

## **Leadership Success Story**

### **California Home Health Agency Lowers Acute Care Hospitalization Rate through Telemonitoring Service**

Joan Buck-Plassmeyer, CEO, president and owner of Los Robles Homecare Services in Thousand Oaks, California, began evaluating telemonitoring systems in 2003. Plassmeyer faced the challenges of providing high quality care to the more complex patients leaving the hospital sicker and quicker. Considering the possibility of obtaining daily vital signs, including blood pressure, pulse, and temperature, weight and pulse oxygen level, for the more complex patients through a remote device in the home appeared to hold merit. With the nursing shortage, this technology provided an alternative means of obtaining consistent vital information without sending a nurse to obtain this information. Shortly thereafter, the decision was made to invest in purchasing 25 telemonitor devices along with the Central Station.

With the help of her administrator, Sheila Shea, Plassmeyer initiated the use of the telemonitoring devices for patient with selected diagnosis and conditions. Immediately, the staff noticed that by monitoring patients, and having the patient involved in their own care, Los Robles had better patient self care management participation. Patients became more proactive about their health care plan and more willing to make any needed adjustments to improve their own health.

When Los Robles receives a new patient, staff determines on a case-by-case basis whether the patient is a good candidate for telemonitoring. Once chosen for telemonitoring, a nurse delivers the telemonitoring unit to the patient and performs a demonstration and practice transmit test. If family is involved in the patient's care, those relatives are also involved in the walk-through.

The device speaks slowly, loudly and clearly to the patient and can be programmed with ten different languages and 50 questions, such as "do you need your clinician to call you" or "are you experiencing more pain than yesterday." Patients check-in as instructed by their physician for daily weight checks and answer questions about their medications and how they feel. Answers are transmitted directly to Los Robles Homecare, via modem and satellite, so that information can be documented. As red flags appear, nurses call the patient to find out if there is a problem.

"We once noticed a patient had gained eight pounds in a single day," shared Shea. "Our nurse who received the data became concerned and called the patient back. After discussing the situation with the patient, we found out he had been holding his cat when he did his morning weigh-in. He was most appreciative that we called to check on him. Telemonitoring is literally the eyes and ears in the patient's home."

## Leadership Success Story (cont.)

Patients are generally thrilled with having the telemonitoring device in their homes. Telemonitoring offers consistent data since it is recorded at the same time each day. Once the data is reviewed by a clinical nurse, appropriate interventions can be implemented if the results are out of parameter for the patient. It may require a nurse visit to the patient to check medication compliance, or a re-check of the vital sign in a few minutes, or a telephone conversation with the physician regarding the findings. These interventions can result in addressing the issues quickly and prevent an emergency room visit. Overall, telemonitoring plays a large role in preventative healthcare.

“Patients today are more complex, often having multiple concerns or symptoms, like diabetes and hypertension,” stated Plassmeyer. “Caring for patients is very different today than ten years ago. We now have patients coming home from the hospital still unstable, which without daily surveillance can contribute to patients being re-admitted to the hospital. Through telemonitoring, we can keep sick patients at home, rather than seeing them hospitalized repeatedly.”

Los Robles saw a significant drop in their acute care hospitalization (ACH) rate. After 12 months of implementing telemonitoring, the agency’s ACH rate was 21 percent, well below the national average at the time. In 2005, it dropped even lower, to 18 percent. The more obvious impact has been the change in patients – and their family members – taking an active role in their healthcare plan. Since patients are monitored daily, the system has helped them see the results of complying with their diet, medications and activity.

Educating the community on the benefits of telemonitoring is the next step for Los Robles Homecare Services. Plassmeyer is working closely with local hospitals on the practice of telemonitoring and how this could provide for continuity of care. “Our intent is to offer community service seminars to teach patients how to self-manage their chronic conditions such as congestive heart failure or chronic obstructive pulmonary disease. We have found that when patients become active in self-management, they tend to live healthier life styles since they recognize through their own vital sign surveillance what affects their physical health.”

Although implementing a telemonitoring service can be costly to an agency, Plassmeyer thinks the long-term benefit is well worth the cost. “If an agency is looking at long term visibility in the community with a higher model of care, they have to invest in the telemonitoring program.” Plassmeyer stated. “People are living longer and the cost of health care is rising. Teaching patients how to monitor their own health status could definitely affect how they stay living healthy in their own home environment.”

*Joan Buck-Plassmeyer, Los Robles Homecare Services, provided data in this article.*



## Success Stories

### Alpine Home Care's Rural Patients Get Help from Telemonitoring

**A**lpine Home Care, an agency with five offices in southwestern Colorado, viewed its rural location, high altitudes and high percentage of patients with lung disease due to local uranium mining and heavy tobacco use as reasons to consider telemonitoring for its patients.



Sharon Mitchell, RN and Administrator at Alpine, says she always recognized that telemedicine is not a tool to replace nursing, but rather a way to make better use of a nurse's time when visiting a patient. Alpine's Nurses sometimes drive as long as three hours over dirt roads to visit patients. While telemonitoring "doesn't usually reduce the number of visits," says Mitchell, it helps "identify issues and ensure that nurses are doing the appropriate interventions when they are visiting, making their time more efficient."

About five years ago, the agency purchased 52 telemedicine units. Mitchell says Alpine staff attended trade shows and set up a committee to determine the agency's needs in advance. Because of the mountainous local geography, Alpine chose a telemonitoring system that uses a phone line but has a satellite connection, so it doesn't interrupt phone calls. Alpine pays for the satellite use.

System set up is done by the nurses in the home, and they teach patients and family caregivers how to use the systems. Mitchell says there may be a few glitches at first, but with written and verbal instructions, most patients can manage the system. "They become very attached to the machines," she adds.

With as many as 50 percent of patients on oxygen and having some form of chronic lung disease, the systems are excellent at monitoring oxygen needs and lung capacity. Alpine's telemonitors also track:

- Weight gain and fluid retention in congestive heart failure patients
- Blood pressure
- Temperature
- Oxygen saturation
- Heart rate
- Pulse
- EKG – small sample
- Blood sugar
- Medication management



## Success Stories (cont.)

Mitchell notes that doctors were slow to get on board, but now they are accepting, and some actually call to request the machine.

“It was a huge financial investment and no reimbursement,” says Mitchell. “But we broke it out by costs and preventing bad outcomes, and we felt that [introducing telemedicine] raised the bar for patient care and that was important to us.”

Staff comments regarding the telemonitoring units include:

- “Polypharmacy is huge and telemonitoring can help keep the meds straight. You can document how inaccurate the patient is with his or her meds. We see teaching opportunities for patient safety. That level of medication management is a cost savings when you think about how many hospitalizations happen due to inaccurate medication management.”
- “If we get a ‘null packet’ – when no data is transmitted – we immediately contact the patient. Did they fall? Did they expire? If we cannot reach the patient, we will do an emergency check, and this has saved lives.”
- “‘Annie’ was in the hospital every four or five days because she was very fragile and sensitive to weight gain. We were able to manipulate meds to keep her out of the hospital for six months. This was a huge success story, and her family was very supportive.”

Mitchell concludes, “I would love to really push these harder. My goal would be to have 100 units out there and in constant use. Telemonitoring is a great tool for early intervention – to keep a patient from getting so sick. I would love to have more buy-in from doctors and the payers.”

*Sharon Mitchell, Alpine Home Care, provided data in this article.*

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## County Agency “Sells” Telehealth Vision to Board of Health, Staff, Doctors

“I remember when the first doctor asked us if we could do an IV at home, and I said we would never be able to do that,” says Leslie Larsen, Home Care Supervisor at Polk County Home Care in Wisconsin, who has been with the agency since 1976. “I eventually ate those words. People want to be at home, and nothing is a substitute for good nursing, but I know now that technology can help us keep people at home.”

Polk County is in rural Wisconsin but with close proximity to Minneapolis. According to Larsen, it has a higher number of elderly than other counties in the



## Success Stories (cont.)

state, and the number of home care nurses employed by the agency is declining due to county budget constraints.

The agency, surviving under the umbrella of a public health agency after the onset of PPS, and despite caring for the very chronically ill, is positioned on the leading edge of home care, using telemonitoring since 2003.



It took a while to get there. Six months, in fact, just to convince the county Board of Health that telemonitoring equipment was a good use of funds, says Larsen. After the board approved the purchase, Larsen and a start-up committee selected nurses who were excited about the idea of telemonitoring and assigned the units first to those staff members. Those nurses could then champion the benefits of the new system to other nurses.

“We had some [staff] that were more in tune to the benefits of being able to monitor their patients seven days a week. Out of ten nurses, I had two champions and eight that were concerned that telemonitoring could replace them. In retrospect, I would have spent more time up front getting more staff buy in, but instead we spent considerable time figuring out the finances,” Larsen reflects.

“Telehealth allows us to be very efficient,” says Larsen. “It used to be that we were paid for every visit. Now we needed to find a way to work smarter and manage patients better.” The agency leases 35 units and has one central monitoring station that is manned by the same person as estimated 85-90 percent of the time to cover Polk County’s caseload of approximately 120-140 patients per month.

Larsen also targeted select doctors to win over first. “I initially concentrated on one clinic that I thought would accept telemedicine and spent time with them developing a program I could market to the doctors. I got wonderful buy in from them. Now they order telemonitoring when their patients come out of the hospital. It was definitely helpful to concentrate on the easier physician adapters when starting our program.”

“We had one patient who had suffered multiple strokes and was able to be home because of the wonderful care her husband provided. We placed a telemonitoring unit in her home. The husband was so proud that he could actually do something proactively to monitor her care. He would call and notify us of her status,” Larsen recalls. “Our problem today is that we don’t have enough units. Patients would love to keep them after we discharge them because they provide reassurance.”

Larsen’s vision persists. “I would like to have the telehealth interface with point of care laptops. When we get to that point it will be absolutely better the patient, and the doctor will have that info at their fingertips. Technology is a good thing.”

*Leslie Larsen, Polk County Home Care, provided data in this article.*