

PROSPECTUS SUPPLEMENT
Dated March 13, 2019
(To Prospectus Dated November 22, 2017)



535 Shares of Series F Convertible Preferred Stock
(and 102,185 Shares of Common Stock Underlying the Series F Convertible Preferred Stock)
Warrants to Purchase up to 563,816 Shares of Common Stock
(and 563,816 Shares of Common Stock Issuable Upon Exercise of Warrants)

This prospectus supplement (this "Supplement") modifies, supersedes and supplements certain information contained in, and should be read in conjunction with, that certain prospectus (including the information incorporated by reference therein, the "Prospectus") filed by CHF Solutions, Inc. (the "Company"), dated November 22, 2017, related to the underwritten public offering (the "November 2017 Offering") of the Company's Series F convertible preferred stock, Series 1 warrants and Series 2 warrants (each as defined in the Prospectus) and later supplemented by the prospectus supplement filed by the Company on July 3, 2018. This Supplement is not complete without, and may not be delivered or used except in connection with, the Prospectus, as previously supplemented.

The Company's common stock is listed on the Nasdaq Capital Market under the symbol "CHFS." On March 11, 2019, the last reported sale price of the Company's common stock on the Nasdaq Capital Market was \$4.35 per share.

The information contained in this Supplement modifies and supersedes, in part, the information in the Prospectus. Any information that is modified or superseded in the Prospectus shall not be deemed to constitute a part of the Prospectus, except as modified or superseded by this Supplement.

We may amend or supplement the Prospectus from time to time by filing amendments or supplements as required. You should read the entire Prospectus and any amendments or supplements carefully before you make an investment decision.

Investing in our securities involves risks. See "Risk Factors" beginning on page 7 of the Prospectus and in the documents incorporated by reference into the Prospectus.

FORWARD-LOOKING STATEMENTS

You should carefully consider the risk factors set forth in the Prospectus, as well as the other information contained, or incorporated by reference, in this Supplement or the Prospectus. The Prospectus contains forward-looking statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance that are not historical facts. You are cautioned that any forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties. Actual results may differ materially from those included within the forward-looking statements as a result of various factors. Cautionary statements in the "Risk Factors" section of the Prospectus and in the documents incorporated by reference therein identify important risks and uncertainties affecting our future, which could cause actual results to differ materially from the forward-looking statements made or included in this Supplement and the Prospectus. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events.

Pursuant to the terms set forth in the Certificate of Designations of Preferences, Rights and Limitations of the Company's Series F Convertible Preferred Stock (the "Series F Preferred Stock"), such Series F Preferred Stock is subject to adjustment in certain circumstances, including in connection with stock splits or if the Company sells common stock at a price lower than the then-conversion price of the Series F Preferred Stock. As a result of an underwritten public offering that closed on July 3, 2018 (the "July 2018 Offering"), the conversion price of the Series F Preferred Stock was reduced from \$4.50 to \$2.12, the per share price to the public in the July 2018 Offering, upon the closing of the July 2018 Offering on July 3, 2018. On January 2, 2019, the Company effected a 1-for-14 reverse stock split ("Reverse Stock Split"), which further adjusted the conversion price of the Preferred Stock to \$29.68. As a result of an underwritten public offering that closed on March 12, 2019 (the "March 2019 Offering"), the conversion price of the Series F Preferred Stock was further adjusted to \$5.25, the per share price to the public in the March 2019 Offering, upon the closing of the March 2019 Offering on March 12, 2019. As of March 12, 2019, 535 shares of Series F Preferred Stock were outstanding and convertible into 102,185 shares of common stock, following such conversion price adjustment.

This Supplement is being filed to reflect the foregoing adjustments in the conversion price of the Series F Preferred Stock, as described above.

The date of this prospectus supplement is March 13, 2019.
