

Spencer Health Solutions Company Overview

Company Snapshot

www.spencerhealthsolutions.com

Leading the digital health market with a novel medical device empowering healthcare providers to extend care to patients at home – the “last mile” of a new generation of patient engagement.

Medication adherence – more than 95 percent take medications as prescribed

Patient engagement – more than 90 percent of patients respond to survey questions via touchscreen

Customer Groups

Care Management – support for patients of insurance companies, hospitals, doctors, ACOs, assisted living, independent living

Biopharma – patient support for commercially approved medications and clinical trial research

Pharmacies – patient support for commercially approved medications

Technology

spencer® – in-home smart hub

- Pre-packaged medications
- Touchscreen for health status surveys
- Data from biometric devices
- Telehealth virtual visits
- Health analytics

spencerAssist™ – mobile app for family and clinical caregivers

spencerCare™ – customer dashboard for patient monitoring, health insight analytics

Headquarters: N.C. Research Triangle Park region

Founded: 2015 by CEO Tom Rhoads

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Spencer Health Solutions is advancing research and healthcare from the home with the world’s first and only medication and telehealth smart hub to support patients in their homes.

Patients find the Spencer smart hub easy to use with integrated healthcare services unlike any other device in the market. Spencer Health Solutions empowers the engagement and support of patients at home – the “last mile” for a new generation of healthcare and patient engagement.

The Spencer device integrates healthcare services on an easy-to-use device the size of a small kitchen appliance often placed on a kitchen countertop.

- Dispense medications and documents adherence to prescriptions.
- Automatically integrate data from other in-home medical devices including glucose meters, blood pressure monitors, pulse oximeters and scales.
- Telehealth virtual visits with caregivers.
- Insights through touchscreen surveys and analytics
- Participate in clinical trial research

Spencer Health Solutions is leading the digital health market by addressing the critical unmet need to better engage and support patients. The most important measures of success are patients who value the ability to interact with healthcare providers in new ways from their homes.

With the Spencer smart hub, more than 95 percent of patients take medications as prescribed (medication adherence). More than 90 percent of patients respond to health status questions presented on the touchscreen. Both measurements of engagement are well above the industry average.

Spencer Health Solutions is a spinoff of Parata Systems, which develops automation systems for pharmacies to sort and package medications. In 2015, Parata began developing a countertop system for dispensing medications in a patient’s home. The company developed a full smart hub platform – clinical, analytics and mobile – launching the Spencer smart hub in 2016.

Market Landscape

Spencer Health Solutions connects patients and caregivers at home with healthcare providers in the circle of care which may include doctors, pharmacists, and clinical staff for pharmaceutical companies, insurers and other care management companies. Medication refills are sent directly to the patient's home and easily loaded into the smart hub. By managing medication dosage, timing of dispense and delivering additional instructions via custom prompts and reminders, the Spencer smart hub makes it easier for patients to complete therapy "as-prescribed."

Each year, 1.3 million Americans are hospitalized from errors in taking pills. Patients often are taking only half of their prescribed medications, and more than

"Engaging complex patients around their medication management needs has remained elusive. Spencer represents a huge opportunity to complete the 'last mile' of patient engagement, which paves the way for successfully implementing value-based contracts"

Jon Easter, director Center for Medication Optimization through Practice and Policy; Professor UNC Eshelman School of Pharmacy

125,000 people die from not taking medications correctly. The data is even more dire among elderly who suffer from multiple chronic diseases including diabetes, heart disease and hypertension. Often, they are living by themselves and take eight or more medications daily.

Spencer Health Solutions drastically simplifies medication management for patients and care teams. Many patients value the direct engagement and support from providers, especially those with higher risks – 133 million chronic disease patients in the United States (45 percent of the population) and 30 million patients with rare diseases who often rely on high-cost treatments.

The time has arrived for innovative approaches to engage patients at home. Patients have become tech-savvy over the last decade and have embraced wearables and other devices to collect data, leading them to be more involved in their care with solutions that actively communicate with them when and where it is most convenient. Patients value the ease of use and intuitive design of the Spencer smart hub that eliminates the need for complicated directions and technical know-how.

Spencer Technology - Products and Services

The Spencer smart hub was designed for patients with their input. Spencer Health Solutions removed the complexity of medication management by integrating disparate services that other companies offer in silos into an easy-to-use smart hub that any patient can use without training or complex user guides. Patient support and healthcare data are at the core of the company's technology. The platform of services becomes a cornerstone for healthcare providers to better engage with patients and collect data to improve health.



spencer® – The Spencer in-home smart hub is an FDA-approved Class 1 medical device. The setup is as simple as plugging in and placing a refill pack of medicines inside. It connects to the Internet through an integrated cellular network or the user's Wi-Fi network.

spencerAssist™ – mobile app for patients, family and clinical caregivers.

spencerCare™ – customer dashboard (clinician, pharmacist) for patient monitoring, health insight analytics and predictive health analytics driven by artificial intelligence. Provided through cloud-based web portal or customer platform via API.



Dispense medications with ease and accountability

Meds on the Go alerts are enabled through spencerAssist

Engage patients with fully customizable surveys

Telehealth connects patients to the clinical support team

Patient reported outcomes are delivered in near real-time

Next Generation of Clinical Trials

The COVID-19 pandemic shifted patient preferences with a drastic growth in telehealth virtual visits with healthcare providers. Many patients experienced telehealth for the first time. They appreciate the ease and convenience. The trend in the industry for “decentralized” clinical trials is here to stay, engaging patients from their homes.

“Until now, many may have been unaccustomed to video conferencing, but there’s an opportunity to help patients engage in new treatment routines to build trust. As technology providers, we are responsible for making these systems simple to use and deploy and ensure they are compliant to be used in clinical trials.”

Applied Clinical Trials, interview with Spencer CEO Tom Rhoads

Regulators and payers are demanding clinical trials demonstrate a meaningful improvement in the lives of patients in addition to efficacy and safety. According to industry analyst firm Deloitte, this is even more important for high-cost therapies that target smaller patient groups. Linking payments to the value of care for individual outcomes is also gaining momentum. Demonstrating value also requires a change in the traditional methods of conducting clinical trials, most notably in the collection of real-world clinical and non-clinical data on outcomes. The Spencer smart hub collects this type of data so it can be measured.

Spencer Health Solutions recently announced a collaboration agreement with Otsuka Pharmaceutical, a global healthcare company, to use the Spencer smart hub in clinical trials and to support patients being treated with approved drugs. For pharmaceutical and biotechnology companies, engaging patients at home expands clinical trial opportunities. Digital health technology increases recruitment,

Adopting a new model for drug development ... Patient-centricity will be a cornerstone of the new drug-development model. By using patient outcomes to help define the course of a disease and the efficacy of its treatment, as well as employing design thinking to develop protocols and clinical-trial experiences, companies will keep patient convenience and well-being at the core of their activities.

McKinsey report “Biopharma 2020: A landmark year and reset for the future”

gives access to more patients and accelerates time to market for new drugs. In addition, Spencer provides reliable, real-time data on medication adherence, patient safety, drug efficacy and study protocol compliance. The Spencer smart hub data can be incorporated into clinical trial platforms, interactive response technology and electronic data capture systems.

“Patient-centric” is an industry buzzword. Many try to claim it but few companies actually achieve it. The Spencer smart hub was designed for the patient. The simplicity and ease of use with a touchscreen enables complex data and digital workflows. Collecting more real-world data (RWD) in

real time and augmented through healthcare analytics and predictive analytics powered by artificial intelligence and machine learning, supports the shifting post-pandemic market trends.

Spencer customers are empowered to be agile and rapidly innovate with new strategies to adapt to the changing environment. The new, revolutionary patient journey now includes engaging patients from their homes to improve the quality of care.

Executive Leadership

Tom Rhoads, Founder and Chief Executive Officer

Tom Rhoads has been leading the development and launch of healthcare technology for 25 years. He was CEO of Parata Systems, a pharmacy automation company before deciding to pursue an entrepreneurial path as the founder and chief executive officer of Spencer Health Solutions, a spinoff from Parata Systems.

Rhoads led the development of Spencer Health Solutions products and services centered on patients and their caregivers. The lead product is the Spencer smart hub medication dispensing, telehealth and in-home patient health monitoring platform. Prior to his role at Parata Systems, Rhoads held leadership roles at Baxter Healthcare and Cardinal Health Corporation.

Wendy Kennedy, Chief Technology Officer

Wendy Kennedy is chief technology officer leading engineering for the Spencer smart hub. Previously, she served as the director of release management and infrastructure, security and compliance at Align Technology, a manufacturer of medical devices, 3D digital scanners and the Invisalign clear aligners driving the evolution of digital dentistry and orthodontics. As CTO at UltraLinq Healthcare Solutions, she led development of a cloud based platform to manage patient data for cardiologists that included a rapid expansion of a four person engineering team into a global team of 100 engineers and quality management specialists. Kennedy also served in technology leadership positions with Blue Cross Blue Shield of North Carolina, IBM, Deutsche Bank, Fidelity Investments and Siemens Medical Solutions.

Alan Menius, Chief Scientific Officer

Alan Menius develops strategies for leveraging data and integrating the Spencer smart hub into pharmaceutical and health research. Previously, Menius spent 25 years at GlaxoSmithKline where he led advanced analytics teams responsible for leveraging disparate data sources and advanced analytics to inform the safety and effectiveness of medicines. He helped initiate and lead the GSK SafetyWorks project where advanced semantic technologies and analytics were merged to develop pharmacovigilance analytics methods using observational data.

Menius established and led the GSK Data Exploration and Data Mining laboratory at N.C. State University. The analytics research resulted in GSK and N.C. State being awarded the American Statistical Association (ASA) SPAIG award for outstanding partnership between industry and academia. Menius is an ASA member and has participated in the Institute of Medicine's Clinical Effectiveness Research Innovation Collaborative. He has also served as an elected member of the Quantitative Sciences in the Pharmaceutical Industry (QSPI) core team and as a member of SAS's Analytics Customer Advisory Board.

Paul Cunningham, Senior Vice President of Product and Innovation

Paul Cunningham leads a team of engineers through development and production of new consumer electronic products supporting Spencer Health Solutions as senior vice president of product and innovation. Previously, he was a software manager at Parata Systems, a senior consultant at Keane and a software engineer at EMC.