UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

NANTHEALTH, INC.

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation)

27-3019889

(I.R.S. Employer Identification No.)

9920 Jefferson Blvd

Culver City, California 90232

(Address of principal executive offices, including zip code)

Patrick Soon-Shiong
Chairman and Chief Executive Officer
NantHealth, Inc.
9920 Jefferson Blvd
Culver City, California 90232
(310) 883-1300

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Approximate date of commencement of proposed sale to the public: From time to time, after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. \Box

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. \square

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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. (Check one):

Large accelerated filer		Accelerated filer	
Non-accelerated filer	\boxtimes	Smaller reporting company	X
		Emerging growth company	X

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

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered ⁽¹⁾	Proposed maximum offering price per security ⁽²⁾	Proposed maximum aggregate offering price ⁽²⁾	Amount of registration fee
Common Stock, par value \$0.0001 per share	25,337,835	\$2.47	\$62,584,452.45	\$6,827.96

- (1) Represents the maximum number of shares of common stock, par value \$0.0001 per share (the "Common Stock") issuable upon conversion of \$75,000,000 aggregate principal amount of the registrant's 4.50% Convertible Senior Notes due 2026 (the "2026 Notes"), at a conversion rate corresponding to the initial conversion rate of 259.8753 shares of Common Stock per \$1,000 principal amount of the 2026 Notes, plus a maximum make-whole adjustment of 77.9625 shares, with a final conversion rate of 337.8378 shares per \$1,000 principal amount of the 2026 Notes. Pursuant to Rule 416 under the Securities Act, the registrant is also registering such indeterminate number of shares of Common Stock as may be issued from time to time upon conversion of the notes as a result of the anti-dilution provisions thereof.
- (2) Estimated in accordance with Rule 457(c) solely for purposes of calculating the registration fee on the basis of the average of the high and low sale prices of the Common Stock of the registrant as reported on The Nasdaq Global Select Market on May 25, 2021.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this Registration Statement shall become effective on such date as the Commission acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting an offer to buy these securities in any state or other jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated , 2021

PROSPECTUS



NantHealth, Inc.

25,337,835 Shares

Common Stock

This prospectus relates to the potential sale or disposition from time to time by the selling stockholders identified in this prospectus (collectively, the "Selling Stockholders") of some or all of the shares of our common stock, par value \$0.0001 ("Common Stock") issuable upon conversion of our 4.50% Convertible Senior Notes due 2026 (the "2026 Notes"), or upon conversion of our preferred stock that may be issued upon conversion of the 2026 Notes if any, in any manner described under "Plan of Distribution" in this prospectus. For purposes of this prospectus, references to the "Selling Stockholders" include their permitted transferees, pledgees, assignees, distributees, donees or successors or others who later hold any of the Selling Stockholders' interests. The 2026 Notes were acquired from us in a private placement that closed on April 27, 2021 and is more fully described in the section entitled "Prospectus Summary – 2026 Notes Transaction." We will receive no proceeds from any sale by the Selling Stockholders of the shares of Common Stock offered by this prospectus and any prospectus supplement, but in some cases we have agreed to pay certain registration expenses. Please read this prospectus and any applicable prospectus supplement carefully before you invest.

Our common stock is listed on the Nasdaq Global Select Market ("Nasdaq") under the symbol "NH." Each prospectus supplement will indicate whether the securities offered thereby will be listed on any securities exchange. On May 25, 2021, the closing sale price of our common stock on Nasdaq was \$2.42 per share.

Investing in these securities involves risks. Please carefully read the information under the headings "Risk Factors" beginning on page 3 of this prospectus and "Item 1A – Risk Factors" of our most recent report on Form 10-K or 10-Q that is incorporated by reference in this prospectus before you invest in our securities.

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

The date of this prospectus is , 2021.

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Neither we nor any Selling Stockholder or the underwriters, if any, have authorized anyone to provide you with any information or to make any representation other than those contained in or incorporated by reference into this prospectus, any prospectus supplement or in any free writing prospectus that we may file with the Securities and Exchange Commission (the "SEC") in connection with this offering. We do not, and any Selling Stockholder or the underwriters, if any, do not, take any responsibility for, and can provide no assurances as to, the reliability of any information that others may provide you. We are not offering to sell any securities in any jurisdiction where such offer and sale are not permitted. The information contained in or incorporated by reference into this prospectus or any prospectus supplement, free writing prospectus or other offering material is accurate only as of the date of those documents or information, regardless of the time of delivery of the documents or information or the time of any sale of the securities. Neither the delivery of this prospectus or any applicable prospectus supplement nor any distribution of securities pursuant to such documents shall, under any circumstances, create any implication that there has been no change in the information set forth in this prospectus or any applicable prospectus supplement or in our affairs since the date of this prospectus or any applicable prospectus supplement.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC using a "shelf" registration process. By using a shelf registration statement, the Selling Stockholders may offer and sell the securities described in this prospectus in one or more offerings or resales.

Information about the Selling Stockholders may change over time. Any changed information given to us by the Selling Stockholders will be set forth in a prospectus supplement if and when necessary. Further, in some cases, a Selling Stockholder will also be required to provide a prospectus supplement containing specific information about the terms on which it is offering and selling shares of Common Stock. If a prospectus supplement is provided and the description of the offering in the prospectus supplement varies from the information in this prospectus, you should rely on the information in the prospectus supplement. You should read this prospectus and any prospectus supplement for a specific offering of securities, together with additional information described in the sections entitled "Where You Can Find More Information" and "Information Incorporated by Reference" below, before making an investment decision. You should rely only on the information contained in or incorporated by reference into this prospectus, any accompanying prospectus supplement or any free writing prospectus prepared by or on behalf of us to which we have referred you. If there is any inconsistency between this prospectus and the information contained in a prospectus supplement or any free writing prospectus, you should rely on the information in the prospectus supplement or such free writing prospectus prepared by or on behalf of us to which we have referred you. This prospectus (as supplemented and amended) does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus or an offer to sell or the solicitation of an offer to buy any such securities in any circumstances in which such offer or solicitation is unlawful. This document may only be used where it is legal to sell these securities. You should not assume that the information contained in this prospectus (as supplemented and amended) is accurate as of any dates other than their respective dates.

We urge you to read carefully this prospectus (as supplemented and amended) before deciding whether to purchase any of our securities being offered.

Unless we state otherwise or the context otherwise requires, references to "NantHealth," the "Company," "us," "we" or "our" in this prospectus mean NantHealth, Inc. When we refer to "you" in this section, we mean all purchasers of the securities being offered by this prospectus and any accompanying prospectus supplement, whether they are the holders or only indirect owners of those securities.

PROSPECTUS SUMMARY

This summary highlights selected information that is presented in greater detail elsewhere, or incorporated by reference, in this prospectus. It does not contain all of the information that may be important to you and your investment decision. Before investing in our securities, you should carefully read this entire prospectus, including the matters set forth under the section of this prospectus captioned "Risk Factors" and the financial statements and related notes and other information that we incorporate by reference herein, including our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K.

Company Overview

NantHealth provides enterprise solutions that help businesses transform complex data into actionable insights. By offering efficient ways to move, interpret, and visualize complex and highly sensitive information, we help our customers in healthcare, life sciences, logistics, telecommunications, and other industries, to automate, understand, and act on data while keeping it secure and scalable.

NantHealth's product portfolio comprises the latest technology in payer/provider collaboration platforms for real-time coverage decision support (Eviti and NaviNet), molecular analysis services (GPS Cancer and Omics Core), and data solutions that include multi-data analysis, reporting and professional services offerings (Quadris). In addition, The OpenNMS Group, Inc. ("OpenNMS"), a NantHealth subsidiary, helps businesses monitor and manage network health and performance. Altogether, we generally derive revenue from SaaS subscription fees, support services, professional services, molecular analysis services, and revenue sharing through collaborations with complementary businesses.

We believe we are uniquely positioned to benefit from multiple significant market opportunities as healthcare providers and payers look for solutions to manage their data, transition from fee-for-service to value-based reimbursement models and accelerate their pursuit of evidence-based clinical practice. We also believe that our core business lines enable opportunities to create data analytics services and assets which further drive value and efficiency for our customers. We are investing to further integrate big data and automated intelligence technologies within our core business lines and to create new product and service offerings.

On January 13, 2020, NantHealth entered into an asset purchase agreement with Masimo Corporation, VCCB Holdings, Inc., and NantWorks, LLC ("NantWorks") to sell its assets related to its "Connected Care" business, including the products known as DCX (formerly DeviceConX), VCX (formerly VitalsConX), HBox and Shuttle Cable (the Company's medical-grade serial-to-USB interface cable product offering). The Company completed the sale on February 3, 2020.

On July 22, 2020, NantHealth entered into an assignment agreement with Cambridge Equities, L.P. ("Cambridge") to acquire approximately 91% of OpenNMS. The acquisition of OpenNMS, an enterprise-grade open-source network monitoring company, expanded and diversified NantHealth's software portfolio and service offerings, adding AI technologies, and enhancing cloud and SaaS capabilities. We believe OpenNMS provides NantHealth customers with a new set of services to maintain reliable network connections for critical data flows that enable patient data collaboration and decision making at the point of care.

Corporate Information

We were founded in 2010 as a Delaware limited liability company under the name "About Advanced Health, LLC." In 2011, our affiliates NantWorks and California Capital Equity, LLC purchased certain assets from Abraxis Bioscience, LLC, which were subsequently contributed to us. We subsequently changed our name to "All About Advanced Health, LLC," and then to "Nant Health, LLC." On June 1, 2016, in connection with our initial public offering, we converted from a limited liability company into a Delaware corporation and changed our name from Nant Health, LLC to NantHealth, Inc., which we refer to as the "LLC Conversion." In conjunction with the LLC Conversion, (a) all of our outstanding units were automatically converted into shares of our common stock, based on the relative rights of our pre-IPO equityholders as set forth in the Nant Health, LLC limited liability company agreement, or the LLC Agreement, and (b) we adopted and filed a certificate of incorporation with the Secretary of State of the State of Delaware and adopted bylaws. Our principal executive offices are located at 9920 Jefferson Blvd, Culver City, CA 90232 and our telephone number is (310) 883-1300. Our corporate website address is www.nanthealth.com. We make available on our website, free of charge, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any amendments to those reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission, or SEC. Our SEC reports can be accessed through the investor relations page of our website located at http://int.nanthealth.com/.

The contents of our website are not a part of, and are not incorporated by reference into, this registration statement on Form S-3 or any other report or document we file with the SEC, and any references to our website are intended to be inactive textual references only.

2026 Notes Transaction

On April 13, 2021, we entered into a note purchase agreement (the "Purchase Agreement") with NaviNet, Inc., a Delaware corporation and wholly-owned subsidiary of the registrant (the "Guarantor"), the Selling Stockholders, and the other investors listed on the Schedule of Buyers attached thereto, relating to the issuance and sale to the Selling Stockholders and such other investors of \$137,500,000 in aggregate principal amount of our 2026 Notes of which \$75,000,000 was purchased by the Selling Stockholders. The transactions contemplated by the Purchase Agreement closed on April 27, 2021. In connection with the issuance of the 2026 Notes, on April 27, 2021, we entered into an indenture (the "2021 Indenture") with U.S. Bank National Association, as trustee. The 2026 Notes are convertible at the option of the holder at any time until the scheduled trading day prior to the maturity date. After the third anniversary of the closing date, we may, subject to certain conditions, redeem the 2026 Notes. The 2026 Notes are convertible into shares of our common stock based on an initial conversion rate of 259.8753 shares of common stock per \$1,000 principal amount of the 2026 Notes (which is equal to an initial conversion price of \$3.85 per share), in each case subject to customary anti-dilution and other adjustments as a result of certain extraordinary transactions.

We sold the 2026 Notes in a transaction exempt from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act") and expect to rely on an exemption for any issuance of the shares of common stock issuable upon conversion of the 2026 Notes.

THE OFFERING

Common stock offered by the Selling Stockholders

The Selling Stockholders may offer and sell some or all of the 25,337,835 shares of our Common Stock that may be issued upon conversion of the 2026 Notes in any manner described under "Plan of Distribution" in this prospectus. Throughout this prospectus, when we refer to the shares of our Common Stock being registered on behalf of the Selling Stockholders, we are referring to the shares of Common Stock that may be issued upon conversion of the 2026 Notes or that may be issued upon conversion of preferred stock that, in some cases, be issued upon conversion of the 2026 Notes.

Use of proceeds The Selling Stockholders will receive all of the proceeds from the sale under this prospectus of the shares of Common Stock issuable upon conversion of the 2026 Notes or preferred stock, if any. We will not receive any proceeds from these sales.

Listing Our Common Stock is listed on the Nasdaq Global Select Market under the symbol "NH."

Risk Factors Investing in our securities involves a high degree of risk. You should carefully review and consider the information under the headings "Risk Factors" beginning on page 3 of this prospectus and "Item 1A – Risk Factors" of our most recent report on Form 10-K or 10-Q that is incorporated by reference in this prospectus.

RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the section in the applicable prospectus supplement captioned "Risk Factors," together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under "Part I—Item 1A—Risk Factors" of our most recent Annual Report on Form 10-K and in "Part II—Item 1A—Risk Factors" in our most recent Quarterly Report on Form 10-Q filed subsequent to such Form 10-K that are incorporated herein by reference, as may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations.

FORWARD-LOOKING STATEMENTS

This prospectus, each prospectus supplement and the information incorporated by reference in this prospectus and each prospectus supplement contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, (the "Exchange Act"). These forward-looking statements are based on our management's beliefs and assumptions and on information currently available to our management. Those statements may appear in this prospectus, any accompanying prospectus supplement and the documents incorporated herein and therein by reference, particularly in the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." Forward-looking statements include information concerning our possible or assumed future results of operations, business strategies, financing plans, competitive position, industry environment, potential growth opportunities and the effects of competition. Forward-looking statements include all statements that are not historical facts and can be identified by terms such as "anticipates," "believes," "could," "seeks," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would" or similar expressions and the negatives of those terms. Forward-looking statements include, but are not limited to, statements concerning the following:

- the structural change in the market for healthcare in the United States, including uncertainty in the healthcare regulatory framework and regulatory developments in the United States and foreign countries;
- any impact of the COVID-19 pandemic, or responses to the pandemic, on our operations or personnel, or on commercial activity or demand across our and our customers' businesses;
- the evolving treatment paradigm for cancer, including physicians' use of molecular information and targeted oncology therapeutics and the market size for molecular information products;
- physicians' need for precision medicine products and any perceived advantage of our solutions over those of our competitors, including the ability of our comprehensive platform to help physicians treat their patients' cancers;
- · our ability to generate revenue from sales of products enabled by our molecular analysis platforms to physicians in clinical settings;
- our ability to increase the commercial success and to accelerate commercial growth of our sequencing and molecular analysis solutions and our other products and services;
- our plans or ability to obtain reimbursement for our sequencing and molecular analysis solutions, including expectations as to our
 ability or the amount of time it will take to achieve successful reimbursement from third-party payers, such as commercial insurance
 companies and health maintenance organizations, and government insurance programs, such as Medicare and Medicaid;
- · our ability to effectively manage our growth, including the rate and degree of market acceptance of our solutions;
- our ability to offer new and innovative products and services, including new features and functionality for our existing products and services;
- our ability to attract new partners and clients and our ability to retain or renew contracts with partners and clients;
- our ability to estimate the size of our target market;
- our ability to maintain and enhance our reputation and brand recognition;
- consolidation in the healthcare industry;
- competition which could limit our ability to maintain or expand market share within our industry;
- restrictions and penalties as a result of privacy and data protection laws;
- our use of "open source" software;
- our ability to use, disclose, de-identify or license data and to integrate third-party technologies;
- data loss or corruption due to failures or errors in our systems and service disruptions at our data centers;
- breaches or failures of our security measures;
- our reliance on Internet infrastructure, bandwidth providers, data center providers, other third parties and our own systems for providing services to our users;
- risks related to future acquisition opportunities;
- the requirements of being a public company;
- our ability to attract and retain key personnel;
- our expectations regarding the period during which we qualify as an emerging growth company under the Jumpstart Our Business Startups Act;

- our ability to obtain and maintain intellectual property protection for our solutions and not infringe upon the intellectual property of others:
- our financial performance expectations, including our expectations regarding our revenue, cost of revenue, gross profit or gross margin, operating expenses, including changes in research and development, sales and marketing and general and administrative expenses, and our ability to achieve and maintain future profitability; and
- our expectations regarding our ability to comply with Nasdaq continued listing standards.

Forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause our actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. We discuss these risks in greater detail in "Risk Factors," elsewhere in this prospectus and in the documents incorporated by reference into this prospectus. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Also, forward-looking statements represent our management's beliefs and assumptions only as of the date of this prospectus.

Except as required by applicable law, including the securities laws of the United States and the rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements contained herein after we distribute this prospectus, whether as a result of any new information, future events or otherwise.

This prospectus, any accompanying prospectus supplement and the documents incorporated herein and therein by reference may also contain estimates and other information concerning our industry that are based on government and industry publications. This information involves a number of assumptions and limitations, and you are cautioned not to give undue weight to these estimates. These government and industry publications generally indicate that their information has been obtained from sources believed to be reliable.

USE OF PROCEEDS

The Selling Stockholders will receive all of the proceeds from the sale of the shares of Common Stock issuable upon conversion of the 2026 Notes or preferred stock, if any. We will not receive any proceeds from these sales.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our Common Stock. We anticipate that we will retain all available funds and any future earnings, if any, for use in the operation of our business and do not anticipate paying cash dividends in the foreseeable future. Payment of future cash dividends, if any, will be at the discretion of the board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs, the requirements of current or then-existing debt instruments and other factors the board of directors deems relevant.

DESCRIPTION OF CAPITAL STOCK

The description of our capital stock is incorporated by reference to Exhibit 4.1 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, filed with the SEC on February 26, 2021.

SELLING STOCKHOLDERS

On April 13, 2021, we issued \$75,000,000 aggregate principal amount of the 2026 Notes to the Selling Stockholders pursuant to the Purchase Agreement and in connection therewith, we agreed to file with the SEC a registration statement to register the resale of the shares issuable upon the conversion of the 2026 Notes held by the Selling Stockholders. For purposes of this prospectus, references to the "Selling Stockholders" includes their permitted transferees, pledgees, assignees, distributees, donees or successors or others who later hold any of the Selling Stockholders' interests.

This prospectus relates to the offer and sale from time to time by the Selling Stockholders of up to 25,337,835 shares of Common Stock, which represents maximum number of shares of Common Stock issuable upon conversion of the 2026 Notes held by the Selling Stockholders (or the preferred stock, if any, that may be issuable upon conversion of such 2026 Notes), determined as if the 2026 Notes were converted in full (including the maximum number of additional shares issuable upon conversion in connection with a make-whole fundamental change).

The table below lists the Selling Stockholders and other information regarding the beneficial ownership of the shares of Common Stock by each of the Selling Stockholders as of May 24, 2021. The second column lists the number of shares of Common Stock beneficially owned by each Selling Stockholder based on its ownership of shares of Common Stock and the 2026 Notes, assuming full conversion at the initial conversion rate of the 2026 Notes held by the Selling Stockholders (but excluding shares issuable upon conversion in connection with a makewhole fundamental change) after taking into account contractual limitations on conversion applicable to such Selling Stockholder. We have prepared the table based on the information provided to us by the Selling Stockholders and assuming that the Selling Stockholders sell all of the shares of our Common Stock beneficially owned by them (including assuming the conversion of the 2026 Notes) that have been registered by us and do not acquire any additional shares during the offering. The Selling Stockholders may from time to time offer and sell any or all of the shares of our Common Stock set forth below pursuant to this prospectus in accordance with one or more of the methods of distribution described under the caption "Plan of Distribution." Because the Selling Stockholders may offer all or some portion of shares of our Common Stock, we cannot estimate the number of shares of our Common Stock that will be held by the Selling Stockholders upon termination of any offering. We cannot advise you as to whether the Selling Stockholders will in fact sell any or all of such shares of our Common Stock. In addition, the Selling Stockholders may have sold, transferred or otherwise disposed of, or may sell, transfer or otherwise dispose of, at any time and from time to time, the shares of our Common Stock in transactions exempt from the registration requirements of the Securities Act after the date as of which the information is set forth on the table below.

In addition, the number of shares of Common Stock issuable upon conversion of the 2026 Notes is subject to adjustment under certain circumstances described in the 2021 Indenture governing the 2026 Notes. Accordingly, the number of shares of Common Stock issuable upon conversion of the 2026 Notes and the number of shares of Common Stock beneficially owned and offered by the Selling Stockholders pursuant to this prospectus may increase or decrease from that set forth in the table below. Information about the Selling Stockholders may change over time. Any changed or new information given to us by the Selling Stockholders will be set forth in supplements to this prospectus or amendments to the registration statement of which this prospectus is a part, if and when necessary.

		rior to any offering Prospectus ⁽¹⁾	of Shares Being Sold under this	under this Prospectus	
Name	Number	Percentage ⁽²⁾	Prospectus ⁽⁴⁾	Number	Percentage ⁽⁵⁾
Funds affiliated with Highbridge Capital Management, LLC ⁽³⁾	12,450,093	9.90%	25,337,835	146,844	*

- * Represents beneficial ownership of less than 1%
 - (1) Includes (i) 97,358 shares of Common Stock held by Highbridge Tactical Credit Master Fund, L.P. ("TCF") and 49,486 shares of Common Stock held by Highbridge Convertible Dislocation Fund, L.P. (CDF" and, together with "TCF," the "Highbridge Funds") and (ii) the maximum number of shares of Common Stock into which the 2026 Notes held by the Highbridge Funds could be converted after taking into account contractual limitations on conversion applicable the Highbridge funds under 2021 Indenture. Without giving effect to such contractual limitations on conversion, the 2026 Notes held by TCF would be convertible into 11,070,687 shares of Common Stock and the 2026 Notes held by CDF would be convertible into 8,419,959 shares of Common Stock, in each case at a conversion rate for each \$1,000 in principal amount of the 2026 Notes of 259.8753 with full physical settlement (but excludes any additional shares issuable upon a make-whole fundamental change).

Maximum Number

- (2) Based on the 113,455,267 shares of Common Stock outstanding as of May 24, 2021.
- (3) Highbridge Capital Management, LLC ("HCM"), the trading manager of TCF and CDF, may be deemed to be the beneficial owner of the shares held by the Highbridge Funds. Jonathan Segal and Jason Hempel are responsible for the investment and voting decisions made by HCM with respect to the shares held by TCF and CDF. The Highbridge Funds and the foregoing individuals disclaim any beneficial ownership of these shares. The business address of HCM is 277 Park Avenue, 23rd Floor, New York, NY 10172 and the business address of the Highbridge Funds is c/o HedgeServ (Cayman) Ltd., Cricket Square, Floor 6, George Town, Grand Cayman KY1-1104, Cayman Islands.
- (4) Reflects the maximum number of shares of Common Stock that may be issuable upon conversion of the 2026 Notes held by the Highbridge Funds (including the maximum number of additional shares of Common Stock issuable upon a make-whole fundamental change with respect to the 2026 Notes), which includes (i) 14,391,890 shares of Common Stock issuable upon conversion of the 2026 Notes held by TCF and (ii) 10,945,945 shares of Common Stock underlying the 2026 Notes held by CDF.
- (5) The table assumes that each Selling Stockholder sells all of its shares offered pursuant to this prospectus. We are unable to determine the number of shares that will actually be sold pursuant to this prospectus.

Except for the transactions referred to herein and in documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, the Selling Stockholders do not have, and within the last three years have not had, any position, office or other material relationship (legal or otherwise) with us or any of our subsidiaries other than as a holder of our securities.

PLAN OF DISTRIBUTION

The Selling Stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock received after the date of this prospectus from a selling shareholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock on any stock exchange, market or trading facility on which the ordinary shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The Selling Stockholders may use any one or more of the following methods when disposing of shares of common stock or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares of common stock as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the Selling Stockholders to sell a specified number of such shares of common stock at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

The Selling Stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the ordinary shares, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933, as amended (the "Securities Act"), amending the list of Selling Stockholders to include the pledgee, transferee or other successors in interest as Selling Stockholders under this prospectus. The Selling Stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of shares of common stock, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares of common stock in the course of hedging the positions they assume. The Selling Stockholders may also sell shares of common stock short and deliver these securities to close out their short positions, or loan or pledge the shares of common stock to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares of common stock offered by this prospectus, which shares of common stock such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the Selling Stockholders from the sale of the shares of common stock offered by them will be the purchase price of such shares less discounts or commissions, if any. Each of the Selling Stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of shares of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The Selling Stockholders also may resell all or a portion of their respective shares of common stock in open market transactions in reliance upon Rule 144 under the Securities Act of 1933, provided that they meet the criteria and conform to the requirements of that rule.

The Selling Stockholders and any underwriters, broker-dealers or agents that participate in the sale of the ordinary shares or interests therein may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of shares of common stock may be underwriting discounts and commissions under the Securities Act. Selling Stockholders will be subject to the prospectus delivery requirements of the Securities Act, unless the sale of our shares of common stock are exempt from the registration requirements of the Securities Act.

To the extent required, the shares of common stock to be sold, the names of the Selling Stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the shares of common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the Selling Stockholders that the anti-manipulation rules of Regulation M under the Securities Exchange Act of 1934, as amended, may apply to sales of shares of common stock in the market and to the activities of the Selling Stockholders and their affiliates. In addition, to the extent applicable, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the Selling Stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The Selling Stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares of common stock against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the Selling Stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares of common stock offered by this prospectus.

We have agreed with the Selling Stockholders to use commercially reasonable efforts to cause the registration statement of which this prospectus constitutes a part to become effective and to remain continuously effective, subject to certain exceptions, until the earlier of (1) such time as all of the shares of common stock covered by this prospectus have been disposed of pursuant to and in accordance with such registration statement or (2) the date on which all of the shares of common stock may be sold without restriction pursuant to Rule 144 of the Securities Act and all restrictive legends associated with the shares of common stock have been removed.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, San Diego, California. Additional legal matters may be passed on for us, or any underwriters, dealers or agents by counsel we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements of NantHealth, Inc. appearing in NantHealth Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2020, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and other reports, proxy statements and other information with the SEC. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. These filings are available to the public over the Internet at the SEC's website at http://www.sec.gov. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act can also be accessed free of charge through the investor relations page of our website located at https://ir.nanthealth.com/. These filings will be available as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Information contained on our website is not part of this prospectus.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus certain information we file with it, which means that we can disclose important information by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede information contained in this prospectus and any accompanying prospectus supplement. We incorporate by reference the documents listed below that we have previously filed with the SEC (excluding any portions of any Form 8-K that are not deemed "filed" pursuant to the General Instructions of Form 8-K):

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, filed on February 26, 2021;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2021, filed on May 7, 2021;
- our Current Reports on Form 8-K filed on January 5, 2021, April 14, 2021, April 28, 2021, and May 18, 2021; and
- the description of our common stock contained in our Registration Statement on Form 8-A as filed with the SEC on June 1, 2016 pursuant to Section 12(b) of the Exchange Act.

We also incorporate by reference into this prospectus additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the completion or termination of the offering of the securities described in this prospectus, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information deemed furnished and not filed with the SEC. Any statements contained in a previously filed document incorporated by reference into this prospectus is deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, or in a subsequently filed document also incorporated by reference herein, modifies or supersedes that statement.

This prospectus may contain information that updates, modifies or is contrary to information in one or more of the documents incorporated by reference in this prospectus. You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.

We will provide to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, at no cost to the requester, a copy of any and all of the information that is incorporated by reference in this prospectus.

Requests for such documents should be directed to:

NantHealth, Inc. Attn: Investor Relations 9920 Jefferson Blvd Culver City, California 90232 (310) 883-1300

You may also access the documents incorporated by reference in this prospectus through our website at www.nanthealth.com. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.



PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth estimated expenses in connection with the issuance and distribution of the securities being registered:

	Amount to be Paid		
SEC registration fee	\$ 6,827.96		
Accounting fees and expenses	7,500.00		
Legal fees and expenses	15,000.00		
Miscellaneous expenses	1,000.00		
Total	\$ 30,327.96		

^{*} Estimate.

Item 15. Indemnification of Directors and Officers

The company's amended and restated certificate of incorporation contains provisions that eliminate, to the maximum extent permitted by the General Corporation Law of the State of Delaware, the personal liability of the company's directors and executive officers for monetary damages for breach of their fiduciary duties as directors or officers. The company's amended and restated certificate of incorporation and amended and restated bylaws provide that the company must indemnify its directors and executive officers and may indemnify its employees and other agents to the fullest extent permitted by the General Corporation Law of the State of Delaware.

Sections 145 and 102(b)(7) of the General Corporation Law of the State of Delaware provide that a corporation may indemnify any person made a party to an action by reason of the fact that he or she was a director, executive officer, employee or agent of the corporation or is or was serving at the request of a corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of an action by or in right of the corporation, no indemnification may generally be made in respect of any claim as to which such person is adjudged to be liable to the corporation.

The company has entered into indemnification agreements with its directors and executive officers, in addition to the indemnification provided for in its amended and restated certificate of incorporation and amended and restated bylaws and intends to enter into indemnification agreements with any new directors and executive officers in the future.

The company has purchased and intends to maintain insurance on behalf of any person who is or was a director or officer of the company against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

See also the undertakings set out in response to Item 17 herein.

Item 16. Exhibits

A list of exhibits filed herewith is contained in the exhibit index that immediately precedes such exhibits and is incorporated herein by reference.

Item 17. Undertakings

- (a) The undersigned registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

- (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;
 - provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) If the registrant is relying on Rule 430B,
 - (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to the effective date; or

- (ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer and sell such securities to such purchaser:
 - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding), is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.
- (d) The undersigned registrant hereby undertakes that:
 - (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

- (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (e) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the SEC.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Los Angeles, State of California, on May 25, 2021.

NantHealth, Inc.

By: /s/ Patrick Soon-Shiong

Patrick Soon-Shiong

Chairman and Chief Executive Officer

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Patrick Soon-Shiong and Bob Petrou, and each of them acting individually, as his true and lawful attorneys-in-fact and agents, with full power of each to act alone, with full powers of substitution and re-substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this registration statement on Form S-3 with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, with full power of each to act alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Patrick Soon-Shiong Patrick Soon-Shiong	Chairman, Chief Executive Officer and Director (Principal Executive Officer)	May 25, 2021
/s/ Bob Petrou Bob Petrou	Chief Financial Officer (Principal Financial and Accounting Officer)	May 25, 2021
/s/ Michael S. Sitrick Michael S. Sitrick	Director	May 25, 2021
/s/ Kirk K. Calhoun Kirk K. Calhoun	Director	May 25, 2021
/s/ Michael Blaszyk Michael Blaszyk	Director	May 25, 2021
/s/ Deanna Wise Deanna Wise	Director	May 25, 2021

Exhibit Index

Incorporated by Reference

Exhibit Number	Exhibit Title	Form	File No.	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation of NantHealth, Inc.	10-Q	001-37792	3.1	August 15, 2016
3.2	Amended and Restated Bylaws of NantHealth, Inc.	10-Q	001-37702	3.2	August 15, 2016
4.1	Indenture, dated April 27, 2021, among NantHealth, Inc., NaviNet, Inc., and U.S. Bank National Association	8-K	001-37702	4.1	April 14, 2021
5.1#	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.				
23.1#	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.				
23.2#	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).				
24.1#	Power of Attorney (included on the signature page).				

[#] Filed herewith.



Wilson Sonsini Goodrich & Rosati Professional Corporation

12235 El Camino Real San Diego, CA 92130=3002

o: 858-350-2300 f: 858-350-2399

Exhibit 5.1

May 25, 2021

NantHealth, Inc. 9920 Jefferson Blvd. Culver City, California 90232

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

At your request, we have examined the Registration Statement on Form S-3 (the "Registration Statement"), filed by NantHealth, Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission (the "Commission") in connection with the registration for resale pursuant to the Securities Act of 1933, as amended (the "Act"), of up to 25,337,835 shares of the Company's common stock, \$0.0001 par value per share (the "Shares"), and we have acted as counsel to the Company in connection with the filing by the Company with the Commission on May 25, 2021 of the Registration Statement.

With respect to the filing of the Registration Statement, we have examined originals or copies, certified or otherwise identified to our satisfaction, of such instruments, documents, certificates and records that we have deemed relevant and necessary for the basis of our opinions hereinafter expressed. In such examination, we have assumed: (a) the authenticity of original documents and the genuineness of all signatures; (b) the conformity to the originals of all documents submitted to us as copies; (c) the truth, accuracy and completeness of the information, representations and warranties contained in the instruments, documents, certificates and records we have reviewed; (d) that the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective under the Act, (e) that the Company's board of directors has duly authorized the shares of the Company's preferred stock, \$0.0001 per share, from which the Shares may be issued, and (f) that the Company's preferred stock from which the Shares may be issued, and such certificate of designation has been filed with the office of the Delaware Secretary of State prior to the issuance of the Company's preferred stock, if any.

Based on such examination and the above assumptions, we are of the opinion that the Shares have been duly authorized and are validly issued, fully paid and nonassessable.

We express no opinion as to the laws of any other jurisdiction, other than the Federal laws of the United States of America and the Delaware General Corporation Law, as such are in effect on the date hereof (including the statutory provisions and all applicable judicial decisions interpreting those laws).

AUSTIN BEIJING BOSTON BRUSSELS HONG KONG LONDON LOS ANGELES NEW YORK PALO ALTO SAN DIEGO SAN FRANCISCO SEATTLE SHANGHAI WASHINGTON, DC WILMINGTON, DE



NantHealth, Inc. May 25, 2021 Page 2

We hereby consent to the filing of this opinion as an exhibit to the above referenced Registration Statement and to the use of our name wherever it appears in the Registration Statement and in any amendment or supplement thereto. In giving such consent, we do not believe that we are "experts" within the meaning of such term as used in the Act or the rules and regulations of the Commission issued thereunder with respect to any part of the Registration Statement, including this opinion as an exhibit.

Very truly yours,

/s/ WILSON SONSINI GOODRICH & ROSATI, P.C.

WILSON SONSINI GOODRICH & ROSATI Professional Corporation

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" in this Registration Statement (Form S-3) and related Prospectus of NantHealth, Inc. for the registration of common stock and to the incorporation by reference therein of our report dated February 26, 2021, with respect to the consolidated financial statements of NantHealth, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2020, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Los Angeles, California May 25, 2021