

Editorials

The Promise and Challenge of Home Health Services During the COVID-19 Pandemic

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Coronavirus disease 2019 (COVID-19), which is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection, has affected all parts of the United States, including more than two-thirds of rural counties.^{1,2} The pandemic has overwhelmed health care systems in many communities.³ Home health services (i.e., medical services provided in patients' homes by teams of health aides, nurses, and case managers, together called home health providers) aim to avoid hospitalization and keep patients healthy and independent in their own surroundings.⁴ The COVID-19 pandemic presents family physicians with unique opportunities to work with home health providers to combat the pandemic, provide quality care, and ease the burden of fear among patients.

Many patients who are not infected with SARS-CoV-2 rely on unverified information, with some going to the hospital unnecessarily and others waiting too long to seek care for their underlying chronic medical conditions.⁵ Patients are additionally reporting fear of being exposed to SARS-CoV-2 or exposing others.⁶ During the COVID-19 pandemic, home health providers can assist family physicians in educating their patients on social distancing, mask use, and hand hygiene, as well as addressing chronic health conditions and general fears. Additionally, given the rapid transition to telemedicine, home health providers can help navigate new difficulties in communication for patients with limited English proficiency, those who lack access to videoconferencing technology, and those with concomitant hearing deficits who rely on visual cues.^{5,7}

Hospital at Home is a service model in which health care professionals provide active treatment in the patient's home for a condition that normally would require acute inpatient care.

By optimizing the use of home health providers, family physicians can employ the Hospital at Home model for managing otherwise stable patients with newly diagnosed SARS-CoV-2 infections.⁸ As shown with other health conditions, an early-discharge Hospital at Home model reduces length of hospitalization and cost of care without affecting mortality or hospital readmission rates.⁹ This model can therefore help decrease the burden of COVID-19 care on hospitals in settings where primary care is scarce or overwhelmed. Because trained home health providers can collect biological samples from the patient's home for processing in laboratories, they can assist with point-of-care at-home molecular diagnostic testing as it becomes available.^{10,11} In coordination with public health officials, home health providers can also help trace community contacts of infected patients and monitor people in home quarantine, which are critical to halt the spread of COVID-19.⁸

Data on the usefulness of this approach come from Italy, where two neighboring regions with similar socioeconomic profiles adopted different strategies toward managing COVID-19. The region of Veneto, which placed a strong emphasis on home diagnosis and care, including the use of home health services, had much lower disease prevalence and mortality rates than the region of Lombardy, which did not adopt this approach.¹⁰

It is likely that telemonitoring in home health care will increase during the pandemic, allowing home health providers to better serve as health extension agents for family physicians. Telemonitoring may include real-time, audiovideo messaging tools that connect home health providers with patients at different locations and remote patient monitoring tools such as smart thermometers, blood pressure monitors, Bluetooth-enabled digital scales, activity trackers (e.g., Fitbit), and other wearable devices that can communicate biometric data to the home health provider for review.

The COVID-19 pandemic has, however, created and exacerbated challenges for home health just at the time of increased need. For example, the stay-at-home measures in most U.S. states and curfew restrictions on many Native American reservations make traveling to patients' homes difficult. Despite broadening of the licensing parameters for skilled home health providers in some states, there is a shortage of home

caregivers,¹² which is worsened by high rates of staff turnover and burnout.^{13,14} When medical supply chains have been dysfunctional, home health providers have been forced to ration and reuse personal protective equipment or use homemade alternatives.¹⁵ Additionally, appropriately discarding and replacing personal protective equipment during a visit to minimize the risk of viral transmission can be challenging in the home environment. Home health providers report fears of becoming infected, and physicians may also worry about exposing their patients to other people.⁶ Education and communication are critical to addressing these concerns and providing safe care at home.

Home health providers can play a unique role in the education, diagnosis, and treatment of patients with COVID-19, including home-based monitoring, testing, and tracking quarantine, effectively serving communities and the family physicians who take care of them. The COVID-19 pandemic also allows the opportunity to enhance telemedicine and explore the use of telemonitoring in home health care.¹⁶ Family physicians can collaborate with home health providers to work as team members in patient care during the pandemic.

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