstrate the value of our existing and future products and services, and our ability to attract and retain a sufficient number of qualified sales and marketing personnel. In addition, clients in some market segments in which we have a more limited presence may be slower to adopt our products and services than we currently anticipate. Our ability to maintain future revenue growth may also impact assumptions utilized in our assessments over the fair value of our assets, including our goodwill and intangible assets, and a decline in revenue growth could result in potential impairment charges to these assets.

To date, we have derived substantially all of our medication revenue from sales of prescription medications, and revenue from sales of prescription medications is dependent upon factors outside of our control.

To date, substantially all of our medication revenue has been derived from sales of prescription medications and related services, and for the foreseeable future we expect to continue to derive the substantial majority of our medication revenue from sales of prescription medications and related services. Revenue from prescription medication fulfillment is dependent upon a number of factors, many of which are outside of our control, such as growth or contraction in the patient populations of our clients and the number and mix of medications each patient is prescribed. Any change in these factors could harm our financial results.

We derive a significant portion of our revenue from PACE organizations. Any changes in laws or regulations, or any other factors that cause a decline in the use of PACE organizations to provide healthcare could hurt our ability to generate revenue and grow our business.

We derive a significant portion of our revenue from PACE organizations, which are our largest clients and account for 99% of our revenue from continuing operations for the year ended December 31, 2022. PACE organizations reflect a value-based model for providing healthcare to the elderly and are funded by both Medicare and Medicaid. Our ability to generate revenue and grow our business may be compromised if the laws and regulations that currently promote PACE organizations were to change in a way that makes operating a PACE organization less attractive, if other Medicare or Medicaid reimbursement models are developed that are more attractive to the healthcare providers that operate PACE organizations, or if the prevalence of PACE organizations were to decline for any other reason.

Consolidation in the healthcare industry could lead to the elimination of some of our clients and make others larger, which could decrease demand for our solutions or create pricing pressure.

Many healthcare industry participants are consolidating to create larger and more integrated healthcare delivery systems. If regulatory and economic conditions continue to facilitate additional consolidation in the healthcare industry, some of our current clients, and possibly our future clients, may be eliminated. Such market fluctuations may result in decreased need for some or all of our products and services as some of our clients disappear, and others acquire larger market power, which may be used to develop various solutions in-house, rather than purchasing them from us, or negotiate fee reductions for our products and services.

Failure by PACE organization clients to meet applicable penetration benchmarks could result in loss of their service area, which could lead to our loss of that business and a corresponding decline in our revenue.

PACE organizations in many states are subject to penetration benchmarks regarding the number of eligible lives in their service areas that have been captured by the program. If the number of members covered by any of our PACE organization clients were to be reduced by a material amount, such decrease may lead to a loss of their service area, which could result in our loss of the client and a corresponding decline in our revenue.

The growth of our business relies, in part, on the growth of members covered by our clients' programs, which is difficult to predict and is affected by factors outside of our control.

We enter into agreements with our clients under which a portion of our fees are dependent upon the number of members that are covered by our clients' programs each month. The number of members covered by a client's program is often affected by factors outside of our control, such as the client's pricing, overall quality of service, and member retention initiatives. If the number of members covered by one or more of our client's programs were to be reduced, such decrease would lead to a decrease in our revenue. In addition, the growth forecasts of our clients are subject to significant uncertainty and are based on assumptions and estimates that may prove to be inaccurate. Even if the markets in which our clients compete meet the size estimates and growth forecasted, their program membership could fail to grow at similar rates, if at all.

A few clients account for a significant portion of our revenue and, as a result, the loss of one or more of these clients could hurt our revenue.

Our ten largest clients accounted for 52%, 50%, and 55% of our total revenue from continuing operations during the years ended December 31, 2022, 2021, and 2020, respectively. Our engagement with our ten largest clients is generally covered through multi-year contracts. One or more of these clients may decline to renew their existing contracts with us upon expiration and any such failure to renew could have a negative impact on our revenue and compromise our growth strategy. Further, if one or more of these clients significantly decreases its use of our solutions, we would lose revenue and our growth would be compromised. We believe our clients view us as a trusted partner that shares their commitment to improving medication-related health outcomes and reducing overall healthcare costs.

Because we generally bill our clients and recognize revenue over the term of the contract, near-term declines in new or renewed agreements may not be reflected immediately in our operating results.

Most of our revenue in each quarter is derived from agreements entered into with our clients during previous quarters. Consequently, a decline in new or renewed agreements in any one quarter may not be fully reflected in our revenue for that quarter because, although we enter into multi-year contracts with our clients and recognize revenue over the term of the contract, such revenue varies based on the volume and pricing of prescriptions filled and the number of members of the healthcare organization and is, thus, not recognized evenly. Such declines, however, would negatively affect our revenue in future periods. The effect of any significant downturns in sales of, and market demand for, our products and services, as well as any potential changes in our rate of renewals or renewal terms, may not be fully reflected in our results of operations until future periods. In addition, we may be unable to adjust our cost structure rapidly, or at all, to take account of reduced revenue.

If we do not continue to attract new clients, we may not be able to grow our business.

In order to grow our business, we must continually attract new clients. Our ability to do so depends in large part on the success of our sales and marketing efforts. Potential clients may seek out other options. Therefore, we must demonstrate that our products and services provide a viable solution for potential clients. If we fail to provide high-quality solutions and convince individual clients of our value proposition, we may not be able to attract new clients. Our financial results could be harmed if the market for our products and services declines or grows more slowly than we expect, or if the number of individual clients that use our solutions declines or fails to increase as we expect.

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

Maintaining and enhancing our reputation and brand recognition is critical to our relationships with existing clients and to our ability to attract new clients. The promotion of our brand may require us to make substantial investments. As our market becomes increasingly competitive, we anticipate that these marketing initiatives may become more 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. In addition, any factor that diminishes our reputation or that of our management, including failing to meet the expectations of our clients, could make it substantially more difficult for us to attract new clients. 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 clients.

Positive outcomes and cost reductions for our clients are not necessarily predictive of future outcomes or costs.

Although several of our clients have reported improved outcomes for their patients and cost reductions as a result of our services, these results are not necessarily predictive of future outcomes. Other factors, including changes in healthcare regulations or other business practices or our clients' implementation of other cost saving measures may have contributed to positive outcomes or reduced costs. Moreover, outcome and cost reduction data are often susceptible to varying interpretations and analyses. If we fail to produce positive outcomes and reduce costs for our clients, they may not continue to use our services and we may be unable to attract new clients. Each of these factors could harm our business.

Our marketing efforts depend significantly on our ability to receive positive references from our existing clients.

Our marketing efforts depend significantly on our ability to call on our current clients to provide positive references to new, potential clients. The loss or dissatisfaction of any client could substantially harm our brand and reputation, inhibit the market adoption of our products and services, impair our ability to attract new clients and maintain existing clients and, ultimately, harm our financial results.

Our sales and implementation cycle can be long and unpredictable and can require considerable time and expense, which may cause our operating results to fluctuate.

The sales cycle for our products and services, from initial sales activity with a potential client to contract execution and implementation, can be long and varies widely by client, typically ranging from three to twelve months. Some of our clients undertake pilot programs for our products and services that generally range from six to eighteen months in length. These pilot programs may result in extended sales cycles and upfront sales costs as the potential client evaluates our products and services. Our sales efforts involve educating our clients about the use, technical capabilities, and benefits of our products and services. It is possible that in the future we may experience even longer sales cycles, more complex client requirements, higher upfront sales costs, and less predictability in completing sales, as we continue to expand into new territories and add additional products and services. If our sales cycle lengthens or our substantial upfront sales and implementation investments do not result in sufficient sales to justify our investments, our operating results may be harmed.

The failure to offer high-quality client support services may adversely affect our relationships with our clients and harm our financial results.

Our clients depend on our technical support to resolve any issues relating to our offering and technology solutions and to provide initial and ongoing training and education when necessary. In addition, our sales process is highly dependent on the quality of our offering, our business reputation, and strong recommendations from our existing clients. Any failure to maintain high-quality and highly responsive technical support, or a market perception that we do not maintain high-quality and highly responsive support, could harm our reputation and compromise our ability to sell our solutions to existing and prospective clients.

We offer client support services with our offerings and may be unable to respond quickly enough to accommodate short-term increases in client demand for support services, particularly as we increase the size of our client base. We also may be unable to modify the format of our support services to compete with changes in support services provided by competitors. It is difficult to predict client demand for our support services. If client demand increases significantly, we may be unable to provide satisfactory support services to our clients. Additionally, increased client demand for these services, without corresponding revenue, could increase costs and hurt our ability to achieve profitability.

Our proprietary products and services may not operate properly, which could damage our reputation, give rise to a variety of claims against us, or divert our resources from other purposes, any of which could harm our business and operating results.

Technology-enabled product and service development is time-consuming, expensive, and complex and may involve unforeseen difficulties. We may encounter technical obstacles, and we may discover additional problems that prevent our proprietary products and services from operating properly. If our products and services do not function reliably or fail to achieve client expectations in terms of performance, clients could assert liability claims against us and attempt to cancel their contracts with us. Moreover, material performance problems, defects, or errors in our existing or new products and services may arise in the future and may result from, among other things, the lack of interoperability of our software with systems and data that we did not develop, the function of which is outside of our control or undetected in our testing. Defects or errors in our products or services might discourage existing or potential clients from purchasing services from us. Correction of defects or errors could prove to be time-consuming, costly, impossible, or impracticable. The existence of errors or defects in our products and services and the correction of such errors could divert our resources from other matters relating to our business, damage our reputation, and increase our costs.

Adverse drug events resulting from optimizing a patient's medication regimen through recommendations made by our services or our pharmacists could give rise to claims against us and could damage our reputation.

We provide medication risk management services that include answering prescriber questions and making recommendations to prescribers and providing formal consultations with physicians and patients. In the event that optimizing a patient's medication regimen through recommendations made by our services or our pharmacists contributes to an adverse drug event, clients and patients could assert liability claims against us, which may not be subject to a contractually agreed upon liability cap, and clients could attempt to cancel their contracts with us. Such

instances may also generate significant negative publicity that could harm our reputation, increase our costs, and materially affect our results of operations.

We purchase a significant portion of our pharmaceutical products from a group purchasing organization which receives discounts from a primary supplier with a term lasting through March 31, 2024, subject to renewal provisions.

On June 30, 2020, we entered into an Affiliated Pharmacy Agreement and Pharmaceutical Program Supply Agreement, including an associated High Volume Retailer Addendum (the "Pharmaceutical Supply Agreements") with Thrifty Drug Stores, Inc. ("Thrifty Drug"). Pursuant to the terms of the Pharmaceutical Supply Agreements, which have a term lasting through March 31, 2024, subject to renewal under certain circumstances, we agree to purchase not less than 98% of our total prescription product requirements from Thrifty Drug. The Pharmaceutical Supply Agreements can be terminated solely by Thrifty Drug for, among other things, a payment default that continues for ten days after notice thereof and our failure to maintain creditworthiness. If we are no longer able to purchase our pharmaceutical products from a group purchasing organization, there can be no assurance that our operations would not be disrupted or that we could obtain the necessary pharmaceutical products at similar cost or at all. In this event, failure to satisfy our clients' requirements would result in defaults under client contracts, subjecting us to damages and the potential termination of those contracts.

As of January 1, 2022, we ceased recognizing revenue related to the EMTM Pilot Program, which expired on December 31, 2021.

On January 1, 2017, we launched the Enhanced Medication Therapy Management ("EMTM") program, with a large, regional Medicare Part D Prescription Drug Plan participating in the CMMI Medicaid Part D pilot. The EMTM Pilot Program expired on December 31, 2021 and, as a result, beginning on January 1, 2022, we ceased recognizing revenue related to the EMTM Pilot Program. For the years ended December 31, 2021 and 2020, the EMTM Pilot Program revenue accounted for 4% and 5%, respectively, of total revenue from continuing operations. Accordingly, the expiration of the EMTM Pilot Program has adversely affected our results of operations in 2022 and could adversely affect our business, financial condition, and results of operations going forward.

Any restrictions on our ability to license or share data and integrate third-party technologies could harm our business.

We depend upon licenses from third parties for some of the technology and data used in our products and services, and for some of the technology platforms upon which these products and services are built and operate. Most of our third-party licenses are non-exclusive and our competitors may obtain the right to use any of the technology covered by these licenses to compete directly with us. We also license some of our technology and share data we collect with our clients, including under agreements with health systems and providers of electronic health records. We expect that we will need to obtain additional licenses from third parties in the future in connection with the development of our products and services. In addition, we obtain a portion of the data that we use from public records and from our clients for specific client engagements. Our licenses for information may not be sufficient to allow us to use the data that is incorporated into our products and services for all potential or contemplated applications and products.

In the future, data providers could withdraw their data from us or restrict our usage for any reason, including if there is a competitive reason to do so, if legislation is passed restricting the use of the data, or if judicial interpretations are issued restricting use of the data that we currently use in our products and services. In addition, data providers could fail to adhere to our quality control standards in the future, causing us to incur additional expense to appropriately utilize the data. If a substantial number of data providers were to withdraw or restrict their data, or if they were to fail to adhere to our quality control standards, and if we were unable to identify and contract with suitable alternative data suppliers and integrate these data sources into our service offerings, our ability to provide products and services to our clients would be compromised and our future growth and success could be delayed or limited.

We also integrate into our proprietary applications and use third-party software to maintain and enhance, among other things, content generation and delivery, and to support our technology infrastructure. Some of this software is proprietary and some is open-source software. Our use of third-party technologies exposes us to increased risks, including, but not limited to, risks associated with the integration of new technology into our solutions, the diversion of our resources from development of our own proprietary technology, and our inability to generate revenue from licensed

technology sufficient to offset associated acquisition and maintenance costs. These technologies may not be available to us in the future on commercially reasonable terms or at all and could be difficult to replace once integrated into our own proprietary applications. Most of these licenses can be renewed only by mutual consent and may be terminated if we breach the terms of the license and fail to cure the breach within a specified period of time. Our inability to obtain, maintain, or comply with any of these licenses could delay development until equivalent technology can be identified, licensed, and integrated, which could delay or limit our future growth.

Data loss or corruption due to failures or errors in our systems may expose us to liability, hurt our reputation and relationships with existing clients, and force us to incur significant costs.

Hardware failures or errors in our systems could result in data loss or corruption or cause the information that we collect to be incomplete or contain inaccuracies that our clients regard as significant. Complex software such as ours may contain errors or failures that are not detected until after the software is introduced or updates and new versions are released. We continually introduce new software and updates and enhancements to our existing software. Despite testing by us, we may discover defects or errors in our software. Any defects or errors could expose us to risk of liability to clients and the government and could cause delays in the introduction of new products and services, result in increased costs and diversion of development resources, require design modifications, decrease market acceptance or client satisfaction with our products and services, or cause harm to our reputation. Data losses related to personal health records could result in additional risks. We are subject to data privacy and security laws and regulations and contractual obligations governing the transmission, security, and privacy of health and other sensitive or proprietary information, which may impose restrictions on the manner in which we access, store, transmit, use, and disclose such information and subject us to penalties if we are unable to fully comply with such laws or contractual provisions.

Furthermore, our clients might use our software together with products from other companies. As a result, when problems occur, it might be difficult to identify the source of the problem. Even when our software does not cause these problems, the existence of these errors might cause us to incur significant costs, divert the attention of our technical personnel from our product development efforts, hurt our reputation, and lead to significant client relations problems.

We are subject to cybersecurity risks and other risks associated with cyber incidents. If we are unable to safeguard the security and privacy of confidential data, we may incur increased expenses to mitigate our disclosure or address any such incidents, and our reputation and business will be harmed.

Our products and services involve the collection, storage, and analysis of confidential or proprietary information, and we are subject to numerous laws, rules, and regulations in the U.S. (both federal and state) that protect personally identifiable information and personal health information. If a cyber incident such as a phishing or ransomware attack, virus, malware installation, server malfunction, software or hardware failure, impairment of data integrity, loss of data or other computer assets, insider threat, or other similar issue impairs or shuts down one or more of our computing systems or our IT network, or results in the unauthorized access to confidential, proprietary, or personally identifiable information, we may be subject to negative treatment and lawsuits by our clients and business partners, and to regulatory scrutiny. In addition, attention to remediating cyber incidents may distract our technical or management personnel from their normal responsibilities. Public announcements of such cyber incidents could adversely affect the price of our common stock, and we could lose sales and clients.

In certain cases, confidential or proprietary information is provided to third parties, such as the service providers that host our technology platform, and we may be unable to control the use of our information or the security protections used by third parties. Cyber incidents and malicious internet-based activity continue to increase generally, and providers of hosting and cloud-based services are often targeted. If the third parties with whom we work violate applicable laws, contracts, or our security policies, these violations could also put our confidential or proprietary information at risk and otherwise hurt our business. Cyber incidents can also occur as a result of non-technical issues, including employee error or malfeasance, poor password management, or other irregularities by us or by our third-party service providers that result in the unauthorized access to personally identifiable, confidential, or proprietary information. In addition, if the security measures of our clients are compromised, even without any actual compromise of our own systems, we may face negative publicity or reputational harm if our clients or anyone else attributes the blame for such security breaches to us or our systems.

We may be required to expend significant capital and other resources to protect against cybersecurity risks or to remediate and recover from security incidents. We, our customers, and our third-party service providers face an evolving threat landscape in which cybercriminals, among others, employ a complex array of cyber-attack techniques designed to

access sensitive information or disrupt our operations, including, for example, the use of fraudulent or stolen access credentials, malware, ransomware, phishing, denial-of-service, and other types of attacks. These types of cyber-attacks are becoming more prevalent, particularly in the healthcare industry, and we have been the target of such attacks in the past and may be a target in the future. While cyber incidents have not to date had a material impact on our operations, there is no assurance that such impacts will be immaterial in the future. Moreover, despite our implementation of security measures, techniques used to obtain unauthorized access to information or to sabotage information technology systems change frequently, are becoming increasingly sophisticated, and often are not recognized until launched against a target. Furthermore, unknown cyber vulnerabilities caused by third-party software or services may exist within our system. As a result, we or our third-party service providers may be unable to anticipate such techniques or vulnerabilities or to implement adequate preventive measures. Any compromise or perceived compromise of our security could damage our reputation and our relationship with our clients, reduce demand for our products and services and require us to defend against lawsuits and regulatory actions, and subject us to significant liability. Were an incident to occur, we may also incur significant remediation costs, including repairing system damage, hiring outside counsel or technical specialists, purchasing new software or technology, or providing notice and benefits to affected customers or employees. In addition, in the event that new privacy or data security laws are implemented, we may not be able to timely comply with such requirements, or such requirements may not be compatible with our current processes and technology. Changing our processes and acquiring new technology could be time-consuming and expensive, and failure to timely implement required changes could subject us to liability for noncompliance.

We rely on internet infrastructure, bandwidth providers, other third parties, and our own systems to provide services to our clients, and any failure or interruption in the services provided by these third parties or our own systems could expose us to litigation and hurt our reputation and relationships with clients.

Our ability to deliver our products and services, particularly our cloud-based solutions, 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 connection with the necessary speed, data capacity, and security for providing reliable internet access and services and reliable telephone and facsimile services. Our services are designed to operate without perceptible interruption in accordance with our service level commitments.

We have, however, experienced limited interruptions in these systems in the past, including server failures that temporarily slowed down the performance of our services, and we may experience similar or more significant interruptions in the future. We rely on internal systems as well as third-party suppliers, including bandwidth and telecommunications equipment providers, to provide our services. We do not currently maintain redundant systems or facilities for some of these services. Interruptions in these systems or services, whether due to system failures, cyber incidents, physical or electronic break-ins, or other events, could affect the security or availability of our services and prevent or inhibit the ability of our clients and their patients to access our 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 result in substantial costs to remedy those problems or harm our relationship with our clients and our business.

Additionally, any disruption in the network access, telecommunications, or co-location services provided by third-party providers or any failure of or by third-party providers' systems or our own systems to handle current or higher volume of use could significantly harm our business. We exercise limited control over our third-party suppliers, which increases our vulnerability to problems with 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 hurt our relationships with clients and expose us to third-party liabilities. Although we maintain insurance for our business, the coverage under our policies may not be adequate to compensate us for all losses that may occur. In addition, we might not continue to be able to obtain adequate insurance coverage at an acceptable cost.

The reliability and performance of our internet connection may be harmed by increased usage or by denial-of-service attacks or related cyber incidents. The services of other companies delivered through the internet have experienced a variety of outages and other delays as a result of damage to portions of the internet's infrastructure, and such outages and delays could affect our systems and services in the future. These outages and delays could reduce the level of internet usage as well as the availability to us of the internet for delivery of our internet-based services.

We rely on third-party vendors to host and maintain our technology platform.

We rely on third-party vendors to host and maintain our technology platform, including our *EireneRx* and *MedWise* software. Our ability to offer our products and services and operate our business is dependent on maintaining our relationships with third-party vendors, particularly Amazon Web Services, and entering into new relationships to meet the changing needs of our business. Any deterioration in our relationships with such vendors or our failure to enter into agreements with vendors in the future could harm our business and our ability to pursue our growth strategy. Because of the large amount of data that we collect and manage, it is possible that, despite precautions taken at our vendors' facilities, the occurrence of a natural disaster, cyber incident, a decision to close the facilities without adequate notice, or other unanticipated problems could result in lengthy interruptions in our service. These service interruptions could cause our platform to be unavailable to our clients and impair our ability to deliver products and services and to manage our relationships with new and existing clients.

If our vendors are unable or unwilling to provide the services necessary to support our business, or if our agreements with such vendors are terminated, our operations could be significantly disrupted. Some of our vendor agreements may be unilaterally terminated by the licensor for convenience, and if such agreements are terminated, we may not be able to enter into similar relationships in the future on reasonable terms or at all. We may also incur substantial costs, delays, and disruptions to our business in transitioning such services to ourselves or other third-party vendors. In addition, third-party vendors may not be able to provide the services required in order to meet the changing needs of our business.

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 compromise our ability to pursue our growth strategy and grow our business.

Our success depends largely upon the continued services of our executive officers and other key employees. We do not maintain "key person" insurance for our executive officers, other than for our Interim Chief Executive Officer, Mr. Brian W. Adams, or any of our other key 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. For example, in 2022, Dr. Calvin H. Knowlton and Dr. Orsula V. Knowlton resigned as Chief Executive Officer of the Company and Co-President and Chief Marketing & New Business Development Officer of the Company, respectively, and from the Board. Dr. Calvin H. Knowlton was replaced by Mr. Brian W. Adams, our then Co-President. All of our employees' employment is at-will, including the employment of our Interim Chief Executive Officer and our Chief Financial Officer, which means that any of these employees could leave our employment at any time. 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. As a result, we may experience difficulty hiring and retaining qualified personnel. The departure of key personnel could also hurt our business. In such event, we would be required to hire other personnel to manage and operate our business, and we might not be able to employ a suitable replacement for the departing individual, or a replacement might not be willing to work for us on terms that are favorable to us.

In addition, in making employment decisions, particularly in the technology industry, job candidates often consider the value of the stock options or other equity instruments they are to receive in connection with their employment. Volatility in the price of our common stock might therefore compromise our ability to attract or retain highly skilled personnel. Furthermore, the requirement to expense stock options and other equity instruments might discourage us from granting the size or type of stock option or equity awards that job candidates require to join our company. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could be harmed.

We may require additional capital to support business growth, and this capital might not be available to us on acceptable terms or at all.

Our operations have required a significant investment of cash since inception. We intend to continue to make significant investments to support our business growth, respond to business challenges or opportunities, develop new

applications and services, enhance our existing platform and services, hire additional sales and marketing personnel, enhance our operating infrastructure, and potentially acquire complementary businesses and technologies. As of December 31, 2022, we had $70.0 million of unrestricted cash and cash equivalents.

Our future capital requirements may be significantly different from our current estimates and will depend on many factors, including our growth rate, renewal activity, the timing and extent of spending to support product development efforts, the expansion of sales and marketing activities, the introduction of new and enhanced products and services, and the continuing market acceptance of our products and services. Accordingly, we might need to engage in equity or debt financings or collaborative arrangements to secure additional funds. In March 2021, the U.K.'s Financial Conduct Authority, a regulator of financial services firms and financial markets in the U.K., stated that it will plan for a phase out of regulatory oversight of LIBOR interest rates indices beginning as of December 31, 2021. In the U.S., the Alternative Reference Rates Committee, a committee convened by the Federal Reserve Board and the Federal Reserve Bank of New York, recommended SOFR plus a recommended spread adjustment as LIBOR's replacement. LIBOR and SOFR have significant differences, such as LIBOR being an unsecured lending rate while SOFR is a secured lending rate, and SOFR being an overnight rate while LIBOR reflects term rates at different maturities. Introduction of SOFR may introduce additional basis risk for market participants as an alternative index is utilized along with LIBOR. The Company is not able to predict whether SOFR will become a widely accepted benchmark, or what the impact the transition to SOFR may be on the Company's financial condition and results of operations.

If we raise additional funds through further issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences, and privileges superior to those of holders of our common stock. Any debt financing secured by us in the future could involve restrictive covenants relating to our capital-raising activities and other financial and operational matters, which might make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. We might have to obtain funds through arrangements with collaborators or others that may require us to relinquish rights to our technologies or offerings that we otherwise would not consider. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be limited.

Our effective tax rate may increase or decrease, and we may be adversely impacted by changes in tax laws.

We are subject to income taxes in the U.S. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. We are subject to audit by tax authorities where we do business. Although we believe that our tax estimates and tax positions are reasonable, they could be materially affected by many factors, including the final outcome of tax audits and related litigation, the introduction of new tax accounting standards, legislation, regulations, and related interpretations, our global mix of earnings and the realizability of deferred tax assets. An increase or decrease in our effective tax rate could have a material adverse impact on our financial condition and results of operations.

In addition, at any time, U.S. federal tax laws or the administrative interpretations of those laws may be changed. We also cannot predict whether, when, or to what extent other new U.S. federal tax laws, regulations, interpretations, or rulings will be issued. As a result, changes in U.S. federal tax laws could adversely affect our business, financial condition, and results of operations, and adversely impact our stockholders.

Occasionally, changes in state and local tax laws or regulations are enacted that may result in an increase in our tax liability. Shortfalls in tax revenues for states and municipalities in recent years may lead to an increase in the frequency and size of such changes. If such changes occur, we may be required to pay additional taxes on our assets or income.

Certain U.S. state tax authorities may assert that we have a state nexus and seek to impose state and local income taxes, which could adversely affect our results of operations.

We are currently licensed to operate in all 50 states and file state income tax returns in 41 states. There is a risk that certain state tax authorities where we do not currently file a state income tax return could assert that we are liable for state and local income taxes based upon income or gross receipts allocable to such states. States are becoming increasingly aggressive in asserting a nexus for state income tax purposes. We could be subject to state and local taxation, including penalties and interest attributable to prior periods, if a state tax authority successfully asserts that our

activities give rise to a nexus. Such tax assessments, penalties, and interest may adversely affect our results of operations.

Our review of potential strategic alternatives may not result in an executed or consummated transaction or other strategic alternative, and the process of reviewing strategic alternatives or its conclusion could adversely affect our business and our stockholders.

In February 2022, we announced plans to evaluate non-core assets to refocus our corporate strategy and increase stockholder value, and we commenced an initial plan to sell the DoseMe business, which we acquired in January 2019. In March 2022, we completed our evaluation of additional divestiture opportunities and commenced plans to sell the SinfoníaRx and PrescribeWellness businesses, acquired in September 2017 and March 2019, respectively. We completed the sales of our unincorporated PrescribeWellness, DoseMe, SinfoníaRx businesses in August 2022, January 2023, and March 2023, respectively. In September 2022, the Company entered into a cooperation agreement with a significant stockholder, in connection with which the Board of Directors formed a new Strategic Review Committee to oversee our strategic process relating to the sale of non-core assets and to explore other strategic alternatives and value creation opportunities with a view toward maximizing stockholder value.

Any potential strategic alternative would be dependent on a number of factors that may be beyond our control, including, among other things, market conditions, industry trends, regulatory approvals, and the availability of financing for a potential transaction on reasonable terms. The process of reviewing potential strategic alternatives may be time-consuming, distracting, and disruptive to our business operations, which may cause concern to our current or potential customers, employees, investors, strategic partners, and other constituencies and may have a material impact on our business and operating results and/or result in increased volatility in our share price. We have and will continue to incur substantial expenses associated with identifying, evaluating, and negotiating potential strategic alternatives. There can be no assurance that any potential transaction or other strategic alternative, if consummated, will provide greater value to our stockholders than that reflected in the current price of our common stock. Until the process is concluded, perceived uncertainties related to our future may result in the loss of potential business opportunities and volatility in the market price of our common stock and may make it more difficult for us to attract and retain qualified personnel and business partners. Similarly, activist investors may engage in proxy solicitations or advance shareholder proposals, or otherwise attempt to effect changes and assert influence on our Board and management, which could lead to the impacts on our business, Board, management, and employees discussed above.

We may incur liabilities in connection with divestitures.

In connection with various divestitures, and certain other transactions, we have indemnified or guaranteed parties against certain liabilities. These indemnities and guarantees relate, among other things, to liabilities which may arise with respect to the period during which we or our subsidiaries operated a divested business, and to certain ongoing contractual relationships and entitlements with respect to which we or our subsidiaries made commitments in connection with the divestiture.

Actions of activist stockholders against us could be disruptive and costly. The possibility that activist stockholders may wage proxy contests or seek representation on our Board could cause uncertainty about the strategic direction of our business.

Stockholders may from time to time engage in proxy solicitations, advance stockholder proposals, or Board nominations or otherwise attempt to effect changes, assert influence, or acquire some level of control over us.

We recently engaged in a process with one of our significant stockholders, which culminated in our entering into the Cooperation Agreement with that significant stockholder and several resulting changes in our management and corporate governance. The stockholder also agreed to customary standstill provisions during the term of the Cooperation Agreement, which expired on January 26, 2023.

That stockholder, following the termination of the standstill provisions in the Cooperation Agreement, or another activist stockholder, may attempt to effect additional changes in our strategic direction, and in furtherance thereof seek changes to how our company is governed, through further changes to our Board of Directors or otherwise. While our Board and management team will continue to strive to maintain constructive, ongoing

communications with our stockholders, and welcomes their views and opinions with the goal of enhancing value for all stockholders, if that stockholder takes further action, or if another stockholder were to launch an activist campaign that seeks to further replace members of our Board or bring about changes in our strategic direction, it could have an adverse effect on us because:

- Responding to actions by activist stockholders can disrupt our operations, are costly and time-consuming, and divert the attention of our Board and senior management team from the pursuit of business strategies, which could adversely affect our results of operations and financial condition;

- Perceived uncertainties as to our future direction as a result of changes to the composition of our Board or changes to our stockholder base may lead to the perception of a change in the direction of the business, instability, or lack of continuity, which may be exploited by our competitors, result in the loss of potential business opportunities, cause concern for our client base, and make it more difficult to attract and retain qualified personnel and business partners;

- These types of actions could cause significant fluctuations in our stock price based on temporary or speculative market perceptions or other factors that do not necessarily reflect the underlying fundamentals and prospects of our business; and

- If individuals are elected to our Board with a specific agenda, it may adversely affect our ability to effectively implement our business strategy and to create additional value for our stockholders.

We and certain of our officers may become involved in litigation, investigations, and governmental proceedings that may be costly, may divert the efforts of our key personnel, and could result in adverse court rulings, fines, or penalties, which could materially harm our business.

We may become involved in litigation, including antitrust and commercial matters, putative securities class action suits, and other actions or governmental inquiries or proceedings. Litigation is subject to inherent risks and uncertainties that may cause actual results to differ materially from our expectations. In the event of an adverse outcome in any litigation, investigation, or governmental proceeding, we could be required to pay substantial damages, fines, or penalties and cease certain practices or activities. Regardless of their merit, such matters can be complex, can extend for a protracted period of time, and can be very expensive, even unpredictably expensive. In addition, litigation, investigations, or governmental proceedings and any related publicity may divert the efforts and attention of some of our key personnel, affect demand for our products, and harm the market prices of our securities.

We may be obligated to indemnify our current or former directors or employees, or former directors or employees of companies that we have acquired, in connection with litigation, investigations, or governmental proceedings. These liabilities could be substantial and may include, among other things: the cost of defending lawsuits against these individuals; the cost of defending shareholder derivative suits; the cost of governmental, law-enforcement, or regulatory investigations or proceedings; civil or criminal fines and penalties; legal and other expenses; and expenses associated with the remedial measures, if any, which may be imposed.

Future sales to clients outside the U.S. or clients with international operations might expose us to risks inherent in international markets, which could hurt our business.

Operating in international markets requires significant resources and management attention and will subject us to regulatory, economic, and political risks that are different from those in the U.S. Because of our limited experience with international operations, any potential future international expansion efforts might not be successful in creating demand for our products and services outside of the U.S. or in effectively selling our products and services in the international markets we enter. In addition, we could face risks such as compliance challenges related to the complexity of multiple, conflicting and changing governmental laws and regulations, including employment, anti-bribery, foreign investment, tax, privacy, and data protection laws and regulations. The occurrence of these risks could negatively affect our business and results of operations.

The COVID-19 pandemic and other public health crises could have a material adverse effect on our business operations, results of operations, cash flows, and financial position.

The COVID-19 pandemic has impacted, and could continue to impact, our business and those of our clients and their suppliers and other business partners. These impacts include additional costs resulting from our efforts to protect the health and well-being of our employees, increased logistics, component, and other costs. While our facilities are all currently operational, we have experienced, and may experience in the future, temporary closures of certain facilities related to the pandemic. Future outbreaks of infectious disease or other public health crises may have a similar impact.

The effects of such health crises, including the COVID-19 pandemic, are uncertain and difficult to predict, but may include:

- disruptions to our business, our clients' businesses, or our supply chain caused by employees or others contracting infectious diseases, or governmental orders to contain the spread of infectious disease, such as travel restrictions, quarantines, shelter-in-place orders, trade controls, and business shut-downs;

- deterioration of credit markets that may limit our ability to obtain or increase the cost of obtaining external financing to fund our operations and capital expenditures and result in a higher rate of losses on our accounts receivables due to customer credit defaults;

- volatility in financial markets, which may harm our ability to access the financial markets on acceptable terms;

- increased data security and technology risk as some employees continue to work from home, including possible outages to systems and technologies critical to remote work and increased data privacy risk with cybercriminals attempting to take advantage of the disruption;

- reduced productivity or other disruptions of our operations if workers in our factories or our other worksites are exposed to or spread infectious disease to other employees; and

- reduced ability to purchase or obtain pharmaceutical products, which may result in higher supply chain costs and could otherwise disrupt our operations.

The extent to which the COVID-19 pandemic or future public health crises ultimately impacts our business and our clients and their patients, suppliers, and other business partners will depend on numerous factors that are beyond our control, highly uncertain and cannot be predicted at this time.

Risks Related to Our Intellectual Property

If we are unable to obtain, maintain, and enforce intellectual property protection for our technology and products or if the scope of our intellectual property protection is not sufficiently broad, others may be able to develop and commercialize technology and products substantially similar to ours, and our ability to successfully commercialize our technology and products may be compromised.

Our business depends on proprietary technology and content, including software, databases, confidential information, and know-how, the protection of which is crucial to the success of our business. We rely on a combination of patent, trademark, trade-secret, and copyright laws, confidentiality procedures, cyber security practices, and contractual provisions to protect the intellectual property rights of our proprietary technology and content. We may over time increase our investment in protecting our intellectual property through additional trademark, patent, and other intellectual property filings, which could be expensive and time-consuming. We may not be able to obtain protection for our technology and, even if we are successful in attaining effective patent, trademark, trade-secret, and copyright protection, it is expensive to maintain these rights and the costs of defending our rights could be substantial. Furthermore, recent changes to U.S. intellectual property laws may jeopardize the enforceability and validity of our intellectual property portfolio and harm our ability to obtain patent protection for some of our unique business methods.

In addition, these measures may not be sufficient to offer us meaningful protection or provide us with any competitive advantages. If we are unable to adequately protect our intellectual property and other proprietary rights, our competitive position and our business could be harmed, as third parties may be able to commercialize and use technologies and software products that are substantially the same as ours without incurring the development and licensing costs that we have incurred. Any of our owned or licensed intellectual property rights could be challenged, invalidated, circumvented, infringed, or misappropriated; our trade secrets and other confidential information could be disclosed in an unauthorized manner to third parties; or our intellectual property rights may not be sufficient to permit us to take advantage of current market trends or to otherwise provide us with competitive advantages, which could result in costly redesign efforts, discontinuance of some of our offerings, or other competitive harm.

Monitoring unauthorized use of our intellectual property is difficult and costly. From time to time we seek to analyze our competitors' products and services, and may in the future seek to enforce our rights against potential infringement. However, the steps we have taken to protect our proprietary rights may not be adequate to enforce our rights against infringement or misappropriation of our intellectual property. We may not be able to detect unauthorized use of, or take appropriate steps to enforce, our intellectual property rights. Any inability to meaningfully protect our intellectual property rights could harm our ability to compete and reduce demand for our products and services. Moreover, our failure to develop and properly manage new intellectual property could hurt our market position and business opportunities. Also, some of our products and services rely on technologies, data, and software developed by or licensed from third parties, and we may not be able to maintain our relationships with such third parties or enter into similar relationships in the future on reasonable terms or at all. Any loss of the right to use any third-party technologies, data, or software could result in delays in implementing or provisioning our products and services until equivalent technology is either developed by us or, if available, is identified, obtained, and integrated, which could harm our business.

We may also be required to protect our proprietary technology and content in an increasing number of jurisdictions, a process that is expensive and may not be successful, or which we may not pursue in every location. In addition, effective intellectual property protection may not be available to us in every country, and the laws of some foreign countries may not be as protective of intellectual property rights as those in the U.S. Additional uncertainty may result from changes to intellectual property legislation enacted in the U.S. and elsewhere, and from interpretations of intellectual property laws by applicable courts and agencies. Accordingly, we may be unable to obtain, maintain, and enforce the intellectual property rights necessary to provide us with a competitive advantage. Our failure to obtain, maintain, and enforce our intellectual property rights could therefore adversely affect our business, financial condition, and results of operations.

If our trademarks and trade names are not adequately protected and if we cannot protect our domain names, we may not be able to build name recognition in our markets of interest and our competitive position may be harmed.

The registered or unregistered trademarks or trade names that we own may be challenged, infringed, circumvented, declared generic, lapsed, or determined to be infringing on or dilutive of other marks. We may not be able to protect our rights in these trademarks and trade names, which we need in order to build name recognition with potential clients. In addition, third parties may in the future file for registration of trademarks similar or identical to our trademarks. If they succeed in registering or developing common law rights in such trademarks, and if we are not successful in challenging such third-party rights, we may not be able to use these trademarks to develop brand recognition of our technologies, products, or services. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively.

We also currently own the web domain names www.tabularasahealthcare.com, www.trhc.com, www.careventionhc.com, www.careventions.com, www.medliance.com, www.capstoneperformancesystems.com, www.eirenerx.com, www.medwisehealthcare.com, www.medwise.com, www.mediture.com, and www.cognify.com, each of which is critical to the operation of our business. The acquisition and maintenance of domain names is generally regulated by governmental agencies and their designees. The regulation of domain names in the U.S. and in foreign countries is subject to change. Governing bodies may establish additional top-level domains, appoint additional domain name registrars, or modify the requirements for holding domain names. As a result, we may be unable to acquire or maintain relevant domain names in all countries in which we conduct business. Furthermore, it is unclear whether laws protecting trademarks and similar proprietary rights will be extended to protect domain names. Therefore, we may be unable to prevent third parties from acquiring domain names that are similar to, infringe upon, or otherwise decrease the value of our trademarks and other proprietary rights. We may not be able to successfully implement our business

strategy of establishing a strong brand if we cannot prevent others from using similar domain names or trademarks. This failure could impair our ability to increase our market share and revenue.

We could incur substantial costs as a result of any claim of infringement of another party's intellectual property rights.

Our commercial success depends in part on our ability to develop and commercialize our products and services without infringing or being claimed to have infringed the intellectual property or proprietary rights of third parties. Intellectual property disputes can be costly to defend and may cause our business, operating results, and financial condition to suffer. As the market for technology-enabled healthcare solutions in the U.S. expands and intellectual property protections asserted by others increase, the risk increases that there may be intellectual property asserted by others and patents issued to third parties that relate to our products and technology of which we are not aware or that we must challenge to continue our operations as currently contemplated. Whether merited or not, we may face allegations that we, our clients, our licensees, or parties indemnified by us have infringed or otherwise violated the patents, trademarks, copyrights, or other intellectual property rights of third parties. In addition, we have received letters from third parties from time to time claiming that our software, technologies, or methodologies are covered by their patents or that our activities are otherwise violating their patents, trademarks, copyrights, or other intellectual property rights, and future claims may require us to expend time and money to address and resolve these claims. Such claims may be made by competitors seeking to obtain a competitive advantage or by other parties. Additionally, in recent years, individuals and groups have begun purchasing intellectual property assets for the purpose of making claims of infringement and attempting to extract settlements from other technology-reliant companies.

We may also face allegations that our employees or consultants have misappropriated the intellectual property or proprietary rights of their former employers or other third parties. It may be necessary for us to initiate litigation to defend ourselves in order to determine the scope, enforceability, and validity of third-party intellectual property or proprietary rights, or to establish our respective rights. Regardless of whether claims that we are infringing patents or other intellectual property rights have merit, such claims can be time-consuming, divert management's attention and financial resources, and can be costly to evaluate and defend. Results of any such litigation are difficult to predict and may require us to stop commercializing or using our products or technology, obtain licenses, modify our products and technology while we develop non-infringing substitutes, incur substantial damages or settlement costs, or face a temporary or permanent injunction prohibiting us from marketing or providing the affected products and services. If we require a third-party license, it may not be available on reasonable terms or at all, and we may have to pay substantial royalties, upfront fees, or grant cross-licenses to intellectual property rights for our products and services. We may also have to redesign our products or services so they do not infringe third-party intellectual property rights, which may not be possible or may require substantial monetary expenditures and time, during which our technology and products may not be available for commercialization or use. Even if we have an agreement to indemnify us against such costs, the indemnifying party may be unable to uphold its contractual obligations. If we cannot or do not obtain a third-party license to the infringed technology at all, license the technology on reasonable terms, or obtain similar technology from another source, our ability to operate our business could be compromised.

Our use of open-source software could compromise our ability to offer our services and subject us to possible litigation.

We use open-source software in connection with our products and services. Companies that incorporate open-source software into their products have from time to time faced claims challenging the use of open-source software and compliance with open-source license terms. As a result, we could be subject to suits by parties claiming ownership of what we believe to be open-source software or claiming noncompliance with open-source licensing terms. Some open-source software licenses require users who distribute software containing open-source software to publicly disclose all or part of the source code to the licensee's software that incorporates, links, or uses such open-source software, and make available to third parties at no cost, any derivative works of the open-source code created by the licensee, which could include the licensee's own valuable proprietary code. While we monitor our use of open-source software and try to ensure that none is used in a manner that would require us to disclose our proprietary source code or that would otherwise breach the terms of an open-source agreement, such use could inadvertently occur, or could be claimed to have occurred, in part because open-source license terms are often ambiguous. Any actual or claimed requirement to disclose our proprietary source code or pay damages for breach of contract could harm our business and could help our competitors develop products and services that are similar to or better than ours.

We may become involved in lawsuits to protect or enforce our patents or other intellectual property, which could be expensive, time-consuming, and unsuccessful.

Competitors may infringe our issued patents or other intellectual property. To counter infringement or unauthorized use, we may be required to monitor for such infringement and file infringement claims, both of which can be expensive and time-consuming. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their patents. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, or may construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in a proceeding could put one or more of our patents at risk of being invalidated.

We may be subject to claims by third parties asserting that our employees, our contractors, or we have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our employees and contractors were previously employed at universities or other technology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees and our contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that our employees, our contractors, or we have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee's or contractor's former employer. Costly litigation may be necessary to defend against these claims.

In addition, while it is our policy to require our employees and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own. Our and their assignment agreements may not be self-executing or may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property.

If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and be a distraction to management.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings against us relating to intellectual property claims may cause us to incur significant expenses and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions, or other interim proceedings or developments and 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. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing, or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace.

If we are unable to protect the confidentiality of our trade secrets, know-how, and other proprietary information, the value of our technology, products, and services could be hurt.

We may not be able to adequately protect our trade secrets, know-how, and other proprietary information. Although we use reasonable efforts to protect this proprietary information and technology, our employees, consultants, and other parties may unintentionally or willfully disclose our information or technology to competitors. In addition, our trade secrets, know-how, and other proprietary information may be accessed or disclosed during a cyber incident, which could have a significant negative impact on us. Further, such cyber incidents, if disclosed publicly, could adversely affect the price of our common stock.

Enforcing a claim that a third party illegally obtained and is using any of our proprietary information or technology is expensive and time-consuming, and the outcome is unpredictable. In addition, courts outside the U.S. are sometimes less willing to protect trade secrets, know-how, and other proprietary information. We rely, in part, on non-disclosure, confidentiality, and invention assignment agreements with our employees, consultants, and other parties to protect our trade secrets, know-how, and other intellectual property and proprietary information. These agreements may not be self-executing, or they may be breached, and we may not have adequate remedies for such breach. Moreover, third parties may independently develop similar or equivalent proprietary information or otherwise gain access to our trade secrets, know-how, and other proprietary information.

Risks Related to Industry Regulation and Other Legal Compliance Matters

The healthcare regulatory and political framework is uncertain and evolving.

Healthcare laws and regulations are rapidly evolving and may change significantly in the future. For example, in March 2010, the ACA was adopted, which is a healthcare reform measure that seeks to contain healthcare costs while improving quality and access to coverage. The ACA includes a variety of healthcare reform provisions and requirements that have already become effective and substantially changed the way healthcare is financed by both governmental and private insurers, which may significantly affect our industry and our business. In addition, other legislation expanding or modifying the ACA may be considered by Congress in the future.

On October 24, 2018, President Trump signed legislation into law aimed at curbing the opioid crisis in the U.S. The SUPPORT Act includes provisions that address law enforcement, public health, and coverage under the Medicare and Medicaid programs. Broad in scope, the legislation increases federal oversight with respect to the production and distribution of opioids, bolsters fraud prevention safeguards, enhances oversight of prescription opioids, expands coverage of opioid addiction treatment services, and authorizes consumer education and provider training programs aimed at preventing and treating opioid use disorders. The potential for additional regulatory oversight and enforcement will likely add to the costs associated with the prescription and any downstream handling of medications. Whether it impacts medication management companies or health plans is difficult to determine without seeing the implementing regulations, but, given the intent to crack down on opioid abuse in this country, it is likely that more time, attention, and personnel will be required to ensure compliance. Implementation of the SUPPORT Act has been slow to occur. We cannot be sure whether additional legislative changes will be enacted, given the continued scrutiny of prescription opioids by the U.S. Congress, or predict what the impact of future regulations generated by the SUPPORT Act, if any, may be.

There has been a trend in federal and state legislation aimed at lowering costs for drug products, including by requiring pharmaceutical companies to disclose information about their pricing and production and marketing costs, and heightened governmental scrutiny over the manner in which pharmaceutical manufacturers set prices for their marketed products. There have been several presidential executive orders and U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. For example, on October 10, 2018 the Patient Right to Know Drug Prices Act (for private plans) and the Know the Lowest Price Act (for Medicare Parts C and D) were signed into law, which prohibited health plans from restricting pharmacies from informing individuals regarding prices for certain drugs.

Additionally, a significant amount of our business depends on the evolution of the health care environment and concomitant clinical integration and care coordination, including certain demonstration projects operated by the federal government. If these demonstration projects are modified, cancelled, or not ultimately made permanent as part of federal health care programs, this might affect demand for the types of services we provide. In 2020, CMS and OIG finalized rules as part of the federal government's "Regulatory Sprint to Coordinated Care" initiative. The impact of these rules is still unknown, but they focus on protecting and encouraging certain value-based arrangements.

In addition, we are subject to various other healthcare laws and regulations, including, among others, the Stark Law relating to self-referrals, anti-kickback laws, including the federal AKS, antitrust laws, and the data privacy and security laws and regulations described below. For instance, the CCPA imposes rules governing how businesses handle personal data of California residents. Companies that do business in California will be required to disclose the types of

data they collect, the purpose of the data collection, and how the data will be used and to expand organizational responsibilities pertaining to individual rights, accountability, and governance. Companies subject to the CCPA must have complied by January 1, 2020. There were additional regulatory provisions and legislative amendments related to the CCPA during 2020, including the passage of the CPRA. The CPRA modifies the CCPA and will impose additional data protection obligations on companies doing business in California effective January 1, 2023. If we were to become subject to litigation or liabilities or found to be out of compliance with these or other laws, our business could be hurt. We may become subject to litigation, which could be costly and result in significant liability.

We are subject to data privacy and security laws, regulations, and contractual obligations governing the transmission, security, and privacy of health information and other sensitive or proprietary information, which may impose restrictions on the manner in which we access, store, transmit, use, and disclose such information and subject us to penalties if we are unable to fully comply with such laws or contractual provisions.

As described below, we are required to comply with numerous federal and state laws and regulations governing the collection, use, disclosure, storage, and transmission of individually identifiable health information that we may obtain or have access to in connection with the provision of our services. These laws and regulations, including their interpretation by governmental agencies, are subject to frequent change. These laws and regulations include the following.

- The HIPAA and its implementing regulations required expanded protection of the privacy and security of protected health information. Also required are the execution of certain contracts to safeguard protected health information and the adoption of standards for the exchange of electronic health information for health plans, healthcare clearinghouses, and certain healthcare providers, which we refer to as Covered Entities, and their business associates. Among the standards that HHS has adopted pursuant to HIPAA are standards for electronic transactions and code sets, unique identifiers for providers, employers, health plans, and individuals, security, electronic signatures, privacy, and enforcement. Actual failure to comply with HIPAA could result in fines and civil and criminal penalties, as well as contractual damages, which could harm our business, finances, and reputation.

- The HITECH Act, enacted as part of the American Recovery and Reinvestment Act of 2009, also known as the "Stimulus Bill," effective February 22, 2010, modified HIPAA by setting forth health information security breach notification requirements and increasing penalties for violations of HIPAA, among other things. The HITECH Act requires individual notification for all breaches as defined by HIPAA, media notification of breaches affecting over 500 individuals located in the same region, and either prompt or annual reporting of breaches to HHS, depending on the number of affected individuals. The HITECH Act also replaced the prior monetary penalty system of $100 per violation and an annual maximum of $25,000 per violation with a four-tier system of sanctions for breaches. Penalties now range from a minimum of $100 per violation and an annual maximum of $25,000 per violation for the first tier to a minimum of $50,000 per violation and an annual maximum of $1.5 million per violation for the fourth tier. Failure to comply with HIPAA as modified by the HITECH Act could result in fines and penalties, criminal sanctions, and reputational damage that could harm our business.

- Numerous federal and state laws and regulations govern the collection, retention, use, and disclosure of personal information. In addition to HIPAA, we are subject to various laws, rules and regulations related to privacy and information security, including those promulgated under the Gramm-Leach-Bliley Act and various state laws regulating the use and security of personal information. Those laws, rules, and regulations include requirements such as reasonable and appropriate safeguards to protect personal information or providing appropriate notice to consumers about how their personal information will be used or disclosed. State legislatures have been actively considering and enacting new laws addressing data security, security breach notification, and privacy. For example, the California Privacy Rights Act, the Colorado Privacy Act, and the Virginia Consumer Data Protection Act were all enacted recently and will become operative in 2023 (some provisions have already become operative). These areas may present implementation challenges, could be an enforcement priority for the state regulators, and could generate increased lawsuits by consumers and other individuals. Our management believes that we are currently operating in compliance with these areas of law. However, continued compliance with these evolving laws, rules and regulations regarding the privacy, security and protection of our customers' data, or the

implementation of any additional privacy and security rules and regulations, could result in higher compliance and technology costs for us.

- State data privacy and security laws that track federal requirements or impose more stringent or different requirements than HIPAA regarding storage, transmission, use, and disclosure of protected health information, general individually identifiable information, or other sensitive information. The CCPA imposes rules governing how businesses handle personal data of California residents. Companies that do business in California are required to disclose the types of data they collect, the purpose of the data collection, how the data will be used, and to expand organizational responsibilities pertaining to individual rights, accountability, and governance. Companies subject to the CCPA and CPRA have needed to comply with the applicable provisions of both laws by January 1, 2023.

- Federal and state consumer protection laws are increasingly being applied by the U.S. Federal Trade Commission and states' attorneys general to regulate the collection, use, storage, and disclosure of personal or individually identifiable information, through websites or otherwise, and to regulate the presentation of website content.

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. In addition, the scope of protection afforded to data subjects by many of these 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. These discussions may lead to further restrictions on the use of such information. These initiatives or future initiatives could compromise our ability to access and use data or to develop or market current or future services.

The security measures that we and our third-party vendors and subcontractors have in place to ensure compliance with privacy and data protection laws and contractual commitments may not protect our facilities and systems from security breaches, acts of vandalism or theft, cyber incidents, misplaced or lost data, programming and human errors, or other similar events. The occurrence of a cyber incident that affects either individually identifiable health information or other confidential or proprietary information with which we have been entrusted may result in liability and hurt our reputation.

Additionally, as a business associate under HIPAA, we may also be liable for privacy and security breaches of protected health information and certain similar failures of our subcontractors. Even though we contractually require our subcontractors to safeguard protected health information as required by law, we still have limited control over their actions and practices. An actual or perceived breach of privacy or security of individually identifiable health information held by us or by our subcontractors may result in an enforcement action, including criminal and civil liability, against us, as well as negative publicity, reputational harm, and contractual ramifications with our clients.

We are not able to predict the full extent of the impact such incidents may have on our business if such incidents occur. Any failure we may have in complying with HIPAA may result in criminal or civil liability, and due to the heightened enforcement climate and recent changes to the law, the potential for enforcement action against business associates under HIPAA is now greater than in prior years. Enforcement actions against us could be costly and could interrupt regular operations, which may harm our business. While we have not received any notices of violation of the applicable privacy and data protection laws and believe we adequately protect our information, including in compliance with such laws, there can be no assurance that we will not receive such notices in the future. Further, costly breaches can occur regardless of our compliance infrastructure.

We operate in a highly regulated industry and must comply with a significant number of complex and evolving requirements. Achieving and sustaining compliance with state and federal statutes and regulation related to the healthcare industry may prove costly. Changes in these laws could restrict our ability to conduct our business. Further, if we fail to comply with these requirements, we could incur significant penalties and our reputation could suffer.

Our industry is highly regulated and subject to changing political, legislative, regulatory, and other influences. Changes in the laws and regulations may impact the operating environment and healthcare market and, by extension, our business. Among other impacts, existing and new laws and regulations affecting the healthcare industry could create

legal liabilities for us, cause us to incur additional costs and/or restrict our operations. These laws and regulations are complex and their application to specific services and relationships are not always clear. In particular, many existing laws and regulations affecting employee benefits, when enacted, did not anticipate the services that we provide, and these laws and regulations might be applied to our services in ways that we do not anticipate. Our failure to accurately anticipate the application of these laws and regulations, or our failure to comply, could create liability for us, result in adverse publicity, and negatively affect our business. Some of the risks we face from regulation are as follows:

- *Healthcare Market Reforms.* Healthcare services and benefits are delivered and reimbursed under an increasingly intricate, and frequently uncertain, statutory and regulatory framework. Ongoing efforts to repeal and/or reform part or all of the ACA, new payment models for certain federal healthcare programs, and efforts to slow the growth in healthcare spending and to alter the regulatory landscape have created uncertainty in the healthcare industry broadly. For instance, carriers and large employers might experience changes in the numbers of individuals they insure as a result of the elimination of the penalty associated with ACA's individual mandate, possible repeal of guaranteed issue, and flux in the state and national exchanges under ACA. Although we are unable to predict with any reasonable certainty or otherwise quantify the likely impact of ACA reform efforts and other regulatory initiatives on our business model, financial condition, and operations, as well as changes in the business of our client base, may negatively impact our business.

- *Healthcare Cost Reforms.* Legislative efforts at cost containment in healthcare programs are ongoing. For example, the American Taxpayer Relief Act of 2012 reduced Medicare payments to certain providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. Similarly, at the state level, individual states are increasingly aggressive in passing legislation and implementing regulations designed to control costs, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services. These laws, and others, may result in additional reductions in Medicare and other healthcare funding.

- *The AKS, the federal False Claims Act, the Stark Law, and related laws*. Providers and suppliers that accept reimbursement from federal and state healthcare programs, and those that contract with them, are required to comply with various laws and regulations intended to minimize the risk of fraud and abuse. These laws include the AKS, which attaches criminal liability to unlawful inducements for the referral of business reimbursable under federally-funded healthcare programs; the Stark Law, which attach repayment and monetary damages where a healthcare service provider seeks reimbursement for providing certain services to a patient who was referred by a physician that has certain types of direct or indirect financial relationships with such service provider; the federal False Claims Act, which attaches per-claim liability and potentially treble damages to the filing of false claims for federal payment; the federal prohibition on beneficiary inducements. Many states have also adopted similar laws that apply to any third-party payor including commercial plans.

  The False Claims Act prohibits intentionally submitting, conspiring to submit, or causing to be submitted, false or otherwise improper claims, records or statements to the federal government, or intentionally failing to return overpayments, in connection with reimbursement by federal government programs. PACE organizations are funded by both Medicare and Medicaid, and the Medicare risk-adjustment methodology applies to the Medicare component of PACE organization reimbursement. PACE submissions may also be comparable to state Medicaid risk-adjustment submissions and vary by state. Because risk adjustment submissions to Medicare and state Medicaid programs have a direct impact on the amounts that Medicare and Medicaid programs pay to PACE organizations, these activities may be the subject of scrutiny and litigation under the federal civil False Claims Act.

  The False Claims Act provides for treble damages and mandatory minimum penalties per false claim or statement. In this context it is particularly notable that a significant portion of our revenue is derived from services provided to PACE organizations. In addition, violations of the Stark law and the federal Anti-Kickback Statute can also lead to liability under the federal False Claims Act. Most states have enacted

false claims laws analogous to the federal False Claims Act. In addition, the federal False Claims Act and some state false claims laws permit private individuals to file whistleblower lawsuits known as "qui tam" actions on behalf of the federal or state government. Many states have passed laws similar to the federal False Claims Act that pertain to all payors, not just items or services paid for by the federal government.

In addition, the HHS OIG and many state Medicaid agencies maintain lists of individuals and organizations that have been excluded from participation in a federal healthcare program. A significant part of our revenue is derived from our services as federal healthcare program providers, pharmacies, or contractors to federal healthcare program providers or plans and, as such, we need to comply with restrictions on employing or contracting with personnel and vendors who have been excluded from participation in federal healthcare programs. Adhering to the best practice of conducting monthly screenings against the federal and state exclusion lists for employees and contractors may be costly and resource-consuming, but failure to do so may give rise to significant administrative liability and sanctions.

Moreover, as contractors to PACE organizations and Medicare Advantage organizations ("MAOs"), we are subject to contractual provisions, which impose on us various obligations related to healthcare compliance and healthcare fraud, waste, and abuse reduction and elimination efforts. These obligations stem from the provisions contained in prime contracts between PACE organizations and MAOs, and the federal government. Examples of such flow-down provisions include subcontractor's compliance with all applicable state and federal laws, subcontractor's obligation to screen state and federal exclusion lists and obligation to conduct periodic audits, among many others.

In addition:

- Various state licensure, registration, and certification laws are applicable to pharmacies, pharmacists, pharmacy technicians, other pharmacy personnel, and insurance administrators. If we are unable to maintain our licenses or if states place burdensome restrictions or limitations on non-resident pharmacies, this could limit or affect our ability to operate in some states. Additionally, if we or any of our personnel violate conditions of their pharmacy or pharmacist licensure, we could face penalties and lose valuable personnel.

- A number of federal and state laws and registration requirements are applicable to the purchase, handling, and dispensing of controlled substances. If we are unable to maintain our registrations this could limit or affect our ability to purchase, handle, or dispense controlled substances and other violations of these laws could subject us to criminal or other sanctions.

- Federal and state laws and policies require pharmacies to maintain, enroll, and participate in federal healthcare programs or to report specified changes in their operations to the agencies that administer these programs. If we do not comply with these laws, we may not be able to participate in some federal healthcare programs, which could compromise our ability to sell our solutions.

- A number of FDA regulations and guidance documents are relevant to our business. Some technologies and software applications used in healthcare analytics, genomic testing, and analysis are considered medical devices and are subject to regulation by the FDA. However, the 21st Century Cures Act, signed into law in 2016, created new statutory exemptions for medical-related software, and the FDA has issued guidance documents describing its interpretation of these exemptions and other FDA policies of enforcement discretion for software and related technologies. If the FDA determines that any of our current or future services, technologies, or software applications are regulated by the FDA as medical devices, we will become subject to various laws, regulations, and policies enforced by the FDA or other governmental authorities, including both pre-market and post-market requirements, and we would need to bring the affected services, technologies, or software into compliance with such requirements. The FDA could also require that we cease marketing and/or recall the affected services, technologies, and software unless and until we bring them into compliance with FDA requirements. The FDA and state regulators, such as state boards of pharmacy, also regulate drug packaging and repackaging. Our drug packaging activities must comply with the relevant FDA and state statutes, regulations, and policies. Noncompliance with applicable FDA or state requirements, including those related to pharmaceutical and medical device promotional practices and the pre-market and post-market approval requirements for medical devices can result in an enforcement action that could substantially harm our business. Changes in existing regulatory

requirements, our failure to comply with current or future requirements, or adoption of new requirements could negatively affect our business.

- Clinical laboratories that perform human genomic testing are subject to oversight by CMS and state regulators, including the Eliminating Kickbacks in Recovery Act of 2018. If the laboratories that we partner with for genomic testing are not in compliance with the applicable CMS or state laws or regulations, they could be subject to enforcement action, which could negatively affect our business.

Further modifications to the Medicare Part D program and changes in pricing benchmarks may reduce revenue and impose additional costs on the industry.

The Medicare Prescription Drug Improvement and Modernization Act of 2003 included a major expansion of the Medicare program with the addition of a prescription drug benefit under the new Medicare Part D program. The continued impact of these regulations on our business and operations depends upon a variety of factors, including our ongoing relationships with the Part D plans and the patient mix of our clients. Future modifications to the Medicare Part D program may reduce revenue and impose additional costs on the industry. In addition, contracts and fee schedules in the prescription drug industry, including our contracts with certain of our clients, use certain published benchmarks, including average wholesale price ("AWP") to establish pricing for prescription drugs. Most of our contracts utilize the AWP standard. However, there can be no assurance that our clients will continue to utilize AWP, as previously calculated, or that other pricing benchmarks will not be adopted to establish prices for prescription drugs within the industry.

Legislative or regulatory initiatives related to climate change or other ESG matters could have a material adverse effect on our business.

Greenhouse gases may have an adverse effect on global temperatures, weather patterns, and the frequency and severity of extreme weather and natural disasters. Such events could have a negative effect on our business. Concern over climate change may result in new or additional legislative and regulatory requirements to reduce or mitigate the effects of climate change on the environment, which could result in future tax, transportation, and utility increases, and could in turn have a material adverse effect on our business. Moreover, continuing political and social attention to climate change and environmental issues has resulted in both existing and pending international agreements and national, regional and local legislation, regulatory measures, reporting obligations and policy changes. There is increasing societal pressure in some of the areas where we operate to limit greenhouse gas emissions as well as other global initiatives. These agreements and measures may require, or could result in future legislation, regulatory measures or policy changes that would require operational changes, taxes, or purchases of emission credits to reduce emission of greenhouse gases from our operations, which may result in substantial capital expenditures.

Furthermore, increasing attention to climate change has resulted in governmental investigations and public and private litigation, which could increase our costs or otherwise adversely affect our business or results of operations. Any or all of these initiatives may result in significant operational changes and expenditures and could materially adversely affect our business, financial condition, and results of operations.

There is also increased focus, including by investors, customers, and other stakeholders, on these and other ESG and sustainability matters, including with respect to the use of plastic, energy, waste, and worker safety. Our reputation could be damaged if we do not, or are perceived to not, act responsibly with respect to sustainability matters, which could also have a material adverse effect on our business, results of operations, financial position, and cash flows.

Risks Related to Our Common Stock

Our executive officers, directors, and principal stockholders, if they choose to act together, will continue to have the ability to influence all matters submitted to stockholders for approval.

Our executive officers and directors, combined with our stockholders, who own more than five percent of our outstanding capital stock, in the aggregate, beneficially own shares representing approximately 43% of our capital stock. As a result, if these stockholders were to choose to act together, they may be able to influence all matters submitted to our stockholders for approval, as well as our management and affairs. This concentration of ownership control may:

- delay, defer, or prevent a change in control;
- entrench our management and the Board of Directors; or
- impede a merger, consolidation, takeover, or other business combination involving us that other stockholders may desire.

As a result, these executive officers, directors, and current five percent or greater stockholders could pursue transactions that may not be in our best interests and could harm our business.

Some provisions of Delaware law, our amended and restated certificate of incorporation, and our amended and restated bylaws may deter third parties from acquiring us.

Our amended and restated certificate of incorporation and amended and restated bylaws, among other things:

- divide our Board of Directors into three staggered classes of directors that are each elected to three-year terms;
- provide that the authorized number of directors may be changed only by resolution of our Board of Directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- prohibit stockholder action by written consent;
- authorize the issuance of "blank check" preferred stock that could be issued by our Board of Directors to increase the number of outstanding shares of capital stock, making a takeover more difficult and expensive;
- prohibit cumulative voting in the election of directors, which would otherwise allow less than a majority of stockholders to elect director candidates;
- provide that special meetings of the stockholders may be called only by or at the direction of the Board of Directors, the chairman of our Board or the Chief Executive Officer; and
- require advance notice to be given by stockholders for any stockholder proposals or director nominees.

Because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law (the "DGCL"), which may discourage, delay, or prevent someone from acquiring us or merging with us, whether or not it is desired by or beneficial to our stockholders. Under the DGCL, a corporation may not in general engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other things, the Board of Directors has approved the transaction.

These and the recently adopted Rights Agreement described below could have the effect of discouraging, delaying, or preventing a transaction involving a change in control of our company or could make it more difficult for you and other stockholders to elect directors of your choosing or to cause us to take other corporate actions that you desire.

Our amended and restated certificate of incorporation designates courts in the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.

Our amended and restated certificate of incorporation provides that, subject to limited exceptions, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (a) any derivative action or proceeding brought on our behalf, (b) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, or other employees to us or our stockholders, (c) any action asserting a claim against us arising pursuant to any provision of the DGCL, our amended and restated certificate of incorporation, or our amended and restated bylaws, (d) any action to interpret, apply, enforce, or determine the validity of our amended and restated certificate of incorporation or amended and restated bylaws, or (e) any other action asserting a claim against us that is governed by the internal affairs doctrine. We refer to each of these proceedings as a "covered proceeding." In addition, our amended and restated certificate of incorporation provides that if any action, the subject matter of which is a covered proceeding, is filed in a court other than the specified Delaware courts without the approval of our Board of Directors, which we refer to as a "foreign action," the claiming party will be deemed to have consented to (1) the personal jurisdiction of the specified Delaware courts in connection with any action brought in any such courts to enforce the exclusive forum provision described above and (2) having service of process made upon such claiming party in any such enforcement action by service upon such claiming party's counsel in the foreign action as agent for such claiming party. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of and to have consented to these provisions. These provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees, which may discourage such lawsuits against us and our directors, officers, and employees. Alternatively, if a court were to find these provisions of our amended and restated certificate of incorporation inapplicable to or unenforceable in respect of one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions. The exclusive forum provision in the Company's amended and restated certificate of incorporation will not preclude or contract the scope of exclusive federal or concurrent jurisdiction for actions brought under the federal securities laws, including the Exchange Act or the Securities Act or the respective rules and regulations promulgated thereunder.

The price of our common stock historically has been volatile. This volatility may affect the price at which you could sell your common stock, and the sale of substantial amounts of our common stock could adversely affect the price of our common stock. This volatility may also impact assessments over the potential impairment of our assets.

The market price for our common stock has varied between a high of $6.95 and a low of $2.30 in the 12-month period ending on February 28, 2023. This volatility may affect the price at which you could sell the common stock, and the sale of substantial amounts of our common stock could adversely affect the price of our common stock. Our stock price is likely to continue to be volatile and subject to significant price and volume fluctuations in response to market and other factors, including the other factors discussed in "Risks Relating to Our Business and Industry"; variations in our quarterly operating results from our expectations or those of securities analysts or investors; downward revisions in securities analysts' estimates; and announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, or capital commitments.

In addition, the sale of substantial amounts of our common stock could adversely impact its price. As of February 28, 2023, we had outstanding approximately 26,870,660 shares of our common stock, of which approximately 1,601,118 are restricted, and options to purchase approximately 1,068,934 shares of our common stock (of which approximately 1,066,569 were exercisable) as of that date. The sale or the availability for sale of a large number of shares of our common stock in the public market could cause the price of our common stock to decline.

The volatility of our common stock may also impact assumptions relied upon in our assessments of the fair value of our assets, including our goodwill and intangible assets, and a decline in our stock price could result in potential impairment charges to these assets. During the second quarter of 2021 and through the date of this report, we experienced a sustained decline in the price of our common stock. If the stock price continues to decline or remains depressed, we may be required to assess our assets, including goodwill and intangible assets, for impairment, which may result in possible impairment charges for 2023.

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

As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in such internal control. Section 404 of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act") requires that we evaluate and determine the effectiveness of our internal control over financial reporting.

We may identify material weaknesses and other deficiencies in the design and operation of our internal controls over financial reporting, which may require remediation to correct in order to conclude that our internal controls over financial reporting are operating effectively. Completion of remediation does not provide assurance that our remediation or other controls will continue to operate properly. We may not detect errors on a timely basis and our consolidated financial statements may be materially misstated. If we are unable to comply with the requirements of Section 404 in a timely manner, or if we are unable to assert that our internal control over financial reporting is effective, then (a) investors may lose confidence in the accuracy and completeness of our financial reports; (b) the market price of our common stock could be negatively affected; and (c) we could become subject to investigations by the Nasdaq Global Market, on which our securities are listed, the SEC, or other regulatory authorities, which could require us to obtain additional financial and management resources.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

Under Section 382 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period, the corporation's ability to use its pre-change federal net NOLs and other pre-change federal tax attributes (such as research tax credits) to offset its post-change income may be limited. We may experience ownership changes as a result of shifts in our stock ownership that could limit the use of our NOLs. State NOL may be similarly or more stringently limited. As a result, if we earn net taxable income, our ability to use our pre-change NOLs to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us. In addition, under the Tax Act, the amount of post-2017 NOLs that we are permitted to deduct in any taxable year is limited to 80% of our taxable income in such year, where taxable income is determined without regard to the NOL deduction itself. In addition, the Tax Act generally eliminates the ability to carry back any NOL to prior taxable years, while allowing post-2017 unused NOLs to be carried forward indefinitely. There is a risk that due to regulatory changes, or other unforeseen reasons, our existing NOLs could expire or otherwise be unavailable to offset future income tax liabilities. For these reasons, we may not be able to realize a tax benefit from the use of our NOLs, whether or not we attain profitability.

Our stockholder rights plan, or "poison pill," includes terms and conditions that could discourage a takeover or other transaction that stockholders may consider favorable.

On July 25, 2022, our Board approved and adopted a Rights Agreement, dated as of July 25, 2022 (the "Rights Agreement"), by and between the Company and American Stock Transfer & Trust Company, LLC, as rights agent. Pursuant to the Rights Agreement, the Board declared a dividend of one preferred share purchase right (each, a "Right") for each outstanding share of our common stock (the "Common Shares"). The Rights were distributable to stockholders of record as of the close of business on August 5, 2022 (the "Record Date"). One Right also will be issued together with each Common Share issued by the Company after the Record Date, but before the Distribution Date (as defined in the Rights Agreement) (or the earlier redemption or expiration of the Rights) and, in certain circumstances, after the Distribution Date.

Generally, the Rights Agreement works by causing substantial dilution to any person or group that acquires

beneficial ownership of 10% or more of the Common Shares without the approval of the Board. As a result, the overall effect of the Rights Agreement and the issuance of the Rights may be to render more difficult or discourage a merger, tender, or exchange offer or other business combination involving the Company that is not approved by the Board. The Rights Agreement is not intended to interfere with any merger, tender, or exchange offer or other business combination approved by the Board. The Rights Agreement also does not prevent the Board from considering any offer that it considers to be in the best interest of its stockholders. The description and terms of the Rights are set forth in the Rights Agreement, which has previously been filed as an exhibit to our public reports.

As discussed above, the effect of the Rights may be to discourage a third party from attempting to obtain a substantial position in our Common Shares or seeking to obtain control of us. To the extent any potential acquisition is deterred by the Rights, the Rights may make the removal of management difficult even if the removal would be considered beneficial to our stockholders generally and may have the effect of limiting stockholder participation in certain transactions such as mergers or tender offers if these transactions are not favored by our management. The Rights will cause substantial dilution to a person or group that attempts to acquire us on terms not approved by the Board.

The Rights and the Rights Agreement will expire upon the earliest to occur of (i) the date on which all of the Rights are redeemed, (ii) the date on which the Rights are exchanged, and (iii) the close of business on July 25, 2023.

Risks Related to Our Convertible Senior Subordinated Notes

Servicing our debt requires a significant amount of cash, and we may not have sufficient cash flow from our business to pay our substantial debt.

Our ability to make scheduled payments of the principal of, to pay interest on, or to refinance our indebtedness, including the 1.75% Convertible Senior Subordinated Notes due 2026 that we issued in February 2019 (the "2026 Convertible Notes"), depends on our future performance, which is subject to economic, financial, competitive, and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt, or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

Despite our current debt levels, we may still incur substantially more debt or take other actions that would intensify the risks discussed above.

Despite our current consolidated debt levels, we and our subsidiaries may incur substantial additional debt in the future, subject to the restrictions contained in our debt instruments, some of which in the future may be secured debt. We are not restricted under the terms of the indenture governing the 2026 Convertible Notes from incurring additional debt, securing existing or future debt, recapitalizing our debt, or taking a number of other actions that could have the effect of diminishing our ability to make payments on the 2026 Convertible Notes when due.

We may not have the ability to raise the funds necessary to settle conversions of the 2026 Convertible Notes in cash or to repurchase the 2026 Convertible Notes upon a fundamental change, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of the 2026 Convertible Notes.

Holders of the 2026 Convertible Notes have the right to require us to repurchase all or a portion of their 2026 Convertible Notes upon the occurrence of a fundamental change at a repurchase price equal to 100% of the principal amount of the 2026 Convertible Notes to be repurchased, plus accrued and unpaid interest, if any. In addition, upon conversion of the 2026 Convertible Notes, unless we elect to deliver solely shares of our common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the 2026 Convertible Notes being converted. However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of the 2026 Convertible Notes surrendered therefor or the 2026 Convertible Notes being converted. In addition, our ability to repurchase the notes or to pay cash upon conversions of the 2026 Convertible Notes may be limited by law, by regulatory authority, or by agreements governing our future indebtedness. Our failure to repurchase 2026 Convertible Notes at a time when the repurchase is required by the indenture or to pay any cash payable on future conversions of the 2026 Convertible Notes as required by the

indenture would constitute a default under the indenture. A default under the indenture, or the fundamental change itself, could also lead to a default under agreements governing our future indebtedness. If the repayment 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 2026 Convertible Notes or make cash payments upon conversions thereof.

The conditional conversion feature of the notes, if triggered, may adversely affect our financial condition and operating results.

In certain circumstances specified in the indenture governing the 2026 Convertible Notes, holders of the 2026 Convertible Notes will be entitled to convert the notes at any time during specified periods at their option. If one or more holders elect to convert their 2026 Convertible Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our common stock (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the 2026 Convertible Notes as a current, rather than long-term, liability, which would result in a material reduction of our net working capital.

The accounting method for convertible debt securities that may be settled in cash, such as the 2026 Convertible Notes, could have a material effect on our reported financial results.

In August 2020, the FASB issued Account Standard Update, or 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)*, which updated the previous accounting guidance for convertible debt instruments under Accounting Standards Codification 470-20, Debt with Conversion and Other Options, or ASC 470-20. ASU 2020-06 requires a convertible debt instrument to be accounted for as a single liability measured at its amortized cost. We adopted ASU 2020-06 effective January 1, 2021 for purposes of accounting for the 2026 Convertible Notes. Interest expense, recorded in the consolidated statements of operations, is closer to the coupon rate interest expense. In addition, the if-converted method, rather than the treasury stock method, must be used for the calculation of the diluted earnings per share calculation when accounting for the shares issuable upon conversion of the 2026 Convertible Notes, which could adversely affect our diluted earnings per share.

In connection with the 2026 Convertible Notes, we entered into convertible note hedge and warrant transactions that may affect the value of our common stock.

In connection with the pricing of the 2026 Convertible Notes, we entered into convertible note hedge transactions with one or more of the initial purchasers of the Convertible Notes and/or their respective affiliates, which we refer to as the "option counterparties." We also entered into warrant transactions with the option counterparties. The convertible note hedge transactions are expected generally to reduce the potential dilution upon conversion of the 2026 Convertible Notes and/or offset any cash payments that we are required to make in excess of the principal amount of converted notes. However, the warrant transactions could separately have a dilutive effect on our common stock to the extent that the market price per share of our common stock exceeds the strike price of the warrants.

In connection with establishing their initial hedges of the convertible note hedge and warrant transactions, the option counterparties or their respective affiliates purchased shares of our common stock and/or entered into various derivative transactions with respect to our common stock concurrently with, or shortly after, the pricing of the 2026 Convertible Notes. This activity may have increased (or reduced the size of any decrease in) the market price of our common stock at that time.

In addition, the option counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives 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 2026 Convertible Notes (and are likely to do so during any observation period related to a conversion of 2026 Convertible Notes). This activity could also cause or avoid an increase or a decrease in the market price of our common stock.

In addition, if any such convertible note hedge and warrant transactions fail to become effective, the option counterparties may unwind their hedge positions with respect to our common stock, which could adversely affect the value of our common stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our Company's principal properties as of December 31, 2022 are described below:

Our corporate headquarters is located in Moorestown, New Jersey, where we lease an aggregate of 74,565 square feet of space under three lease agreements that expire in January 2030. Our corporate headquarters contains administrative and executive office spaces, a facility for prospective medication risk management, that uses our proprietary technology and pharmacy distribution services, including competitive-inhibition informed robotic adherence packaging, and call centers to support our CareVention HealthCare services.

To support our medication and technology-enabled solutions, we also lease an aggregate of 22,619 square feet dedicated to medication fulfillment services in Boulder, Colorado; South San Francisco, California; and Warwick, Rhode Island. Our health plan management services, which include third-party administration services and pharmacy benefit management solutions, and related administrative offices lease an aggregate of 17,169 square feet in Webster Groves, Missouri; Eden Prairie, Minnesota; and Altoona, Wisconsin.

Item 3. Legal Proceedings

We are not currently involved in any significant claims or legal actions that, in the opinion of management, will have a material adverse impact on our Company.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

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

Market Information

Our common stock has been listed on the Nasdaq Global Market under the symbol "TRHC" since September 29, 2016.

Holders

As of February 28, 2023, we had 76 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

Dividends

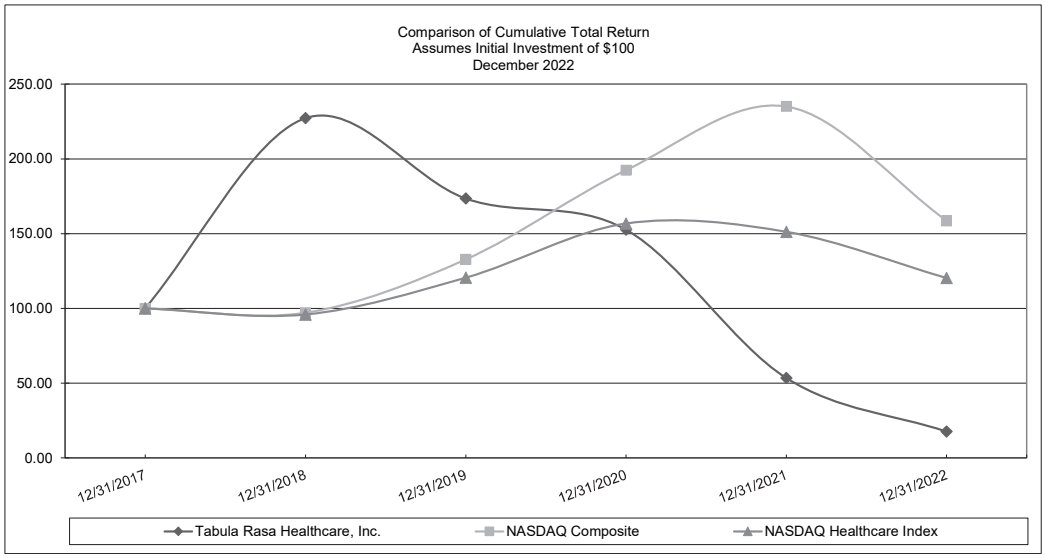
We have never declared or paid any cash dividend on our common stock. We currently intend to retain all future earnings, if any, generated by our operations for the development and growth of our business for the foreseeable future. The decision to pay dividends is at the discretion of our Board of Directors and depends upon our financial condition, results of operations, capital requirements, and other factors that our Board of Directors deems relevant.

Stock Performance Graph

The following graph compares the five-year cumulative total stockholder return on our common stock, assuming reinvestment of dividends, to the cumulative total returns of the Nasdaq Health Care Index and the NYSE

Composite Index from December 31, 2017 to December 31, 2022. This graph assumes an investment of $100 in shares of our common stock on December 31, 2017.

The comparisons shown in the following graph are based upon historical data. We caution that the stock price performance shown in the graph below is not necessarily indicative of, nor is it intended to forecast, the potential future performance of our common stock.



Purchases of Equity Securities

During the year ended December 31, 2022, we did not repurchase any shares of common stock.

Item 6. *[Reserved]*

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

Management's Discussion and Analysis of Financial Condition and Results of Operations is designed to provide a reader of our financial statements with a narrative from the perspective of management on the Company's financial condition, results of operations, liquidity and certain other factors that may affect future results. The following discussion and analysis of our financial condition and results of operations should be read together with our consolidated financial statements and the related notes and other financial information included elsewhere in this Annual Report on Form 10-K. The following discussion focuses on 2022 and 2021 financial condition and results of operations and year-to-year comparisons between 2022 and 2021. Similar discussion of our 2020 financial condition and results and year-to-year comparisons between 2021 and 2020 can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the year ended December 31, 2021. See also "Special Note Regarding Forward-Looking Statements" in this Annual Report on Form 10-K.

Overview

We are advancing the safe use of medication by creating solutions designed to empower pharmacists, providers, and patients to optimize medication regimens. Our advanced proprietary technology, MedWise®, identifies the causes of and risks for medication-related problems, including ADEs, so that healthcare professionals can minimize harm and reduce medication-related risks. Our software and services help drive value-based care by improving patient outcomes and lowering healthcare costs through reduced hospitalizations, emergency department visits, and healthcare utilization. Our vision and mission are supported by our experienced leadership team, our significant investments in our technology, services and people, and collaborations to advance precision pharmacotherapy research and its application in clinical practice, and our culture.

We operate our business through two segments, CareVention HealthCare and MedWise HealthCare, which accounted for 99% and 1% of revenue from continuing operations, respectively, for the year ended December 31, 2022.

Our total revenues from continuing operations for the years ended December 31, 2022 and 2021 were $299.5 million and $259.9 million, respectively. We incurred net losses from continuing operations for the years ended December 31, 2022 and 2021 of $77.3 million and $52.2 million, respectively.

In February 2022, we announced plans to evaluate non-core assets to refocus our corporate strategy and increase stockholder value, and we commenced an initial plan to sell the DoseMe business, which we acquired in January 2019. In March 2022, we completed our evaluation of additional divestiture opportunities and commenced plans to sell the SinfoníaRx and PrescribeWellness businesses, acquired in September 2017 and March 2019, respectively.

On August 1, 2022, we completed the sale of our unincorporated PrescribeWellness business division, and the assets, properties, and rights that were primarily used or held for use in connection with the PrescribeWellness Business, and the KD Assets (as defined below), to TDS. On the PW Sale Date, we also completed the acquisition of certain intellectual property from KD, which had historically been licensed to the Company (the "KD Assets"). The KD Assets acquired were simultaneously transferred to TDS on the PW Sale Date. The purchase consideration included $125 million in cash, subject to certain customary post-closing adjustments, of which $118.6 million was paid directly to us and $5.9 million was paid to KD on the PW Sale Date. In October 2022, TDS also paid us $1.5 million for certain customary post-closing adjustments. We are also entitled to receive up to $15.0 million in contingent consideration based upon the PrescribeWellness Business's achievement of certain performance-based metrics during the fiscal years ending December 31, 2023 and 2024.

On January 20, 2023, we entered into a Share and Asset Purchase Agreement, to sell our unincorporated DoseMe Business, and the assets, properties, and rights that are primarily used or held for use in connection with the DoseMe Business. The purchase consideration included $2.0 million in cash, subject to certain customary post-closing adjustments, and a note receivable of $3.0 million with an annual interest rate of 7%, which matures on January 20, 2027.

On March 2, 2023, we entered into an Asset Purchase Agreement to sell our unincorporated SinfoníaRx business, and the assets, properties, and rights that are primarily used or held for use in connection with the SinfoníaRx Business. The purchase consideration included $1.4 million in cash, subject to certain customary post-closing adjustments and a note receivable of $3.6 million with an annual interest rate of 3%, which matures on December 31, 2023. We may also be entitled to receive up to $1.0 million in contingent consideration based upon potential regulatory changes affecting the business.

When we commenced plans to sell the PrescribeWellness, DoseMe, and SinfoníaRx businesses, these businesses (principally, PrescribeWellness) collectively comprised the majority of our MedWise HealthCare segment. Our sales of the PrescribeWellness, DoseMe and SinfoníaRx businesses represented a strategic business shift having a significant effect on our Company's operations and financial results. As a result, we determined that these businesses met the requirements to be classified as held for sale and discontinued operations as of March 31, 2022, and the DoseMe and SinfoníaRx businesses continued to meet such requirements as of December 31, 2022. Accordingly, the accompanying consolidated financial statements in this Annual Report on Form 10-K have been recast for all periods presented to reflect the assets, liabilities, revenue, and expenses related to these businesses as discontinued operations.

Key Business Metrics

We continually monitor certain corporate metrics, including the following key metrics, that we believe are useful in evaluating and managing our operating performance as compared to that of other companies in our industry.

	Year Ended December 31,		Change	
	2022	2021	$	%
	(Dollars in thousands)			
Revenues from continuing operations	$ 299,516	$ 259,882	$ 39,634	15 %
Net loss from continuing operations	(77,334)	(52,238)	(25,096)	48

We monitor the key metrics set forth in the preceding table to help us evaluate trends, establish budgets, and measure the effectiveness and efficiency of our operations.

We also monitor net revenue retention rate. We believe that our ability to retain revenue associated with new or existing client relationships is an indicator of the stability of our revenue base and the long-term value we provide to our clients. We assess our performance in this area using a metric we refer to as net revenue retention. We calculate our net revenue retention by comparing revenue by client at the end of the most recent calendar year divided by revenue at the end of the prior calendar year from only clients that were contracted with us at the end of the prior calendar year. We believe net revenue retention captures our cross-sell success, client expansion, changes in pricing, and client churn or downgrades.

During 2022 and 2021, we generated net revenue retention from continuing operations of 115% and 117%, respectively, driven by census growth at existing clients and cross-sell revenue.

Factors Affecting our Future Performance

We believe that our future success depends on many factors, including our ability to maintain and grow our relationships with existing clients, expand our client base, continue to enter new markets, and expand our offerings to meet evolving market needs. While these areas present significant opportunities, they also present risks that we must manage to ensure successful results. See the section entitled "Risk Factors" for a discussion of certain risks and uncertainties that may impact our future success.

As described above, we completed the sales of the PrescribeWellness, DoseMe, and SinfoníaRx businesses in 2022 and early 2023. The continuing operations of the remaining components of our MedWise HealthCare segment promote medication safety and adherence to improve patient outcomes and reduce healthcare costs. The MedWise HealthCare segment revenue model is primarily based on payments on a PMPM basis, payments on a subscription basis, and payments on a fee-for-service basis for each MSR and clinical assessment completed.

Components of Our Results of Continuing Operations

Revenue

Our revenue is derived from our medication revenue and technology-enabled solutions revenue under our CareVention HealthCare and MedWise HealthCare segments. For the years ended December 31, 2022 and 2021, medication revenue represented 77% and 73%, respectively, of our total revenue from continuing operations. For the years ended December 31, 2022 and 2021, technology-enabled solutions revenue represented 23% and 27%, respectively, of our total revenue from continuing operations.

To provide improved description over our disaggregation of revenue, we retitled our revenue categories from product revenue and service revenue to medication revenue and technology-enabled solutions revenue, respectively, in the consolidated statements of operations and the notes to the consolidated financial statements. The change had no impact to the amounts previously reported in the consolidated statements of operations and the notes to the consolidated financial statements.

CareVention HealthCare

Medication Revenue

We provide medication fulfillment pharmacy services to PACE organizations under our CareVention HealthCare segment. While the majority of medications are routinely filled in order to treat chronic conditions, the mix and quantity of medications can vary. Revenue from medication fulfillment services is generally billed monthly or weekly, depending on whether the PACE organization is contracted with a pharmacy benefit manager, and is recognized when medications are delivered and control has passed to the client. At the time of delivery, we have performed substantially all of our performance obligations under our client contracts. We do not experience a significant level of returns or reshipments.

Technology-Enabled Solutions Revenue

We provide medication safety services and health plan management services to PACE organizations under our CareVention HealthCare segment. These services primarily include medication safety services, risk adjustment services, PBM solutions, EHR solutions, and third-party administration services. Revenue related to these services primarily consists of a fixed monthly fee assessed on a PMPM basis, a fee for each claim adjudicated, and subscription fees. These fees are recognized when we satisfy our performance obligation to stand ready to provide PACE services, which occurs when our clients have access to the PACE services. We generally bill for PACE services on a monthly basis as the services are provided.

MedWise HealthCare

Technology-Enabled Solutions Revenue

Value-Based Care Solutions

We provide medication safety services under our MedWise HealthCare segment, which include identification of high-risk individuals, medication regimen reviews, including patient and prescriber counseling, and targeted interventions to increase adherence and close gaps in care. Revenue related to these services primarily consists of PMPM fees and fees for each medication review and clinical assessment completed. Revenue is recognized when we satisfy our performance obligation to stand ready to provide medication safety services, which occurs when our clients have access to the medication safety services and when medication reviews and clinical assessments are completed. We generally bill for the medication safety services on a monthly basis.

Software Subscription and Services

We provide software as a service ("SaaS") solutions, which allow for the identification of individuals with high medication-related risk. Revenues related to SaaS solutions primarily consist of monthly subscription fees and are recognized monthly as we meet our performance obligation to provide access to the software. Revenue for implementation and set-up services is generally recognized over the contract term as the software services are provided. We generally bill for the software services on a monthly basis.

Cost of Revenue (exclusive of depreciation and amortization)

Cost of Medication Revenue

Cost of medication revenue includes all costs directly related to the fulfillment and distribution of medications. These costs consist primarily of the purchase price of the medications we dispense, shipping, packaging, expenses associated with operating our medication fulfillment centers, including employment costs and stock-based compensation, and technology expenses. Such costs also include direct overhead expenses and allocated indirect overhead costs. We allocate indirect overhead costs among functions based on employee headcount. The purchase price of medications represented 81% of our total cost of medication revenue for the years ended December 31, 2022 and 2021.

Cost of Technology-Enabled Solutions Revenue

Cost of technology-enabled solutions revenue includes all costs directly related to servicing our technology service contracts and primarily consists of employment costs, including stock-based compensation, outside contractors, expenses related to supporting our software platforms, direct overhead expenses, and allocated indirect overhead costs. We allocate indirect overhead costs among functions based on employee headcount.

Research and Development Expenses

Our research and development expenses consist primarily of employment costs, including stock-based compensation, for employees engaged in scientific research, healthcare analytics, the design and development of new scientific algorithms, and the enhancement of our software and technology platforms. Research and development expenses also include fees paid to third-party consultants, costs related to quality assurance and testing, and other

allocated facility-related overhead and expenses.

We capitalize certain costs incurred in connection with obtaining or developing the proprietary software platforms that support our medication and technology service contracts, including third-party contractors and payroll costs for employees directly involved with the software development. Capitalized software development costs are amortized beginning when the software project is substantially completed and when the asset is ready for its intended use. Costs incurred during the preliminary project stage and post-implementation stage, as well as maintenance and training costs, are expensed as incurred. We continue to focus our research and development efforts on adding new features and applications to increase the functionality and enhance the ease of use of our existing suite of software solutions.

We believe that continued investment in our software solutions is important for our future growth. We expect that our research and development expenses will fluctuate in the short-term as we refocus on our core business but will decrease as a percentage of revenue in the long-term.

Sales and Marketing Expenses

Sales and marketing expenses consist principally of salaries, commissions, bonuses, and stock-based compensation and employee benefits for sales, marketing, and account management personnel, as well as travel costs related to sales, marketing, and account management activities. Marketing costs also include costs for communication and branding materials, conferences, trade shows, public relations, and allocated overhead.

We expect our sales and marketing expenses to fluctuate in the short-term as we refocus on our core business but decrease as a percentage of revenue in the long-term.

General and Administrative Expenses

General and administrative expenses consist principally of employee-related expenses, including salaries, benefits, and stock-based compensation, for employees who are responsible for information systems, administration, human resources, finance, strategy, legal and executive management, as well as other corporate expenses associated with these functional areas. General and administrative expenses also include professional fees for legal, consulting, and accounting services and allocated overhead. General and administrative expenses are expensed when incurred.

We expect that our general and administrative expenses will fluctuate in the short-term as we refocus on our core business but decrease as a percentage of revenue in the long-term.

Change in Fair Value of Contingent Consideration Receivable

In connection with the sale of the PrescribeWellness Business on August 1, 2022, we may be entitled to additional consideration based on the achievement of certain customer and revenue metrics. The contingent consideration is classified as an asset and is subject to remeasurement at each balance sheet date. Any change in the fair value of the contingent consideration receivable is reflected in our consolidated statements of operations as a change in fair value of the receivable. We adjust the carrying value of the contingent consideration receivable until the contingency is finally determined or final payment is received.

Long-Lived Asset Impairment Charge

Long-lived assets consist of property and equipment, operating lease right-of-use assets, software development costs, and definite-lived intangible assets. Long-lived assets to be held and used are tested for recoverability whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Factors that we consider in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends, and significant changes or planned changes in the use of the assets. If an impairment review is performed to evaluate a long-lived asset for recoverability, we compare forecasts of undiscounted cash flows expected to result from the use and eventual disposition of the long-lived asset to its carrying value. An impairment loss may be recognized when estimated undiscounted future cash flows expected to result from the use and disposition of an asset are less than its carrying amount. The impairment loss would

be based on the excess of the carrying value of the impaired asset over its fair value, determined based on discounted cash flows or a combination of income and market approaches.

Depreciation and Amortization Expenses

Depreciation and amortization expenses are primarily attributable to our capital investment in equipment, our capitalized software, and our acquisition-related intangibles.

Interest Expense

Interest expense is primarily attributable to interest expense associated with our convertible senior subordinated notes (the "2026 Notes"), our Loan and Security Agreement with Western Alliance Bank (the "2020 Credit Facility") prior to its termination on August 1, 2022, and the promissory notes related to the purchase consideration for the acquisition of Personica, LLC. Interest expense also includes the amortization of debt discount and debt issuance costs related to our various debt arrangements and imputed interest.

Results of Operations

Comparison of the Years Ended December 31, 2022 and 2021 (Continuing Operations)

The following table summarizes our results of operations for the years ended December 31, 2022 and 2021 (in thousands):

	Year Ended December 31,		Change	
	2022	2021	$	%
Revenue:				
Medication revenue	$ 231,052	$ 189,591	$ 41,461	22 %
Technology-enabled solutions revenue	68,464	70,291	(1,827)	(3)
Total revenue	299,516	259,882	39,634	15
Cost of revenue, exclusive of depreciation and amortization shown below:				
Cost of medication revenue	178,527	143,700	34,827	24
Cost of technology-enabled solutions revenue	54,076	49,678	4,398	9
Total cost of revenue, exclusive of depreciation and amortization	232,603	193,378	39,225	20
Operating expenses:				
Research and development	14,483	14,629	(146)	(1)
Sales and marketing	10,491	11,039	(548)	(5)
General and administrative	74,974	63,095	11,879	19
Change in fair value of contingent consideration receivable	3,650	—	3,650	100
Long-lived asset impairment charge	8,943	—	8,943	100
Depreciation and amortization	23,347	20,482	2,865	14
Total operating expenses	135,888	109,245	26,643	24
Loss from operations	(68,975)	(42,741)	(26,234)	61
Other income (expense):				
Interest expense, net	(9,034)	(9,107)	73	(1)
Other income	1,064	—	1,064	100
Total other expense, net	(7,970)	(9,107)	1,137	(12)
Loss from continuing operations before income taxes	(76,945)	(51,848)	(25,097)	48
Income tax expense	389	390	(1)	—
Net loss from continuing operations	(77,334)	(52,238)	(25,096)	48
Net loss from discontinued operations, net of tax	(70,176)	(26,817)	(43,359)	162
Net loss	$ (147,510)	$ (79,055)	$ (68,455)	87 %

Medication Revenue

Medication revenue increased $41.5 million, or 22%, from $189.6 million for the year ended December 31, 2021 to $231.1 million for the year ended December 31, 2022. Increased medication fulfillment volume from growth in the number of patients served by our existing clients, medication mix of prescriptions filled, and payer mix contributed $25.1 million to the increase. In addition, new CareVention HealthCare clients that started services since 2021 contributed $10.3 million to the increase in medication revenue during 2022. Revenue for medications dispensed on behalf of CareVention HealthCare by our community pharmacy network where we perform both medication fulfillment and PBM services also increased $6.1 million.

Technology-Enabled Solutions Revenue

Revenue generated from technology-enabled solutions decreased $1.8 million, or 3%, from $70.3 million for the year ended December 31, 2021 to $68.5 million for the year ended December 31, 2022.

Technology-enabled solutions revenue generated by our MedWise HealthCare segment decreased by approximately $7.8 million, or 66%, to $4.0 million for the year ended December 31, 2022, as compared to the same period in 2021. The decrease was primarily due to the conclusion of the EMTM pilot program on December 31, 2021, which contributed $9.2 million of revenues during the year ended December 31, 2021. As a result, no revenues related to the EMTM program were recognized after December 31, 2021. This decrease was partially offset by $1.4 million of revenue generated from new clients added since 2021.

Technology-enabled solutions revenue generated by our CareVention HealthCare segment increased by $6.0 million, or 10%, to $64.4 million for the year ended December 31, 2022, as compared to the same period in 2021. The increase was primarily attributable to new clients and growth within existing clients, primarily in our third-party

administration services division, and an increase in manufacturer rebates earned under our pharmacy benefit management services during the year ended December 31, 2022.

Cost of Medication Revenue

Cost of medication revenue increased $34.8 million, or 24%, from $143.7 million for the year ended December 31, 2021 to $178.5 million for the comparable period in 2022. Increased medication volume from growth in the number of patients served by our customers contributed approximately $27.9 million to the change, of which new clients contributed $6.7 million and $6.1 million was attributable to medications dispensed by our community pharmacy network where we perform both medication fulfillment and PBM services. The increase in cost of medication revenue was also due to a $4.2 million increase in distribution charges related to higher shipping costs and volume for the medications we fulfilled. Cost of medication revenue also increased $2.4 million due to employee compensation costs due to an increase in employee headcount.

Cost of Technology-Enabled Solutions Revenue

Cost of technology-enabled solutions revenue increased $4.4 million, or 9%, to $54.1 million for the year ended December 31, 2022 compared to the same period in 2021.

The increase was primarily comprised of $11.4 million of costs related to a new vendor arrangement for business process support and technology services for our third-party administration services and electronic health records solutions, and an $0.8 million increase in information technology expenses, including software licenses and hosting services. These increases were partially offset by a $6.1 million reduction in employee compensation costs, including stock-based compensation, for the employees hired by the third-party provider, and a $2.1 million reduction in resources contracted to deliver medication safety services due to the conclusion of the EMTM program on December 31, 2021.

Research and Development Expenses

Research and development expenses decreased by $0.1 million, or 1%, from $14.6 million for the year ended December 31, 2021 to $14.5 million for the year ended December 31, 2022.

The decrease was primarily due to a $1.1 million decrease in stock-based compensation expense compared to 2021. The decrease in research and development expenses was partially offset by investment in information technology spend of $0.4 million, a $0.4 million increase in professional services, and $0.4 million of expenses related to non-recurring business optimization initiatives during 2022, specifically efforts associated with consolidating our electronic health records solutions platforms.

Sales and Marketing Expenses

Sales and marketing expenses decreased $0.5 million, or 5%, to $10.5 million for the year ended December 31, 2022, as compared to the year ended December 31, 2021.

The decrease was primarily attributable to a $0.8 million decrease in stock-based compensation expense, as compared to 2021 and a $0.3 million decrease in conference-related travel expenses, professional consulting services, and other costs related to branding and marketing strategies. These decreases were partially offset by an increase of $0.3 million in employee compensation costs and $0.2 million of severance costs related to the realignment of our resources.

General and Administrative Expenses

General and administrative expenses increased $11.9 million, or 19%, from $63.1 million for the year ended December 31, 2021, to $75.0 million for the year ended December 31, 2022.

The increase in general and administrative expenses was primarily due to a $3.3 million increase in stock-based compensation expense compared to 2021, of which $4.5 million related to incremental year over year expense a result of the vesting of restricted stock awards related to the retirement of former named executive officers, which was offset by a $1.2 million decrease in stock-based compensation expense due to a decrease in employee headcount. The increase in

general and administrative expenses was also due to a $2.7 million increase in professional services expense related to a new provider of enterprise support services we engaged during the fourth quarter of 2021 as part of our business optimization initiatives. The increase in general and administrative expenses also included $2.7 million of divestiture-related costs, $2.0 million of executive transition costs primarily related to the retirement and transition of former named executive officers, $1.2 million of severance costs, and $1.0 million of legal and advisory costs related to the Cooperation Agreement.

The increase in general and administrative expenses was partially offset by a $0.7 million decrease in employee compensation costs, primarily due to a decrease in employee headcount as a result of the Company's business optimization initiative to outsource the enterprise support services previously mentioned.

Change in Fair Value of Contingent Consideration Receivable

In connection with the sale of the PrescribeWellness Business on August 1, 2022, we may be entitled to receive additional consideration based on the achievement of certain customer and revenue metrics for the periods ending December 31, 2023 and 2024. The contingent consideration receivable was recorded at the estimated fair value of $7.0 million on the sale date of August 1, 2022. During the year ended December 31, 2022, we recorded a $3.7 million charge to decrease the fair value of the contingent consideration receivable primarily due to updated estimates utilized in the contingent consideration calculation. The fair value of the contingent consideration receivable was $3.3 million as of December 31, 2022.

Long-Lived Asset Impairment Charge

During the year ended December 31, 2022, we recorded $8.9 million in long-lived asset impairment charges primarily due to the impairment of certain operating lease right of use assets and related property and equipment and impairment of certain capitalized software development costs.

During the fourth quarter of 2022, we determined that certain leased spaces no longer provided an economic benefit, and we vacated the leased spaces for our development centers in Moorestown, New Jersey and Charleston, South Carolina. As a result, we incurred $4.9 million in noncash impairment charges, of which $2.8 million was allocated to the operating lease right-of-use assets and $2.1 million was allocated to related property and equipment based on their relative carrying amounts.

During the first quarter of 2022, we became aware of changes in circumstances impacting the future application of certain capitalized software development costs and evaluated the recoverability of the related long-lived assets by comparing their carrying amount to the future net undiscounted cash flows expected to be generated by the assets to determine if the carrying value was not recoverable. The recoverability test indicated that certain capitalized software development costs were impaired. As a result, we recognized an impairment loss of $4.1 million for the year ended December 31, 2022.

We did not record any long-lived asset impairment charges for the year ended December 31, 2021.

Depreciation and Amortization Expenses

Depreciation and amortization expenses increased $2.9 million, or 14% to $23.3 million for the year ended December 31, 2022.

This increase was primarily due to a $3.2 million increase in the amortization of capitalized software related to new software functionality placed into service since the end of 2021 to support our business. This increase was partially offset by a decrease in amortization expense of $0.5 million primarily due to definite-lived intangible assets which have been fully amortized since the end of the second quarter of 2021.

Interest Expense

Interest expense decreased $0.1 million, from $9.1 million for the year ended December 31, 2021 to $9.0 million for the year ended December 31, 2022. The decrease was primarily due to the full satisfaction of the acquisition-related notes payable in October 2021 related to the October 2020 acquisition of Personica, LLC. Approximately $0.5

million of interest expense was recognized for the year ended December 31, 2021, related to the acquisition-related notes payable.

The decrease in interest expense was partially offset by a $0.4 million increase in expense due to amortization of the remaining balance of deferred financing costs to interest expense, as a result of terminating the 2020 Credit Facility. As discussed under Liquidity and Capital Resources below, the Company repaid and terminated the 2020 Credit Facility on August 1, 2022.

Other Income

In connection with the sale of the PrescribeWellness Business, we entered into a transition services agreement ("TSA") with TDS pursuant to which we are providing business support services for the PrescribeWellness Business after its sale. We recognized $1.1 million of income related to the TSA for the year ended December 31, 2022, which is reported in other income in our consolidated statement of operations.

Income Taxes

For the years ended December 31, 2022 and 2021, we recorded income tax expense of $0.4 million, which resulted in an effective rate of (0.5)% and (0.8)%, respectively. Income tax expense was primarily related to indefinite-lived deferred tax liabilities for goodwill amortization. The effective tax rate differs from the U.S. statutory tax rate primarily due to the full valuation allowance recorded that is currently limiting the realizability of our net deferred tax assets as of December 31, 2022 and 2021. Accordingly, the tax benefit was limited due to unbenefited losses during the year ended December 31, 2022 and 2021. As of December 31, 2022, the Company recorded a full valuation allowance against its deferred tax assets.

On February 12, 2021, the Company received a private letter ruling from the Internal Revenue Service, which determined, based on information submitted and representations made by the Company, that the Company met the requirements to deduct the interest expense resulting from the amortization of the debt discount associated with the 2026 Notes. As a result, the Company recorded a deferred tax asset of $26.3 million and a corresponding $26.3 million increase to its valuation allowance.

Net Loss from Discontinued Operations, Net of Tax

During the first quarter of 2022, we announced plans to evaluate non-core assets and commenced plans to sell the SinfoníaRx, PrescribeWellness, and DoseMe businesses, which were acquired in September 2017, March 2019, and January 2019, respectively. We completed the sales of the PrescribeWellness, DoseMe, and SinfoníaRx businesses on August 1, 2022, January 20, 2023 and March 2, 2023, respectively. Our sales of the PrescribeWellness, DoseMe and SinfoníaRx businesses represented a strategic business shift having a significant effect on our operations and financial results. As a result, we determined that these businesses met such requirements to be classified as held for sale and discontinued operations as of March 31, 2022 and the DoseMe and SinfoníaRx businesses continued to meet the requirements as of December 31, 2022. Accordingly, all related assets and liabilities and the results of operations for all periods presented are classified as discontinued operations in the consolidated financial statements.

Net loss from discontinued operations, net of tax, for the SinfoníaRx and DoseMe businesses was $43.6 million and $18.1 million for the years ended December 31, 2022 and 2021, respectively. Net loss from discontinued operations, net of tax, for the PrescribeWellness Business was $26.6 million and $8.7 million for the years ended December 31, 2022 and 2021, respectively. See Note 6 in the notes to our consolidated financial statements as reported in this Annual Report on Form 10-K for additional information.

Liquidity and Capital Resources

We incurred net losses of $147.5 million, $79.1 million, and $81.0 million for the years ended December 31, 2022, 2021, and 2020, respectively. Our primary liquidity and capital requirements are for software development, research and development, sales and marketing, general and administrative expenses, and debt service obligations. We have funded our operations, working capital needs, and investments with cash generated through operations, proceeds from the divestiture of non-core businesses, issuance of stock, and borrowings under our credit facilities. As of December 31, 2022, we had unrestricted cash and cash equivalents of $70.0 million.

Summary of Cash Flows

The following table shows a summary of our cash flows for the years ended December 31, 2022, 2021, and 2020.

	Year Ended December 31,		
	2022	2021	2020
Net cash provided by operating activities	$ 7,357	$ 15,452	$ 4,818
Net cash provided by (used in) investing activities	91,302	(35,194)	(28,734)
Net cash provided by (used in) financing activities	(31,958)	6,916	5,867
Net increase (decrease) in cash, cash equivalents and restricted cash [1]	$ 66,701	$ (12,826)	$ (18,049)

[1] The cash flows related to discontinued operations have not been segregated. Accordingly, the consolidated statements of cash flows and the following discussions include the results of continuing and discontinued operations. See Note 6 in the notes to the consolidated financial statements as reported in this Annual Report on Form 10-K.

Operating Activities

Net cash provided by operating activities was $7.4 million for the year ended December 31, 2022 and consisted of our net loss of $147.5 million, offset by the addition of noncash items of $133.2 million and changes in our operating assets and liabilities totaling $21.7 million. The noncash items primarily included $56.8 million of impairment charges primarily related to our long-lived assets, goodwill and operating lease right-of-use assets, $36.8 million of stock-based compensation expense, $30.7 million of depreciation and amortization expense, a $3.7 million change in fair value of contingent consideration receivable, a $2.9 million loss related to the sale of the PrescribeWellness Business, and $2.3 million of amortization of deferred financing costs and debt discounts primarily related to the 2026 Notes. The change in operating assets and liabilities was primarily due to an increase in accrued expenses and other liabilities, an increase in accounts payable due to the timing of vendor payments, and an increase in consideration payable to customers for our PBM solutions. The change in operating assets and liabilities was also due to a decrease in accounts receivable, primarily due to improved collections, and an increase in long-term liabilities due to the vendor financing arrangement entered into in February 2022 related to business process outsourcing and technology services for our third-party administration services and electronic health records solutions. The change in operating assets and liabilities was partially offset by an increase in client claims receivable due to increased growth in PBM services utilized by our pharmacy clients, and an increase in prepaid expenses and other current assets primarily due to an increase in contract assets related to rebate administration services under our PBM solutions.

Net cash provided by operating activities was $15.5 million for the year ended December 31, 2021 and consisted of our net loss of $79.1 million, offset by the addition of noncash items of $88.8 million and changes in our operating assets and liabilities totaling $5.7 million. The noncash items primarily included $47.7 million of depreciation and amortization expense, $38.5 million of stock-based compensation expense, $2.2 million of amortization of deferred financing costs and debt discounts primarily related to the 2026 Notes and acquisition-related notes payable, and a $0.5 million change in net deferred taxes, offset by acquisition-related contingent consideration paid of $0.1 million related to the Cognify acquisition. The change in operating assets and liabilities was primarily due to an increase in accrued expenses and other liabilities mostly due to increased consideration payable to clients under our rebate administration services and an increase in accrued employee compensation costs. The change in operating assets and liabilities was partially offset by an increase in prepaid expenses and other current assets primarily due to an increase in contract assets related to rebate administration services under our PBM solutions and an increase in non-trade receivables.

Investing Activities

Net cash provided by investing activities was $91.3 million for the year ended December 31, 2022, and consisted primarily of $120.0 million of cash received related to the sale of the PrescribeWellness Business, which was offset by $26.4 million in software development costs for our CareVention HealthCare and MedWise HealthCare technologies and $2.3 million in purchases of property and equipment to support technology-related needs and infrastructure for our pharmacies and health plan management services.

Net cash used in investing activities was $35.2 million for the year ended December 31, 2021, which reflected $31.8 million in software development costs for our CareVention HealthCare and MedWise HealthCare technologies. Net cash used in investing activities also included $3.4 million in purchases of property and equipment primarily to support technology-related needs and infrastructure at our pharmacies, call center locations, and Moorestown, New Jersey headquarters, as well as fixtures and improvements for our new office space in Eden Prairie, Minnesota and for an expansion of our pharmacy in Boulder, Colorado.

Financing Activities

Net cash used in financing activities was $32.0 million for the year ended December 31, 2022 and consisted primarily of $29.5 million of net principal repayments on our 2020 Credit Facility, which was terminated on August 1, 2022, $2.2 million of payments on employee taxes for shares withheld, and $0.4 million of payments for debt financing costs. The cash used in financing activities for the year ended December 31, 2022 was partially offset by $0.1 million of proceeds received from the exercise of stock options.

Net cash provided by financing activities was $6.9 million for the year ended December 31, 2021. Financing activities for the year ended December 31, 2021 primarily reflected $19.5 million of net borrowings on our 2020 Credit Facility mainly used to fund the repayment of the promissory notes in connection with the Personica acquisition. Proceeds received from the exercise of stock options totaled $4.1 million during the year ended December 31, 2021. The net cash provided by financing activities for the year ended December 31, 2021 was partially offset by repayments of $16.5 million related to the promissory notes in connection with the 2020 Personica acquisition.

Funding Requirements

On December 18, 2020, we entered into the 2020 Credit Facility with Western Alliance Bank ("WAB"), which provided for a $120.0 million secured revolving credit facility, with a $1.0 million sublimit for cash management services and letters of credit and foreign exchange transactions. The 2020 Credit Facility was scheduled to mature on May 16, 2025.

On August 1, 2022, we entered into a payoff letter with WAB with respect to the 2020 Credit Facility, pursuant to which we voluntarily elected to pay all amounts outstanding, including principal and interest, under the 2020 Credit Facility and related loan documents (the "Pay Off") using cash on hand and proceeds from the sale of the PrescribeWellness Business. Accordingly, on August 1, 2022, we paid a total of $57.4 million to WAB for the Pay Off, and terminated the 2020 Credit Facility and related loan documents.

We believe that our unrestricted cash and cash equivalents of $70.0 million as of December 31, 2022, cash flows from continuing operations, and proceeds from the sales of the DoseMe and SinfoníaRx businesses, including $3.4 million received at closing, will be sufficient to fund our planned operations through the next twelve months and for the foreseeable future. Our ability to maintain successful operations will depend on, among other things, new business, the retention of clients, and the effectiveness of sales and marketing initiatives.

We may seek additional funding through public or private debt or equity financings. We may not be able to obtain financing on acceptable terms, or at all. The terms of any financing may adversely affect our stockholders. If we are unable to obtain funding, we could be forced to delay, reduce, or eliminate our research and development programs, product portfolio expansion, or commercialization efforts, which could adversely affect our business prospects. There is no assurance that we will be successful in obtaining sufficient funding on terms acceptable to us to fund continuing operations, if at all.

Future Cash Requirements

Our material future cash requirements primarily consist of principal and interest payments on our convertible senior subordinated notes, minimum payments on our vendor financing arrangements, minimum rental payments on our noncancelable operating leases, and minimum payments on legally binding service contracts. Contractual obligations for the purchase of goods or services are defined as agreements that are enforceable and legally binding and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction.

The following table summarizes our estimated material future cash requirements as of December 31, 2022:

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
	(In thousands)				
Convertible senior subordinated notes, including interest	$ 344,906	$ 5,688	$ 11,375	$ 327,843	$ —
Vendor financing arrangements	104,114	16,910	33,832	33,473	19,899
Operating leases	17,973	2,764	5,409	4,872	4,928
Other commitments	9,339	4,500	4,839	—	—
Total	$ 476,332	$ 29,862	$ 55,455	$ 366,188	$ 24,827

Our convertible senior subordinated notes mature on February 15, 2026, unless earlier converted or repurchased. Interest payments on our convertible senior subordinated notes are payable semiannually at a rate of 1.75% per year.

Our vendor financing arrangements primarily consist of third-party business process support and technology services and software support. On February 24, 2022, we expanded our existing relationship with a third-party service provider for business process support and technology services designed to enhance the operational efficiency of our third-party administration services and transform our electronic health records solutions. As a result, the partner hired approximately 180 employees from our Company, hired to fill existing open positions, and augmented with additional resources to meet client demand. The agreement term is seven years and includes total estimated fees of $115.3 million. In order to determine the present value of the commitment, we used an imputed interest rate of 9.5%, which was reflective of our estimated uncollateralized borrowing rate at signing. As of December 31, 2022, the outstanding principal balance of the financing arrangement was $5.2 million with an unamortized discount of $1.2 million, which was included in accrued expenses and other liabilities and other long-term liabilities on our consolidated balance sheet. Imputed interest expense from the arrangement was $0.2 million for the year ended December 31, 2022.

On October 1, 2022, we entered into a purchase arrangement with a third-party software support and service provider to purchase software licenses for total fees of $1.1 million. The purchased software licenses were delivered to us on the purchase date. The arrangement allows us to pay the fees over 36 monthly installment payments.

Our existing office lease agreements provide us with the option to renew and generally provide for rental payments on a graduated basis. Our future operating lease obligations would change if we entered into additional operating lease agreements as we expand our operations.

Other commitments include $9.3 million of minimum purchase obligations under certain vendor agreements that provide information technology services.

Effective March 2019, we entered into an Affiliated Pharmacy Agreement and Pharmaceutical Program Supply Agreement with Thrifty Drug Stores, Inc., which was replaced on July 1, 2020 by a new Affiliated Pharmacy Agreement and Pharmaceutical Program Supply Agreement, to provide us with the pharmaceutical products that we sell. The contract commits us to a minimum purchase obligation of 98% of our total prescription product requirements from Thrifty Drug Stores through March 2024. The table above does not include future payments to Thrifty Drug Stores because certain terms of these payments were not determinable at December 31, 2022 due to the timing and volume of future purchases.

Critical Accounting Policies and Significant Judgments and Estimates

We base this management's discussion and analysis of our financial condition and results of operations on our consolidated financial statements, which we have prepared in accordance with generally accepted accounting principles in the United States, or GAAP. The preparation of our consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and the disclosure of contingent assets and liabilities in our consolidated financial statements. Actual results may differ from these estimates under different assumptions or conditions.

Certain accounting policies involve significant judgments and assumptions by management, which have a material impact on the carrying value of assets and liabilities and the recognition of income and expenses. We consider these accounting policies to be critical accounting policies. The estimates and assumptions used by management are based on historical experience and other factors, which are believed to be reasonable under the circumstances.

Our significant accounting policies, and related estimates and assumptions, are described more fully in Note 2 – Summary of Significant Accounting Policies in our Notes to Consolidated Financial Statements in Part IV, Item 15 of this Annual Report on Form 10-K. We believe the following accounting policies are the most critical to the judgments and estimates we use in the preparation of our consolidated financial statements.

Revenue Recognition

We provide technology-enabled solutions tailored toward the specific needs of healthcare organizations, payers, providers, and pharmacies. These solutions can be integrated or provided on a standalone basis. Contracts generally have a term of one to five years and generally renew at the end of the initial term. In most cases, clients may terminate their contracts with a notice period ranging from zero to 180 days without cause, thereby limiting the term in which we have enforceable rights and obligations. Revenue is recognized in an amount that reflects the consideration that is expected in exchange for the goods or services.

We use the practical expedient to not account for significant financing components because the period between recognition and collection does not exceed one year for most of our contracts. We do not disclose the amount of variable consideration that we expect to recognize in future periods as the variable consideration is allocated entirely to a wholly unsatisfied performance obligation or to a wholly unsatisfied promise to transfer a distinct good or service that forms part of a single performance obligation, and the terms of that variable consideration relate specifically to our efforts to transfer the distinct service, or to a specific outcome from transferring the distinct service. Our customers' contracts primarily include monthly fees associated with unspecified membership, claims, or MSRs that fluctuate throughout the contract.

Medication Revenue

We provide medication fulfillment pharmacy services to PACE organizations under our CareVention HealthCare segment. While the majority of medications are routinely filled in order to treat chronic conditions, the mix and quantity of medications can vary. Revenue from medication fulfillment services is generally billed monthly or weekly, depending on whether the PACE organization is contracted with a PBM, and is recognized when medications are delivered and control has passed to the client. At the time of delivery, we have performed substantially all of our performance obligations under our client contracts. We do not experience a significant level of returns or reshipments.

Technology-Enabled Solutions Revenue

We provide medication safety services and health plan management services to PACE organizations under our CareVention HealthCare segment. These services primarily include medication safety services, risk adjustment services, PBM solutions, EHR solutions, and third-party administration services. Revenue related to these services primarily consists of a fixed monthly fee assessed on a PMPM basis, a fee for each claim adjudicated, and subscription fees. These fees are recognized when we satisfy our performance obligation to stand ready to provide PACE services, which occurs when our clients have access to the PACE services. We generally bill for PACE services on a monthly basis as the services are provided.

For client contracts for which we perform both medication fulfillment and the PBM services, we recognize revenue using the gross method at the contract price negotiated with our clients and when we have concluded that we control the prescription drug before it is transferred to the client plan members. We control prescriptions dispensed indirectly through our retail pharmacy network because we have separate contractual arrangements with those pharmacies, have discretion in setting the price for the transaction, and assume primary responsibility for fulfilling the promise to provide prescription drugs to our client plan members while performing the related PBM services. These factors indicate that we are the principal and, as such, we recognize the total prescription price contracted with clients in revenue.

Value-Based Care Solutions

We provide medication safety services under our MedWise HealthCare segment, which include identification of high-risk individuals; medication regimen reviews, including patient and prescriber counseling; and targeted interventions to increase adherence and close gaps in care. Revenue related to these services primarily consists of PMPM fees and fees for each medication review and clinical assessment completed. Revenue is recognized when we satisfy our performance obligation to stand ready to provide medication safety services, which occurs when our clients have access to the medication safety services and when medication reviews and clinical assessments are completed. We generally bill for the medication safety services on a monthly basis.

Software Subscription and Services

We provide SaaS solutions under our MedWise HealthCare segment, which allow for the identification of individuals with high medication-related risk. Revenues related to these SaaS solutions primarily consist of monthly subscription fees and are recognized monthly as we meet our performance obligation to provide access to the software. Revenue for implementation and set-up services is generally recognized over the contract term as the software services are provided. We generally bill for the software services on a monthly basis.

Goodwill

Goodwill consists of the excess purchase price over the fair value of net tangible and intangible assets acquired. Goodwill is not amortized but is tested for impairment annually by reporting unit. Based on these considerations, we have determined that our two operating segments, CareVention HealthCare and MedWise HealthCare, each represent a reporting unit for our goodwill impairment assessment.

GAAP provides an entity with an option to perform a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount prior to performing the quantitative assessment. If this is the case, the quantitative impairment test is required. If the quantitative impairment test is required, the fair value of the reporting unit is compared with its carrying amount (including goodwill). If the fair value of the reporting unit is less than its carrying amount, an indication of goodwill impairment exists for the reporting unit and an impairment loss is recognized for any excess of the carrying amount over the reporting unit's fair value.

In 2022, the fair value of the reporting units was estimated using a market approach, which estimates fair value based on a reconciliation of the Company's market capitalization. In 2021, the fair value of the reporting units was estimated using a combination of a discounted cash flow method, or income approach, and market approaches, which estimate fair value based on a selection of appropriate peer group companies. The determination of the fair value of the reporting units requires us to make significant assumptions and estimates, which include, but are not limited to: forecasts of revenue, operating income, income taxes, capital expenditures, and working capital requirements; the selection of appropriate peer group companies; control premiums and valuation multiples appropriate for acquisitions in the industries in which the Company competes; discount rates; terminal growth rates; and long-term operating margin assumptions. We also consider each reporting unit's current and historical financial results and the current industry trends. Our estimates can be affected by several factors, including general economic, industry, and regulatory conditions; the risk-free interest rate environment; our market capitalization; and our ability to achieve our forecasted operating results. Changes in estimates or the application of alternative assumptions could produce significantly different results.

We complete our goodwill impairment assessment on October 1 of each year or more frequently if events or changes in circumstances indicate that the asset might be impaired.

2022 and 2021 Goodwill Impairment Tests

During our annual impairment analysis as of October 1, 2022 and 2021, we evaluated qualitative factors that could indicate whether the fair value of our reporting units may be lower than the carrying value. We did not identify any qualitative factors that would trigger a quantitative goodwill impairment test as of October 1, 2021. However, during the fourth of quarter of 2021 and the first and second quarters of 2022, we experienced a sustained decline in the market price of our Company's common stock and determined that an indicator of impairment was present. As a result, we performed a quantitative goodwill impairment assessment as of December 31, 2021, March 31, 2022, June 30, 2022 and our annual impairment assessment as of October 1, 2022 for each reporting unit.

The fair value of the CareVention HealthCare reporting unit exceeded its carrying value by a significant margin as each of testing date. The fair value of the MedWise HealthCare reporting unit exceeded its carrying value by approximately 11%, 22%, 6%, and 15% as of December 31, 2021, March 31, 2022, June 30, 2022 and October 1, 2022, respectively. As a result, goodwill was not impaired as of December 31, 2021 and 2022.

2020 Goodwill Impairment Tests

For the year ended December 31, 2020, we performed a qualitative assessment of goodwill and determined that it was not more likely than not that the fair value of our reporting units was less than the carrying amount. Accordingly, no impairment loss was recorded for the year ended December 31, 2020.

Impairment of Long-Lived Assets, Including Other Intangible Assets

Long-lived assets consist of property and equipment, software development costs and definite-lived intangible assets. Long-lived assets to be held and used are tested for recoverability whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Factors that we consider in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends and significant changes or planned changes in the use of the assets. If an impairment review is performed to evaluate a long-lived asset for recoverability, we compare forecasts of undiscounted cash flows expected to result from the use and eventual disposition of the long-lived asset to its carrying value. An impairment loss may be recognized when estimated undiscounted future cash flows expected to result from the use and disposition of an asset are less than its carrying amount. The impairment loss would be based on the excess of the carrying value of the impaired asset over its fair value, determined based on discounted cash flows or a combination of income and market approaches.

Although we believe the carrying values of our long-lived assets are currently realizable, future events could cause us to conclude otherwise. If assumptions or estimates in the fair value calculations change or if future cash flows vary from what was expected, this may impact the impairment analysis and could reduce the underlying cash flows used to estimate fair values and result in a decline in fair value that may trigger future impairment charges.

During the fourth quarter of 2022, we determined that certain leased spaces no longer provided an economic benefit and either terminated the leases or vacated the leased spaces. We vacated the leased spaces for our development centers in Moorestown, New Jersey and Charleston, South Carolina. As a result, we incurred $4.9 million in noncash impairment charges, of which $2.8 million was allocated to the operating lease ROU assets and $2.1 million was allocated to related property and equipment based on their relative carrying amounts.

During the first quarter of 2022, we became aware of changes in circumstances impacting the future application of certain capitalized software development costs and evaluated the recoverability of the related long-lived assets by comparing their carrying amount to the future net undiscounted cash flows expected to be generated by the assets to determine if the carrying value was not recoverable. The recoverability test indicated that certain capitalized software development costs were impaired. As a result, we recognized an impairment loss equal to $4.1 million for the year ended December 31, 2022.

During the fourth quarter of 2021, we determined that an indicator of impairment was present as it related to the financial performance of the DoseMe business. We evaluated the recoverability of the related intangible assets and determined that the estimated fair value of the asset group was greater than its carrying value. As a result, the related

intangible assets were not impaired and no impairment charges were recorded for the year ended December 31, 2021.

During the fourth quarter of 2020, we became aware of changes in circumstances impacting the future performance of our pharmacy cost management services, which relate to certain intangible assets acquired from the Medliance acquisition in 2014. We evaluated the recoverability of the related intangible assets and determined that certain customer relationships and developed technology intangible assets were impaired. As a result, we recognized noncash impairment charges of $5.0 million to the related intangible assets for the year ended December 31, 2020.

Assets Held for Sale and Discontinued Operations

A long-lived asset (or disposal group) is classified as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable within a year. A long-lived asset (or disposal group) classified as held for sale is initially measured at the lower of its carrying amount or fair value less costs to sell. An impairment loss is recognized for any initial or subsequent write-down of the long-lived asset (or disposal group) to fair value less costs to sell. A gain or loss not previously recognized by the date of the sale of the long-lived asset (or disposal group) is recognized at the date of derecognition.

Long-lived assets (including those that are part of a disposal group) are not depreciated or amortized while they are classified as held for sale. Long-lived assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

In February 2022, we announced plans to evaluate non-core assets to refocus our corporate strategy and increase stockholder value, and we commenced an initial plan to sell the DoseMe business, which we acquired in January 2019. In March 2022, we completed our evaluation of additional divestiture opportunities and commenced plans to sell the SinfoníaRx and PrescribeWellness businesses, acquired in September 2017 and March 2019, respectively. These businesses collectively comprised the majority of our MedWise HealthCare segment. We sold the PrescribeWellness business on August 1, 2022, the DoseMe business in January 2023, and the SinfoníaRx business in March 2023. Our sales of the PrescribeWellness, DoseMe and SinfoníaRx businesses represented a strategic business shift having a significant effect on our Company's operations and financial results. As a result, we determined that these businesses met the requirements to be classified as held for sale and discontinued operations as of March 31, 2022, and the DoseMe and SinfoníaRx businesses continued to meet such requirements as of December 31, 2022.

During the second quarter of 2022, as a result of our intention to sell the PrescribeWellness business, we prepared an impairment test on the related net assets held for sale. Using a market approach to determine fair value, we concluded that the carrying value of the net assets held for sale for the PrescribeWellness business did not exceed its fair value, less costs to sell. As a result, we recorded goodwill impairment charges of $12.1 and impairment charges of $8.5 on net assets held for sale. On August 1, 2022, we recorded an additional $2.9 million for the final loss on the sale of the PrescribeWellness business, resulting in an aggregate loss of $11.4 million on the net assets sold for the year ended December 31, 2022.

In 2022, as a result of our intention to sell the DoseMe and SinfoníaRx businesses, we prepared an impairment test on the related net assets held for sale. Using a market approach to determine fair value, we concluded that the carrying values of the net assets held for sale for the SinfoníaRx and DoseMe businesses did not exceed their fair values, less costs to sell. As a result, we recorded $6.1 million of goodwill impairment charges and $21.1 million of impairment charges on the net assets held for sale related to the DoseMe and SinfoníaRx businesses for the year ended December 31, 2022.

Recent Accounting Pronouncements

See Note 2 of Notes to Consolidated Financial Statements in Part IV, Item 15 of this Annual Report on Form 10-K for a summary of new accounting standards.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to 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 is principally limited to interest rate fluctuations. A risk management program is in place to manage these risks. We have estimated our market risk exposure using a sensitivity analysis. A hypothetical 10% change in interest rates during the year ended December 31, 2022 would not have had a material impact on our earnings. We have no interest rate hedging agreements.

Item 8. Financial Statements and Supplementary Data

Our Consolidated Financial Statements are listed in the Index to Consolidated Financial Statements and Financial Statement Schedule filed as part of this Annual Report on Form 10-K, beginning on page F-1.

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) and Rule 15d-15(b) of the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation as of the end of the period covered by this Annual Report on Form 10-K of the effectiveness of the design and operation of our disclosure controls and procedures. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures are effective at the reasonable assurance level in ensuring that information required to be disclosed by us in the reports that we file or submit 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 us in the reports we file under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Inherent Limitations on Effectiveness of Controls and Procedures

Internal control over financial reporting may not 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. Also, projections of any evaluation of effectiveness of internal control to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting for our Company. Internal control over financial reporting is defined in Rules 13a-15(f) and 15(d)-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, our Interim Chief Executive Officer and Chief Financial Officer and effected by our Board, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and disposition of our assets;

- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles;

- provide reasonable assurance that our receipts and expenditures are being made only in accordance with authorization of our management and directors; and

- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

Our management, including our Interim Chief Executive Officer and Chief Financial Officer, has conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2022. In conducting this evaluation, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control-Integrated Framework (2013)*. Based upon this evaluation and those criteria, management believes that, as of December 31, 2022, our internal controls over financial reporting were effective.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) during the quarter ended December 31, 2022 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

The information included in this Item 9B is provided in lieu of filing such information on a Current Report on Form 8-K.

Director and Officer Indemnification Agreement

On February 28, 2023, upon recommendation of the Nominating and Corporate Governance Committee of the Board, the Board approved and adopted a new form of indemnification agreement (the "New Indemnification Agreement") to be entered into by the Company with each of its directors and executive officers (each, an "Indemnitee"). The New Indemnification Agreement will supersede and replace the Company's existing indemnification agreements in place with the Company's directors and executive officers and will be the form used for all newly-appointed directors and executive officers.

Consistent with the Company's prior form of indemnification agreement, the New Indemnification Agreement provides that the Company will indemnify the Indemnitee against certain expenses and costs arising out of claims to which he or she becomes subject in connection with his or her service to the Company and contains customary terms and conditions and establishes certain customary procedures and presumptions. The New Indemnification Agreement is intended to update the Company's prior form of indemnification agreement to clarify certain existing rights, ensure conformity with Delaware law, and reflect current market indemnification practices.

The foregoing description of the New Indemnification Agreement does not purport to be complete and is qualified in its entirety by reference to the form of indemnification agreement filed as Exhibit 10.2 hereto and incorporated herein by reference.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

Part III

Information required by Items 10, 11, 12, 13, and 14 of Part III is omitted from this Annual Report and will be filed in our definitive proxy statement to be filed with the SEC with respect to our 2023 annual meeting of stockholders, or the Proxy Statement, or by an amendment to this Annual Report not later than 120 days after the end of the fiscal year covered by this Annual Report.

Item 10. Directors, Executive Officers, and Corporate Governance

The information required by this Item 10 will be included in our Proxy Statement under the following captions and is incorporated herein by reference: "Proposal 1: Election of Directors," "Executive Officers," "Delinquent Section 16(A) Reports," "Corporate Governance – Code of Business Conduct and Ethics of Employees, Executive Officers, and Directors," "Corporate Governance – Nominating Committee," and "Corporate Governance – Audit Committee."

Item 11. Executive Compensation

The information required by this Item 11 will be included in our Proxy Statement under the following captions and is incorporated herein by reference: "Director Compensation," "Compensation Discussion and Analysis" and the related tabular disclosure, "Compensation Committee Report," "CEO Pay Ratio," "Compensation Risk Assessment," and "Policies Prohibiting Hedging, Pledging, Margining, and Short-Selling."

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

The information required by this Item 12 will be included in our Proxy Statement under the following captions and is incorporated herein by reference: "Security Ownership of Certain Beneficial Owners and Management" and "Securities Authorized for Issuance under Equity Compensation Plans as of December 31, 2022."

Item 13. Certain Relationships and Related Transactions and Director Independence

The information required by this Item 13 will be included in our Proxy Statement under the following caption and is incorporated herein by reference: "Certain Relationships and Related Party Transactions" and "Corporate Governance – Independence of the Board of Directors."

Item 14. Principal Accountant Fees and Services

The information required by this Item 14 will be included in our Proxy Statement under the following caption and is incorporated herein by reference: "Principal Accountant Fees and Services."

Part IV

Item 15. Exhibits and Financial Statement Schedules

A list of exhibits is set forth on the Exhibit Index immediately before the signature page of this Form 10-K and is incorporated herein by reference.

(a) (1) The Registrant's financial statements together with a separate table of contents are annexed hereto.

(2) Financial Statement Schedules are listed in the separate table of contents annexed hereto.
Schedule II—Valuation and Qualifying Accounts

(3) A list of exhibits is set forth on the Exhibit Index immediately before the signature page of this Form 10-K and is incorporated herein by reference.

Item 16. Form 10-K Summary

None.

EXHIBIT INDEX

Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Filing Date	Exhibit Number	
2.1#	Asset Purchase Agreement, dated as of April 22, 2014, by and among Capstone Performance Systems, LLC (Delaware), CareKinesis, Inc., Capstone Performance Systems, LLC (Colorado), PPS Holdings, Inc., and David M. Reyes and Ronda L. Hackbart-Reyes	S-1	1/4/2016	2.2	
2.2#	Agreement and Plan of Merger, dated as of September 6, 2017, by and among Tabula Rasa HealthCare, Inc., TRCRD, Inc., TRSHC Holdings, LLC, Sinfonía HealthCare Corporation, Michael Deitch, Fletcher McCusker, and Michael Deitch, as Stockholders' Representative	8-K	9/7/2017	2.1	
2.3#	Membership Interest Purchase Agreement, made and entered into as of August 31, 2018, by and among TRHC MEC Holdings, LLC, each member of Mediture LLC and eClusive L.L.C., and Kelley Business Law, PLLC, solely in its capacity as the Seller Representative	10-Q	11/8/2018	2.1	
2.4#	Stock Purchase Agreement, made and entered into as of October 19, 2018, by and among TRHC MEC Holdings, LLC, the stockholders of Cognify, Inc., and Mace Wolf, solely in his capacity as the Sellers' Representative	10-K	3/1/2019	2.6	
2.5#	Share Purchase Deed, made and entered into on November 30, 2018, by and among Tabula Rasa HealthCare, Inc., DM Acquisition Pty Ltd, the shareholders and option holders of DoseMe Holdings Pty Ltd set forth on the signature page thereto under the heading "Sellers," and Charles Cornish, solely in his capacity as the Seller Representative	8-K	12/3/2018	2.1	
2.6#	Merger Agreement, dated March 5, 2019, by and among Tabula Rasa HealthCare, Inc., TRHC PW Acquisition, LLC, Prescribe Wellness, LLC and Fortis Advisors, LLC, as Holder Representative	8-K	3/5/2019	2.1	
2.7#	Membership Interest Purchase Agreement, made and entered into on October 5, 2020, by and among Tabula Rasa HealthCare Group, Inc., Tabula Rasa HealthCare, Inc., Personica Holdings, Inc., Peter C. Farrow, Robert Tanner, Michele Bauer, Luke Johnson, and Personica Holdings, Inc., as Seller Representative	8-K	10/5/2020	2.1	
3.1	Amended and Restated Certificate of Incorporation of Tabula Rasa HealthCare, Inc.	8-K	10/4/2016	3.1	
3.2	Certificate of Designation of Series A Junior Participating Preferred Stock of Tabula Rasa HealthCare, Inc.	8-K	7/26/2022	3.1	
3.3	Amended and Restated Bylaws of Tabula Rasa HealthCare, Inc.	8-K	10/4/2016	3.2	
4.1	Indenture, dated as of February 12, 2019, by and between Tabula Rasa HealthCare, Inc. and U.S. Bank National Association, as trustee	8-K	2/12/2019	4.1	
4.2	Form of Note (included in Exhibit 4.1)	8-K	2/12/2019	4.1	
4.3	Description of the Registrant's Securities	10-K	3/2/2020	4.3	
4.4	Rights Agreement, dated as of July 25, 2022, by and between Tabula Rasa HealthCare, Inc. and American Stock Transfer & Trust Company, LLC, as rights agent	8-K	7/26/2022	4.1	
10.1*	Tabula Rasa HealthCare, Inc. Amended and Restated 2014 Equity Compensation Plan, including forms of Incentive Stock Option Agreement, Nonqualified Stock Option Agreements, and Restricted Stock Agreement thereunder	S-1/A	9/19/2016	10.1	
10.2	Form of Indemnification Agreement				X
10.3	Loan and Security Agreement, dated as of April 29, 2015, by and among Western Alliance Bank, successor in interest to Bridge Bank, National Association, and Tabula Rasa HealthCare, Inc., CareKinesis, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., and Medliance LLC, as amended by that Loan and Security Modification Agreement, dated as of July 1, 2016, by and among Western Alliance Bank, as successor in interest to Bridge Bank, National Association, and CareKinesis, Inc., Tabula Rasa HealthCare, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc. and Medliance LLC, included as Exhibit 10.4, as amended by that Loan and Security Modification Agreement, dated as of September 15, 2016, by and among Western Alliance Bank, CareKinesis, Inc., Tabula Rasa HealthCare, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., Medliance LLC and CK Solutions, LLC, included as Exhibit 10.5	S-1	1/4/2016	10.6	
10.4	Loan and Security Modification Agreement, dated as of July 1, 2016, by and among Western Alliance Bank, as successor in interest to Bridge Bank, National Association, and CareKinesis, Inc., Tabula Rasa HealthCare, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc. and Medliance LLC	S-1/A	7/21/2016	10.7	
10.5	Loan and Security Modification Agreement, dated as of September 15, 2016, by and among Western Alliance Bank, CareKinesis, Inc., Tabula Rasa HealthCare, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., Medliance LLC and CK Solutions, LLC	S-1/A	9/19/2016	10.8	

10.6	Amended and Restated Loan and Security Agreement, dated as of September 6, 2017, by and among CareKinesis, Inc., Tabula Rasa HealthCare, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., Medliance LLC, CK Solutions, LLC, SinfoníaRx, Inc., Sinfonía HealthCare Corporation, TRCRD, Inc., TRSHC Holdings, LLC, the several banks and other financial institutions or entities from time to time party thereto, and Western Alliance Bank, as a Lender and as administrative agent and collateral agent for the Lenders	8-K	9/7/2017	10.1
10.7	Loan and Security Modification Agreement, dated as of May 1, 2018, by and among CareKinesis, Inc., Tabula Rasa HealthCare Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., Medliance LLC, CK Solutions, LLC, TRSHC Holdings, LLC, and SinfoníaRx, Inc., and Western Alliance Bank	10-Q	8/8/2018	10.1
10.8	Loan and Security Modification Agreement, dated August 31, 2018, by and among CareKinesis, Inc., Tabula Rasa HealthCare Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., Medliance LLC, CK Solutions, LLC, TRSHC Holdings, LLC, and SinfoníaRx, Inc., the several banks and other financial institutions or entities party thereto and Western Alliance Bank	10-Q	11/8/2018	10.2
10.9	Loan and Security Modification Agreement, entered into as of October 19, 2018, by and among CareKinesis, Inc., Tabula Rasa HealthCare, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., Medliance LLC, CK Solutions, LLC, TRSHC Holdings, LLC, SinfoníaRx, Inc., TRHC MEC Holdings, LLC, Mediture, LLC, eClusive L.L.C., the several banks and other financial institutions or entities party thereto and Western Alliance Bank	8-K	2/8/2019	10.1
10.10	Loan and Security Modification Agreement, entered into as of December 31, 2018, by and among CareKinesis, Inc., Tabula Rasa HealthCare, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., Medliance LLC, CK Solutions, LLC, TRSHC Holdings, LLC, SinfoníaRx, Inc., TRHC MEC Holdings, LLC, Mediture, LLC, eClusive L.L.C., Cognify LLC, the several banks and other financial institutions or entities party thereto, and Western Alliance Bank	8-K	1/2/2019	10.1
10.11	Loan and Security Modification Agreement, entered into as of February 7, 2019, by and among CareKinesis, Inc., Tabula Rasa HealthCare, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., Medliance LLC, CK Solutions, LLC, TRSHC Holdings, LLC, SinfoníaRx, Inc., TRHC MEC Holdings, LLC, Mediture, LLC, eClusive L.L.C., Cognify, LLC, TRHC DM Holdings, LLC, the several banks and other financial institutions or entities party thereto, and Western Alliance Bank, as a Lender and as administrative agent and collateral agent for the Lenders	8-K	2/8/2019	10.2
10.12	Loan and Security Modification Agreement, entered into as of March 5, 2019, by and among CareKinesis, Inc., Tabula Rasa HealthCare, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., Medliance LLC, CK Solutions, LLC, TRSHC Holdings, LLC, SinfoníaRx, Inc., TRHC MEC Holdings, LLC, Mediture, LLC, eClusive L.L.C., Cognify, LLC, TRHC DM Holdings, LLC, the several banks and other financial institutions or entities party thereto, and Western Alliance Bank, as a Lender and as administrative agent and collateral agent for the Lenders	10-Q	5/10/2019	10.2
10.13	Loan and Security Modification Agreement, entered into as of December 20, 2019, by and among CareKinesis, Inc., Tabula Rasa HealthCare, Inc., Carevention, Inc., Capstone Performance Systems, LLC, J.A. Robertson, Inc., Medliance LLC, CK Solutions, LLC, TRSHC Holdings, LLC, SinfoníaRx, Inc., TRHC MEC Holdings, LLC, Mediture, LLC, eClusive L.L.C., Cognify, LLC, DoseMe, LLC, the several banks and other financial institutions or entities party thereto, and Western Alliance Bank, as a Lender and as administrative agent and collateral agent for the Lenders	10-K	3/2/2020	10.13
10.14	Loan and Security Modification Agreement, entered into as of September 2, 2020, by and among Tabula Rasa HealthCare Group, Inc., Tabula Rasa HealthCare, Inc., CK Solutions, LLC, the several banks and other financial institutions or entities party thereto, and Western Alliance Bank, as Lender and as administrative agent and collateral agent for the Lenders	8-K	9/9/2020	10.1
10.15	Loan and Security Modification Agreement, entered into as of October 5, 2020, by and among Tabula Rasa HealthCare Group, Inc., Tabula Rasa HealthCare, Inc., CK Solutions, LLC, the several banks and other financial institutions or entities party thereto, and Western Alliance Bank, as a Lender and as administrative agent and collateral agent for the Lenders	8-K	10/5/2020	10.1
10.16	Loan and Security Agreement, entered into as of December 18, 2020, by and among Tabula Rasa HealthCare Group, Inc., Tabula Rasa HealthCare, Inc., CK Solutions, LLC, Personica, LLC, TRHC TPA, LLC, PersonifilRx, the several banks and other financial institutions or entities party thereto, Western Alliance Bank and Regions Bank, as documentation agent	8-K	12/22/2020	10.1
10.17*	Tabula Rasa HealthCare, Inc. 2016 Omnibus Incentive Compensation Plan, including forms of Incentive Stock Option Agreement, Nonqualified Stock Option Agreement, and Restricted Stock Agreement thereunder	S-1/A	9/19/2016	10.15
10.18*	Form of Director Stock Unit Agreement	10-K	3/2/2020	10.15

10.19	Lease Agreement, dated as of August 21, 2015, by and between 228 Strawbridge Associates, LLC and Tabula Rasa HealthCare, Inc. (Suite 100), as amended by that First Amendment to Lease Agreements, dated as of March 22, 2016, by that Second Amendment to Lease Agreements, dated as of February 3, 2017, and by that Third Amendment to Lease Agreements, effective as of July 10, 2018.	10-K	3/1/2019	10.11
10.20	Lease Agreement, dated as of August 21, 2015, by and between 228 Strawbridge Associates, LLC and Tabula Rasa HealthCare, Inc. (Suite 200), as amended by that First Amendment to Lease Agreements, dated as of March 22, 2016, by that Second Amendment to Lease Agreements, dated as of February 3, 2017, and by that Third Amendment to Lease Agreements, effective as of July 10, 2018	10-K	3/1/2019	10.12
10.21	Lease Agreement, dated as of August 21, 2015, by and between 228 Strawbridge Associates, LLC and Tabula Rasa HealthCare, Inc. (Suite 300), as amended by that First Amendment to Lease Agreements, dated as of March 22, 2016, by that Second Amendment to Lease Agreements, dated as of February 3, 2017, and by that Third Amendment to Lease Agreements, effective as of July 10, 2018	10-K	3/1/2019	10.13
10.22#	Affiliated Pharmacy Agreement, dated as of March 29, 2019, by and between Thrifty Drug Stores, Inc. and Tabula Rasa HealthCare, Inc.	10-Q	5/10/2019	10.11
10.23#	Pharmaceutical Program Supply Agreement, effective as of March 29, 2019, by and between Thrifty Drug Stores, Inc. and Tabula Rasa HealthCare, Inc.	10-Q	5/10/2019	10.12
10.24*	Tabula Rasa HealthCare, Inc. Annual Incentive Plan, effective as of January 1, 2017	8-K	4/28/2017	10.4
10.25*	Change-in-Control and Severance Agreement, dated as of January 1, 2018, by and between Dr. Calvin Knowlton and Tabula Rasa HealthCare, Inc.	8-K	3/2/2018	10.1
10.26*	Change-in-Control and Severance Agreement, dated as of January 1, 2018, by and between Dr. Orsula Knowlton and Tabula Rasa HealthCare, Inc.	8-K	3/2/2018	10.2
10.27*	Change-in-Control and Severance Agreement, dated as of January 1, 2018, by and between Brian Adams and Tabula Rasa HealthCare, Inc.	8-K	3/2/2018	10.3
10.28*	First Amendment to the Tabula Rasa Healthcare, Inc. Annual Incentive Plan, dated as of February 26, 2018	8-K	3/2/2018	10.4
10.29	Call Option Confirmation, dated as of February 7, 2019, by and between Tabula Rasa HealthCare, Inc. and Citibank, N.A.	8-K	2/12/2019	10.1
10.30	Call Option Confirmation, dated as of February 7, 2019, by and between Tabula Rasa HealthCare, Inc. and Bank of America, N.A.	8-K	2/12/2019	10.2
10.31	Warrant Confirmation, dated as of February 7, 2019, by and between Tabula Rasa HealthCare, Inc. and Citibank, N.A.	8-K	2/12/2019	10.3
10.32	Warrant Confirmation, dated as of February 7, 2019, by and between Tabula Rasa HealthCare, Inc. and Bank of America, N.A.	8-K	2/12/2019	10.4
10.33	Call Option Confirmation, dated as of February 8, 2019, by and between Tabula Rasa HealthCare, Inc. and Citibank, N.A.	8-K	2/12/2019	10.5
10.34	Call Option Confirmation, dated as of February 8, 2019, by and between Tabula Rasa HealthCare, Inc. and Bank of America, N.A.	8-K	2/12/2019	10.6
10.35	Warrant Confirmation, dated as of February 8, 2019, by and between Tabula Rasa HealthCare, Inc. and Citibank, N.A.	8-K	2/12/2019	10.7
10.36	Warrant Confirmation, dated as of February 8, 2019, by and between Tabula Rasa HealthCare, Inc. and Bank of America, N.A.	8-K	2/12/2019	10.8
10.37	Affiliated Pharmacy Agreement, dated as of June 30, 2020, by and between Thrifty Drug Stores, Inc. and Tabula Rasa HealthCare Group, Inc.	10-Q	8/6/2020	10.1
10.38	Pharmaceutical Program Supply Agreement, effective as of July 1, 2020, by and between Thrifty Drug Stores, Inc. and Tabula Rasa HealthCare Group, Inc.	10-Q	8/6/2020	10.2
10.39	Retailer Addendum to Pharmaceutical Program Supply Agreement (High Volume), effective as of June 30, 2020, by and between Thrifty Drug Stores, Inc. and Tabula Rasa HealthCare Group, Inc.	10-Q	8/6/2020	10.3
10.41	Form of Letter Agreement, dated as of November 12, 2020, by and between Tabula Rasa HealthCare, Inc. and each of Calvin H. Knowlton, Orsula V. Knowlton and Brian W. Adams	8-K	11/16/2020	10.1
10.42	Tabula Rasa HealthCare, Inc. Employee Stock Purchase Plan	8-K	6/17/2021	10.1
10.43*	Change in Control and Severance Agreement, dated as of January 1, 2018, as amended effective December 14, 2021, and between Brian Adams and Tabula Rasa HealthCare, Inc.	10-K	2/25/2022	10.43
10.44#	Asset Purchase Agreement, dated as of June 18, 2022, by and among Tabula Rasa HealthCare Group, Inc., Transaction Data Systems, Inc., and Tabula Rasa HealthCare, Inc.	8-K	6/21/2022	2.1
10.45#	Asset Purchase Agreement, by and between Tabula Rasa HealthCare Group, Inc., and karmadata, Inc., dated as of June 18, 2022	8-K	6/21/2022	2.2
10.46	Cooperation Agreement, dated as of September 13, 2022, by and between Tabula Rasa HealthCare, Inc. and Indaba Capital Management, L.P.	8-K	9/14/2022	10.1
10.47*	Executive Transition and Separation Agreement, dated as of September 13, 2022, by and between Tabula Rasa HealthCare, Inc. and Dr. C. Knowlton	8-K	9/14/2022	10.2
10.48*	Executive Transition and Separation Agreement, dated as of September 13, 2022, by and between Tabula Rasa HealthCare, Inc. and Dr. O. Knowlton	8-K	9/14/2022	10.3
10.49	Consulting Agreement, dated as of September 13, 2022, by and between Tabula Rasa HealthCare, Inc. and Dr. C. Knowlton	8-K	9/14/2022	10.4

10.50	Consulting Agreement, dated as of September 13, 2022, by and between Tabula Rasa HealthCare, Inc. and Dr. O. Knowlton	8-K	9/14/2022	10.5	
10.51	Form of 2022 Performance Stock Unit Award Agreement	10-Q	11/4/2022	10.8	
10.52	Indemnification Agreement, dated as of September 13, 2022, by and between Tabula Rasa HealthCare, Inc. and Jonathan Schwartz	10-Q	11/4/2022	10.9	
10.53*	Offer Letter, dated as of February 2, 2022, by and between Tabula Rasa HealthCare, Inc. and Thomas Cancro	10-Q	5/9/2022	10.1	
10.54*	Change in Control and Severance Agreement, dated as of February 24, 2022, by and between Thomas Cancro and Tabula Rasa HealthCare, Inc	10-Q	5/9/2022	10.2	
10.55#	Master Services Agreement, dated as of August 30, 2021, by and between Tabula Rasa HealthCare, Inc. and Mphasis Corporation	10-Q	5/9/2022	10.4	
10.56*	Sixth Amendment to Restricted Stock Agreement (Calvin Knowlton)	8-K	5/18/2022	10.1	
10.57*	Sixth Amendment to Restricted Stock Agreement (Orsula Knowlton)	8-K	5/18/2022	10.2	
10.58	Form of Restricted Stock Agreement	10-Q	8/5/2022	10.5	
10.59#	Share and Asset Purchase Agreement, dated as of January 20, 2023, by and between Tabula Rasa HealthCare Group, Inc. and DoseMe Operations Inc.				X
10.60#	Asset Purchase Agreement, dated as of March 2, 2023, by and between Tabula Rasa HealthCare Group, Inc. and Symphony Clinic, LLC				X
21.1	Subsidiaries of Registrant				X
23.1	Consent of KPMG LLP				X
31.1	Certification of Chief Executive Officer (Principal Executive Officer) required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
31.2	Certification of Chief Financial Officer (Principal Financial Officer) required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
32.1**	Certification of Chief Executive Officer (Principal Executive Officer) and Chief Financial Officer (Principal Financial Officer), as required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				X
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document				X
101.SCH	Inline XBRL Taxonomy Extension Schema Document				X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase				X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase				X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase				X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase				X
104	The cover page from the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022, formatted in Inline XBRL (contained in Exhibit 101)				X

* Represents management contract or compensatory plan or arrangement.

** This certification attached as Exhibit 32.1 that accompanies this Annual Report on Form 10-K is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Tabula Rasa HealthCare, 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 Form 10-K), irrespective of any general incorporation language contained in such filing.

Certain schedules and exhibits to this exhibit have been omitted pursuant to Item 601(a)(5) or 601(b)(2) of Regulation S-K, as applicable. The Company will furnish the omitted schedules and exhibits to the Securities and Exchange Commission upon request.

Signatures

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

TABULA RASA HEALTHCARE, INC.

Date: March 10, 2023

By: /s/ BRIAN W. ADAMS
Name: Brian W. Adams
Title: Interim Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Date: March 10, 2023

By: /s/ BRIAN W. ADAMS
Name: Brian W. Adams
Title: Interim Chief Executive Officer
(Principal Executive Officer)

Date: March 10, 2023

By: /s/ THOMAS J. CANCRO
Name: Thomas J. Cancro
Title: Chief Financial Officer
(Principal Financial and Accounting Officer)

Date: March 10, 2023

By: /s/ SAMIRA K. BECKWITH
Name: Samira K. Beckwith
Title: Director

Date: March 10, 2023

By: /s/ DR. JAN BERGER
Name: Dr. Jan Berger
Title: Director

Date: March 10, 2023

By: /s/ DR. DENNIS K. HELLING
Name: Dr. Dennis K. Helling
Title: Director

Date: March 10, 2023

By: /s/ RON MITCHELL
Name: Ron Mitchell
Title: Director

Date: March 10, 2023

By: /s/ KATHRINE O'BRIEN
Name: Kathrine O'Brien
Title: Director

Date: March 10, 2023

By: /s/ MICHAEL PURCELL
Name: Michael Purcell
Title: Director

Date: March 10, 2023

By: /s/ DEREK SCHRIER
Name: Derek Schrier
Title: Director

Date: March 10, 2023

By: /s/ JONATHAN SCHWARTZ
Name: Jonathan Schwartz
Title: Director

Date: March 10, 2023

By: /s/ DR. PAMELA SCHWEITZER
Name: Dr. Pamela Schweitzer
Title: Director

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	Consolidated Statements of Operations for the Years Ended December 31, 2022, 2021, and 2020	F-5
	Consolidated Statements of Stockholders' Equity (Deficit) for the Years Ended December 31, 2022, 2021, and 2020	F-6
	Consolidated Statements of Cash Flows for the Years Ended December 31, 2022, 2021, and 2020	F-7
	Notes to Consolidated Financial Statements	F-8
2.	Supplemental Financial Data	
	The following supplemental financial data of the Registrant required to be included in Item 15(a)(2) on Form 10-K are listed below:	
	Schedule II – Valuation and Qualifying Accounts	F-52

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Tabula Rasa HealthCare, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Tabula Rasa HealthCare, Inc. and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations, stockholders' equity (deficit), and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes and financial statement schedule II - valuation and qualifying accounts (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

Change in Accounting Principle

As discussed in Note 14 to the consolidated financial statements, the Company has changed its method of accounting for convertible debt instruments as of January 1, 2021 due to the adoption of Accounting Standards Update (ASU) No. 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)*.

Basis for Opinion

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

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

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Sufficiency of audit evidence over revenue

As discussed in Notes 2, 3, and 6 to the consolidated financial statements, the Company had $299,516 thousand in revenues for the year ended December 31, 2022, of which $231,052 thousand and $68,464 thousand was medication revenue and technology-enabled solutions revenue, respectively. Additionally, included within discontinued operations for the year ended December 31, 2022, the Company had $19,306 thousand in revenues for the PrescribeWellness business and $27,898 thousand in revenues for the DoseMe and SinfoniaRx businesses. The Company has multiple revenue streams for medication revenue, technology-enabled solutions revenue, and revenues reported in discontinued operations.

We identified the evaluation of the sufficiency of audit evidence over revenue as a critical audit matter. Evaluating the sufficiency of audit evidence required especially challenging auditor judgment due to the number of revenue streams in the revenue recognition process. This included determining the revenue streams over which procedures were performed and evaluating the nature and extent of evidence obtained over each revenue stream.

The following are the primary procedures we performed to address this critical audit matter. We applied auditor judgment to determine the nature and extent of procedures to be performed over revenue, including the revenue streams over which procedures were performed. For each revenue stream over which procedures were performed, we assessed the recorded revenue by selecting transactions and comparing the amounts recognized for consistency with underlying documentation, including contracts with customers and the Company's revenue recognition policies. We evaluated the sufficiency of audit evidence obtained by assessing the results of procedures performed, including the appropriateness of the nature and extent of such evidence.

/s/ KPMG LLP

We have served as the Company's auditor since 2012.

Philadelphia, Pennsylvania
March 10, 2023

TABULA RASA HEALTHCARE, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share amounts)

	December 31, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 70,017	$ 9,395
Restricted cash	12,372	6,038
Accounts receivable, net of allowance of $368 and $110, respectively	19,252	21,405
Inventories	6,566	5,444
Prepaid expenses	4,664	3,812
Client claims receivable	16,377	11,257
Other current assets	18,187	18,033
Current assets of discontinued operations	22,825	14,511
Total current assets	170,260	89,895
Property and equipment, net	9,158	11,778
Operating lease right-of-use assets	10,483	16,323
Software development costs, net	32,592	29,254
Goodwill	115,323	115,323
Intangible assets, net	38,326	45,358
Contingent consideration receivable	3,350	—
Other assets	4,657	3,929
Noncurrent assets of discontinued operations	—	187,558
Total assets	$ 384,149	$ 499,418
Liabilities and stockholders' equity (deficit)		
Current liabilities:		
Current operating lease liabilities	$ 2,708	$ 3,275
Accounts payable	19,459	8,870
Client claims payable	10,781	8,398
Accrued expenses and other liabilities	55,745	40,997
Current liabilities of discontinued operations	13,389	12,380
Total current liabilities	102,082	73,920
Line of credit	—	29,500
Long-term debt, net of discount of $3,160 and $5,701, respectively	232,112	319,299
Long-term debt – related party, net of discount of $1,206 and $0, respectively	88,522	—
Noncurrent operating lease liabilities	12,786	15,792
Deferred income tax liability, net	1,380	1,402
Other long-term liabilities	4,298	176
Noncurrent liabilities of discontinued operations	—	3,573
Total liabilities	441,180	443,662
Commitments and contingencies (Note 19)		
Stockholders' equity (deficit):		
Preferred stock, $0.0001 par value; 10,000,000 shares authorized; no shares issued and outstanding at December 31, 2022 and December 31, 2021	—	—
Common stock, $0.0001 par value; 100,000,000 shares authorized, 28,031,616 and 26,036,236 shares issued and 27,129,096 and 25,666,434 shares outstanding at December 31, 2022 and December 31, 2021, respectively	3	3
Treasury stock, at cost; 902,520 and 369,802 shares at December 31, 2022 and December 31, 2021, respectively	(3,391)	(4,292)
Additional paid-in capital	354,214	320,392
Accumulated deficit	(407,857)	(260,347)
Total stockholders' equity (deficit)	(57,031)	55,756
Total liabilities and stockholders' equity (deficit)	$ 384,149	$ 499,418

See accompanying notes to consolidated financial statements.

TABULA RASA HEALTHCARE, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except share and per share amounts)

	Year Ended December 31,		
	2022	**2021**	**2020**
Revenue:			
Medication revenue	$ 231,052	$ 189,591	$ 158,692
Technology-enabled solutions revenue	68,464	70,291	62,697
Total revenue	299,516	259,882	221,389
Cost of revenue, exclusive of depreciation and amortization shown below:			
Cost of medication revenue	178,527	143,700	116,463
Cost of technology-enabled solutions revenue	54,076	49,678	44,155
Total cost of revenue, exclusive of depreciation and amortization	232,603	193,378	160,618
Operating expenses:			
Research and development	14,483	14,629	14,426
Sales and marketing	10,491	11,039	8,145
General and administrative	74,974	63,095	55,091
Change in fair value of acquisition-related contingent consideration expense	—	—	2,613
Change in fair value of contingent consideration receivable	3,650	—	—
Long-lived asset impairment charge	8,943	—	5,040
Depreciation and amortization	23,347	20,482	16,633
Total operating expenses	135,888	109,245	101,948
Loss from operations	(68,975)	(42,741)	(41,177)
Other income (expense):			
Interest expense, net	(9,034)	(9,107)	(20,743)
Other income	1,064	—	—
Total other expense, net	(7,970)	(9,107)	(20,743)
Loss from continuing operations before income taxes	(76,945)	(51,848)	(61,920)
Income tax expense (benefit)	389	390	(5,409)
Net loss from continuing operations	(77,334)	(52,238)	(56,511)
Net loss from discontinued operations, net of tax	(70,176)	(26,817)	(24,455)
Net loss	$ (147,510)	$ (79,055)	$ (80,966)
Net loss per share:			
Net loss per share from continuing operations, basic and diluted	$ (3.18)	$ (2.24)	$ (2.59)
Net loss per share from discontinued operations, basic and diluted	(2.89)	(1.15)	(1.12)
Total net loss per share, basic and diluted	$ (6.07)	$ (3.39)	$ (3.71)
Weighted average common shares outstanding, basic and diluted	24,293,483	23,290,660	21,815,388

See accompanying notes to consolidated financial statements.

TABULA RASA HEALTHCARE, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands, except share amounts)

	For the Years Ended December 31, 2022, 2021, and 2020						
	Common Stock		Treasury Stock		Additional	Accumulated	Stockholders'
	Shares	Amount	Shares	Amount	Paid-in Capital	Deficit	Equity (Deficit)
Balance, January 1, 2020	22,496,999	$ 2	(175,689)	$ (3,865)	$ 288,345	$ (98,934)	$ 185,548
Issuance of common stock in connection with acquisition	555,555	—	—	—	23,589	—	23,589
Issuance of common stock awards	14,386	—	—	—	—	—	—
Issuance of restricted stock	578,261	—	—	—	—	—	—
Forfeitures of restricted shares	—	—	(51,391)	—	—	—	—
Exercise of stock options, net of shares withheld	442,039	—	(3,198)	(153)	1,103	—	950
Share adjustment	—	—	12,500	—	—	—	—
Issuance of common stock in connection with the settlement of acquisition-related contingent consideration	135,434	—	—	—	6,853	—	6,853
Stock-based compensation expense	—	—	—	—	32,555	—	32,555
Net loss	—	—	—	—	—	(80,966)	(80,966)
Balance, December 31, 2020	24,222,674	2	(217,778)	(4,018)	352,445	(179,900)	168,529
Cumulative effect of change in accounting policy	—	—	—	—	(74,850)	(1,392)	(76,242)
Issuance of common stock awards	1,416	—	—	—	—	—	—
Issuance of restricted stock	1,446,376	1	—	—	—	—	1
Forfeitures of restricted shares	—	—	(145,684)	—	—	—	—
Exercise of stock options, net of shares withheld	365,770	—	(6,340)	(274)	4,343	—	4,069
Stock-based compensation expense	—	—	—	—	38,454	—	38,454
Net loss	—	—	—	—	—	(79,055)	(79,055)
Balance, December 31, 2021	26,036,236	3	(369,802)	(4,292)	320,392	(260,347)	55,756
Issuance of common stock awards	28,733	—	615,066	3,082	(3,082)	—	—
Issuance of restricted stock	1,945,277	—	107,480	—	—	—	—
Forfeitures of restricted shares	—	—	(791,537)	—	—	—	—
Exercise of stock options, net of shares withheld	14,732	—	(109)	—	73	—	73
Vesting of restricted stock units	6,638	—	—	—	—	—	—
Shares withheld for payment of employee taxes	—	—	(463,618)	(2,181)	—	—	(2,181)
Stock-based compensation expense	—	—	—	—	36,831	—	36,831
Net loss	—	—	—	—	—	(147,510)	(147,510)
Balance, December 31, 2022	28,031,616	$ 3	(902,520)	$ (3,391)	$ 354,214	$ (407,857)	$ (57,031)

See accompanying notes to consolidated financial statements.

TABULA RASA HEALTHCARE, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2022	**2021**	**2020**
Cash flows from operating activities:			
Net loss	$ (147,510)	$ (79,055)	$ (80,966)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	30,678	47,706	45,040
Amortization of deferred financing costs and debt discount	2,309	2,185	13,637
Deferred taxes	(22)	513	(5,302)
Stock-based compensation	36,831	38,454	32,555
Change in fair value of acquisition-related contingent consideration	—	—	2,613
Change in fair value of contingent consideration receivable	3,650	—	—
Acquisition-related contingent consideration paid	—	(67)	(2,593)
Impairment charges	56,828	—	5,040
Loss on divestiture of business	2,879	—	—
Other noncash items	70	39	(66)
Changes in operating assets and liabilities, net of effect of divestiture and acquisitions:			
Accounts receivable, net	5,542	(1,526)	(2,448)
Inventories	(1,122)	(1,183)	(239)
Prepaid expenses and other current assets	(3,410)	(8,834)	4,859
Client claims receivables	(5,120)	2,697	(5,674)
Other assets	(1,315)	(2,057)	(494)
Accounts payable	8,697	1,982	2,149
Accrued expenses and other liabilities	12,211	14,294	(3,642)
Client claims payables	2,383	664	(249)
Other long-term liabilities	3,778	(360)	598
Net cash provided by operating activities	7,357	15,452	4,818
Cash flows from investing activities:			
Purchases of property and equipment	(2,285)	(3,350)	(3,091)
Software development costs	(26,451)	(31,844)	(18,836)
Acquisitions of businesses, net of cash acquired	—	—	(6,807)
Proceeds from divestiture of business	120,038	—	—
Net cash provided by (used in) investing activities	91,302	(35,194)	(28,734)
Cash flows from financing activities:			
Proceeds from exercise of stock options	73	4,072	3,943
Payments for employee taxes for shares withheld	(2,181)	(3)	(2,993)
Payments for debt financing costs	(350)	(8)	(1,226)
Borrowings on line of credit	27,700	29,500	10,000
Repayments of line of credit	(57,200)	(10,000)	—
Payment of acquisition-related notes payable	—	(16,542)	—
Payments of acquisition-related contingent consideration	—	(99)	(3,801)
Repayments of long-term debt and finance leases	—	(4)	(56)
Net cash (used in) provided by financing activities	(31,958)	6,916	5,867
Net increase (decrease) in cash, cash equivalents and restricted cash	66,701	(12,826)	(18,049)
Cash, cash equivalents and restricted cash, beginning of year	15,706	28,532	46,581
Cash, cash equivalents and restricted cash, end of year [1]	$ 82,407	$ 15,706	$ 28,532
Supplemental disclosure of cash flow information:			
Purchases of property and equipment and software development included in accounts payable and accrued expenses	$ 1,516	$ 134	$ 183
Purchases of property and equipment and software development through vendor financing arrangements	$ 1,042	$ —	$ —
Cash paid for interest	$ 7,204	$ 8,678	$ 5,808
Cash paid for taxes (income tax refund)	$ 123	$ 53	$ (24)
Interest costs capitalized to software development costs	$ 272	$ 322	$ 257
Stock issued in connection with settlement of acquisition-related contingent consideration	$ —	$ —	$ 6,853
Stock issued in connection with acquisitions	$ —	$ —	$ 23,589
Fair value of promissory notes entered into in connection with acquisition	$ —	$ —	$ 16,355
Reconciliation of cash, cash equivalents and restricted cash:			
Cash and cash equivalents	$ 70,017	$ 9,395	$ 22,531
Restricted cash	12,372	6,038	5,170
Cash from discontinued operations	18	273	831
Total cash, cash equivalents and restricted cash	$ 82,407	$ 15,706	$ 28,532

(1) The cash flows related to discontinued operations have not been segregated. Accordingly, the consolidated statements of cash flows include the results of continuing and discontinued operations. As a result of the divestiture, the changes in operating assets and liabilities for the year ended December 31, 2022 exclude changes related to the divested business. See Note 6 for discussion of discontinued operations and divestiture of business.

See accompanying notes to consolidated financial statements.

1. Nature of Business

Tabula Rasa HealthCare, Inc. (the "Company") is a healthcare technology company advancing the safe use of medications by creating solutions designed to empower pharmacists, providers, and patients to optimize medication regimens, combating medication overload and reducing adverse drug events. The Company's advanced proprietary technology solutions, including MedWise®, identify causes of and risks for medication-related problems so that healthcare professionals can minimize harm and reduce medication-related risks. The Company's software and services help drive value-based care by improving patient outcomes and lowering healthcare costs through reduced hospitalizations, emergency department visits, and healthcare utilization. The Company serves a number of different organizations within the healthcare industry, including health plans and at-risk provider groups, the majority of which are organizations with Programs of All-Inclusive Care for the Elderly ("PACE").

2. Summary of Significant Accounting Policies

(a) Basis of Presentation

The accompanying consolidated financial statements of the Company have been prepared in accordance with United States ("U.S.") generally accepted accounting principles ("GAAP") and applicable rules and regulations of the Securities and Exchange Commission (the "SEC") regarding annual financial reporting. Any reference in these notes to applicable guidance is meant to refer to the authoritative U.S. GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Update ("ASU") of the Financial Accounting Standards Board ("FASB"). The accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

During the first quarter of 2022, the Company announced plans to evaluate non-core assets, refocus its corporate strategy, and increase stockholder value. As a result, the Company commenced plans to sell the SinfoníaRx, DoseMe, and PrescribeWellness businesses, which the Company acquired in September 2017, January 2019, and March 2019, respectively. The sales of the PrescribeWellness, DoseMe, and SinfoníaRx businesses were completed in August 2022, January 2023, and March 2023, respectively. These businesses comprised the majority of the Company's MedWise HealthCare segment. The Company's completed sales of the PrescribeWellness, DoseMe, and SinfoníaRx businesses represented a strategic business shift having a significant effect on the Company's operations and financial results. As a result, the Company determined that these businesses met such requirements to be classified as held for sale and discontinued operations as of March 31, 2022, and the DoseMe and SinfoníaRx businesses continued to meet the requirements as of December 31, 2022. Accordingly, unless otherwise indicated, the accompanying consolidated financial statements have been recast for all periods presented to reflect the assets, liabilities, revenue, and expenses related to these businesses as discontinued operations. Unless otherwise noted, amounts and disclosures throughout the notes to the consolidated financial statements relate to the Company's continuing operations. See Note 6 for further information on the Company's discontinued operations.

To provide improved description over the Company's disaggregation of revenue, the Company retitled its revenue categories from product revenue and service revenue to medication revenue and technology-enabled solutions revenue, respectively, in the consolidated statements of operations and the notes to the consolidated financial statements. The change had no impact to the amounts previously reported in the consolidated statements of operations and the notes to the consolidated financial statements.

(b) Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, 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. Actual results could differ from those estimates or assumptions.

On an ongoing basis, management evaluates its estimates and assumptions, including, but not limited to, those related to: (i) the fair value of assets acquired and liabilities assumed for business combinations, (ii) the recognition and

disclosure of contingent liabilities, (iii) the useful lives of long-lived assets, including definite-lived intangible assets, (iv) the evaluation of revenue recognition criteria, (v) the evaluation of contract assets and consideration payable to customers related to manufacturer rebates earned by the Company's pharmacy benefit management solutions, (vi) the realizability of long-lived assets, including goodwill and intangible assets, (vii) the assumptions used to determine the fair value of right-of-use assets and liabilities for the Company's leases, (viii) the assumptions used to determine the fair value of convertible debt instruments and related equity-classified conversion option, (ix) the fair value of contingent consideration receivable, and (x) the assumptions used to determine the fair value of held for sale businesses. These estimates are based on historical data and experience, as well as various other factors that management believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. The Company has engaged and, in the future, may engage third-party valuation specialists to assist with estimates related to the valuation of assets and liabilities acquired. Such estimates often require the selection of appropriate valuation methodologies and models, and significant judgment in evaluating ranges of assumptions and financial inputs. Actual results may differ from those estimates under different assumptions or circumstances.

(c) Assets and Liabilities Held for Sale and Discontinued Operations

A long-lived asset (or disposal group) is classified as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable within a year. A long-lived asset (or disposal group) classified as held for sale is initially measured at the lower of its carrying amount or fair value less costs to sell. An impairment loss is recognized for any initial or subsequent write-down of the long-lived asset (or disposal group) to fair value less costs to sell. A gain or loss not previously recognized by the date of the sale of the long-lived asset (or disposal group) is recognized at the date of derecognition.

Long-lived assets (including those that are part of a disposal group) are not depreciated or amortized while they are classified as held for sale. Long-lived assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

Additional details surrounding the Company's assets and liabilities held for sale and discontinued operations are included in Note 6.

(d) Revenue Recognition

The Company evaluates its contractual arrangements to determine the performance obligations and transaction prices. Revenue is allocated to each performance obligation and recognized when the related performance obligation is satisfied. Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of revenue. See Note 3 for additional details about the Company's revenue offerings.

(e) Cost of Medication Revenue (exclusive of depreciation and amortization)

Cost of medication revenue includes all costs directly related to the fulfillment and distribution of medications as part of the Company's CareVention HealthCare offerings. These costs consist primarily of the purchase price of the medications that the Company dispenses, shipping and packaging, expenses associated with operating the Company's medication fulfillment centers, including employment costs and stock-based compensation, and expenses related to the hosting of the Company's technology platform. Cost of medication revenue also includes direct overhead expenses and allocated indirect overhead costs. The Company allocates indirect overhead costs among functions based on employee headcount.

(f) Cost of Technology-Enabled Solutions Revenue (exclusive of depreciation and amortization)

Cost of technology-enabled solutions revenue includes all costs directly related to servicing the Company's CareVention HealthCare and MedWise HealthCare service contracts. These costs primarily consist of employment costs, including stock-based compensation, outside contractors, expenses related to supporting the Company's software platforms, direct overhead expenses, and allocated indirect overhead costs. The Company allocates indirect overhead costs among functions based on employee headcount.

(g) Research and Development

Research and development expenses consist primarily of employment costs, including stock-based compensation expense, for employees engaged in scientific research, healthcare analytics, the design and development of new scientific algorithms, and the enhancement of the Company's software and technology platforms. Research and development expenses also include costs for the design and development of new software and technology to support the Company's service offerings, including fees paid to third-party consultants, costs related to quality assurance and testing, and other allocated facility-related overhead and expenses. Costs incurred in research and development are charged to expense as incurred.

(h) Stock-Based Compensation

The Company accounts for stock-based awards granted to employees and directors in accordance with ASC Topic 718, *Compensation — Stock Compensation*, which requires that compensation cost be recognized for awards based on the grant-date fair value of the award. That cost is recognized on a straight-line basis over the period during which an employee, director, or non-employee is required to provide service in exchange for the award — the requisite service period ("vesting period"). The Company classifies stock-based compensation expense in its statement of operations in the same manner in which the award recipient's payroll costs or the recipient's service payments are classified.

The grant-date fair value of employee and non-employee director restricted stock awards and restricted stock units is determined using the Company's closing stock price on the grant date. Restricted stock awards and restricted stock units generally vest over a one-to-four year period, and the unvested portion of these awards is forfeited if the employee or non-employee director leaves the Company before the vesting period is completed.

The grant-date fair value of performance stock units is determined based on the fair value of the Company's closing stock price at grant date and the expected vesting units, taking into consideration the possibilities of all possible performance achievement levels. Stock-based compensation costs associated with these grants are recognized over the performance period. Performance stock units contain performance vesting conditions in addition to a service condition, and the vesting of performance stock units is dependent upon the degree to which the Company achieves its predetermined performance goals.

The grant-date fair value of employee and non-employee director stock option awards is determined using the Black-Scholes option-pricing model. The Company estimates its expected stock volatility based on the historical volatility of its own traded stock price. The expected term of the Company's stock options has been determined utilizing the "simplified" method. The expected term of the stock options granted to non-employees is equal to the contractual term of the option award. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for periods approximately equal to the expected term of the award. Expected dividend yield is based on the fact that the Company has never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future.

The option price per share cannot be less than the fair market value of a share on the date the option was granted, and in the case of incentive stock options granted to an employee owning more than 10% of the total combined voting power of all classes of stock of the Company, the option price shall not be less than 110% of the fair market value of Company stock on the date of grant. Stock option grants under the 2016 Plan (as defined below) generally expire ten years from the date of grant (other than incentive stock option grants to 10% shareholders, which have a five-year term)

90 days after termination, or one year after the date of death or termination due to disability. Stock options generally vest over a period of four years, with 25% of the options becoming exercisable on the one-year anniversary of the commencement date and the remaining shares vesting monthly thereafter for 36 months in equal installments of 2.08% per month.

(i) Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date. Valuation allowances are provided when necessary to reduce deferred tax assets to the amount expected to be realized.

(j) Net Loss per Share

Basic and diluted net loss per share is computed by dividing net loss by the weighted average number of shares of common stock of the Company outstanding during the period.

(k) Cash and Cash Equivalents

Cash consists of cash on deposit with banks. Cash equivalents consist of money market funds or highly liquid investments with a maturity of three months or less from the date of purchase.

(l) Restricted Cash

Cash and cash equivalents that are restricted as to withdrawal or use under certain contractual agreements are recorded in restricted cash on the Company's consolidated balance sheets. As part of the Company's third-party administration services under the CareVention HealthCare segment, the Company holds funds on behalf of its clients. These amounts are recorded as restricted cash with an offsetting liability recorded in accrued expenses and other liabilities on the Company's consolidated balance sheets.

(m) Accounts Receivable, Net

Accounts receivable are recorded at the invoiced amount and do not bear interest. The Company maintains an allowance for doubtful accounts for estimated losses inherent in its accounts receivable portfolio. In establishing the required allowance, management estimates the expected lifetime credit losses on the Company's trade receivables and contract assets using a broad range of reasonable and supportable information, which includes consideration of historical losses and current market conditions on the Company's clients. The Company reviews its allowance for doubtful accounts monthly. The allowance for doubtful accounts was $368 and $110 as of December 31, 2022 and 2021, respectively.

(n) Inventories

Inventories consist of prescription medications and are stated at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method.

(o) Client Claims Receivable and Client Claims Payable

In conjunction with providing pharmacy benefit management ("PBM") solutions for its clients, the Company collects payments for claims from its clients and remits them to the pharmacies that fulfilled the claims. Client claims receivable represents amounts invoiced to the Company's PBM solutions clients for the adjudicated claims of the

clients' members. Client claims payable represents amounts owed to the pharmacies that filled the clients' member claims.

(p) Cloud Computing Arrangements

Costs to implement cloud computing arrangements that are hosted by third-party vendors are capitalized when incurred during the application development phase. Capitalized implementation costs are amortized on a straight-line basis over the reasonably certain term of the hosting arrangement, beginning when the service is ready for its intended use. As of December 31, 2022 and 2021, capitalized implementation costs of $882 and $747, respectively, were included in prepaid expenses. As of December 31, 2022 $1,276 was included in other assets on the Company's consolidated balance sheets. Accumulated amortization for these arrangements was $590 and $398 as of December 31, 2022 and 2021, respectively. Amortization expense for the years ended December 31, 2022, 2021, and 2020 was $192, $208, and $185, respectively.

(q) Vendor Financing Arrangements

On February 24, 2022, the Company expanded its existing relationship with a third-party service provider for business process outsourcing and technology services for its third-party administration services and electronic health records solutions. As a result, the third-party provider hired approximately 180 employees from the Company, hired to fill existing open positions, and will augment with additional resources to meet client demand. The agreement term is seven years and includes total estimated fees of $115,300.

The arrangement includes extended payment terms for cloud computing implementation costs, internally developed software support, and business process support. In order to determine the present value of the commitment, the Company used an imputed interest rate of 9.5%, which was reflective of its estimated uncollateralized borrowing rate at signing. As of December 31, 2022, the outstanding principal balance of the financing arrangement was $5,169 with an unamortized discount of $1,239, which was included in accrued expenses and other liabilities and other long-term liabilities on the Company's consolidated balance sheet. Imputed interest expense from the arrangement was $166 for the year ended December 31, 2022.

On October 1, 2022, the Company entered into a purchase arrangement with a third-party software support and service provider to purchase software licenses for total fees of $1,065. The purchased software licenses were delivered to the Company on the purchase date. The arrangement allows the Company to pay the fees over 36 monthly installment payments. The Company used an imputed interest rate of 10.0%, which was reflective of its estimated collateralized borrowing rate on purchase date. As of December 31, 2022, the outstanding principal balance of the financing arrangement was $916 with an unamortized discount of $138, which was included in accrued expenses and other liabilities and other long-term liabilities on the Company's consolidated balance sheet. Imputed interest expense from the arrangement was $1 for the year ended December 31, 2022.

(r) Leases

The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use ("ROU") assets, current operating lease liabilities, and noncurrent operating lease liabilities on the consolidated balance sheets. ROU assets represent the Company's right to use an underlying asset for the lease term, and lease liabilities represent the Company's obligation to make lease payments arising from the lease.

ROU assets and liabilities are recognized at the lease commencement date based on the estimated net present value of lease payments over the lease term. As the rate implicit in the lease is not readily determinable for most leases, the Company uses its incremental borrowing rate in determining the net present value of lease payments. The Company estimates its incremental borrowing rate for each lease as of the measurement date with consideration of the risk-free rate for varying maturities corresponding to the remaining lease term, the risk premium attributed to the Company's credit rating for a secured or collateralized instrument, and comparable borrowings of similarly rated companies.

Leases with an initial term of twelve months or less are not recorded on the balance sheet. The lease expense for short-term leases is recognized on a straight-line basis over the lease term. Many leases include options to renew, with the exercise of lease renewal options at the Company's sole discretion. The lease terms that include options to renew the lease require such renewal to be included when it is reasonably certain that the Company will exercise such option. The depreciable life of finance lease assets and leasehold improvements is limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain of exercise.

For leases where the Company will derive no economic benefit from leased space that it has vacated or where the Company has shortened the term of a lease when space is no longer needed, the Company will record an impairment or accelerated amortization of the ROU assets.

The Company's lease agreements do not contain any residual value guarantees. The Company has elected to include both lease and nonlease components as a single lease component for its operating leases.

See Note 9 for further detail regarding the Company's lease arrangements.

(s) Property and Equipment, Net

Property and equipment are stated at cost less accumulated depreciation. Additions or improvements that increase the useful life of existing assets are capitalized, while expenditures for repairs and maintenance that do not improve or extend the lives of the respective assets are charged to expense as incurred. Depreciation is recognized using the straight-line method over the estimated useful lives of the assets. The Company depreciates computer hardware and purchased software over a life of three years and office furniture and equipment over a life of five years. Leasehold improvements are amortized over the shorter of the estimated useful life of the asset or the lease term. Upon retirement or sale, the cost and related accumulated depreciation of assets disposed of are removed from the accounts, and any resulting gain or loss is included in the consolidated statements of operations.

(t) Software Development Costs, Net

Certain development costs of the Company's internal-use software are capitalized in accordance with ASC Topic 350, *Intangibles — Goodwill and Other* ("ASC 350"), which outlines the stages of computer software development and specifies when capitalization of costs is required. The Company capitalizes certain costs incurred in connection with obtaining or developing the proprietary platforms that support the Company's medication and technology-enabled service contracts. These costs include third-party contractors and payroll costs for employees directly involved with the software development. Projects that are determined to be in the development stage are capitalized. Subsequent additions, modifications, or upgrades to internal-use software are capitalized to the extent that they allow the software to perform tasks it previously did not perform. Capitalized software costs are amortized beginning when the software project is substantially complete and the asset is ready for its intended use. Capitalized internal-use software costs are amortized using the straight-line method over the remaining estimated useful life of the assets, which is generally three years. Costs incurred in the preliminary project stage and post-implementation stage, as well as maintenance and training costs, are expensed as incurred.

(u) Goodwill

Goodwill consists of the excess purchase price over fair value of net tangible and intangible assets acquired. Goodwill is not amortized, but instead tested for impairment at least annually. Goodwill is assessed for impairment on October 1 of each year or more frequently if events or changes in circumstances indicate that the asset might be impaired. The Company evaluates goodwill in accordance with ASU No. 2017-04, *Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*, which requires the Company to perform its goodwill impairment assessment by comparing the fair value of its reporting units with their respective carrying values.

Prior to performing the quantitative assessment, the Company has the option to perform a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. Factors generally considered in the Company's qualitative assessment that could trigger a quantitative

assessment include significant underperformance relative to expected operating trends, significant changes in the way assets are used, underutilization of the Company's tangible assets, discontinuance of certain products by the Company or by the Company's clients, changes in the competitive environment, and significant negative industry or economic trends. If the Company determines that it is more likely than not that the fair value of a reporting unit is below the carrying amount, a quantitative goodwill impairment test is required. In the quantitative assessment, the fair value of the reporting unit is determined using either a discounted cash flow method or a market approach. If the fair value of the reporting unit is greater than its carrying amount, then the carrying amount is deemed to be recoverable and no further action is required.

If the fair value of the reporting unit is less than its carrying amount, then an indication of goodwill impairment exists for the reporting unit and an impairment loss is recognized in the amount by which the carrying amount exceeds the reporting unit's fair value, and a charge is recorded on the Company's consolidated statements of operations.

For its annual assessment for the year ended December 31, 2022, the Company performed a quantitative assessment of goodwill as of October 1, 2022 using a market approach, which estimates fair value based on a reconciliation of the Company's market capitalization. Based on the analysis performed, the Company determined that the estimated fair value of the Company's reporting units exceeded their carrying values, and as a result, goodwill was not impaired as of December 31, 2022.

During first and second quarter of 2022, Company experienced a sustained decline in the price of the Company's common stock. As a result, the Company determined that an indicator of impairment was present and performed a quantitative goodwill impairment assessment as of March 31, 2022 and June 30, 2022, respectively, using a market approach, which estimates fair value based on a reconciliation of the Company's market capitalization. Based on the analysis performed, the Company determined that the estimated fair value of the Company's reporting units exceeded their carrying values, and as a result, goodwill was not impaired as of March 31, 2022 and June 30, 2022.

During fourth of quarter of 2021, the Company experienced a sustained decline in the price of the Company's common stock. As a result, the Company determined that an indicator of impairment was present and performed a quantitative goodwill impairment assessment as of December 31, 2021 in addition to its annual assessment as of October 1, 2021. The fair value of the reporting units was estimated using a combination of a discounted cash flow method, or income approach, and market approaches, which estimate fair value based on a selection of appropriate peer group companies. The Company utilized forecasts of revenue and operating income, based on management's estimates and long-term plans, as well as required estimates and judgments about working capital requirements, capital expenditures, income taxes, discount rates, terminal growth rates, long-term operating margins, and control premiums and valuation multiples appropriate for acquisitions in the industries in which the Company competes. Based on the analysis performed, the Company determined that the estimated fair value of the Company's reporting units exceeded their carrying values, and as a result, goodwill was not impaired as of December 31, 2021.

For the year ended December 31, 2020, the Company performed a qualitative assessment of goodwill and determined that it was not more likely than not that the fair value of its reporting units was less than the carrying amount.

Accordingly, no impairment loss was recorded for the years ended December 31, 2022, 2021, or 2020. See Note 11 - Goodwill and Intangible Assets for additional information.

(v) Impairment of Long-Lived Assets, Including Other Intangible Assets

Long-lived assets consist of property and equipment, software development costs, and definite-lived intangible assets. Long-lived assets to be held and used are tested for recoverability whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Factors that the Company considers in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends, and significant changes or planned changes in the use of the assets. If an impairment review is performed to evaluate a long-lived asset for recoverability, the Company compares forecasts of undiscounted cash flows expected to result from the use and eventual disposition of the long-lived asset to its carrying value. An impairment loss may be recognized when estimated undiscounted future cash flows

expected to result from the use and disposition of an asset are less than its carrying amount. The impairment loss would be based on the excess of the carrying value of the impaired asset over its fair value, determined based on discounted cash flows or a combination of income and market approaches.

During the first quarter of 2022, the Company became aware of changes in circumstances impacting the future application of certain capitalized software development costs and determined that an indicator of impairment was present. The Company evaluated the recoverability of the related long-lived assets by comparing their carrying amount to the future net undiscounted cash flows expected to be generated by the assets to determine if the carrying value was not recoverable. The recoverability test indicated that certain capitalized software development costs were impaired. As a result, the Company recognized an impairment loss equal to $4,062 for the year ended December 31, 2022.

During the fourth quarter of 2021, the Company determined that an indicator of impairment was present as it related to definite-lived intangible assets obtained from the DoseMe acquisition in 2019, which are presented in current assets of discontinued operations as of December 31, 2022 and in noncurrent assets of discontinued operations as of December 31, 2021. The recoverability test indicated that the undiscounted cash flows of the asset group were less than its carrying value. Therefore, the estimated fair value of the DoseMe assets was determined based on a combination of a discounted cash flow method, or income approach, and market approaches, which estimate fair value based on a selection of appropriate peer group companies. The estimated fair value of the DoseMe assets exceeded its carrying value. As a result, no intangible asset impairment charges were recorded for the year ended December 31, 2021.

During the fourth quarter of 2020, the Company determined that an indicator of impairment was present as related to definite-lived intangible assets obtained from the Medliance acquisition in 2014. The recoverability test indicated that certain intangible assets were impaired, and the Company recorded an aggregate impairment charge of $5,040 for the year ended December 2020.

See Note 11 - Goodwill and Intangible Assets and Note 6 – Discontinued Operations for additional information.

(w) Contingencies

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 fees and other expenses related to litigation are expensed as incurred and included in general and administrative expenses in the consolidated statements of operations.

(x) Shipping and Handling Costs

Shipping and handling costs are charged to cost of medication revenue when incurred. Shipping and handling costs totaled $13,613, $9,410, and $8,443 for the years ended December 31, 2022, 2021, and 2020, respectively.

(y) Advertising Costs

Advertising costs are charged to operations when the advertising first takes place. The Company incurred advertising costs of $90, $334 and $185 for the years ended December 31, 2022, 2021, and 2020, respectively, which are included in sales and marketing expense.

(z) Business Combinations

The costs of business combinations are allocated to the assets acquired and liabilities assumed, in each case based on estimates of their respective fair values at the acquisition dates, using the purchase method of accounting. Fair values of intangible assets are estimated by valuation models prepared by management and third-party specialists. The assets purchased and liabilities assumed have been reflected in the Company’s consolidated balance sheets, and the results are included in the consolidated statements of operations and consolidated statements of cash flows from the date of acquisition. Acquisition-related contingent consideration that is classified as a liability is measured at fair value at the acquisition date with changes in fair value after the acquisition date affecting earnings in the period of the estimated fair

value change. Acquisition-related transaction costs, including legal and accounting fees and other external costs directly related to the acquisition, are recognized separately from the acquisition and expensed as incurred in general and administrative expenses in the consolidated statements of operations. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates, or actual results.

(aa) Segment Reporting

The Company manages its business through two segments for the purposes of assessing performance and making operating decisions. The Company's chief operating decision maker ("CODM"), the Interim Chief Executive Officer, allocates resources and assesses performance based upon financial information at the reportable segment level. All revenues are generated and all tangible assets are held in the U.S. See Note 23 for a discussion of the Company's reportable segments.

(bb) Concentration of Credit Risk

The Company is subject to concentrations of credit risk related to cash, cash equivalents, restricted cash, accounts receivable, and client claims receivable. While the Company maintains its cash, cash equivalents and restricted cash with financial institutions with high credit ratings, it often maintains these deposits in federally insured financial institutions in excess of federally insured limits. The Company has not experienced any realized losses on cash, cash equivalents or restricted cash to date.

The Company's medication fulfillment services clients are sponsors of the federal Medicare Part D plan (prescription drug coverage plan) and, therefore, subject to the payment regulations established by the Centers for Medicare & Medicaid Services ("CMS"). Under CMS guidelines, Medicare Part D sponsors are required to remit payment for claims within 14 calendar days of the date on which an electronically submitted claim is received and within 30 days of the date on which non-electronically-submitted claims are received. The Company extends credit to clients based upon such terms, as well as management's evaluation of creditworthiness, and generally collateral is not required.

The Company's clients also include health plans and other healthcare providers. Credit associated with these accounts is extended based upon management's evaluation of creditworthiness and is monitored on an on-going basis.

As of December 31, 2022 and December 31, 2021, no client represented more than 10% of net accounts receivable.

As of December 31, 2022, one client represented 14% of client claims receivable. As of December 31, 2021, two clients represented 13% and 11%, respectively, of client claims receivable.

For the years ended December 31, 2022, 2021, and 2020, one client accounted for 15%, 16%, and 16% of total revenue, respectively.

(cc) Fair Value of Financial Instruments

Certain assets and liabilities are carried at fair value under GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

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

Level 2 — Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities or other inputs that are observable or can be corroborated by observable markets.

Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

(dd) Recent Accounting Pronouncements

In October 2021, the Financial Accounting Standards Board issued Accounting Standards Update 2021-08, Accounting for Contract Assets and Contract Liabilities from Contracts with Customers ("ASU 2021-08"). ASU 2021-08 requires an acquirer in a business combination to recognize and measure contract assets and contract liabilities from acquired contracts using the revenue recognition guidance under ASC Topic 606 (Revenue from Contracts with Customers) in order to align the recognition of a contract liability with the definition of performance obligation. This approach differs from the current requirement to measure contract assets and contract liabilities acquired in a business combination at fair value. ASU 2021-08 is effective for financial statements issued for fiscal years beginning after December 15, 2022; early adoption is permitted. The Company adopted ASU 2021-08 on January 1, 2023 and determined that it does not have a significant impact on the consolidated financial statements.

3. Revenue

The Company generates revenue from its CareVention HealthCare and MedWise HealthCare segments. See Note 23 for additional discussion of the Company's reportable segments.

Client contracts generally have a term of one to five years and generally renew at the end of the initial term. In most cases, clients may terminate their contracts with a notice period ranging from 0 to 180 days without cause, thereby limiting the term in which the Company has enforceable rights and obligations. Revenue is recognized in an amount that reflects the consideration that is expected in exchange for the goods or services provided. Generally, there are not significant differences between the timing of revenue recognition and billing. Consequently, the Company has determined that client contracts do not include a financing component.

The Company does not disclose the amount of variable consideration that the Company expects to recognize in future periods, as the variable consideration in the Company's contracts is allocated entirely to a wholly unsatisfied performance obligation or to a wholly unsatisfied promise to transfer a distinct good or service that forms part of a single performance obligation, and the terms of that variable consideration relate specifically to the Company's efforts to transfer the distinct service, or to a specific outcome from transferring the distinct service. The Company's contracts primarily include monthly fees associated with unspecified quantities of medications, members, claims, medication safety reviews, or user subscriptions that fluctuate throughout the contract. See below for a description of the Company's revenues.

CareVention Revenue

Medication Revenue

The Company provides medication fulfillment pharmacy services to PACE organizations under the Company's CareVention HealthCare segment. While the majority of medications are routinely filled in order to treat chronic conditions, the mix and quantity of medications can vary. Revenue from medication fulfillment services is generally billed monthly or weekly, depending on whether the PACE organization is contracted with a pharmacy benefit manager, and is recognized when medications are delivered and control has passed to the client. At the time of delivery, the Company has performed substantially all of its performance obligations under its client contracts. The Company does not experience a significant level of returns or reshipments.

Technology-Enabled Solutions Revenue

The Company provides medication safety services and health plan management services to PACE organizations under the Company's CareVention HealthCare segment. These services primarily include medication reviews, risk adjustment services, third-party administration services, pharmacy benefit management ("PBM") solutions, and electronic health records software. Revenue related to these services primarily consists of a fixed monthly fee assessed based on number of members served ("per member, per month" or "PMPM"), a fee for each claim adjudicated, and subscription fees. These fees are recognized when the Company satisfies its performance obligation to stand ready to provide PACE services, which occurs when the Company's clients have access to the PACE services. The Company generally bills for PACE services on a monthly basis.

For client contracts for which the Company performs both medication fulfillment and PBM services, the Company recognizes revenue using the gross method at the contract price negotiated with its clients and when the Company has concluded it controls the prescription drug before it is transferred to the client plan members. The Company controls prescription drugs dispensed indirectly through its retail pharmacy network because it has separate contractual arrangements with those pharmacies, has discretion in setting the price for the transaction, and assumes primary responsibility for fulfilling the promise to provide prescription drugs to its client plan members while performing the related PBM services. These factors indicate that the Company is the principal and, as such, the Company recognizes the total prescription price contracted with clients in revenue.

MedWise HealthCare

Technology-Enabled Solutions Revenue

Value-Based Care Solutions

The Company provides medication safety services under the MedWise HealthCare segment, which include identification of high-risk individuals, medication regimen reviews, including patient and prescriber counseling, and targeted interventions to increase adherence and close gaps in care. Revenue related to these services primarily consists of per member per month fees and fees for each medication review and clinical assessment completed. Revenue is recognized when the Company satisfies its performance obligation to stand ready to provide medication safety services, which occurs when the Company's clients have access to the medication safety services and when medication reviews and clinical assessments are completed. The Company generally bills for the medication reviews and clinical assessments when they are completed. The Company generally bills for the medication safety services on a monthly basis.

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

Software Subscription and Services

The Company provides software as a service ("SaaS") solutions which allow for the identification of individuals with high medication-related risk and for optimizing medication therapy. Revenues related to these SaaS solutions primarily consist of monthly subscription fees and are recognized monthly as the Company meets its performance obligation to provide access to the software. Revenue for implementation and set-up services is generally recognized over the contract term as the software services are provided. The Company generally bills for the software services on a monthly basis.

Disaggregation of Revenue

Revenue is disaggregated by reportable segment in the following table:

	Year Ended December 31,		
	2022	2021	2020
CareVention HealthCare:			
Medication revenue	$ 231,052	$ 189,591	$ 158,692
Technology-enabled solutions revenue	64,430	58,417	47,577
	$ 295,482	$ 248,008	$ 206,269
MedWise HealthCare:			
Technology-enabled solutions revenue			
Value-based care solutions	$ 3,077	$ 11,617	$ 14,926
Software subscription and services	957	257	194
	$ 4,034	$ 11,874	$ 15,120
Total revenue	$ 299,516	$ 259,882	$ 221,389

Contract balances

Assets and liabilities related to the Company's contracts are reported on a contract-by-contract basis at the end of each reporting period. Contract balances consist of contract assets and contract liabilities. Contract assets are recorded when the right to consideration for services is conditional on something other than the passage of time. Contract assets relating to unbilled receivables are transferred to accounts receivable when the right to consideration becomes unconditional. Contract assets are classified as current or non-current based on the timing of the Company's rights to the unconditional payments. Contract assets are generally classified as current and recorded within other current assets on the Company's consolidated balance sheets.

Contract liabilities include advance customer payments and billings in excess of revenue recognized. The Company generally classifies contract liabilities in accrued expenses and other current liabilities and in other long-term liabilities on the Company's consolidated balance sheets. The Company anticipates that it will satisfy most of its performance obligations associated with its contract liabilities within one year.

The following table provides information about the Company's contract assets and contract liabilities from contracts with clients as of December 31, 2022 and 2021.

	December 31, 2022	December 31, 2021
Contract assets	$ 15,115	$ 12,695
Contract liabilities	3,435	2,191

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

Significant changes in the contract assets and the contract liabilities balances during the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022	December 31, 2021
Contract assets:		
Contract assets, beginning of year	$ 12,695	$ 7,024
Decreases due to cash received	(12,447)	(8,889)
Changes to the contract assets at the beginning of the year as a result of changes in estimates	153	2,392
Changes during the year, net of reclassifications to receivables	14,714	12,168
Contract assets, end of year	$ 15,115	$ 12,695
Contract liabilities:		
Contract liabilities, beginning of year	$ 2,191	$ 1,982
Revenue recognized that was included in the contract liabilities balance at the beginning of the year	(1,990)	(1,523)
Increases due to cash received, excluding amounts recognized as revenue during the year	3,234	1,732
Contract liabilities, end of year	$ 3,435	$ 2,191

4. Net Loss per Share

The following table presents the calculation of basic and diluted net loss per share for the Company's common stock:

	Year Ended December 31,		
	2022	2021	2020
Numerator (basic and diluted):			
Net loss from continuing operations	$ (77,334)	$ (52,238)	$ (56,511)
Net loss from discontinued operations	(70,176)	(26,817)	(24,455)
Net loss	$ (147,510)	$ (79,055)	$ (80,966)
Denominator (basic and diluted):			
Weighted average shares of common stock outstanding, basic and diluted	24,293,483	23,290,660	21,815,388
Net loss per share from continuing operations, basic and diluted	$ (3.18)	$ (2.24)	$ (2.59)
Net loss per share from discontinued operations, basic and diluted	(2.89)	(1.15)	(1.12)
Total net loss per share, basic and diluted	$ (6.07)	$ (3.39)	$ (3.71)

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

The following potential common shares, presented based on amounts outstanding as of December 31, 2022, 2021, and 2020, were excluded from the calculation of diluted net loss per share for the years ended December 31, 2022, 2021, and 2020 because including them would have had an anti-dilutive effect:

	December 31,		
	2022	2021	2020
Stock options to purchase common stock	1,177,805	1,604,226	2,096,556
Unvested restricted stock and restricted stock units	2,295,313	2,196,566	1,386,908
Common stock warrants	4,646,393	4,646,393	4,646,393
Conversion of convertible senior subordinated notes	4,646,393	4,646,393	—
	12,765,904	13,093,578	8,129,857

For the years ended December 31, 2022 and 2021, shares related to the conversion of the convertible senior subordinated notes were included in the table above under the if-converted method. For the year ended December 31, 2020, shares associated with the conversion of the convertible senior subordinated notes were excluded from the table above as the Company assumed the notes would be settled entirely or partly in cash.

For the years ended December 31, 2022 and 2021, shares related to the performance stock units were excluded from the table above as the performance conditions were unmet as of December 31, 2022 and 2021 (see Note 17).

5. Acquisitions

Personica Acquisition

On October 5, 2020, the Company entered into a Membership Interest Purchase Agreement (the "Purchase Agreement") with TRHC Group, Personica Holdings, Inc., a Wisconsin corporation, and other seller parties, whereby the Company completed the acquisition of all of the issued and outstanding membership interests of Personica, LLC, a Delaware limited liability company ("Personica"), and its subsidiaries, a provider of PBM solutions and pharmacy services, including 340B and Medicare Part D administration solutions to the PACE market. The purchase price consisted of (i) cash consideration of $10,000, which was subject to certain customary post-closing adjustments, (ii) the issuance of 555,555 shares of the Company's common stock valued at $23,589, and (iii) the delivery of promissory notes (collectively, the "Notes"), with an aggregate principal of $17,000, of which the Company could set off amounts to the extent the Company was entitled to indemnification under the Purchase Agreement or in respect of adjustments to the purchase price. The Notes consisted of payments of (a) $7,500 in cash paid in January 2021, (b) $5,500 in cash paid in April 2021, and (c) $4,000 in cash paid in October 2021. The Company reduced the October 2021 payment by $458 for indemnification amounts under the Purchase Agreement. For presentation purposes, the Company offset the remaining balance on the Notes against related receivables established to compensate the Company for the expenses incurred.

In connection with the acquisition of Personica, the Company incurred direct acquisition and integration costs of $217 and $794 during the years ended December 31, 2021 and 2020, respectively, which were recorded in general and administrative expenses in the consolidated statement of operations.

The following table summarizes the Personica purchase price consideration based on the estimated acquisition-date fair value of the acquisition consideration:

Cash consideration at closing, including post-closing adjustments	$	10,292
Promissory notes at closing, at fair value		16,355
Stock consideration at closing		23,589
Total fair value of acquisition consideration	$	50,236

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

The following table summarizes the final allocation of the Personica purchase price based on the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition.

Cash	$	3,407
Accounts receivable		945
Inventories		322
Client claims receivable		8,736
Prepaid expenses and other current assets		4,747
Property and equipment		665
Operating lease right-of-use assets		645
Other assets		15
Trade names		700
Client relationships		28,300
Non-competition agreements		290
Goodwill		20,075
Total assets acquired	$	68,847
Client claims payable		(8,022)
Accrued expenses and other liabilities		(9,645)
Trade accounts payable		(310)
Operating lease liabilities		(634)
Total purchase price	$	50,236

The purchase price was allocated to the tangible assets and identifiable intangible assets acquired and liabilities assumed based on their acquisition-date estimated fair values. The identifiable intangible assets principally included trade names, client relationships, and non-competition agreements, all of which are subject to amortization on a straight-line basis and are being amortized over a weighted average life of 5.6, 12.0, and 5.0 years, respectively. The weighted average amortization period for acquired intangible assets as of the date of acquisition was 11.8 years.

The Company, with the assistance of a third-party appraiser, assessed the fair value of the assets of Personica and the promissory notes issued. The fair values of the trade names were estimated using the relief from royalty method, under which the Company derived the hypothetical royalty income from the projected revenues of Personica. The fair value of client relationships was estimated using a multi-period excess earnings method. To calculate fair value, the Company used cash flows discounted at a rate considered appropriate given the inherent risks associated with the client grouping. The fair value of the non-competition agreements was estimated using the discounted earnings method by estimating the potential loss of earnings absent the non-competition agreements, assuming the covenantor competes at different time periods during the life of the agreements. The fair values of the promissory notes were estimated using market interest rates for similar terms.

The useful lives of the intangible assets were estimated based on the expected future economic benefit of the assets and are being amortized over the estimated useful life in proportion to the economic benefits consumed using the straight-line method. The amortization of intangible assets is deductible for U.S. income tax purposes.

The Company believes the goodwill related to the acquisition was a result of providing the Company complementary service offerings that will enable the Company to leverage its services with existing and new clients. The goodwill is deductible for income tax purposes.

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

Revenue from Personica includes medication fulfillment pharmacy services to PACE organizations. Revenue for these services and the related costs are recognized when medications are delivered and control has passed to the client and are included in medication revenue and cost of medication revenue, respectively, in the Company's consolidated statements of operations. For the year ended December 31, 2020, medication revenue of $1,804 was included in the Company's consolidated statement of operations. Revenue from Personica is also comprised of monthly fees per adjudicated claim for PBM solutions. Revenue for these services and the related costs are recognized each month as performance obligations are satisfied and costs are incurred, and are included in technology-enabled solutions revenue and cost of technology-enabled solutions revenue, respectively, in the Company's consolidated statements of operations. For the year ended December 31, 2020, technology-enabled solutions revenue of $1,738 from Personica was included in the Company's consolidated statement of operations. Net loss of $5, which includes amortization of $625 associated with acquired intangible assets, from Personica was included in the Company's consolidated statement of operations for the year ended December 31, 2020.

Pro forma (unaudited)

The unaudited pro forma results presented below include the results of the Personica acquisition as if it had been consummated as of January 1, 2019. The unaudited pro forma results include the amortization associated with acquired intangible assets, interest expense on the debt incurred to fund the acquisition, stock compensation expense related to equity awards granted to employees of the acquired company, and the estimated tax effect of adjustments to loss before income taxes. Material non-recurring charges, including direct acquisition costs, directly attributable to the transaction are excluded. In addition, the unaudited pro forma results do not include any expected benefits of the acquisition. Accordingly, the unaudited pro forma results are not necessarily indicative of either future results of operations or results that might have been achieved had the acquisition been consummated as of January 1, 2019.

	Year Ended December 31, 2020
Revenue	$ 230,262
Net loss	(55,987)

6. Discontinued Operations

In February 2022, the Company announced plans to evaluate non-core assets, refocus its corporate strategy, and increase stockholder value, and the Company commenced a plan to sell the DoseMe business, which the Company acquired in January 2019. In March 2022, the Company completed its evaluation of additional divestiture opportunities and commenced plans to sell the SinfoníaRx and PrescribeWellness businesses, which were acquired in September 2017 and March 2019, respectively. As described below, the Company completed the sales of its unincorporated PrescribeWellness business division (the "PrescribeWellness Business"), DoseMe business division (the "DoseMe Business"), and SinfoníaRx business division (the "SinfoníaRx Business") in August 2022, January 2023, and March 2023, respectively.

The PrescribeWellness, DoseMe, and SinfoníaRx businesses comprised the majority of the Company's MedWise HealthCare segment. The Company's completed sales of the PrescribeWellness Business, DoseMe Business, and SinfoníaRx Business represented a strategic business shift having a significant effect on the Company's operations and financial results. As a result, the Company determined that these businesses met such requirements to be classified as held for sale and discontinued operations as of March 31, 2022, and the DoseMe and SinfoníaRx businesses continued to meet the requirements as of December 31, 2022. Accordingly, unless otherwise indicated, the accompanying consolidated financial statements have been recast for all periods presented to reflect the assets, liabilities, revenue, and expenses related to these businesses as discontinued operations.

Divestiture of Business

On August 1, 2022 (the "PW Sale Date"), the Company completed the sale of its PrescribeWellness Business, including the assets, properties, and rights that were primarily used or held for use in connection with the PrescribeWellness Business, as well as the KD Assets (as defined below) to Transaction Data Systems, Inc. ("TDS"). On the PW Sale Date, the Company also completed the acquisition of certain intellectual property from karmadata, Inc. ("KD") that had historically been licensed to the Company, (the "KD Assets"). The KD Assets acquired were simultaneously transferred to TDS on the PW Sale Date. The purchase consideration included $125,000 in cash, subject to certain customary post-closing adjustments, of which $118,561 was paid directly to the Company and $5,900 was paid to KD on the PW Sale Date. In October 2022, TDS also paid the Company $1,477 for certain customary post-closing adjustments after the PW Sale Date. The Company is also entitled to receive up to $15,000 of contingent consideration based upon the PrescribeWellness Business's achievement of certain performance-based metrics during the fiscal years ending December 31, 2023 and 2024. The contingent consideration had an estimated fair value of $7,000 on the PW Sale Date. See Note 18 for additional discussion on the fair value assessment of the contingent consideration receivable.

In connection with the sale of the PrescribeWellness Business, the Company entered into a transition services agreement ("TSA") with TDS pursuant to which the Company is providing services, including, but not limited to, business support services for the PrescribeWellness business after the sale through January 2023. The Company recognized $1,064 of income related to the TSA for the year ended December 31, 2022, which is reported in other income in the Company's consolidated statement of operations.

During the second quarter of 2022, as a result of the Company's intention to sell the PrescribeWellness Business, the Company prepared an impairment test on the related net assets held for sale. Using a market approach to determine fair value, the Company concluded that the carrying value of the net assets held for sale for the PrescribeWellness Business did not exceed its fair value, less costs to sell. As a result, the Company recorded goodwill impairment charges of $12,145 and impairment charges of $8,500 on net assets held for sale, summarized in the results of the PrescribeWellness business presented below. On August 1, 2022, the Company recorded an additional $2,879 for the final loss on the sale of the PrescribeWellness Business, resulting in an aggregate loss of $11,379 on the net assets sold for the year ended December 31, 2022.

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

The following table summarizes the net assets sold as finally reported on the sale date of August 1, 2022, and as of December 31, 2021, classified as discontinued operations on the consolidated balance sheets as of December 31, 2021:

	August 1, 2022	December 31, 2021
Accounts receivable, net	$ 5,020	$ 8,002
Prepaid expenses and other assets	1,751	1,038
Property and equipment, net	371	—
Operating lease right-of-use assets	1,252	—
Software development costs, net	14,536	—
Goodwill	35,314	—
Intangible assets, net	81,504	—
Impairment of carrying value	(8,500)	—
Total current assets of discontinued operations	$ 131,248	$ 9,040
Property and equipment, net	$ —	$ 412
Operating lease right-of-use assets	—	1,434
Software development costs, net	—	11,474
Goodwill	—	47,459
Intangible assets, net	—	84,617
Other assets	—	64
Total noncurrent assets of discontinued operations	$ —	$ 145,460
Operating lease liabilities	$ 1,086	$ 620
Accounts payable	491	913
Accrued expenses and other liabilities	2,754	3,529
Total current liabilities of discontinued operations	$ 4,331	$ 5,062
Noncurrent operating lease liabilities	$ —	$ 830
Other long-term liabilities	—	135
Total noncurrent liabilities of discontinued operations	$ —	$ 965

The following table summarizes the results of operations of the PrescribeWellness Business, which are included in loss from discontinued operations, net of tax in the consolidated statements of operations for the years ended December 31, 2022, 2021, and 2020:

	Year Ended December 31,		
	2022	2021	2020
Revenue	$ 19,306	$ 38,304	$ 35,311
Cost of revenue, exclusive of depreciation and amortization	7,747	13,295	13,615
Operating expenses	14,930	33,579	27,658
Impairment charges	20,645	—	—
Loss on disposal of business	2,879	—	—
Loss from discontinued operations before income taxes	(26,895)	(8,570)	(5,962)
Income tax (benefit) expense	(299)	169	172
Net loss from discontinued operations, net of tax	$ (26,596)	$ (8,739)	$ (6,134)

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

The following table summarizes the significant operating noncash items and investing activities of PrescribeWellness Business:

	Year Ended December 31,		
	2022	2021	2020
Depreciation and amortization	$ 4,551	$ 16,374	$ 14,815
Impairment charges	20,645	—	—
Stock-based compensation	1,697	2,977	1,370
Loss on disposal of business	2,879	—	—
Purchases of property and equipment	(22)	(128)	(200)
Software development costs	(4,443)	(8,169)	(5,479)

Held for Sale

As of December 31, 2022, the Company considered the sale of the DoseMe and SinfoníaRx businesses to be highly probable within one year. During the first quarter of 2023, the Company completed the sales of the DoseMe and SinfoníaRx businesses. See Note 24 for additional discussion on the sales of the DoseMe and SinfoníaRx businesses.

In 2022, as a result of the Company's intention to sell the DoseMe and SinfoníaRx businesses, the Company prepared an impairment test on the related net assets held for sale. Using a market approach to determine fair value, the Company concluded that the carrying values of the net assets held for sale for the SinfoníaRx and DoseMe businesses did not exceed their fair values, less costs to sell. As a result, the Company recorded goodwill impairment charges of $6,127 and $21,113 of impairment charges on the net assets held for sale related to the DoseMe and SinfoníaRx businesses, respectively, for the year ended December 31, 2022.

During the fourth quarter of 2021, the Company determined that an indicator of impairment was present as it related to definite-lived intangible assets obtained from the DoseMe acquisition in 2019, which is recorded in the MedWise HealthCare segment. The recoverability test indicated that the undiscounted cash flows of the asset group were less than its carrying value. Therefore, the estimated fair value of the DoseMe assets was determined based on a combination of a discounted cash flow method, or income approach, and market approaches, which estimate fair value based on a selection of appropriate peer group companies. The estimated fair value of the DoseMe assets exceeded its carrying value. As a result, no intangible asset impairment charges were recorded for the year ended December 31, 2021.

The following table summarizes the results of operations of the DoseMe and SinfoníaRx businesses, which are included in loss from discontinued operations, net of tax in the consolidated statements of operations for the years ended December 31, 2022, 2021, and 2020:

	Year Ended December 31,		
	2022	2021	2020
Revenue	$ 27,898	$ 33,074	$ 40,519
Cost of revenue, exclusive of depreciation and amortization	27,153	26,683	30,579
Operating expenses	17,104	24,401	28,192
Impairment charges	27,240	—	—
Loss from discontinued operations before income taxes	(43,599)	(18,010)	(18,252)
Income tax (benefit) expense	(19)	68	69
Net loss from discontinued operations, net of tax	$ (43,580)	$ (18,078)	$ (18,321)

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

The following table summarizes the DoseMe and SinfoníaRx businesses' current and noncurrent assets and liabilities classified as discontinued operations on the consolidated balance sheets as of December 31, 2022 and December 31, 2021:

	December 31, 2022	December 31, 2021
Cash	$ 18	$ 273
Accounts receivable, net	4,237	4,644
Prepaid expenses and other assets	2,217	554
Property and equipment, net	1,350	—
Operating lease right-of-use assets	3,991	—
Software development costs, net	7,563	—
Goodwill	1,927	—
Intangible assets, net	22,635	—
Impairment of carrying value	(21,113)	—
Total current assets of discontinued operations	$ 22,825	$ 5,471
Property and equipment, net	$ —	$ 1,485
Operating lease right-of-use assets	—	3,296
Software development costs, net	—	4,466
Goodwill	—	8,053
Intangible assets, net	—	24,675
Other assets	—	123
Total noncurrent assets of discontinued operations	$ —	$ 42,098
Operating lease liabilities	$ 3,525	$ 793
Accounts payable	3,230	3,395
Accrued expenses and other liabilities	6,634	3,130
Total current liabilities of discontinued operations	$ 13,389	$ 7,318
Noncurrent operating lease liabilities	$ —	$ 2,608
Total noncurrent liabilities of discontinued operations	$ —	$ 2,608

The following table summarizes the DoseMe and SinfoníaRx businesses' significant operating noncash items and investing activities of discontinued operations:

	Year Ended December 31,		
	2022	2021	2020
Depreciation and amortization	$ 2,780	$ 10,850	$ 13,592
Impairment charges	27,240	—	—
Stock-based compensation	2,756	3,286	3,534
Purchases of property and equipment	(52)	(205)	(1,783)
Software development costs	(3,651)	(3,514)	(1,637)

7. Other Current Assets

As of December 31, 2022 and 2021, other current assets consisted of the following:

	December 31, 2022	December 31, 2021
Contract assets	$ 15,115	$ 12,695
Non-trade receivables	719	3,289
Other	2,353	2,049
Total other current assets	$ 18,187	$ 18,033

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

8. Property and Equipment

As of December 31, 2022 and 2021, property and equipment consisted of the following:

	Estimated useful life	December 31, 2022	December 31, 2021
Computer hardware and purchased software	3 years	$ 7,548	$ 5,943
Office furniture and equipment	5 years	13,855	12,998
Leasehold improvements	3-14 years	6,779	10,264
		28,182	29,205
Less: accumulated depreciation and amortization		(19,024)	(17,427)
Property and equipment, net		$ 9,158	$ 11,778

Depreciation and amortization expense on property and equipment for the years ended December 31, 2022, 2021, and 2020 was $3,742, $3,495, and $3,658 respectively.

9. Leases

The Company has entered into various operating and finance leases for office space and equipment. The operating leases expire on various dates through 2030, and certain of such leases also contain renewal options and escalation clauses. In addition to the base rent payments, the Company is obligated to pay a pro rata share of operating expenses and taxes.

During the fourth quarter of 2022, the Company determined that certain leased spaces no longer provided an economic benefit to the Company and either terminated the leases or vacated the leased spaces. The Company vacated the leased spaces for its development centers in Moorestown, New Jersey and Charleston, South Carolina. As a result, the Company incurred $4,881 in noncash impairment charges, of which $2,805 was allocated to the operating lease ROU assets and $2,076 was allocated to related property and equipment based on their relative carrying amounts.

The components of lease expense were as follows:

	Year Ended December 31, 2022	2021	2020
Operating lease expense	$ 3,318	$ 3,404	$ 3,635
Finance lease expense:			
Amortization of leased assets	—	—	138
Interest on lease liabilities	—	—	1
Total finance lease expense	—	—	139
Variable lease expense	1,004	1,012	1,184
Short-term lease expense	15	10	13
Total lease expense	$ 4,337	$ 4,426	$ 4,971

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

Supplemental balance sheet information related to leases was as follows:

	December 31, 2022	December 31, 2021
Operating leases:		
Operating lease right-of-use assets	$ 10,483	$ 16,323
Current operating lease liabilities	$ 2,708	$ 3,275
Noncurrent operating lease liabilities	12,786	15,792
Total operating lease liabilities	$ 15,494	$ 19,067
Weighted average remaining lease term (in years):		
Operating leases	6.7	7.3
Weighted average discount rate:		
Operating leases	4.6 %	4.6 %

Supplemental cash flow information related to leases was as follows:

	Year Ended December 31,		
	2022	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows for operating leases	$ 3,362	$ 3,356	$ 3,212
Operating cash flows for finance leases	—	—	1
Financing cash flows for finance leases	—	4	56
Right-of-use assets obtained in exchange for lease liabilities:			
Operating leases	$ 52	$ 1,475	$ 646
Right-of-use assets impairment charges	$ 2,805	$ —	$ —

Maturities of lease liabilities as of December 31, 2022 were as follows:

	Operating leases
2023	$ 2,764
2024	2,705
2025	2,704
2026	2,537
2027	2,335
Thereafter	4,928
Total minimum lease payments	17,973
Less: imputed interest	(2,479)
Present value of lease liabilities	15,494
Less: current portion	(2,708)
Total long-term lease liabilities	$ 12,786

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

10. Software Development Costs

The Company capitalizes certain costs incurred in connection with obtaining or developing its proprietary software platforms, which are used to support its service contracts, including external direct costs of material and services, payroll costs for employees directly involved with the software development, and interest expense related to the borrowings attributable to software development. As of December 31, 2022 and 2021, capitalized software costs consisted of the following:

	December 31, 2022	December 31, 2021
Software development costs	$ 54,853	$ 49,481
Less: accumulated amortization	(22,261)	(20,227)
Software development costs, net	$ 32,592	$ 29,254
Capitalized software development costs included above not yet subject to amortization	$ 4,997	$ 5,328

Amortization expense for the years ended December 31, 2022, 2021, and 2020 was $12,567, $9,407, and $6,432, respectively.

During the first quarter of 2022, the Company became aware of changes in circumstances impacting the future application of certain capitalized software development costs and determined an indicator of impairment was present. The Company evaluated the recoverability of the related long-lived assets by comparing their carrying amount to the future net undiscounted cash flows expected to be generated by the assets to determine if the carrying value was not recoverable. The recoverability test indicated that certain capitalized software development costs were impaired. As a result, we recognized an impairment loss equal to $4,062 for the year ended December 31, 2022.

11. Goodwill and Intangible Assets

Goodwill

The Company's goodwill and related changes during the years ended December 31, 2022 and 2021 are as follows:

	CareVention HealthCare
Balance at January 1, 2021	$ 115,350
Adjustments to goodwill related to prior year acquisition	(27)
Balance at January 1, 2022	115,323
Adjustments to goodwill	—
Balance at December 31, 2022	$ 115,323

No goodwill is allocated to the Company's MedWise HealthCare segment under continuing operations.

For its annual assessment for the year ended December 31, 2022, the Company performed a quantitative assessment of goodwill as of October 1, 2022 using a market approach, which estimates fair value based on a reconciliation of the Company's market capitalization. Based on the analysis performed, the Company determined that the estimated fair value of the Company's reporting units exceeded their carrying values, and as a result, goodwill was not impaired as of December 31, 2022.

During the first and second quarters of 2022, the Company experienced a sustained decline in the price of the Company's common stock. As a result, the Company determined that an indicator of impairment was present and performed a quantitative goodwill impairment assessment as of March 31, 2022 and June 30, 2022, respectively, using a market approach, which estimates fair value based on a reconciliation of the Company's market capitalization. Based on

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

the analysis performed, the Company determined that the estimated fair value of the Company's reporting units exceeded their carrying values, and as a result, goodwill was not impaired as of March 31, 2022 and June 30, 2022.

During the fourth of quarter of 2021, the Company experienced a sustained decline in the price of the Company's common stock. As a result, the Company determined that an indicator of impairment was present and performed a quantitative goodwill impairment assessment as of December 31, 2021 in addition to its annual assessment as of October 1, 2021. The fair value of the reporting units was estimated using a combination of a discounted cash flow method, or income approach, and market approaches, which estimate fair value based on a selection of appropriate peer group companies. The Company utilized forecasts of revenue and operating income, based on management's estimates and long-term plans, as well as required estimates and judgments about working capital requirements, capital expenditures, income taxes, discount rates, terminal growth rates, long-term operating margins, and control premiums and valuation multiples appropriate for acquisitions in the industries in which the Company competes. Based on the analysis performed, the Company determined that the estimated fair value of the Company's reporting units exceeded their carrying values, and as a result, goodwill was not impaired as of December 31, 2021.

For the year ended December 31, 2020, the Company performed a qualitative assessment of goodwill and determined there were no indicators of goodwill impairment for the year ended December 31, 2020.

There are no accumulated impairment charges for the Company's continuing operations as of December 31, 2022, 2021, or 2020. Refer to Note 6 for discussion of goodwill impairment analysis performed over the Company's discontinued operations.

Intangible Assets

During the fourth quarter of 2020, the Company became aware of changes in circumstances impacting the future performance of the Company's pharmacy cost management services, which are recorded in the MedWise segment and relate to certain intangible assets acquired from the Medliance acquisition in 2014. The Company evaluated the recoverability of the related intangible assets by comparing their carrying amount to the future net undiscounted cash flows expected to be generated by the asset group to determine if the carrying value is not recoverable. The recoverability test indicated that certain customer relationships and developed technology intangible assets were impaired. As a result, the Company used an income approach to measure the fair value of the intangible assets and recognized noncash impairment charges of $3,815 and $1,225 to the customer relationships and developed technology intangible assets, respectively, for the year ended December 31, 2020.

Intangible assets consisted of the following as of December 31, 2022 and 2021:

	Weighted Average Amortization Period (in years)	Gross Value	Accumulated Amortization	Intangible Assets, net
December 31, 2022				
Trade names	2.6	$ 1,340	$ (1,000)	$ 340
Client relationships	11.7	51,264	(15,781)	35,483
Non-competition agreements	5.0	1,640	(1,303)	337
Developed technology	6.2	14,720	(12,580)	2,140
Domain name	10.0	59	(33)	26
Total intangible assets		$ 69,023	$ (30,697)	$ 38,326

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

	Weighted Average Amortization Period (in years)	Gross Value	Accumulated Amortization	Intangible Assets, net
December 31, 2021				
Trade names	2.9	$ 1,340	$ (853)	$ 487
Client relationships	11.7	51,264	(11,042)	40,222
Non-competition agreements	5.0	1,640	(975)	665
Developed technology	6.2	14,720	(10,768)	3,952
Domain name	10.0	59	(27)	32
Total intangible assets		$ 69,023	$ (23,665)	$ 45,358

Amortization expense for intangible assets for the years ended December 31, 2022, 2021, and 2020 was $7,032, $7,560, and $6,542, respectively.

The estimated amortization expense for each of the next five years and thereafter is as follows:

Years Ending December 31,	
2023	$ 5,882
2024	4,684
2025	4,467
2026	4,338
2027	4,270
Thereafter	14,685
Total estimated amortization expense	$ 38,326

12. Accrued Expenses and Other Liabilities

At December 31, 2022 and 2021, accrued expenses and other liabilities consisted of the following:

	December 31, 2022	December 31, 2021
Employee related expenses	$ 10,780	$ 8,595
Contract liability	3,309	2,015
Customer deposits	904	904
Client funds obligations*	12,372	6,038
Contract labor	3	838
Interest	2,133	2,281
Vendor financing arrangements	568	—
Professional fees	748	1,327
Consideration payable to customer	20,311	15,971
Income and non-income taxes payable	8	15
Other expenses	4,609	3,013
Total accrued expenses and other liabilities	$ 55,745	$ 40,997

*This amount represents client funds held by the Company, with an offsetting amount included in restricted cash.

13. Notes Payable Related to Acquisition

On October 5, 2020, as part of the consideration of the Personica acquisition, the Company entered into promissory notes (collectively, the "Notes") in the aggregate principal amount of $17,000 payable to the owners of Personica (see Note 5). The Company could set off amounts on the Notes to the extent the Company was entitled to indemnification under the Purchase Agreement or in respect of adjustments to the purchase price. The Notes bore an interest rate of 3.25% and were payable as follows: (a) $7,500 in cash paid in January 2021, (b) $5,500 in cash paid in April 2021, and (c) $4,000 in cash paid in October 2021. The Company reduced the October 2021 payment by $458 for indemnification amounts under the Purchase Agreement. For presentation purposes, the Company offset the remaining

balance on the Notes against related receivables established to compensate the Company for the expenses incurred.

The Notes were recorded at their aggregate acquisition-date fair value of $16,355 and were accreted up to their face values over their respective terms using the effective-interest method. For the year ended December 31, 2021, the Company recognized $481 of interest expense related to the Notes, of which $143 was paid and $338 was the noncash accretion of the discounts recorded.

14. Lines of Credit and Long-Term Debt

(a) Lines of Credit

On December 18, 2020, the Company and its subsidiaries entered into a Loan and Security Agreement (the "2020 Credit Facility"), with Western Alliance Bank ("WAB"). The 2020 Credit Facility provided for a $120,000 secured revolving credit facility, with a $1,000 sublimit for cash management services and letters of credit and foreign exchange transactions.

Amounts under the 2020 Credit Facility could be borrowed, repaid, and re-borrowed from time to time until the maturity date on May 16, 2025, and were permitted to be used for, among other things, working capital and other general corporate purposes. Loans under the 2020 Credit Facility bore interest at a rate equal to the LIBOR rate plus 3.25%. The obligations under the 2020 Credit Facility were secured by all of the assets of the borrowers, subject to certain exceptions and exclusions as set forth in the 2020 Credit Facility. The 2020 Credit Facility was subject to a commitment fee of 0.50% of the total commitment amount payable on the closing date and 0.25% of the total commitment amount payable on each anniversary thereafter. Additionally, the 2020 Credit Facility was subject to an unused line fee.

On August 1, 2022, the Company entered into a payoff letter with WAB with respect to the 2020 Credit Facility, pursuant to which the Company voluntarily elected to pay all amounts outstanding, including principal and interest, under the 2020 Credit Facility and related loan documents (the "Pay Off") using cash on hand and proceeds from the sale of the PrescribeWellness Business. Accordingly, the Company paid a total of $57,406 to WAB for the Pay Off and terminated the 2020 Credit Facility and related loan documents (the "Termination"). The Company did not incur any prepayment or early termination penalties in connection with either the Pay Off or the Termination. Upon the Termination and in connection with the Pay Off, all security interests and pledges granted to the secured parties thereunder were terminated and released.

Interest expense on the 2020 Credit Facility was $1,363 and $1,203 for the years ended December 31, 2022 and 2021, respectively.

In connection with the 2020 Credit Facility, the Company recorded deferred financing costs of $1,534. The Company amortized the deferred financing costs associated with the 2020 Credit Facility to interest expense using the effective-interest method over the term. On August 1, 2022, in connection with the Termination, the remaining balance of deferred financing costs was amortized to interest expense. For the year ended December 31, 2022, the Company amortized $973 to interest expense for deferred financing costs related to the 2020 Credit Facility. For the year ended December 31, 2021, the Company amortized $540 to interest expense for deferred financing costs related to the 2020 Credit Facility. For the year ended December 31, 2020, the Company recorded $336 to interest expense for deferred financing costs related to the 2020 Credit Facility and its 2015 Line of Credit. Deferred financing costs of $624, net of accumulated amortization, were included in other assets on the accompanying consolidated balance sheets as of December 31, 2021.

(b) Convertible Senior Subordinated Notes

On February 12, 2019, the Company issued and sold an aggregate principal amount of $325,000 of 1.75% convertible senior subordinated notes (the "2026 Notes") in a private placement pursuant to Rule 144A under the Securities Act of 1933, as amended. The 2026 Notes bear interest at a rate of 1.75% per year, payable semiannually in arrears on February 15 and August 15 of each year, beginning on August 15, 2019. The notes will mature on February 15, 2026, unless earlier converted or repurchased. The initial conversion rate for the notes is 14.2966 shares of the Company's common stock per $1 principal amount of notes. This conversion rate is equal to an initial conversion price of approximately $69.95 per share of the Company's common stock. Net proceeds from the 2026 Notes were used to pay the cost of convertible note hedge transactions (described below), repay amounts outstanding under the 2015 Line of Credit, fund the PrescribeWellness acquisition, fund the payment of the acquisition-related contingent consideration liabilities, and for general corporate purposes.

Holders may convert all or any portion of their 2026 Notes at any time prior to the close of business on the business day immediately preceding August 15, 2025 only under the following circumstances: (1) during any calendar quarter commencing after March 31, 2019 (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on 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; (2) 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 governing the 2026 Notes) per $1 principal amount of 2026 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such trading day; or (3) upon the occurrence of specified corporate events, including certain distributions, the occurrence of a fundamental change or make-whole fundamental change (as defined in the indenture governing the 2026 Notes) or a transaction resulting in the Company's common stock converting into other securities or property or assets. On or after August 15, 2025 until the close of business on the first scheduled trading day immediately preceding the maturity date, a holder may convert all or any portion of its 2026 Notes regardless of the foregoing circumstances. Upon conversion, the Company will pay or deliver shares of its common stock, cash, or a combination thereof at the Company's option. As of December 31, 2022, none of the conditions allowing holders of the 2026 Notes to convert had been met.

In the initial accounting for the issuance of the 2026 Notes in 2019, the Company separated the 2026 Notes into liability and equity components. With the assistance of a third-party valuation specialist, the carrying amount of the liability component was calculated by utilizing a discounted cash flow model of the contractual cash flows that were discounted at a risk-adjusted interest rate in order to estimate the fair value of a similar debt instrument that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was $102,900 and was determined by deducting the fair value of the liability component from the par value of the 2026 Notes. The equity component was not remeasured as long as it continued to meet the conditions for equity classification. The initial associated deferred tax effect of $25,884 was recorded as a reduction of additional paid-in capital because the equity component was not expected to be deductible for income tax purposes. The excess of the principal amount of the liability component over its carrying amount ("debt discount") was amortized to interest expense over the term of the 2026 Notes at an effective interest rate of 8.05% over the contractual term. Debt issuance costs related to the 2026 Notes of $9,372, comprised of discounts and commissions payable to the initial purchasers of $8,937 and third-party offering costs of $435, were allocated to the liability and equity components of the 2026 Notes based on their relative values. Issuance costs attributable to the liability component were $6,405 and were amortized to interest expense using the effective interest method over the contractual term. Issuance costs attributable to the equity component were netted with the equity component in stockholders' equity.

The Company adopted 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)*, using the modified retrospective method effective January 1, 2021. ASU 2020-06 updated the previous accounting guidance for convertible debt instruments under ASC 470-20, Debt with Conversion and Other Options ("ASC 470-20"), and required a convertible debt instrument to be accounted for as a single liability measured at its amortized cost. Upon adoption, the Company recorded a $74,850 decrease to additional paid-in capital, a $78,707 increase to the carrying value of the 2026 Notes, a $2,465 decrease to the net deferred tax liability, and a $1,392 increase in accumulated deficit. Effective on January 1, 2021, debt issuance costs related to the 2026 Notes of $7,008 were allocated to the liability component of the 2026 Notes and are being amortized to interest expense using the effective interest method over the contractual term, resulting in an effective interest rate of 2.20%. In addition, on February 12, 2021, the Company received a private letter ruling from the Internal Revenue Service, which determined, based on information submitted and representations made by the Company, that the Company met the requirements to deduct the interest expense resulting from the amortization of the debt discount associated with the 2026 Notes.

During the year ended December 31, 2022, the Company recognized $7,023 of interest expense related to the 2026 Notes, of which $5,688 was paid or accrued and $1,335 was noncash accretion of the debt discounts recorded. Total accrued interest payable related to the 2026 Notes was $2,133 as of December 31, 2022, which was included in accrued expenses and other liabilities on the consolidated balance sheet.

During the year ended December 31, 2021, the Company recognized $6,995 of interest expense related to the 2026 Notes, of which $5,688 was paid or accrued and $1,307 was noncash accretion of the debt discounts recorded. In addition, unpaid additional interest payable as a result of the failure to remove the restrictive legend on the 2026 Notes had accrued on the 2026 Notes from and including February 17, 2020 and had ceased accruing on February 16, 2021 as a result of the restrictive legend being removed. The Company recorded $212 of additional interest expense for the year ended December 31, 2021. The total cumulative amount of additional interest expense was $1,625 and was paid in full during the year ended December 31, 2021. Total accrued interest payable related to the 2026 Notes was $2,133 as of December 31, 2021, which was included in accrued expenses and other liabilities on the consolidated balance sheet.

During the year ended December 31, 2020, under the previous accounting standard, the Company recognized $18,682 of interest expense related to the 2026 Notes, of which $5,688 was paid or accrued and $12,994 was noncash accretion of the debt discounts recorded. Additional accrued interest as a result of the failure to remove the restrictive legend on the 2026 Notes, as described above, was $1,413 as of December 31, 2020.

The 2026 Notes had a carrying value of $320,634 and $319,299 as of December 31, 2022 and December 31, 2021, respectively.

The 2026 Notes are classified as long-term debt on the Company's consolidated balance sheets and will be until such Notes are within one year of maturity.

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

(c) Convertible Note Hedge and Warrant Transactions

In connection with the offering of the 2026 Notes, the Company entered into convertible note hedge transactions with affiliates of certain of the initial purchasers (the "option counterparties") of the 2026 Notes pursuant to the terms of call option confirmations. The Company has the option to purchase a total of 4,646,393 shares of its common stock at a price of approximately $69.95 per share. The total premiums paid for the note hedges were $101,660. The Company also entered into warrant transactions with the option counterparties whereby they have the option to purchase 4,646,393 shares of the Company's common stock at a price of $105.58 per share. The Company received $65,910 in cash proceeds from the sale of the warrants. As these instruments are considered indexed to the Company's own stock and are considered equity classified, the convertible note hedges and warrants are recorded in stockholders' equity (deficit), are not accounted for as derivatives and are not remeasured each reporting period. The net costs incurred in connection with the convertible note hedge and warrant transactions were recorded as a reduction to additional paid-in capital on the Company's consolidated balance sheets.

The convertible note hedge transactions are expected generally to reduce the potential dilution to the Company's common stock upon conversion of the 2026 Notes and/or offset any potential cash payments the Company is required to make in excess of the principal amount of converted 2026 Notes, as the case may be. The warrant transactions could separately have a dilutive effect on the Company's common stock to the extent that the market price per share of the Company's common stock exceeds the strike price of the warrants.

As of December 31, 2022, no warrants have been exercised and all warrants to purchase shares of the Company's common stock were outstanding.

(d) Long-Term Debt Maturities

The following table represents the total long-term debt obligations of the Company at December 31, 2022 and December 31, 2021:

	December 31, 2022	December 31, 2021
Convertible senior subordinated notes	$ 235,272	$ 325,000
Convertible senior subordinated notes - related party	89,728	—
Unamortized discount, including debt issuance costs, on convertible senior subordinated notes	(4,366)	(5,701)
Total long-term debt, net	$ 320,634	$ 319,299

15. Income Taxes

The Company accounts for income taxes under ASC Topic 740 —*Income Taxes* ("ASC 740"). Deferred income tax assets and liabilities are determined based upon differences between financial reporting and tax bases of assets and liabilities, which are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse.

The components of the Company's loss before income taxes are as follows:

	Years Ended December 31,		
	2022	2021	2020
United States	$ (76,945)	$ (51,848)	$ (61,920)
Total loss before income taxes	$ (76,945)	$ (51,848)	$ (61,920)

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

The expense (benefit) from income taxes consists of the following:

	Years Ended December 31,		
	2022	2021	2020
Current:			
State and local	$ 93	$ 114	$ 134
Total current income tax expense	93	114	134
Deferred:			
US federal	14	52	(2,930)
State and local	282	224	(2,613)
Total deferred income tax expense (benefit)	296	276	(5,543)
Total income tax expense (benefit)	$ 389	$ 390	$ (5,409)

The Company had no current or deferred international income tax expense during the years ended December 31, 2022, 2021, and 2020.

For the years ended December 31, 2022 and 2021, the Company had an effective tax rate (0.5%) and (0.8%) respectively, primarily related to indefinite-lived deferred tax liabilities for goodwill amortization. The effective tax rate differs from the U.S. statutory tax rate primarily due to the full valuation allowance recorded that is currently limiting the realizability of the Company's net deferred tax assets as of December 31, 2022 and 2021. Accordingly, the tax benefit was limited due to unbenefited losses in the years ended December 31, 2022 and 2021.

For the year ended December 31, 2020, the Company had an effective tax rate of 8.7%. The tax benefits primarily consist of the benefits generated by the Company's U.S. federal and state and local losses, windfall tax benefits generated from the vesting of restricted stock, disqualifying dispositions, and exercising of nonqualified stock options during the period, offset by other tax expense due to the increase in the Company's valuation allowance.

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

The principal components of the Company's deferred tax assets and liabilities are as follows:

	December 31, 2022	December 31, 2021
Deferred tax assets:		
Net federal operating loss carryforward	$ 51,270	$ 45,037
Net state operating loss carryforward	13,800	10,597
Net international operating loss carryforward	4,071	3,554
Interest expense limitation carryforward	19,848	14,501
Unamortized debt discount	13,629	17,515
Accruals	1,221	1,257
Amortizable intangible assets	419	1,479
Stock options	4,793	8,671
Operating lease liabilities	4,987	6,335
Assets held for sale	8,591	—
Other	420	562
Deferred tax assets	123,049	109,508
Less: valuation allowances	(111,118)	(88,370)
Deferred tax assets after valuation allowance	11,931	21,138
Deferred tax liabilities:		
Fixed assets	(5,002)	(12,080)
Operating lease right-of-use assets	(3,795)	(5,576)
Indefinite-lived intangibles	(4,383)	(4,830)
Other	(131)	(54)
Deferred tax liabilities	(13,311)	(22,540)
Net deferred tax liabilities	$ (1,380)	$ (1,402)

As of December 31, 2022, the Company had federal net operating loss ("NOL") carryforwards of $243,313, state NOL carry forwards of $247,006 and international NOL carryforwards of $13,568, each of which is available to reduce future taxable income. The NOL carryforwards, if not utilized, will begin to expire in 2031 for federal purposes, and began to expire in 2022 for state purposes. The international NOLs do not expire.

On February 12, 2021, the Company received a private letter ruling from the Internal Revenue Service, which determined, based on information submitted and representations made by the Company, that the Company met the requirements to deduct the interest expense resulting from the amortization of the debt discount associated with the 2026 Notes. As a result, the Company recorded a deferred tax asset of $26,313 and a corresponding $26,313 increase to its valuation allowance.

ASC 740 requires a valuation allowance to reduce the deferred tax assets reported if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. As a result, as of December 31, 2020, the Company had a partial valuation allowance against U.S. federal and state deferred tax assets and a full valuation allowance against its international deferred tax assets because the Company determined that it was more likely than not that these assets would not be fully realized.

After consideration of all the evidence, both positive and negative, at December 31, 2022 and 2021, the Company recorded a full valuation allowance against all of its deferred tax assets because the Company determined that it was more likely than not that these assets would not be fully realized.

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

The changes in the Company's valuation allowance were as follows:

	Year-Ended December 31,	
	2022	2021
Balance at beginning of the year	$ 88,370	$ 23,178
Increase due to NOLs and temporary differences	22,954	65,356
Change in foreign exchange rate	(206)	(164)
Balance at end of the year	$ 111,118	$ 88,370

A reconciliation of income tax (expense) benefit at the statutory federal income tax rate and income taxes as reflected in the financial statements is as follows:

	December 31,		
	2022	2021	2020
Federal statutory rate	21.0 %	21.0 %	21.0 %
State income taxes, net of federal benefit	1.8	17.9	4.7
Change in valuation allowance	(7.9)	(78.0)	(20.8)
Non-deductible stock compensation and tax windfall benefits, net	(10.6)	(1.0)	3.5
Change in fair value of contingent consideration	(4.8)	—	(0.9)
Change in deduction for debt discount amortization	—	38.2	—
Non-deductible expenses and other	—	1.1	1.2
Effective income tax rate	(0.5)%	(0.8)%	8.7 %

The tax benefits of uncertain tax positions are recognized only when the Company believes it is more likely than not that the tax position will be upheld on examination by the taxing authorities based on the merits of the position. The Company recognizes interest and penalties, if any, related to unrecognized income tax benefits in income tax expense. Through December 31, 2022, the Company had no unrecognized tax benefits or related interest and penalties accrued.

In the normal course of business, the Company is subject to examination by taxing authorities from federal, state, and international governments. As of December 31, 2022, the Company's tax years beginning in 2016 remain open for examination by taxing authorities.

16. Stockholders' Equity

In connection with the offering of the 2026 Notes, the Company issued warrants to purchase 4,646,393 shares of the Company's common stock at a price of $105.58 per share. As of December 31, 2022, no warrants have been exercised and all warrants to purchase shares of the Company's common stock were outstanding. See Note 14 for additional information related to the 2026 Notes.

17. Stock-Based Compensation

In September 2016, the Company adopted the 2016 Equity Compensation Plan ("2016 Plan"). During the term of the 2016 Plan, the share reserve will automatically increase on the first trading day in January of each calendar year by an amount equal to the lesser of 5% of the total number of outstanding shares of common stock on the last trading day in December of the prior calendar year or such other number set by the Board of Directors. In accordance with the terms of the 2016 Plan, the share reserve increased by 1,283,321 shares on February 25, 2022. As of December 31, 2022, 1,251,990 shares were available for future grants under the 2016 Plan.

The stock-based compensation information disclosed below includes results of both continuing and discontinued operations.

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

Restricted Common Stock and Restricted Stock Units

The Company issues restricted stock awards and restricted stock units pursuant to the 2016 Plan to employees and non-employee directors. Restricted stock awards and restricted stock units generally vest over a one-to-four year period and the unvested portion of these awards is forfeited if the employee or non-employee director leaves the Company before the vesting period is completed. The grant-date fair value of restricted stock awards and restricted stock units is determined using the Company's closing stock price at grant date.

The following table summarizes the aggregate restricted stock award activity, inclusive of performance based restricted stock awards, and restricted stock unit activity under the 2016 Plan for the years ended December 31, 2022, 2021 and 2020:

	Number of shares	Weighted average grant-date fair value
Outstanding at January 1, 2020	1,213,581	$ 37.69
Granted	581,107	59.83
Vested	(356,389)	45.89
Forfeited	(51,391)	57.14
Outstanding at December 31, 2020	1,386,908	44.14
Granted	1,457,752	40.02
Vested	(502,410)	48.42
Forfeited	(145,684)	47.76
Outstanding at December 31, 2021	2,196,566	40.19
Granted	2,154,626	4.40
Vested	(1,256,758)	34.62
Forfeited	(791,537)	16.80
Outstanding at December 31, 2022	2,302,897	$ 17.78

The table above includes 7,584 restricted stock units which had vested but had not been issued as of December 31, 2022.

For the years ended December 31, 2022, 2021, and 2020, $29,572, $31,127, and $22,042, respectively, of expense was recognized related to restricted stock awards and restricted stock units, excluding performance-based restricted stock awards described below. As of December 31, 2022, there was unrecognized compensation expense of $26,175 related to non-vested restricted stock awards and non-vested restricted stock units, excluding performance-based restricted stock awards described below, under the 2016 Plan, which are expected to be recognized over a weighted average period of 2.3 years.

Expense related to restricted stock awards for the year ended December 31, 2022 includes $8,143 for the accelerated vesting of unvested shares of restricted stock related to separation agreements with two retired named executive officers. See Note 21 for additional information.

Performance-Based Equity Awards

On May 4, 2020, pursuant to the 2016 Plan, the Board approved grants totaling 10,686 shares of restricted stock to an employee. The awards had a grant-date fair value of $56.14 per share based on the Company's closing stock price on the grant date and were subject to certain performance conditions being achieved during the two-year period ending March 2, 2022. The awards expired on March 2, 2022, and the Company recognized no stock-based compensation expense related to these grants for the years ended December 31, 2022, 2021, and 2020 as the performance conditions were not achieved.

On October 29, 2020, pursuant to the 2016 Plan, the Board approved grants totaling 26,400 shares of restricted stock to certain employees, of which 1,400 expired on April 30, 2021 and 12,500 expired on December 31, 2021. The remaining 12,500 shares fully vested subject to the achievement of certain milestones on December 31, 2021. The awards had a grant-date fair value of $35.95 per share based on the Company's closing stock price on the grant date. Stock-based compensation costs associated with these grants were recognized over the service period based upon the Company's assessment of the probability that the performance conditions would be achieved. The Company recognized $297 and $152 of stock-based compensation expense related to these grants for the years ended December 31, 2021 and 2020, respectively.

On April 27, 2021, pursuant to the 2016 Plan, the Board approved awards of performance stock units to certain employees. Each award reflects a target number of shares ("Target 2021 Shares") that may be issued to the award recipient. The awards are earned upon the Company's achievement of certain revenue performance targets during the three-year performance period ending December 31, 2023. Depending on the results achieved during the performance period, the actual number of shares that a grant recipient may receive at the end of the performance period may range from 0% to 200% of the Target 2021 Shares granted. The performance stock unit awards have a grant-date fair value of $44.13 per share based on the Company's closing stock price on the grant date. Stock-based compensation costs associated with these grants are recognized over the performance period based upon the Company's assessment of the probability that the performance targets will be achieved. The Company did not recognize any stock-based compensation expense related to the performance stock units for the years ended December 31, 2022 and 2021, as the achievement of the underlying performance targets was considered unlikely. During the year ended December 31, 2022, 47,175 performance stock units expired. As of December 31, 2022, the number of Target 2021 Shares was 45,550 shares, the maximum number of achievable performance stock units was 91,100, and the maximum unrecognized compensation expense was $4,020.

On August 22, 2022, pursuant to the 2016 Plan, the Board approved awards of performance stock units to certain executives. Each award reflects a target number of shares ("Target 2022 Shares") that may be issued to the award recipient. The awards are earned upon the Company's achievement of certain market performance targets during the three-year performance period ending December 31, 2024. Depending on the results achieved during the performance period, the actual number of shares that a grant recipient may receive at the end of the performance period may range from 0% to 200% of the Target 2022 Shares granted. The performance stock unit awards have a grant-date fair value of $4.38 per share based on the fair value of the Company's stock price at grant date and the expected vesting units, taking into consideration the possibilities of all possible performance achievement levels. Stock-based compensation costs associated with these grants are recognized over the performance period. The Company recognized $233 of stock-based compensation expense related to the performance stock units for the year ended December 31, 2022. As of December 31, 2022, the number of Target 2022 Shares was 350,000 shares, the maximum number of achievable performance stock units was 700,000, and the remaining unrecognized compensation expense was $1,299.

Other Stock Awards

During the year ended December 31, 2020, the Board approved the grant of stock awards to select employees pursuant to the 2016 Plan. The awards provided for the issuance of 9,386 shares of the Company's common stock, which immediately vested on the grant date. These grants had a weighted average grant-date fair value of $52.29 per share. For the year ended December 31, 2020, the Company recorded $491 of expense related to these stock awards.

During the year ended December 31, 2021, the Board approved the grant of stock awards to certain non-employee directors, in lieu of cash compensation, and to a consultant pursuant to the 2016 Plan. The awards provided for the issuance of 1,416 shares of the Company's common stock, which immediately vested on the grant date. These grants had a weighted average grant-date fair value of $40.85 per share. For the year ended December 31, 2021, the Company recorded $58 of expense related to these stock awards.

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

During the first quarter of 2022, the Board approved grants of stock awards to certain non-employee directors, in lieu of cash compensation, and employees pursuant to the 2016 Plan. The awards provided for the issuance of 16,471 shares of the Company's common stock, which immediately vested on the grant date. These grants had a weighted average grant-date fair value of $5.57 per share. For the year ended December 31, 2022, the Company recorded $92 of expense related to these stock awards.

During the second quarter of 2022, the Board approved grants of stock awards to certain non-employee directors, in lieu of cash compensation, pursuant to the 2016 Plan. The awards provided for the issuance of 12,262 shares of the Company's common stock, which immediately vested on the grant date. These grants had a weighted average grant-date fair value of $3.64 per share. For the year ended December 31, 2022, the Company recorded $45 of expense related to these stock awards.

During the third quarter of 2022, the Board approved grants of stock awards to certain employees pursuant to the 2016 Plan. The awards provided for the issuance of 615,066 shares of the Company's common stock, which immediately vested on the grant date. These grants had a weighted average grant-date fair value of $5.01 per share. For the year ended December 31, 2022, the Company recorded $3,082 of expense related to these stock awards.

Stock Options

The Company recorded $3,807, $6,972, and $9,870 of stock-based compensation expense related to the vesting of employee and non-employee stock options for the years ended December 31, 2022, 2021, and 2020, respectively.

The table below sets forth the weighted average assumptions for employee grants during the years ended December 31, 2021 and 2020. No stock options were granted during the year ended December 31, 2022.

	Year Ended December 31,	
Valuation assumptions:	**2021**	**2020**
Expected volatility	58.57 %	56.10 %
Expected term (years)	5.48	5.25
Risk-free interest rate	0.50 %	1.22 %
Dividend yield	—	—

The weighted average grant-date fair value of employee options granted during the years ended December 31, 2021 and 2020 was $28.26 and $33.78, respectively.

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

The following table summarizes stock option activity for the years ended December 2022, 2021, and 2020:

	Number of shares	Weighted average exercise price	Weighted average remaining contractual term	Aggregate intrinsic value
Outstanding at January 1, 2020	2,755,343	$ 25.10		
Granted	5,000	68.10		
Exercised	(554,007)	11.69		
Forfeited	(109,780)	44.17		
Outstanding at December 31, 2020	2,096,556	27.74		
Granted	2,500	55.01		
Exercised	(365,770)	11.88		
Forfeited	(129,060)	46.45		
Outstanding at December 31, 2021	1,604,226	29.90		
Exercised	(14,732)	4.70		
Forfeited	(411,689)	35.12		
Outstanding at December 31, 2022	1,177,805	$ 28.39	4.0	$ 279
Options vested and expected to vest at December 31, 2022	1,177,805	$ 28.39	4.0	$ 279
Exercisable at December 31, 2022	1,167,411	$ 28.16	3.9	$ 279

The aggregate intrinsic value of stock options is calculated as the difference between the exercise price of the stock options and the Company's closing stock price or estimated fair value on the last trading day of the fiscal year for those stock options that had exercise prices lower than the fair value of the Company's common stock. This amount changes based on the fair market value of the Company's stock. The total intrinsic value of options exercised during the years ended December 31, 2022, 2021, and 2020 was $111, $11,491, and $22,768, respectively.

As of December 31, 2022, there was $114 of unrecognized compensation cost related to nonvested stock options granted under the 2016 Plan, which is expected to be recognized over a weighted average period of 0.3 years.

Cash received from option exercises for the years ended December 31, 2022, 2021 and 2020 was $73, $4,072, and $3,943, respectively.

During the years ended December 31, 2022, 2021 and 2020, restricted share and option holders delivered 463,727, 122, and 62,310 shares of common stock, with a fair value of $2,181, $3, and $2,993, respectively, for employee payroll taxes owed for the vesting of restricted stock and exercise of stock options.

The Company recorded total stock-based compensation expense for the years ended December 31, 2022, 2021 and 2020 in the following expense categories of its consolidated statement of operations:

	Year Ended December 31,		
	2022	2021	2020
Cost of medication revenue	$ 917	$ 1,279	$ 887
Cost of technology-enabled solutions revenue	2,806	3,635	2,935
Research and development	4,935	5,989	5,076
Sales and marketing	721	1,540	1,074
General and administrative	22,999	19,748	17,679
Discontinued operations	4,453	6,263	4,904
Total stock-based compensation expense	$ 36,831	$ 38,454	$ 32,555

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

Employee Stock Purchase Plan

In February 2021, the Board, subject to stockholder approval, adopted the Tabula Rasa HealthCare, Inc. Employee Stock Purchase Plan (the "ESPP"), which allows eligible employees to purchase common shares of Company stock through payroll deductions at a 15% discount off the lower of (i) the fair market value per share of common stock on the start date of the applicable offering period or (ii) the fair market value per share of common stock on the purchase date. The ESPP was approved by the Company's stockholders at the 2021 annual meeting of stockholders in June 2021. The number of shares of common stock reserved for issuance under the ESPP will initially be 480,097 shares, subject to adjustment as provided in the ESPP, all of which remained available as of December 31, 2022.

18. Fair Value Measurements

The Company's financial instruments consist of money market funds, accounts receivable, client claims receivables, contract assets, contingent consideration receivable, accounts payable, client claims payable, contract liabilities, accrued expenses, vendor financing arrangements, and long-term debt, which includes the Company's convertible senior subordinated notes. The carrying values of accounts receivable, client claims receivables, contract assets, accounts payable, client claims payable, contract liabilities, and accrued expenses are representative of their fair values due to the relatively short-term nature of those instruments. Vendor financing arrangements are recorded at net carrying value, which approximates fair value. See below for additional information on the Company's convertible senior subordinated notes.

The Company had classified assets measured at fair value on a recurring basis at December 31, 2022 as follows:

	Fair Value Measurement at Reporting Date Using			
	Level 1	Level 2	Level 3	Balance as of December 31, 2022
Assets				
Money market funds	$ 50,382	$ —	$ —	$ 50,382
Contingent consideration receivable - long-term	—	—	3,350	3,350
Total	$ 50,382	$ —	$ 3,350	$ 53,732

Level 1 instruments include investments in money market funds with an original maturity of three months or less and are valued based on quoted prices in active markets at the measurement date.

In connection with the sale of the PrescribeWellness Business on August 1, 2022, additional consideration may be payable to the Company based on the achievement of certain customer and revenue metrics, as defined in the corresponding purchase agreement, for the years ending December 31, 2023 and 2024. See Note 6 for additional information regarding the sale of the PrescribeWellness Business.

The contingent consideration receivable is measured at fair value on a recurring basis and may include the use of significant unobservable inputs, hence these instruments represent Level 3 measurements within the fair value hierarchy. All changes in contingent consideration subsequent to the initial sale-date measurement are recorded in net income or loss.

The fair value of the contingent consideration receivable was determined using a Monte Carlo simulation with the assistance of a third-party appraiser. The contingent consideration receivable was recorded at the estimated fair value of $7,000 at the sale date of August 1, 2022. During the year ended December 31, 2022, the Company recorded a $3,650 charge to decrease the fair value of the contingent consideration receivable primarily due to updated estimates used in

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

the contingent consideration valuation. The estimated fair value of the contingent consideration receivable was $3,350 as of December 31, 2022.

In connection with the acquisition of the Cognify business in 2018, additional consideration was payable by the Company contingent upon the achievement of certain financial and performance milestones. These acquisition-related contingent consideration liabilities represented the estimated fair value of the additional cash and equity consideration payable. In accordance with ASC 805, *Business Combinations*, all changes in liability-classified contingent consideration subsequent to the initial acquisition-date measurement were recorded in net income or loss.

The acquisition-related contingent consideration liabilities were measured at fair value on a recurring basis and included the use of significant unobservable inputs, hence, these instruments represented Level 3 measurements within the fair value hierarchy.

The Cognify acquisition-related contingent consideration, which was liability-classified, was recorded at the estimated fair value at the acquisition date of October 19, 2018. The Company, with the assistance of a third-party appraiser, utilized a Monte Carlo simulation to derive estimates of the contingent consideration payments as of the acquisition date and at each subsequent reporting period.

During the third quarter of 2020, pursuant to the terms of the corresponding stock purchase agreement, the Company elected to accelerate the payment of the Cognify acquisition-related contingent consideration for an aggregate payment amount of $13,413. Due to the accelerated payment of the Cognify acquisition-related contingent consideration, the acquisition-related contingent consideration payment amount was fixed and was no longer classified within the fair value hierarchy as of December 31, 2020. The Cognify acquisition-related contingent consideration was partially paid during 2020 by cash payments of $6,394 and the issuance of 135,434 shares of the Company's common stock, with a fair value of $6,853. The fair value of the Cognify acquisition-related contingent consideration was calculated to be $166 as of December 31, 2020. In January 2021, the Company made the final cash payment of $166 in full satisfaction of the remaining acquisition-related contingent consideration liability.

The following table presents the financial instruments that are not carried at fair value but require fair value disclosure as of December 31, 2022:

	Face Value	Carrying Value	Fair Value
1.75% Convertible Senior Subordinated Notes due 2026	$ 325,000	$ 320,634	$ 260,023

The fair value of the 2026 Notes at each balance sheet date is determined based on recent quoted market prices for these notes which is a level 2 measurement. As discussed in Note 14, the 2026 Notes are carried at their aggregate face value of $325,000, less any unaccreted debt discount and unamortized debt issuance costs.

19. Commitments and Contingencies

(a) Employment Agreements

The Company has change-in-control and severance agreements with each of the Company's named executive officers and other key members of management that provide for, among other things, salary, performance bonuses, or other incentive compensation, payments in the event of termination of the executives upon the occurrence of a change in control, and restrictive covenants pursuant to which the employees have agreed to refrain from competing with the Company or soliciting the Company's employees or clients for a period following the employee's termination of employment.

(b) Legal Proceedings

The Company is not currently involved in any significant claims or legal actions that, in the opinion of management, will have a material adverse impact on the Company.

(c) Vendor Purchase Agreements

On March 29, 2019, the Company entered into an Affiliated Pharmacy Agreement and Pharmaceutical Program Supply Agreement (the "Prior Thrifty Drug Agreements") with Thrifty Drug Stores, Inc. ("Thrifty Drug"). On July 1, 2020, the Company entered into a new Affiliated Pharmacy Agreement and Pharmaceutical Program Supply Agreement with Thrifty Drug (the "Thrifty Drug Agreements") to replace the Prior Thrifty Drug Agreements, which, among other things, extended the Company's agreement with Thrifty Drug through March 31, 2024. Pursuant to the terms of the Thrifty Drug Agreements, the Company has agreed to purchase not less than 98% of the Company's total prescription product requirements from Thrifty Drug. The Company commenced purchasing prescription products under the Prior Thrifty Drug Agreements in May 2019 and has continued to do so under the Thrifty Drug Agreements beginning in July 2020. Both the Prior Thrifty Drug Agreements and the Thrifty Drug Agreements authorize Thrifty Drug to hold a security interest in all of the products purchased by the Company under the respective agreements.

As of December 31, 2022 and 2021, the Company had $4,608 and $1,854, respectively, due to Thrifty Drug as a result of prescription drug purchases.

In June 2021 and October 2021, the Company entered into agreements with a provider for cloud hosting and support services. The June 2021 agreement was effective as of June 3, 2021 and expires on April 28, 2024. Pursuant to the June 2021 agreement, the Company is committed to a minimum purchase obligation of $1,272 over the term of the agreement. The October 2021 agreement was effective as of October 1, 2021 and expires on September 30, 2024. Pursuant to the October 2021 agreement, the Company is committed to a minimum purchase obligation of $7,050 over the term of the agreement. Commitments under the October 2021 agreement are inclusive of commitments under the June 2021 agreement. As of December 31, 2022, the Company had a remaining commitment of $3,863 under the October 2021 agreement, of which $581 pertained to the June 2021 agreement.

In August 2021, the Company entered into an agreement with a third party to provide enterprise support and information technology services. The agreement is effective as of November 1, 2021 and expires on October 31, 2026 and commits the Company to a minimum purchase obligation of $8,960 through October 31, 2024. As of December 31, 2022, the Company had a remaining commitment of $5,476.

20. Retirement Plan

The Company has established a 401(k) plan that qualifies as a defined contribution plan under Section 401 of the Internal Revenue Code. The Company's contributions to this plan are based on a percentage of eligible employees' plan year earnings, as defined therein. The Company made matching contributions to participants' accounts totaling $2,958, $3,067, and $2,732 during the years ended December 31, 2022, 2021 and 2020, respectively.

21. Related Party Transactions

The Company's CareVention HealthCare segment provides medication fulfillment pharmacy services and certain PACE solutions services to a client whose Chief Executive Officer is a member of the Company's Board. For the years ended December 31, 2022, 2021, and 2020, approximately $7,494, $6,605 and $5,631, respectively, of revenue related to this client was included in the Company's consolidated statements of operations, and approximately $145 and $67 was included in accounts receivable, net, as of December 31, 2022 and 2021, respectively, on the Company's consolidated balance sheets.

During the second quarter of 2022, a holder of the Company's convertible senior subordinated notes became a significant stockholder. The stockholder held approximately $88,522 of the Company's convertible senior subordinated notes, net of discount, which is presented on the Company's consolidated balance sheet as of December 31, 2022. See Note 14 for more information on the Company's convertible senior subordinated notes.

On September 13, 2022, the Company entered into a cooperation agreement (the "Cooperation Agreement") with a significant stockholder of the Company, pursuant to which, among other matters, the Company agreed to effect

certain changes to its management team and the composition of the Board of Directors and implement certain corporate governance changes. In connection with the Cooperation Agreement, the Company agreed to reimburse the stockholder $464 of fees incurred, which were paid by the Company in the fourth quarter of 2022.

On September 13, 2022, in connection with the entry into separation agreements with two retired named executive officers, the Company incurred $9,927 of separation costs, which included stock-based compensation related to the accelerated vesting of unvested shares of restricted stock, severance payments and benefits, relevant payroll taxes, and outplacement services. These costs are included within general and administrative expenses in the Company's consolidated statement of operations, of which $1,330 are included within accrued expenses and other liabilities on the Company's consolidated balance sheet as of December 31, 2022.

On September 13, 2022, the Company entered into consulting services agreements with two retired named executive officers to provide certain consulting and advisory services to the Company, including assisting with the transition of key client relationships, strategic business partners, and prospects. The consulting services agreements expire on December 31, 2022. The Company incurred $3 of consulting services costs for the year ended December 31, 2022, which are included within general and administrative expenses in the Company's consolidated statement of operations.

22. Rights Plan

On July 25, 2022, the Board approved and adopted a Rights Agreement (the "Rights Agreement"), by and between the Company and American Stock Transfer & Trust Company, LLC, as Rights Agent. Pursuant to the Rights Agreement, the Board declared a dividend of one preferred share purchase right (each, a "Right") for each outstanding share of common stock. The Rights are distributable to stockholders of record as of the close of business on August 5, 2022 and are not exercisable initially. If the Rights become exercisable, each Right entitles the registered holder to purchase from the Company one one-thousandth of a share of a newly-designated series of preferred stock, Series A Junior Participating Preferred Stock, par value $0.0001 per share, of the Company, at an exercise price of $26.00, subject to adjustment. The Rights expire at the earlier of (a) the redemption or exchange of the Rights as provided in the Rights Agreement or (b) July 25, 2023.

23. Segment Reporting

The Company operates its business through two segments. As discussed in Note 6 above, the 2022 divestiture of the PrescribeWellness Business and the 2023 divestitures of the DoseMe and SinfoníaRx businesses, which collectively comprised the majority of the Company's MedWise HealthCare segment, represented a strategic business shift in the Company's operations. The Company determined that these businesses met the requirements of discontinued operations as of March 31, 2022 and the DoseMe and SinfoníaRx businesses continued to meet the requirements as of December 31, 2022. As a result, these businesses are excluded from the Company's segment reporting. The Company presents continuing operations of the remaining components of the MedWise HealthCare segment combined with its shared services as Shared Services and Other.

The Company's chief operating decision maker ("CODM"), the Interim Chief Executive Officer, allocates resources and assesses performance based upon financial information at the reportable segment level. Substantially all revenues are generated and substantially all tangible assets are held in the U.S.

CareVention HealthCare primarily provides services to PACE organizations that include medication fulfillment pharmacy services and technology-enabled solutions such as medication safety services, PBM solutions, and health plan management services.

MedWise HealthCare primarily generates revenues from the Company's technology-enabled solutions, which include medication safety services and software subscription solutions which identify individuals with high medication-related risk and optimize medication therapy.

Shared services primarily consist of unallocated corporate sales and marketing expenses and general and administrative expenses associated with the management and administration of the Company's business objectives.

The CODM uses revenue in accordance with U.S. GAAP and Adjusted EBITDA as the relevant segment performance measures to evaluate the performance of the segments and allocate resources.

Adjusted EBITDA is a segment performance financial measure that offers a useful view of the overall operation of the Company's businesses and may be different than similarly-titled segment performance financial measures used by other companies.

Adjusted EBITDA consists of net loss plus certain other expenses, which include interest expense, provision for income taxes, depreciation and amortization, change in fair value of acquisition-related contingent consideration expense, change in fair value of contingent consideration receivable, impairment charges, business optimization expenses, severance costs, executive transition costs, cooperation agreement costs, divestiture-related expense, acquisition-related expense, stock-based compensation expense, loss on disposal of business, and settlement costs. The Company considers business optimization expenses to include contract termination payments, lease termination costs, retention payments, and other employee and non-recurring vendor costs incurred related to its business optimization initiatives during 2022 and 2021. The Company considers severance costs to include severance costs related to the realignment of its resources. The Company considers executive transition costs to include non-recurring costs related to the hiring and onboarding of new named executive officers and separation costs related to former named executive officers. The Company considers cooperation agreement costs to include legal, professional services, and other non-recurring costs related to the Company's cooperation agreement with Indaba Capital Management. The Company considers divestiture-related expense to include non-recurring direct transaction costs. The Company considers acquisition-related expense to include non-recurring direct transaction and integration costs. The Company considers loss on disposal of business to include non-recurring loss resulting from the sale of PrescribeWellness Business. The Company considers settlement costs to include amounts payable by the Company or reductions to amounts owed to the Company as a result of a contractual settlement.

Management considers revenue and Adjusted EBITDA to be the appropriate metric to evaluate and compare the ongoing operating performance of the Company's segments on a consistent basis across reporting periods as they eliminate the effect of items that are not indicative of each segment's core operating performance.

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

The following tables present the Company's segment information:

	CareVention HealthCare	Shared Services and Other	Consolidated
Revenue:			
Year Ended December 31, 2022			
Medication revenue	$ 231,052	$ —	$ 231,052
Technology-enabled solutions revenue	64,430	4,034	68,464
Total revenue	$ 295,482	$ 4,034	$ 299,516
Year Ended December 31, 2021			
Medication revenue	$ 189,591	$ —	$ 189,591
Technology-enabled solutions revenue	58,417	11,874	70,291
Total revenue	$ 248,008	$ 11,874	$ 259,882
Year Ended December 31, 2020			
Medication revenue	$ 158,692	$ —	$ 158,692
Technology-enabled solutions revenue	47,577	15,120	62,697
Total revenue	$ 206,269	$ 15,120	$ 221,389

	CareVention HealthCare	Shared Services and Other	Consolidated
Adjusted EBITDA (Loss) from Continuing Operations:			
Year Ended December 31, 2022			
Adjusted EBITDA (loss)	$ 55,093	$ (45,764)	$ 9,329
Year Ended December 31, 2021			
Adjusted EBITDA (loss)	$ 56,572	$ (44,475)	$ 12,097
Year Ended December 31, 2020			
Adjusted EBITDA (loss)	$ 50,400	$ (38,004)	$ 12,396

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

The following table presents the Company's reconciliation of the segments' total Adjusted EBITDA to net loss as presented in the consolidated statements of operations:

	Year Ended December 31,		
	2022	2021	2020
Reconciliation of Net Loss to Adjusted EBITDA from Continuing Operations			
Net loss	$ (147,510)	$ (79,055)	$ (80,966)
Add:			
Interest expense, net	9,034	9,107	20,743
Income tax expense (benefit)	389	390	(5,409)
Depreciation and amortization	23,347	20,482	16,633
Change in fair value of acquisition-related contingent consideration expense	—	—	2,613
Change in fair value of contingent consideration receivable	3,650	—	—
Impairment charges	8,943	—	5,040
Business optimization expenses	872	1,061	—
Severance costs	2,118	887	841
Executive transition	1,971	—	—
Cooperation agreement costs	980	—	—
Divestiture-related expense	2,981	—	—
Acquisition-related expense	—	217	795
Stock-based compensation expense	32,378	32,191	27,651
Loss from discontinued operations	70,176	26,817	24,455
Adjusted EBITDA from continuing operations	$ 9,329	$ 12,097	$ 12,396
Adjusted EBITDA (loss) from discontinued operations	(6,243)	7,514	9,379
Total Adjusted EBITDA	$ 3,086	$ 19,611	$ 21,775

	Year Ended December 31,		
	2022	2021	2020
Reconciliation of Net Loss from Discontinued Operations, net of tax to Adjusted EBITDA (Loss) from Discontinued Operations			
Net loss from discontinued operations, net of tax	$ (70,176)	$ (26,817)	$ (24,455)
Add:			
Income tax (benefit) expense	(318)	237	241
Depreciation and amortization	7,331	27,224	28,407
Impairment charges	47,885	—	—
Loss on disposal of business	2,879	—	—
Business optimization expenses	—	107	—
Severance costs	39	—	32
Settlement	1,448	500	—
Acquisition-related expense	—	—	250
Divestiture-related expense	216	—	—
Stock-based compensation expense	4,453	6,263	4,904
Adjusted EBITDA (loss) from discontinued operations	$ (6,243)	$ 7,514	$ 9,379

Asset information by segment is not a key measure of performance used by the CODM. Accordingly, the Company has not disclosed asset information by segment.

24. Subsequent Events

On January 20, 2023 (the "DoseMe Sale Date"), the Company and Tabula Rasa HealthCare Group, Inc., a wholly-owned subsidiary of the Company (the "Seller"), entered into a Share and Asset Purchase Agreement (the "DoseMe Purchase Agreement"), by and among the Company, Seller, and DoseMe Operations Inc. ("Buyer"), pursuant to which Seller agreed to sell to Buyer its unincorporated DoseMe Business, and the assets, properties, and rights that are primarily used or held for use in connection with the DoseMe Business. As consideration, Buyer agreed to pay to Seller on the DoseMe Sale Date $2,000 in cash, subject to certain customary post-closing adjustments. The purchase consideration also includes a note receivable of $3,000 with an annual interest rate of 7%, which matures on January 20, 2027. Initial accounting for the divestiture is incomplete as of March 10, 2023 due to the complexity of the transaction. Pro forma financial information has not been provided herein due to a lack of sufficient information at the time of filing.

On March 2, 2023 (the "SinfoníaRx Sale Date"), the Company and Tabula Rasa HealthCare Group, Inc., a wholly-owned subsidiary of the Company (the "Seller"), entered into an Asset Purchase Agreement (the "SinfoníaRx Purchase Agreement"), by and among the Company, Seller, and Symphony Clinic, LLC ("Symphony"), pursuant to which Seller agreed to sell to Symphony its unincorporated SinfoníaRx Business, and the assets, properties, and rights that are primarily used or held for use in connection with the SinfoníaRx Business. As consideration, Symphony agreed to pay to Seller on the SinfoníaRx Sale Date $1,400 in cash, subject to certain customary post-closing adjustments. The purchase consideration also includes a note receivable of $3,600 with an annual interest rate of 3%, which matures on December 31, 2023. The Company may also be entitled to receive up to $1,000 in contingent consideration based upon potential regulatory changes affecting the business. Initial accounting for the divestiture is incomplete as of March 10, 2023 due to the complexity of the transaction. Pro forma financial information has not been provided herein due to a lack of sufficient information at the time of filing. In connection with the sale, the Company incurred severance costs of $923, which are expected to be paid in the first and second quarters of 2023.

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

Schedule II - Valuation and Qualifying Accounts for continuing operations as of and for the years ended December 31, 2022, 2021 and 2020.

Description	Balance at Beginning of Period	Additions Charged to Costs and Expenses	Deductions	Balance at End of Period
Allowance for doubtful accounts:				
Year Ended December 31, 2022	$ 110	$ 512	$ (254)	$ 368
Year Ended December 31, 2021	$ 121	$ 148	$ (159)	$ 110
Year Ended December 31, 2020	$ 318	$ (175)	$ (22)	$ 121

Description	Balance at Beginning of Period	Allowance Recorded on Current Year Losses	Change In Foreign Exchange Rate	Balance at End of Period
Deferred tax asset valuation allowance:				
Year Ended December 31, 2022	$ 88,370	$ 22,954	$ (206)	$ 111,118
Year Ended December 31, 2021	$ 23,178	$ 65,356	$ (164)	$ 88,370
Year Ended December 31, 2020	$ 3,161	$ 19,877	$ 140	$ 23,178

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