

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 5)*

Sotera Health Co.

(Name of Issuer)

Common Stock, par value \$0.01 per share

(Title of Class of Securities)

83601L102

(CUSIP Number)

12/03/2025

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- ☐ Rule 13d-1(b)
- ☐ Rule 13d-1(c)
- ☒ Rule 13d-1(d)

SCHEDULE 13G

CUSIP No. 83601L102

1

Names of Reporting Persons

GTCR INVESTMENT XI LLC

Check the appropriate box if a member of a Group (see instructions)

2

☐ (a)

☒ (b)

3

Sec Use Only

Citizenship or Place of Organization

4

DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power
	0.00	
	6	Shared Voting Power
	56,838,253.00	
	7	Sole Dispositive Power
	0.00	
	8	Shared Dispositive Power
	22,735,301.00	
9	Aggregate Amount Beneficially Owned by Each Reporting Person	
	56,838,253.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)	
	☐	
11	Percent of class represented by amount in row (9)	
	20.0 %	
12	Type of Reporting Person (See Instructions)	
	OO	

Comment for Type of Reporting Person: (1) As more fully described in Item 4 of this Amendment No. 5 to Schedule 13G, the GTCR Investors are party to a Stockholders Agreement with the Warburg Pincus Investors and certain other holders of Common Stock of the Issuer. The GTCR Investors, together with the Warburg Pincus Investors, hold an aggregate total of 56,838,253 shares of Common Stock of the Issuer (approximately 20.0% of the outstanding shares of Common Stock of the Issuer), of which 34,102,952 shares of Common Stock are publicly reported as being owned by the Warburg Pincus Investors in such entities' Form 4, filed with the U.S. Securities and Exchange Commission ("Commission") on December 5, 2025. Although the GTCR Reporting Persons may be deemed to beneficially own the Common Stock held as of record by the Warburg Pincus Investors as a result of the Stockholders Agreement, each GTCR Reporting Person expressly disclaims beneficial ownership (within the meaning of Rule 13d-3 of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) with respect to any shares of Common Stock other than the shares of Common Stock of the Issuer owned of record by such GTCR Reporting Person. The percentages used herein have been determined in accordance with footnote 2 below. Capitalized terms used herein are defined in Items 2(a) or 4 below. (2) Calculated based on 284,093,929 shares of Common Stock outstanding as of October 28, 2025 as reported on the Issuer's final prospectus supplement, filed pursuant to Rule 424(b)(7) on November 7, 2025.

SCHEDULE 13G

CUSIP No. 83601L102

1	Names of Reporting Persons	
	GTCR FUND XI/A LP	
	Check the appropriate box if a member of a Group (see instructions)	
2	☐ (a)	
	☒ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization	
	DELAWARE	
Number of Shares Beneficially Owned by Each Reporting	5	Sole Voting Power
	0.00	
	6	Shared Voting Power
	56,838,253.00	

Person With:	Sole Dispositive Power
7	0.00
8	Shared Dispositive Power
	18,044,507.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person
	56,838,253.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)
	☐
11	Percent of class represented by amount in row (9)
	20.0 %
12	Type of Reporting Person (See Instructions)
	PN

Comment for Type of Reporting Person: (1) As more fully described in Item 4 of this Amendment No. 5 to Schedule 13G, the GTCR Investors are party to a Stockholders Agreement with the Warburg Pincus Investors and certain other holders of Common Stock of the Issuer. The GTCR Investors, together with the Warburg Pincus Investors, hold an aggregate total of 56,838,253 shares of Common Stock of the Issuer (approximately 20.0% of the outstanding shares of Common Stock of the Issuer), of which 34,102,952 shares of Common Stock are publicly reported as being owned by the Warburg Pincus Investors in such entities' Form 4, filed with the Commission on December 5, 2025. Although the GTCR Reporting Persons may be deemed to beneficially own the Common Stock held as of record by the Warburg Pincus Investors as a result of the Stockholders Agreement, each GTCR Reporting Person expressly disclaims beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) with respect to any shares of Common Stock other than the shares of Common Stock of the Issuer owned of record by such GTCR Reporting Person. The percentages used herein have been determined in accordance with footnote 2 below. Capitalized terms used herein are defined in Items 2(a) or 4 below. (2) Calculated based on 284,093,929 shares of Common Stock outstanding as of October 28, 2025 as reported on the Issuer's final prospectus supplement, filed pursuant to Rule 424(b)(7) on November 7, 2025.

SCHEDULE 13G

CUSIP No. 83601L102

1	Names of Reporting Persons
	GTCR FUND XI/C LP
	Check the appropriate box if a member of a Group (see instructions)
2	☐ (a)
	☒ (b)
3	Sec Use Only
4	Citizenship or Place of Organization
	DELAWARE
Number of Shares Beneficially Owned by Each Reporting Person With:	Sole Voting Power
5	0.00
	Shared Voting Power
6	56,838,253.00
	Sole Dispositive Power
7	0.00
8	Shared Dispositive Power

	4,546,174.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person
	56,838,253.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)
	☐
11	Percent of class represented by amount in row (9)
	20.0 %
12	Type of Reporting Person (See Instructions)
	PN

Comment for Type of Reporting Person: (1) As more fully described in Item 4 of this Amendment No. 5 to Schedule 13G, the GTCR Investors are party to a Stockholders Agreement with the Warburg Pincus Investors and certain other holders of Common Stock of the Issuer. The GTCR Investors, together with the Warburg Pincus Investors, hold an aggregate total of 56,838,253 shares of Common Stock of the Issuer (approximately 20.0% of the outstanding shares of Common Stock of the Issuer), of which 34,102,952 shares of Common Stock are publicly reported as being owned by the Warburg Pincus Investors in such entities' Form 4, filed with the Commission on December 5, 2025. Although the GTCR Reporting Persons may be deemed to beneficially own the Common Stock held as of record by the Warburg Pincus Investors as a result of the Stockholders Agreement, each GTCR Reporting Person expressly disclaims beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) with respect to any shares of Common Stock other than the shares of Common Stock of the Issuer owned of record by such GTCR Reporting Person. The percentages used herein have been determined in accordance with footnote 2 below. Capitalized terms used herein are defined in Items 2(a) or 4 below. (2) Calculated based on 284,093,929 shares of Common Stock outstanding as of October 28, 2025 as reported on the Issuer's final prospectus supplement, filed pursuant to Rule 424(b)(7) on November 7, 2025.

SCHEDULE 13G

CUSIP No. 83601L102

1	Names of Reporting Persons
	GTCR CO-INVEST XI LP
	Check the appropriate box if a member of a Group (see instructions)
2	☐ (a)
	☒ (b)
3	Sec Use Only
4	Citizenship or Place of Organization
	DELAWARE
	Sole Voting Power
5	0.00
Number of Shares Beneficially Owned by Each Reporting Person With:	Shared Voting Power
6	56,838,253.00
	Sole Dispositive Power
7	0.00
	Shared Dispositive Power
8	144,620.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person
	56,838,253.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)



Percent of class represented by amount in row (9)

11

20.0 %

Type of Reporting Person (See Instructions)

12

PN

Comment for Type of Reporting Person: (1) As more fully described in Item 4 of this Amendment No. 5 to Schedule 13G, the GTCR Investors are party to a Stockholders Agreement with the Warburg Pincus Investors and certain other holders of Common Stock of the Issuer. The GTCR Investors, together with the Warburg Pincus Investors, hold an aggregate total of 56,838,253 shares of Common Stock of the Issuer (approximately 20.0% of the outstanding shares of Common Stock of the Issuer), of which 34,102,952 shares of Common Stock are publicly reported as being owned by the Warburg Pincus Investors in such entities' Form 4, filed with the Commission on December 5, 2025. Although the GTCR Reporting Persons may be deemed to beneficially own the Common Stock held as of record by the Warburg Pincus Investors as a result of the Stockholders Agreement, each GTCR Reporting Person expressly disclaims beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) with respect to any shares of Common Stock other than the shares of Common Stock of the Issuer owned of record by such GTCR Reporting Person. The percentages used herein have been determined in accordance with footnote 2 below. Capitalized terms used herein are defined in Items 2(a) or 4 below. (2) Calculated based on 284,093,929 shares of Common Stock outstanding as of October 28, 2025 as reported on the Issuer's final prospectus supplement, filed pursuant to Rule 424(b)(7) on November 7, 2025.

SCHEDULE 13G

CUSIP No. 83601L102

Names of Reporting Persons

1

GTCR PARTNERS XI/A&C LP

Check the appropriate box if a member of a Group (see instructions)

2



(a)



(b)

3

Sec Use Only

Citizenship or Place of Organization

4

DELAWARE

Sole Voting Power

5

0.00

Number of
Shares

Shared Voting Power

6

Beneficially
Owned by

56,838,253.00

Each
Reporting

Sole Dispositive Power

7

Person
With:

0.00

Shared Dispositive

8

Power

22,590,681.00

Aggregate Amount Beneficially Owned by Each Reporting Person

9

56,838,253.00

Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10



Percent of class represented by amount in row (9)

11

20.0 %

12

Type of Reporting Person (See Instructions)

Comment for Type of Reporting Person: (1) As more fully described in Item 4 of this Amendment No. 5 to Schedule 13G, the GTCR Investors are party to a Stockholders Agreement with the Warburg Pincus Investors and certain other holders of Common Stock of the Issuer. The GTCR Investors, together with the Warburg Pincus Investors, hold an aggregate total of 56,838,253 shares of Common Stock of the Issuer (approximately 20.0% of the outstanding shares of Common Stock of the Issuer), of which 34,102,952 shares of Common Stock are publicly reported as being owned by the Warburg Pincus Investors in such entities' Form 4, filed with the Commission on December 5, 2025. Although the GTCR Reporting Persons may be deemed to beneficially own the Common Stock held as of record by the Warburg Pincus Investors as a result of the Stockholders Agreement, each GTCR Reporting Person expressly disclaims beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) with respect to any shares of Common Stock other than the shares of Common Stock of the Issuer owned of record by such GTCR Reporting Person. The percentages used herein have been determined in accordance with footnote 2 below. Capitalized terms used herein are defined in Items 2(a) or 4 below. (2) Calculated based on 284,093,929 shares of Common Stock outstanding as of October 28, 2025 as reported on the Issuer's final prospectus supplement, filed pursuant to Rule 424(b)(7) on November 7, 2025.

SCHEDULE 13G

Item 1.

Name of issuer:

(a)

Sotera Health Co.

Address of issuer's principal executive offices:

(b)

The Company's principal executive offices are located at 9100 South Hills Blvd, Suite 300, Broadview Heights, OH, 44147.

Item 2.

Name of person filing:

(a)

This Amendment No. 5 to Schedule 13G is being filed jointly by (i) GTCR Fund XI/A LP, a Delaware limited partnership ("Fund XI/A"), (ii) GTCR Fund XI/C LP, a Delaware limited partnership ("Fund XI/C"), (iii) GTCR Co-Invest XI LP, a Delaware limited partnership ("Co-Invest XI", and together, with Fund XI/A and Fund XI/C, the "GTCR XI Funds or GTCR Investors"), (iv) GTCR Partners XI/A&C LP, a Delaware limited partnership ("Partners XI/A&C"), and which is the general partner of each of Fund XI/A and Fund XI/C. GTCR Investment XI LLC, a Delaware limited liability company ("Investment XI"), is the general partner of Co-Invest XI and Partners XI/A&C. Investment XI is managed by a board of managers (the "GTCR Board of Managers") consisting of Mark M. Anderson, Aaron D. Cohen, Sean L. Cunningham, David A. Donnini, Constantine S. Mihas and Collin E. Roche, and no single person has voting or dispositive authority over the shares of Common Stock. The GTCR XI Funds, Partners XI/A&C and Investment XI are collectively referred to herein as the "GTCR Reporting Persons".

Address or principal business office or, if none, residence:

(b)

The principal business address of each of the GTCR Reporting Persons is 300 North LaSalle Street, Suite 5600, Chicago, IL 60654.

(c)

Citizenship:

(d)

Title of class of securities:

Common Stock, par value \$0.01 per share

CUSIP No.:

(e)

83601L102

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

(a)

☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);

(b)

☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);

(c)

☐ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);

(d)

☐ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);

(e)

☐ An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);

(f)

☐ An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);

(g)

☐ A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);

(h)

☐ A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

- (i) ☐ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) ☐ A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J). If filing as a non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J), please specify the type of institution:
- (k) ☐ Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

Amount beneficially owned:

The information required by Items 4(a)-(c) is set forth in Rows 5-11 of the cover page hereto for each GTCR Reporting Person and is incorporated herein by reference for each such GTCR Reporting Person. On November 19, 2020, (i) the Issuer, (ii) Warburg Pincus Private Equity XI, L.P., Warburg Pincus Private Equity XI-B, L.P., Warburg Pincus Private Equity XI-C, L.P., WP XI Partners, L.P. and Bull Co-Invest, L.P. (collectively, the "Warburg Pincus Sponsors" or "Warburg Pincus Investors"), (iii) the GTCR XI Funds and (iv) certain other holders of Common Stock of the issuer (the "Other Investors"), entered into a Stockholders Agreement (the "Stockholders Agreement"). The Stockholders Agreement sets forth certain governance arrangements with respect to the Issuer, transfer restrictions on Other Investors and indemnification matters. Pursuant to the Stockholders Agreement, each of the Warburg Pincus Sponsors and the GTCR XI Funds has agreed to vote the shares of Common Stock of the Issuer that each holds of record in a certain manner on matters related to the election of certain directors appointed by the Warburg Pincus Sponsors and the GTCR XI Funds. The Warburg Pincus Sponsors and the GTCR XI Funds hold an aggregate total of 56,838,253 shares of Common Stock of the Issuer (approximately 20.0% of the outstanding shares of Common Stock of the Issuer), including 22,735,301 shares of Common Stock owned by the GTCR XI Funds and 34,102,952 shares of Common Stock owned by the Warburg Pincus Sponsors. The GTCR Reporting Persons are not entitled to any rights as a stockholder of the Issuer with respect to the shares of Common Stock of the Issuer beneficially owned by the Other Investors or the Warburg Pincus Sponsors except as expressly set forth in the Stockholders Agreement and the GTCR Reporting Persons do not have dispositive power over the Common Stock owned by the Warburg Pincus Sponsors. Each GTCR Reporting Person and each of the individual members of the GTCR Board of Managers expressly disclaims beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) with respect to any shares of Common Stock of the Issuer other than the shares of Common Stock of the Issuer owned of record by a GTCR Reporting Person. The number of shares of Common Stock of the Issuer owned by each GTCR Reporting Person as set forth in Rows 5 - 11 of their respective cover pages to this Schedule 13G does not reflect the aggregate shares of Common Stock of the Issuer owned by the Other Investors. The aggregate total of 34,102,952 shares of Common Stock of the Issuer indicated in this Amendment No. 5 to Schedule 13G as being beneficially owned by the Warburg Pincus Sponsors is derived from the Warburg Pincus Sponsors' Form 4, filed with the Commission on December 5, 2025, and is not purported to be an accurate representation of the Warburg Pincus Sponsors' beneficial ownership as of the date of this Amendment No. 5 to Schedule 13G. The Warburg Pincus Sponsors are responsible for reporting their beneficial ownership of shares of Common Stock of the Issuer on their own behalf, and the GTCR Reporting Persons disclaim responsibility for reporting the shares of Common Stock of the Issuer beneficially owned by the Warburg Pincus Sponsors. The percentages used herein are calculated based on 284,093,929 shares of Common Stock outstanding as of October 28, 2025 as reported on the Issuer's final prospectus supplement, filed pursuant to Rule 424(b)(7) on November 7, 2025.

(a) Percent of class:

(b) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:

(ii) Shared power to vote or to direct the vote:

(iii) Sole power to dispose or to direct the disposition of:

(iv) Shared power to dispose or to direct the disposition of:

Item 6. Ownership of more than 5 Percent on Behalf of Another Person.

Not Applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not Applicable

Item 8. Identification and Classification of Members of the Group.

If a group has filed this schedule pursuant to §240.13d-1(b)(1)(ii)(J), so indicate under Item 3(j) and attach an exhibit

stating the identity and Item 3 classification of each member of the group. If a group has filed this schedule pursuant to §240.13d-1(c) or §240.13d-1(d), attach an exhibit stating the identity of each member of the group.

(1) The GTCR Reporting Persons are making this single, joint filing because they may be deemed to constitute a "group" within the meaning of the Exchange Act. The joint filing agreement among the GTCR Reporting Persons to file this Amendment No. 5 to Schedule 13G jointly in accordance with Rule 13d-1(k) of the Exchange Act is incorporated by reference as Exhibit 99.1. (2) Each GTCR Reporting Person expressly disclaims beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) with respect to any shares of Common Stock of the issuer other than the shares of Common Stock of the issuer owned of record by such GTCR Reporting Person.

Item 9. Notice of Dissolution of Group.
Not Applicable

Item 10. Certifications:
Not Applicable

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

GTCR INVESTMENT XI LLC

Signature: /s/ Jeffrey Wright
Name/Title: Jeffrey Wright, Chief Legal Officer
Date: 12/19/2025

GTCR FUND XI/A LP

Signature: /s/ Jeffrey Wright
Jeffrey Wright, Chief Legal Officer of GTCR
Invest. XI LLC, the general partner of GTCR
Name/Title: Partners XI/A&C LP, the general partner of
GTCR FUND XI/A LP
Date: 12/19/2025

GTCR FUND XI/C LP

Signature: /s/ Jeffrey Wright
Jeffrey Wright, Chief Legal Officer of GTCR
Invest. XI LLC, the general partner of GTCR
Name/Title: Partners XI/A&C LP, the general partner of
GTCR FUND XI/C LP
Date: 12/19/2025

GTCR CO-INVEST XI LP

Signature: /s/ Jeffrey Wright
Jeffrey Wright, Chief Legal Officer of GTCR
Name/Title: Investment XI LLC, the general partner of GTCR
CO-INVEST XI LP
Date: 12/19/2025

GTCR PARTNERS XI/A&C LP

Signature: /s/ Jeffrey Wright
Jeffrey Wright, Chief Legal Officer of GTCR
Name/Title: Investment XI LLC, the general partner of GTCR
PARTNERS XI/A&C LP
Date: 12/19/2025

Exhibit Information

Exhibit 99.1 Agreement of Joint Filing as required by Rule 13d-1(k)(1) under the Act.* * Incorporated herein by reference to the Agreement of Joint Filing by GTCR Investment XI LLC, GTCR Fund XI/A LP, GTCR Fund XI/C LP, GTCR Co-Invest XI LP and GTCR Partners XI/A&C LP dated as of February 11, 2022, which was previously filed with the Commission as Exhibit A to Amendment No. 1 to Schedule 13G filed by GTCR Investment XI LLC, GTCR Fund XI/A LP, GTCR Fund XI/C LP, GTCR Co-Invest XI LP and GTCR Partners XI/A&C LP on February 11, 2022 with respect to the shares of common stock of Sotera

