

TELEMEDICINE

Remote island communities rely on floating telemedicine unit to access care

The Atlantic Ocean may seem like a strange place to find the future of medicine, but that's where Sharon Daley, RN, is using cutting-edge technology to bring care to some very underserved patients. Ms. Daley's office is on a 75-foot boat that cruises among four small islands off the Maine coast (Frenchboro, Matinicus, Swans and Isle au Haut) which are otherwise accessible only by a weekly, or in one case, monthly ferry. The islands, on which the main industry is lobstering, are home to about 65 to 70 people each and have no resident physicians.

Through Ms. Daley and her on-board telemedicine unit, island residents are able to connect with health care providers on the mainland, including family physicians, specialists and counselors. The boat, called the Sunbeam, visits each island twice a month, and islanders who want medical care make appointments ahead of time directly with their practitioners.

At the appointment, Ms. Daley goes through the usual check-in routine (she has intake forms for each of the providers that she works with), faxes any necessary information to the office, and dials up the doctor on-screen. In addition to video conferencing which allows the physician and patient to see and hear each other, the Sunbeam's telemedicine unit has a stethoscope and an otoscope which transmit sounds and images to the remote doctor.

"Obviously, the limitation is the provider not being able to touch the patient, so I end up being the hands," said Ms. Daley. She can also give blood tests, do strep screening, check oxygen levels, and conduct other basic labs.

"Actually in the very beginning, patients are more comfortable with it than providers," she said. "In the beginning, physicians feel uncomfortable. It just feels odd that they're not in the same room with the patient."

A large part of her work is follow-up for chronic conditions like diabetes or hypertension, but she also does general primary care. "I always say if you're lucky enough to have an earache on the day I'm out there, we do that, too," she said.

Of course, in some cases, it turns out that patients need to see a doctor in person, but for those whose problems can be treated remotely, the program is a major time and money saver. "In order to see the physician they have to take the ferry off and spend the

night off. There's the expense of the medical care, the ferry boat, the hotel room and food. Being able to come down to the boat and not have to miss a day of lobstering or being the teacher at the school is a big advantage," said Ms. Daley.

The cost of a telemedicine visit is the same for the patients as it would be on land. The providers' offices take the patients' insurance information and bill insurers for telemedicine consultations.

Ms. Daley's salary and the boat's operating expenses are covered by the Maine Seacoast Mission, a charitable organization that has been providing services to islanders for more than 100 years. In the 1930s and 1940s, the mission placed Red Cross nurses on the islands, said executive director Gary A. DeLong. They decided to update the program after learning about federal grants for telehealth initiatives in rural areas.

One challenge was finding providers willing to work in such an unusual way. "They were physicians who were intrigued by it and saw it as a kind of adventure. The ones that were most successful were the physicians who already had a number of islanders as patients and wanted to serve them better," said Mr. DeLong.

The biggest challenge for Ms. Daley is scheduling, which requires her to take into account the calendars of multiple physicians' offices, the Sunbeam (which has other projects) and the tides. "I can have it all set up and then the wind blows, and I have to cancel it," she said.

So far, the winds have been favorable for Sunbeam Island Health Services. The Veterans Administration is looking into offering care for the islands' veterans through telemedicine and the mission is working on expanding the program to have a 24/7 presence on some of the islands.

A telemedicine unit would be permanently set up in a clinic, and an emergency medical technician trained to use it. The unit could then be used for emergency care, as well as patient education and even Alcoholics Anonymous meetings.

"Two guys on an island have been having an [AA] meeting for 20 years and saying, 'Hey Jim, I'm an alcoholic.' Whereupon his long-time AA friend replies, 'Yeah, I know that,'" joked Mr. DeLong. "We try to link them to people who are working on their sobriety on other islands."