



Expanding clinical services via telehealth to improve the lives of children

Opportunity

Nemours Children's Health System, an internationally recognized children's health system that owns and operates more than 80 care locations spread throughout six states, including two freestanding Children's Hospitals, was in search of a way to increase access to pediatric expertise across the states it served. They wanted a partner with the ability to offer telehealth in a variety of channels, bringing Nemours physicians into homes, hospitals, primary care offices and other clinical settings. The organization knew the right partner could help achieve its goal of improving the lives of the children they served.

Solution

Nemours partnered with American Well to launch a direct-to-consumer telehealth service, Nemours CareConnect. The two companies also worked together to deliver comprehensive care to families at primary care offices, school nurses' offices and other locations.

Success

After two years of offering Nemours CareConnect to consumers, 97 percent told Nemours they were 'highly satisfied' with the service. Nemours has enrolled more than 17,000 patients in CareConnect, and 64 percent of families reported that because they had access to CareConnect, they were able to avoid the higher-cost care they would have otherwise sought in the emergency department, retail clinic, or urgent care center. In fact, 25 percent of families said they would have gone to the ER if it weren't for CareConnect. Nemours has also expanded its telehealth services beyond live video visits, now using the technology to prescreen patients for participation in a clinical trial, as well as to connect families with pediatric specialists for follow-up consultations.

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17K+
Enrollments

Background

Nemours owns and operates more than 80 care locations spread through six states, including the Nemours/Alfred I. duPont Hospital for Children in Wilmington, Delaware and Nemours Children's Hospital in Orlando, Florida. Nemours also operates kidshealth.org, which is the most visited website in the world for children's health information, receiving more than 260 million visits per year.

Nemours directly cares for 410,000 children annually and has 1.3 million unique patient encounters—some with families who travel from across the country and world to see its specialists.

The health system has a reputation for innovation, and as it began to expand the strategic goals for the future, Nemours realized that telehealth was essential to its success.

Consumer Research

Before deploying telehealth, Nemours conducted market research through kidshealth.org to measure consumer sentiments toward telehealth. This research would help determine the key functionalities and design of the service.

Based on the feedback received in the survey, Nemours determined the key features and functionalities desired for its telehealth service. Nemours sought out a white-labeled telehealth platform that could be integrated with its EHR, worked with its scheduling system, offered easy and intuitive reimbursement and had the ability to perform real-time eligibility checks. Beyond technical considerations, Nemours wanted a partner that believed in its vision of enhancing healthcare for children.

Nemours partnered with American Well and launched its telehealth offering, CareConnect, in Florida, and since then has expanded the platform to Delaware, Pennsylvania, Maryland, New Jersey, and Georgia. Nemours selected American Well as its telehealth vendor of choice due to their ability to white-label, integrate with its Epic EHR, and launch many use cases. Nemours was also impressed with the outstanding consumer interface and experience of American Well's platform.

Nemours conducted a second survey of families in 2017 which found that 64 percent of parents used or planned to use telemedicine within the next year for their child. Of parents who have already tried an online doctor visit for their child, 98 percent said it was equivalent to or better than an in-person visit. "It was a pretty profound statement that families felt that this was better than in-person care," says Carey Officer, administrator of telehealth at Nemours.

Nemours' telehealth strategy: Delivering diverse services through technology

Nemours classifies its telehealth program into four distinct categories, each playing an important role within the care delivery model:

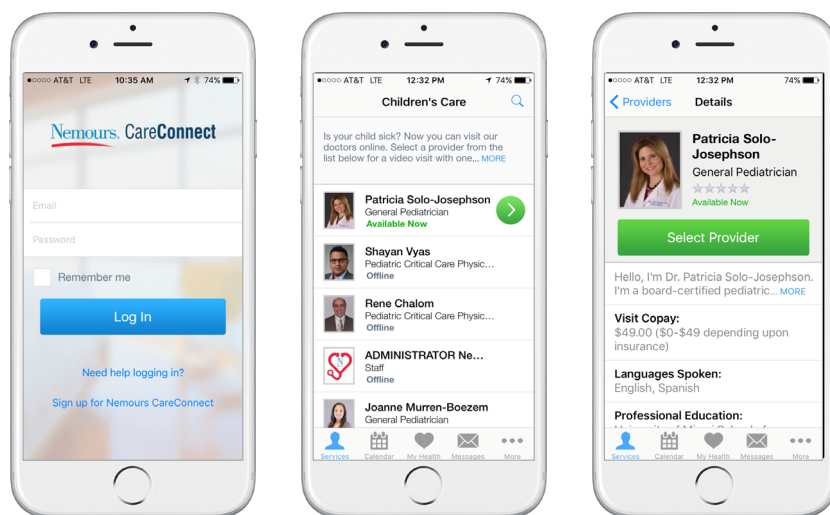
1: Store and Forward

Nemours' initial entry into telemedicine was with an asynchronous store and forward model, which they used within radiology, neurology and cardiology. For example, Nemours' pediatric radiologist group, one of the largest in the country, read images sent from different campuses and partner hospitals, while Nemours cardiologists used the store and forward model to read cardiac studies. These first telemedicine initiatives began in late 2011, and taught the health system a lot about how to best utilize clinicians across

multiple states, as well as how to leverage hospital partnerships to best serve patients through technology.

2: Direct-to-Consumer

Nemours entered the direct-to-consumer telehealth market with the launch of Nemours CareConnect. They white-labeled the American Well platform with the CareConnect brand and began offering live video visits with board-certified pediatricians to children and their families.



Staffing CareConnect

Nemours' commitment to providing a high-quality, safe pediatric telemedicine service for its members meant properly recruiting and training providers to staff the platform, and cross-licensing and cross-credentialing them across the states it served. Nemours currently has seven pediatricians who staff the service, with plans to expand the team as they expand the states they serve. The health system provides regular training and education on bedside manner and current epidemics to these providers.

Nemours has since adapted these direct-to-consumer trainings for other providers in different departments, and has built appropriate evidence-based protocols for different telehealth interactions. Nemours also does chart reviews to understand what conditions are best treated with telehealth, to measure how physicians are doing treating children over video, and to best understand where this care can move in the future.

Quality Pediatric Care

Nemours is committed to providing quality pediatric care to the communities it serves. In order to provide each child and family with the highest level of online care, Nemours adheres to American Academy of Pediatrics (AAP) guidelines along with the development of protocols and guidelines for pediatric urgent care telemedicine. Nemours is also committed to keeping the medical home intact, so in addition to providing the patient and guardian the medical summary, Nemours also makes every attempt to provide the PCP/medical home with a copy as well. Working together with community physicians is the key to keeping children and families healthy.

Marketing to families

Educating families about telemedicine has been key to CareConnect's success. Nemours leveraged its popular educational website, kidshealth.org, to inform parents about the service. "When you ask most patients and families what telemedicine is, they give you a funny look," says Officer. "We've come up with ways to really speak to them and tell them when it's most appropriate to use telemedicine."

Nemours found that messaging around 24/7 care really resonated with parents and helped them understand the service and its benefits. Providing the right visuals for CareConnect also helped marketing efforts. Demonstrating the telehealth experience in a relatable manner—showing a child sick in bed in the middle of the night—helped the parents understand what the service was and how to use it. The health system also created "meet our doctors" videos to introduce the telehealth physicians to families before the visit.

Extending the Nemours brand through the Exchange

Through American Well's Exchange, Nemours will be making their pediatricians available on other healthcare systems' telehealth platforms in the states of Delaware, Florida, Pennsylvania, Maryland, Georgia, and New Jersey, giving patients at other hospitals access to pediatricians online. This is particularly relevant to adult health systems that may not have pediatricians or pediatric experts on staff. For Nemours, the Exchange not only takes its trusted brand further, it extends their clinical network for referrals and pediatric consults. Since joining the Exchange in May 2016, Nemours has seen an impressive increase in visits that are directly attributed to this initiative.

3: Clinician-to-Clinician

In addition to offering direct-to-consumer live video visits with board-certified Nemours pediatricians, Nemours worked to place telehealth within Nemours' affiliated emergency rooms, hospitals and critical care transport vehicles in both Delaware and Orlando to provide clinician-to-clinician telehealth services.

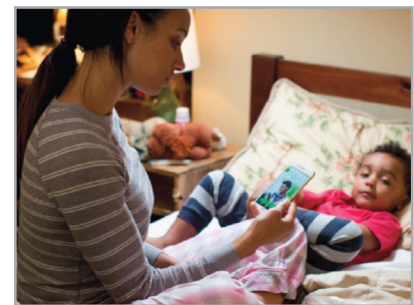
In these clinician-to-clinician initiatives, Nemours either uses American Well's Telemed Tablet or Vidyo software on an iPad cart to connect pediatricians and critical care specialists to providers at remote locations. For example, an adult emergency room clinician can consult with a Nemours pediatrician when a child comes in needing immediate care, or a critical care team member can consult with a Nemours physician while transporting a child to the hospital.

4: Clinician-to-Family

Nemours also provides needed care to children and their families for a variety of use cases:



CareConnect online ad uses 24/7 messaging to resonate with parents



Messaging communicated realistic telehealth experiences



Nemours-branded Telemed Tablet being used in a clinical setting



Telehealth allows transport teams to connect with physicians remotely

Primary care: Nemours uses telehealth to bring care into Nemours primary care offices, as well as non-Nemours primary care offices. “In areas where we do not have primary care, our specialists being able to go into those offices and really see patients in a more convenient way is so valuable,” says Officer. “That means these patients don’t have to drive long distances to one of our specialty care sites.”

Obesity clinic: Nemours operates a pediatric multidisciplinary obesity clinic in Wilmington, Delaware, which is comprised of psychologists, dietitians and clinicians. The clinic treats kids from all over the state, who in many cases must drive long distances to get care. To ease the burden of travel on these patients and their families, Nemours began offering follow-up appointments via telehealth. The in-person follow-up appointments typically saw high no-show rates due to the distance families needed to travel. After they began offering this visit via telehealth, Nemours ran a survey to gauge patient and family satisfaction and found that 90 percent of patients and their families were “very satisfied” and 10 percent were “satisfied” with the care received.

Due to the success of this initiative, Nemours has since expanded these follow-up appointments to non-Nemours primary care offices. “Not only are we providing these pediatric obesity clinic offerings, but now we are providing other sub-specialties like gastroenterology and otolaryngology,” says Officer.

Schools: Looking to expand care delivery, Nemours also created the first-ever school-based telehealth clinic at a school for children with special needs in Orlando. Using the Telemed Tablet, Nemours physicians provide on-site care to students, and via American Well’s multiway video feature, a student’s parents can also be included in the visit for more collaborative care. “The Telemed Tablet provides state-of-the-art imaging and high-definition sound with its peripheral devices, including the otoscope, dermascope and Littmann Bluetooth stethoscope,” says Dr. Shayan Vyas, medical director at Nemours. “When patients and families see the images and hear the sounds they are really impressed. For really the first time in medicine children and their parents get to hear heartbeats along with the provider.”

Clinical-to-Family Care Success Story:

“A 17-year-old was staying with his grandfather and in the middle of the night was experiencing a serious medical issue. He went online and found Nemours CareConnect. The patient knew he needed to have the consent of a parent for the online visit, so he invited his father to the telehealth visit through multiway video feature. The patient, his father and the doctor had a telemedicine visit and that clinician was able to help the child in the middle of the night.”

Carey Officer
Administrator of telehealth
Nemours



Nemours’ pediatricians can connect with school nurses and students for remote visits via American Well’s Telemed Tablet

Expert Care & Clinical Trials: Dr. Richard Finkel, a Nemours physician who is internationally known for his research into and treatment of neuromuscular disorders, has been using telehealth to see children with spinal muscle atrophy. With telehealth, Dr. Finkel expanded his outreach to screen patients for clinical trials and helps provide guidance to families across the country who otherwise would have to travel long distances to see him.

Post-hospitalization: When patients are discharged from a Nemours facility, the health system provides a 24-to-48-hour telemedicine check-in call. This allows patients to check in on their time and ask questions. “We want to be there for them to help avoid unnecessary trips back to our facility,” says Dr. Vyas. In addition to that, a lot of Nemours surgical sub-specialties are beginning to use telehealth for post-op visits with patients and their families.

“It’s a win-win not only for the patients and families—who really appreciate the convenience of not having to drive to see their physician—but also for our physicians,” says Officer. “Our physicians like being able to do some of this work from their home and not necessarily have to go into the clinic. As we think about physician burnout and trying to meet physicians where they are, this really provides an avenue for them.”

Cruise Ships: Nemours is also affiliated with a popular cruise ship line to deliver needed care to children. “When a cruise ship is out at sea and a child is sick, a telephone call won’t be as effective as using video to actually look at the child and see how he or she is acting,” says Dr. Vyas. “Taking the geographical equation out of the mix is something that telehealth allows.”

EHR integration into the medical home

When Nemours launched CareConnect for urgent care, the health system also began to look at other use cases for telehealth. As telehealth use cases grew—spinal muscle atrophy, pediatric obesity, post-surgical follow-up—it became more important than ever to have the American Well telehealth platform integrated with its EHR.

“One thing we feel very strongly about is trying to align with the patient medical home and not alienate the patient from their PCP,” says Dr. Vyas. “We wanted to be able to automatically send records back to the EHR so they could live in the patient’s medical home.”

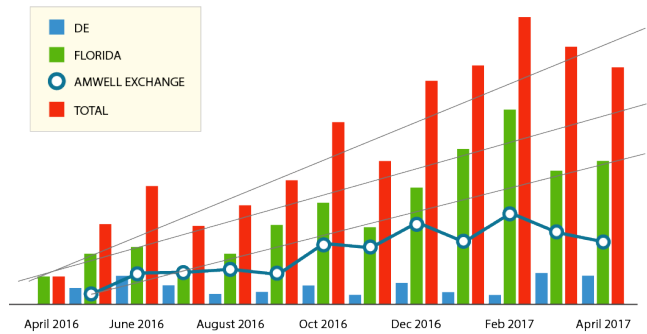
In 2016, Nemours integrated CareConnect with its Epic system. Nemours has one instance of Epic across the entire organization. The first phase of telehealth EMR integration was a bi-directional flow between American Well’s platform and Epic for scheduled visits. Now, Nemours’ schedulers only need to go into Epic to schedule a telehealth visit, and it’s automatically scheduled within the CareConnect platform. Once the visit is scheduled, the system sends the correct email communications so patients get relevant information about the upcoming visit. This streamlines the physician workflow and makes it easier for the staff. Nemours is now in phase two of the integration process, which will allow the identification of existing patient records between CareConnect and Epic, as well as the creation of new patient records in Epic if that patient does not exist.

“These are important aspects of building a system—not just looking at the consumer perspective but the physician workflow and making it a little bit easier on them as well,” says Dr. Vyas.

Success: Family-approved online care reduced costly in-person visits

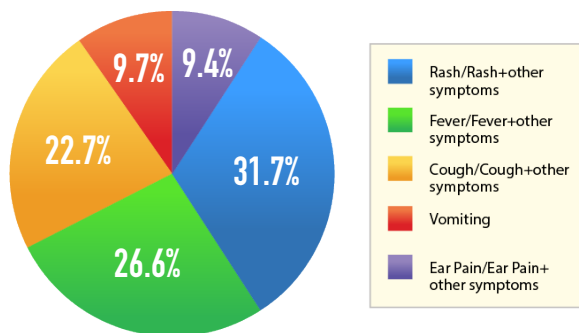
Nemours has seen tremendous growth since launching CareConnect, enrolling more than 17,000 patients in telehealth, with nearly 30 percent of those patients going on to have a visit. Since joining the Exchange in 2016 and making Nemours physicians available to patients across Delaware and Florida, there has been a big acceleration in telehealth visits.

The average visit length on CareConnect was around 11 minutes, and the top conditions treated include rashes, fevers, cough, and ear pain. Families who used CareConnect rated the platform “excellent” with 4.7 out of five stars.



Nemours visit numbers saw a steady incline

Top five conditions treated on CareConnect



Families gave the CareConnect platform a rating of “excellent”



Directing care to the appropriate location

The average cost of an emergency visit is \$1,233¹, while urgent care centers have an average cost of \$155². To date, 64 percent of families using Nemours CareConnect have reported that access to the service helped them avoid a trip to the emergency department, retail clinic or urgent care centers. Equally as notable, 25 percent of families said they would have gone to the ER if it weren't for CareConnect. “This has a really meaningful impact on the success of CareConnect,” says Dr. Vyas. Not only is this meaningful for the success of the telehealth program, but this type of care diversion has an enormous effect on the overall cost savings of the health system.

Looking ahead: Expanding care through connected devices

As Nemours continues to expand its telehealth strategy through innovative new use cases for direct-to-consumer, provider-to-provider and provider-to-family care, the health system is looking for ways to better bring physical exams to the telehealth visit. The next frontier, for which pilots are currently being developed, is bringing remote patient monitoring into the home. Even as the health system expands its focus with regards to telehealth, that focus still fits into its ultimate goal—to improve the lives of the children they serve.

1: BlueCross BlueShield of North Carolina: <http://www.bcbsnc.com/content/campaigns/careoptions/index.htm>

2: Debt.org: <https://www.debt.org/medical/emergency-room-urgent-care-costs/>