Sensors and Your Grandmother?
Why the Older Generation May Be the Bellweather for Digital Health

By: Lee D. Rice

We don't normally equate emerging tech devices with elderly people - our older population is not known for being early adopters. But when it comes to their personal health, people become more flexible and quick to latch on to things that make them feel secure and comfortable. That's why smart sensors, devices for the tech hardcore, are actually the perfect answer for our aging demographic.

According to the Centers for Disease Control (CDC), 80 percent of elderly people in the US have a chronic condition and half are impacted by two or more diseases. And by 2030 the number of people over the age of 65 will double to 71 million[i]. There is no doubt the healthcare system is facing a daunting challenge to manage the care of these individuals. By looking to digital health solutions a few innovative companies are responding by taking smart sensors, used today mostly in hospital settings, and placing them in the hands of the consumers, including the elderly, to offer remote health oversight from virtually anywhere.

How do these sensors work? They can, from most any location, conveniently capture vital health measurements and feed that data directly into a patient's Electronic Health Record (EHR). They utilize advances in power and computing seen in smart phones to capture and manage highly complex data.

Information can be transmitted via an array of networks, including 3G, WiFi, and Bluetooth, and because many solutions are cloud based, the data can be accessed anywhere.

To be embraced by consumers and providers alike, sensors need to be easy to use and support patient care without "too much information" overwhelming the physician.

For example, an elderly patient has congestive heart failure. That individual might be on at least a dozen medications to keep their health stable[ii]. They may also have other conditions such as COPD or even cancer. Using a sensor, such as the DynoSensor™, or Dyno for short, from DynoSense™, they can take periodic readings by placing a device in their mouth for just sixty seconds, measuring heart rate, breathing, SPO2, blood pressure change and other key vital functions. Not only can they see the data themselves, but it can be sent back to physicians or even a family member. The physician is not required to read every single data point, only to rely on preset parameters that can trigger notifications of trends.

The result? Medication can be adjusted to avoid a complication from escalating into a hospital visit, regular check-ups become less frequent and the elderly person can feel comfortable and secure knowing that their information is always there ready to be accessed when needed. Patients are more likely to take medicine when they can see the results for themselves and the monitoring can help recognize when pills are missed.

"When you make it easy for people to capture information from their lives and share it with their clinicians, they feel empowered to take a more active role in their health - and this engagement can lead to better outcomes," confirms Stephen J. Downs, chief technology officer of the Robert Woods Johnson Foundation which sponsored studies on the effects of utilizing

personal technologies in healthcare. [iii] And the elderly population is but one segment of the market, the DynoSensor for example can be used by anyone with a chronic condition, in a remote location, upon discharge from a hospital or even a person who just has a strong desire to learn more about their own health.

Companies like DynoSense are working hard to increase accessibility to medicine for everyone by using the latest technologies in sensory hardware, algorithms, device design and software to create an answer to the challenges of this century. And they are achieving it with a device so simple and elegant even your grandmother will love to use it.

About Sponsor: DynoSense Corp. is a medical device company and creator of world's first fully integrated multi-scan health scanner.

For additional information, contact info@dynosense.com or visit www.dynosense.com

References

[i] http://www.cdc.gov/chronicdisease/resources/publications/aag/aging.htm

[ii] According to the American Society of Consultant Pharmacists, adults 65 to 69 years of age take an average of 14 prescription medications per year, and adults 80 to 84 years of age take an average of 18 prescription medications per year; https://www.ascp.com/articles/about-ascp/ascp-fact-sheet

[iii] Press release : When Patients Share Health Info with Providers Through Personal Technologies, Clinical Care and Patient Engagement Improve; http://www.rwjf.org/en/about-rwjf/newsroom/newsroom-content/2012/09/When-Patients-Share-Health-Info-with-Providers-through-Personal-Technologies-Clinical-Care-and-Patient-Engagement-Improve.html