

Facebook under fire

Its Menlo Park deal isn't convincing
foes concerned with housing issues

NATHAN DONATO-WEINSTEIN, 6



TRANSFORMING HEALTHCARE IN THE HOME

A Silicon Valley company gathered experts and patients such as Annette Madden to reimagine home therapy for a costly chronic disease. Can they make a meaningful difference?

BY LEIA PARKER · PAGES 4-5



VICKI THOMPSON

MUST KNOW

Salinas could sprout a new Silicon Valley

On the showcase at AgTech summit: Farm management apps, labor issues, plant innovations. **BRYCE DRUZIN, 10**

Facebook fails to move diversity needle

The social media company's latest report blames a lack of qualified candidates. **JENNIFER ELIAS, 10**



SOCIAL CAPITAL

A SPACE TO PLAY,
A PLACE TO LEARN 27



THE PITCH

THEY WANT TO CHANGE HOW
COMPANIES MAKE APPS 11

TECHNOLOGY HUB

AR'S NEXT EVOLUTION?



VC Jason Krikorian is experiencing the Pokemon Go phenomenon

firsthand, and he's fascinated by the possibilities it holds for augmented and virtual reality.

CROMWELL SCHUBARTH, 8

T H E Silicon Valley's largest employers 12-15
L I S T Software companies in the Bay Area 18-19

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COVER STORY

DIALYSIS CARE: OUT OF CLINICS, INTO THE HOME

Satellite Healthcare is developing a pilot program with an ambitious goal: Persuade twice as many patients to choose home-based care

BY LEIA PARKER · lparker@bizjournals.com · 408.299.1831, @SVBizLeia

Annette Madden is a 71-year-old survivor, living with kidney disease and dialysis for the last 17½ years — well beyond the nation's average survival period for a dialysis patient.

Spend some time with Madden (pictured on the cover) and you'll see why. She's an optimistic, take-charge woman who wasn't going to let her end-stage renal disease stop her from living a good life. And why should she? Many dialysis patients today can train to self-administer dialysis at home, usually helped by a spouse or another caregiver — rather than sitting in a dialysis center for hours on end, a few times a week.

Going to a dialysis center "made me feel sick," she said. "The goal was to get you on and off the machine and out of there. It's not about you."

Yet only about 10 percent of dialysis patients nationwide dialyze at home, as Madden now does, and that's something her healthcare provider is working to change.

Re-Imagine Home

San Jose-based Satellite Healthcare, which has 80 dialysis centers nationwide and says it's

the sixth-largest dialysis services provider in the United States, is working toward an ambitious goal: Doubling the segment of Satellite's patients using home dialysis from the current 20 percent to 40 percent, or around 3,000 of its roughly 7,300 patients.

If successful, the initiative could point the way for other providers in this multibillion-dollar industry, saving costs by eliminating multiple weekly in-center treatments. It could

also help Satellite generate more money for funding kidney research.

To accomplish this, nonprofit Satellite enlisted help from two Silicon Valley-based consultants: Dean Hovey, chief executive officer of Comprendo and previously a founding partner of the Bay Area design firm now known as IDEO; and Stu Winby, CEO of the SPRING Network organizational strategy and design firm.

Satellite's program, "Re-Imagine Home," is part of a larger trend of companies introducing technology tools while rethinking healthcare for people with costly chronic diseases.

"This project is an example of a healthcare transformation that's going on in the country," Winby said. "The care-model design is moving to a consumer-focused, value-based care model. That means that the design of care is focused on the patient experience in terms of three metrics: Improving total cost of care, patient experience and the clinical outcomes."

The outcome of Satellite's Re-Imagine Home program will be crucial, as kidney disease is among the most expensive chronic diseases largely paid for through Medicare spending — ultimately funded by taxpayers. Satellite executives hope their larger dialysis-services peers, like Fresenius Kidney Care and DaVita, and Bay Area-based healthcare providers like Kaiser Permanente, will adopt any proven successes from its program.

Medicare cost burden

In the U.S., the Centers for Medicare & Medicaid Services covers most dialysis costs for eligible patients, typically regardless of age.

CMS is "payment-neutral" in reimbursing for dialysis, regardless of whether it's administered in a center or at home. Satellite can redeploy any savings it realizes by attracting more of its patients to join its home-dialysis program, since it receives the same Medicare payments for lower-cost home therapy as for in-center care.



Satellite Healthcare patient Elias Arciniega receives dialysis in an RV, demonstrating the freedom home-dialysis patients have to travel.

"CMS supports access to all dialysis modalities, including home dialysis," a CMS official said in an emailed statement.

Yet CMS recently proposed to significantly increase training payments for home dialysis.

"We expect this change will help promote the use of home modalities," the official said.

The 'Big Bang'

Satellite, a 44-year-old healthcare company originally spun out of Stanford University, brought consultants together June 8-9 in San Jose with 70 people for a two-day brainstorming session they called the "Big Bang." These included 40 Satellite employees from all over the United States, as well as patients and family members, nephrologists and others, Hovey said.

Hovey and Winby, along with Satellite Healthcare Chief Innovation and Commercial Officer Glenn Davis, collected research and data over the last three months about how to improve the touch points between home-dialysis patients and the company's team. At the "design-accelerator" event, participants broke into smaller groups and reported on their findings, developing actionable ideas "to change the organization and improve patient experience," Hovey said.

"Dialysis is something you don't get a vacation from," Hovey said.

NUMBERS TO KNOW

\$83,356

Average annual cost per dialysis patient in Medicare spending¹

376,000

Medicare recipients who received dialysis in 2013²

\$11.7 billion

Cost of dialysis for those Medicare recipients in 2013²

400,000 to 500,000

Patients in the United States who currently require dialysis³

1. NATIONAL KIDNEY FOUNDATION
2. U.S. GOVERNMENT ACCOUNTABILITY OFFICE, IN AN OCTOBER 2015 STUDY
3. GLENN DAVIS, SATELLITE HEALTHCARE



"We're doing this from a different place than from a financial place."

GLENN DAVIS, Satellite Healthcare's chief innovation and commercial officer.



COURTESY SATELLITE HEALTHCARE

"At the end of the day, patients really just want to feel normal, and we have identified a number of things that can help patients live their lives robustly and leave their dialysis in the back corner in some ways."

The Re-Imagine Home program will cost Satellite more than a million dollars, including equipping patients with new technology tools. A more successful home program should quickly recover those costs, Davis said. That's because a home-dialysis patient such as Madden only needs to visit a healthcare team at one of Satellite's Wellbound clinics about once a month, rather than at least a few times a week for in-center care.

"It's not an inexpensive proposition," he said. "Over time, I anticipate cost savings and improved quality of life for our patients."

Satellite pumps some of its revenue into an endowment fund for kidney research, and the board wants to boost the fund to \$200 million from \$150 million over the next five years. A more successful home-dialysis program would generate more money for renal research, Davis said.

"We're doing this from a different place than from a financial place," Davis said. "It's not the driving activity here."

The effort could conceivably lead Satellite – and other companies that follow its lead – to shrink their dial-

ysis center count, but that's also not the point of the program, said Jessica Szalay, Satellite's national market manager. Any impact on real estate holdings is unclear at this early stage. That's because risk factors for end-stage renal disease continue to stoke demand for services, and not everyone can choose the home-care option, she said.

"If we're successful in growing our home patient population, our need to build future in-center capacity would be markedly reduced," Davis said. The company would likely keep its current dialysis centers, but it's conceivable that it could close ones that reach the end of their useful lives, he said.

Fresenius and Kaiser care

Some of Satellite's peers already offer home therapy as an option.

At Fresenius Kidney Care, about 11 percent of its dialysis patients receive treatments at home, said Keith Lester, its vice president of home therapy operations, in an emailed statement.

Lester said home dialysis "has resulted in a lower mortality rate during the first two years of treatment."

Fresenius operates more than 2,300 facilities, more than 1,000 of which provide home dialysis, Lester said. It operates 144 clinics in California, including 53 that provide home dialysis and 12 free-standing home dialysis clinics.

The company has built or bought more than 300 dialysis facilities during the last five years, he said.

Kaiser Permanente Northern California increased the number of patients using peritoneal dialysis, a home-based therapy, said Dr. Stephen Parodi, associate executive director, in an emailed statement. This method introduces fluid into the abdomen through a permanent tube to collect toxins and excess fluid.

"The medical literature demonstrates similar outcomes between home-based dialysis and in-center hemodialysis (which removes body waste and extra fluid directly from the blood through a needle inserted into a surgically created access point)," he said. "We and our patients are pleased with the outcomes achieved by peritoneal dialysis."

DaVita declined to comment about its home-dialysis efforts.

Facing challenges

At Satellite Healthcare, its program to help more patients start and continue with home dialysis will have to overcome longstanding challenges. For instance, between 30 percent and 40 percent of its home-dialysis patients every year either die or return to Satellite's in-center treatment, Davis said.

Home care requires effort from the patient to administer the ther-

apy. Psychosocial issues weigh on many patients, such as feeling overwhelmed at providing life-saving care to oneself at home, which requires plenty of dialysis products and room to load them, Davis and Hovey said.

"We're taking a social-technical approach," Winby said. "We very methodically mapped out the patient experience as a journey ... Then we aimed to make it better in every way, shape and form."

On the technical side, the company must find technology for data transfer through a secure communications channel that conforms to existing legal protections. Yet Hovey and Davis said it's possible today, as such technology has come a long way for wearables, cloud communications and cybersecurity.

"If we at least talk about this initiative, I'll bet that five or six inventors or small companies will come and say, 'Hey! We've been working on this!' Which then could expose some other game-changing ways in which we could impact people's lives," Hovey said. "That's the beauty of Silicon Valley. There's a network here that is unique in the world."

As for Madden, the 71-year-old woman living with end-stage renal disease, choosing home dialysis is a no-brainer. After trying other methods, she settled on home hemodialysis instead of in-center care. Although she hates needles, she has a fistula in her left arm where an artery and vein are tied together to create a bigger vessel for dialysis using needles. Home dialysis gives her more freedom, she said.

Madden loves traveling, and she lights up while describing a month-long train and car journey she once took across the nation for a "genealogy trip." She recalled her joy at glimpsing the brilliant colors of fall foliage in Pennsylvania. Her dialyzer traveled with her, and she even dialyzed in a private cabin on the train.

When Madden dialyzes at home, she said it takes about 45 minutes every two days. She sets up the machine before bed, her husband sets her needles and tapes everything down, and she sleeps while the machine does its job.

Today, she has a map on the wall at home of places she still wants to visit. These include Japan, Italy, the Grand Canyon and a road trip along the Oregon coast.

In the early days of the disease, "All I said most days was, 'I'm going to die, I'm going to die,'" Madden said.

"It took time to realize I'm just living with a disease," she said. "I'm very mobile. I get around."



VICKI THOMPSON

"It took time to realize I'm just living with a disease. I'm very mobile."

ANNETTE MADDEN, 71, who has lived with kidney disease and dialysis for 17½ years