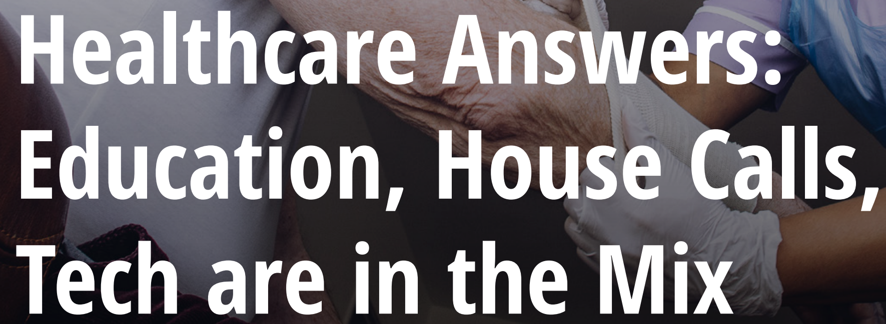

Healthcare Answers: Education, House Calls, Tech are in the Mix

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Dr. Allen Holloway Jr.
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Looking at health care problems both nationally and internationally, our challenges in Arizona are much the same; only the scale varies. How and where do those in need receive critical medical care? How is their quality of life affected? How has Covid and its variants impacted treatments of patients, and how will we prepare more-interconnected selves to manage even more epidemics in the future?

As a physician, an educator and a lecturer on vascular disease and wound healing, an aspect of healthcare that has my attention and in which I am involved is the care for homebound patients, particularly the elderly. Specifically, my attention is directed at wound care.

For the homebound patient who is either living in their home or an extended care facility, and living with a wound, or other medical condition, care from a qualified medical provider is necessary. Our current system calls for them to go to a clinic to receive this care, but how do they get there? And will they be able to get an appointment?

Consider the obstacles around which our elderly patients must navigate.

In Arizona, as in most of the country, there are too few providers; those we have are overworked. Additionally, there is a shortage of office workers – receptionists, phone operators, schedulers and others. Often, when calling for an appointment, one is put on hold for an extended period of time before being able to talk to an actual person. Even then, in many cases, the next available appointment may not be for a month or more. Not all seniors are able to make their own appointments and are thus reliant on their caregivers, who, for myriad reasons and responsibilities may not be in a position to offer the immediate assistance necessary.

Next, care providers are most often found in the heart of metropolitan areas and are harder to find in more rural settings. Fewer specialists are available in the outlying areas, and hospitals and clinics where more specialized procedures can be performed are lacking in number. And it is often quite difficult for a patient living in a rural area to get to a specialized center for a recommended treatment or procedure.

Just getting to an appointment is a challenge for many senior patients. To go to an appointment, most are not able to get there without assistance. Be it a driver service, a family member or loved one, someone to provide the transportation spells the difference from keeping the appointment and missing the appointment – one that has had its challenges from the start.

Consider now more specialized problems, such as wound care for homebound seniors. In more serious cases, I have witnessed patients who have arrived on a gurney left to wait for further attention. More than once, I have seen such patients endure the pain that comes from an extended period of lying prone on a pressure ulcer while awaiting medical assistance. Once with the care provider, and after consultation, there is the return trip, again fraught with challenges – distances, time, possibly transportation costs and – nearly always – discomfort. However long – or short – the visit with a clinician, the outcome may be little more than confirmation the wound is healing, possibly a redressing of the impacted area. Staffing shortages, schedules and more can also result in a rushed visit, one in which not all questions can be answered and the examination a cursory exploration at best.

So, the challenges are real. Time lost scheduling appointments. Hurdles to leap in keeping appointments. Appointments at locations not conveniently or quickly reached. Appointments that are rushed and less than rewarding. Our seniors deserve better, as do all patients of all stripes. But, what to do?

There are no easy solutions to this problem. Ideally, we would be able to attract more providers to the area, but nationally there is a shortage. The good news is the critical need for more care providers is currently being addressed and implemented to a degree. In 2007, the University of Arizona opened a second medical school – a welcome complement to the original in Tucson – to help address the shortage, to increase the numbers.

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The Phoenix school was established to teach and graduate more primary care providers, and also to encourage these newcomers to the field to remain in Arizona to care for the state's residents. In the meantime, class sizes at the school have increased from 80 to 100 students, and there are now three allopathic and two osteopathic medical schools in Arizona. From these colleges come young professionals who are bolstering the roster of qualified care providers and continuing the positive, upward trend we are seeing in the numbers of physician assistants and nurse practitioners being graduated in Arizona.

Meanwhile, Arizona State University has partnered with Mayo Clinic in the areas of medical research and education. The collaboration, Alliance for Health Care, includes the development of joint education programs, including nursing and the science of healthcare delivery. The recently announced Health Futures Center represents a collaboration focused on improving health and well-being outcomes, and the Mayo Clinic Alix School of Medicine features ASU student and Mayo employees who care for more than 100,000 patients annually.

Another step forward might be realized in an investigation of the role a return to house calls could play in enhanced and expanded care opportunities. We are

beginning to see more such care methods. This may seem like an impossible return to the yesteryear of a different century and ignore the already-mentioned limitations on caregivers' and care providers' time, the benefits are certainly there. (One source, Curious Historian, contends, "As far as doctors making home visits, that is a thing of the past. Doctors are entirely too busy to make house calls except for the very rich and famous. In fact, their offices are so jam-packed with patients that, at times, they are overbooked, causing patients to have to wait a couple of hours past their scheduled appointment time to even get in to see the doctor.")

But, house calls shouldn't be so righteously dismissed.

The ability to see the patient in their home setting, and to understand what their living situation is, adds much to a better-informed plan of treatment and care.

Particularly with our senior population, in-home care is a valuable proposition. The vast majority of elderly Americans prefer the independence and comforts of where they are, and in-home care removes the barriers many faces in visiting the doctor – it also provides an alternative to reaching patients where there is a lack of brick-and-mortar clinics or specialists. The ability to see the patient in their home setting, and to understand what their living situation is, adds much to a better-informed plan of treatment and care. Direct contact can be made with the caregiver, and relevant questions addressed. In my area of wound care, one can see what the problems are in caring for a wound, and often how to prevent another from occurring, as is the case with pressure ulcers. This works well on an individual patient basis, but is not the total answer as one has to consider the time spent by the provider on going from place to place, which consequently reduces the number of patients the provider can see.

This, after all, is the 21st century, and a third proposition features our better use of technology and telemedicine/telehealth.

There has been much discussion – editorials in the local and national papers, discussions on talk radio, weekend programming on TV, and just about wherever

you look on the internet – about how technology can work effectively on behalf of medicine and patient care. Certainly, during the long experience with Covid, the idea – and the reality – of telemedicine in its many forms has come to the fore.

Technology has had a significant impact on healthcare already, and for some time. In the past, technology enabled healthcare providers to diagnose and treat patients more accurately, effectively and efficiently. Electronic medical records and telemedicine have made it easier for providers to access patient information and to communicate with other healthcare professionals, improving the quality of care.

Moving forward, in the future technology is expected to continue to play a major role in healthcare for not only Baby Boomers in this state, but also for our aging populations – advancements in the areas of individualized medicine, genomics, artificial intelligence (AI) and virtual reality are likely to lead to new treatments and therapies that can better address the specific healthcare needs of each patient. Added to technology's promise are such developments as remote monitoring and telehealth, which have already proven convenient and more accessible, most notably those with chronic conditions.

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Technology in medicine continues to be a game changer. The mechanics of telehealth – video conferencing and remote monitoring, included – allows healthcare providers to connect with patients remotely, which can improve the quality of care and reduce the cost of service. The introduction of technology and AI is also expected to have a significant impact on the healthcare sector in Arizona. Think about it: AI-based systems are able to interpret large amounts of data to identify patterns and make predictions, which, in turn positively impacts the accuracy of diagnoses and treatments. AI systems can also help providers make better-informed decisions and, once again, reduce costs.

In my experience, particularly in the area of wound care, inside or outside the home, telemedicine has been very helpful. Think of it as a more informed, more outcome-focused Zoom call.

Patients with surgical or other types of wounds frequently have a Home Health Care (HHC) provider who administers their wound care at their home or at a clinical facility, usually three times a week. In my cases, if the HHC provider does not feel a specific surgical intervention is necessary, e.g., sharp debridement, I will turn to telemedicine to visit and communicate with that patient, typically every other week. Also, I use telemedicine platforms to see the patient in their interactions with the HHC provider, and I can watch the physical exam being done, as well as sit in – virtually – on the wound care being done. In such a setting, I am able to communicate with both patient and provider, and I can be included in any discussions between provider and patient as necessary or requested.

This level of service can be replicated in an office practice. While a physical examination is not possible through such a technological instrument as telemedicine, the patient or caregiver can provide such important information as weight, blood pressure, heart rate, a rhythm ECG, O2 saturation, blood sugar and more – often enough to move the prognosis forward, often enough to provide the patient the information they need to improve or apply treatment instructions.

There is no question technology will continue to positively and effectively impact healthcare services – here, across the country and around the globe. With this comes hope for expanded and improved services in assisted living communities and residential care facilities. Remote monitoring and telehealth technologies can allow for more convenient and accessible care, particularly for seniors with chronic conditions. Additionally, available technology such as assistive devices and home health monitoring can improve safety and independence for seniors living in these facilities.

Thus, it is not surprising that Arizona experiences much of the same problems with the delivery of healthcare we see elsewhere in the United States, although this being a state with more remote areas, certain aspects may be more problematic. The healthcare system both nationally and locally is beginning to address some of these problems, but it is hoped that this can be further looked into and expanded in the near future.

About the Author

A graduate of Yale University who earned his medical degree from Harvard University Medical School, Dr. Allen Holloway Jr. has more than 30 years of experience in wound care. He is board certified in internal medicine, and a certified vascular technologist. Holloway has held faculty positions at the University of Arizona Medical School, Arizona State University, University of Washington, and Harvard Medical School. He is a past director of the vascular laboratory, wound clinic and burn clinic at Maricopa Medical Center in Phoenix and has served as president of the Wound Healing Society, the premiere international organization focusing on the clinical and basic science of wound healing. Holloway has published multiple journal articles and book chapters and has lectured nationally and internationally on wound care.