Think Biosolution

Study: Elderly Care Platforms

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According to the U.S. Census Bureau, the number of Americans aged 65 or older grew from 35 million in 2000 to 49.2 million in 2016; By 2030, seniors will comprise more than 20% of the population. The Institute on Aging reports that 15 million of those elders who need long-term care avail of some sort of senior care, either part-time or full-time. Just to give you a perspective on the costs - the government spends on average 26,000 dollars per year on an elderly person, almost triple of what it would on a child or a working adult.

The exponential growth we are seeing has led many to ask, "Are our health care systems ready to provide sustainable, quality health care to meet the needs of a rapidly growing elderly population? Will we be able to afford it?"

More shocking statistics are brought into focus when we look at available caregivers: There are less than 7,000 certified geriatricians - meaning there is currently approximately 1 geriatrician available per 5,000 Americans aged 65 and older. This is expected to worsen, to a geriatrician to senior citizen ratio of 1:16,000 by 2030. In addition to the deficit in available geriatric professionals, we are anticipating a decline in available informal care giving support. We will see more and more older adults and proportionally fewer family members to take care of them. In 2010, there were 7 family related potential caregivers for every elderly person. By 2030 that ratio is projected to decline to 4:1 and further, to 3:1 by 2050.

Quality and quantity of traditional geriatric care providers and resources are decreasing while the cost and size of the elder population is steadily increasing. With these trends, the field of telehealth is gaining a lot of attention with a focus on providing digital health care solutions targeted at improving client-patient care, increasing efficiency and spreading awareness. Not only do seniors have unique challenges that technology could help to solve — they also have significant buying power. Americans over age 50 are responsible for at least $7.1 trillion in annual economic activity and the number will top $13.5 trillion by 2032.

The best technologies for seniors are both cost-effective and easy to use, many of these solutions are built for or use consumer-grade smartphones, tablets, robots and wearables. The benefits of elderly telehealth services derive from faster service, time saving, cost convenience, better access to healthcare professionals, and patient-centered care. Technology companies, senior care experts and governments are putting their minds and money together to create innovative solutions.

If we look at the current types of telehealth technology available for elderly care, we could broadly categorize them to 2 types: *Biometric tracking-based platforms* and *Platforms that provide a sense of virtual care.*

Biometric tracking platforms for the elderly could be said to be extensions of remote patient monitoring. For example, **Reemo Health**'s remote monitoring platform — which runs on a Samsung Gear smartwatch — monitors movement, heart rate, location and enables push-button 911 calls. It also tracks the wearer's quality of movement, sleep patterns and other relevant health data.

The quality and outcomes of remote elderly care and outpatient care in general depends to a great extent on patient behavior, self-care and self-reporting habits. Solutions by various companies address this need in different ways:

Telcare offer a blood glucose monitoring sensor that allows seniors to utilize the monitor anywhere with cellular connection and remind patients to both manage and monitor their diabetes in real time. This information is also shared with their loved ones and primary care physicians – creating a remote patient centered care environment.

Think Biosolution's QuasaR™ Elderly Care Platform, in addition to providing biometric insights to the physician, also provides reminders to the user to take medication. It can also send alerts to the physician or caregiver, if the user experiences a fall.

FamilCare has a water-proof pocket-sized smart button compatible with their mobile senior care application to alert their prospective care givers if they have fallen or are presented with a case of difficulty. The mobile application is elderly user friendly equipped with SOS Alarm, address books, appointment reminders, medication reminders, and GPS.

Platforms with devices or wearables allow seniors and their families and care providers can stay connected and spot negative health trends before there's an emergency. They also eliminate need for multiple in-person visits, eliminates room for error when taking vital statistics, provides geriatric practitioners more time to focus on speaking with the patient about their chronic health care management.

There are also platforms that provide a sense of virtual care to the elderly, take for example **ElliQ,** which is an at home social robot and virtual assistant created for elders. ElliQ allows seniors to easily connect with their family members through video messages, reading emails and text messages, and even enables family members to add appointments/reminders to their calendars.

Then there's **Rendever**, which caters to elders living in senior living facilities that may be experiencing isolation or depression by providing virtual reality experiences with their loved ones, fond memories or social events – like a recent baseball game.

App based platforms like Home Team Health or Kwido are focused on connecting seniors and senior care givers with geriatric clinicians to provide real time clinical decisions. Every individual receives a patient-specific plan of care that automatically generates a predictive clinical pathway.

Talking about all of these technologies brings us to the question are our seniors willing to adopt telehealth? You would be surprised to know, that contrary to the common misconception seniors are not intimidated and are willing to adapt to using telehealth. In fact, 52% of seniors in the US are willing to have a telehealth visit. That means that of the 49.2 million Americans over the age of 65, 24.89 million are already willing to use telehealth.