



## Home Health Monitoring Fact Sheet

**Home health monitoring holds the potential to help seniors live independently longer and in better health, and to reduce the long-term costs of care.**

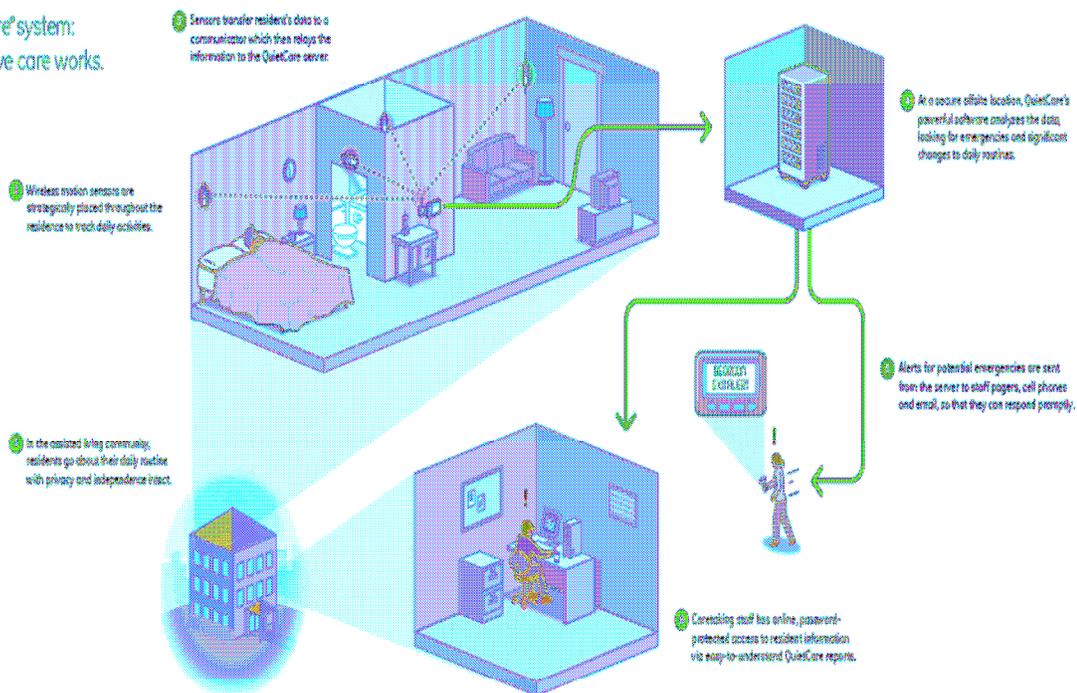
Activity and behavioral monitoring, also known as telecare, uses wireless sensor-based systems and software to passively track the daily activity patterns of seniors, alerting care givers to potential problems, while at the same time maintaining privacy and enabling as great a degree of independence as possible.

### How home health monitoring works.

Home health monitoring systems have evolved from the simple necklace or bracelet alarm systems often used by seniors to alert caregivers that they have had a fall or some other acute event. These systems are highly dependent on the compliance of seniors, so they can be ineffective if not worn consistently. Today, more advanced systems, such as GE QuietCare®, use wireless sensors – similar to those used in home security systems – to “learn” the normal daily routine of the senior such as daily activity levels, number of visits to the bathroom, refrigerator usage and whether or not medicine has been taken. Powerful software analyzes the data collected to detect any changes from normal activities, which may indicate a problem such as a bathroom fall or early signs of illness. If a potential problem is detected, the system automatically alerts the caregiver via phone, pager, email or the internet, enabling earlier intervention.

### GE QuietCare® – how it works.

The QuietCare® system:  
How proactive care works.



1. Residents go about their daily routine with privacy and independence intact.
2. Infra-red wireless motion sensors are strategically placed throughout the residence to track daily activities.
3. Sensors transfer residents' data to a communicator, which then relays the information to the GE QuietCare® server.
4. QuietCare's powerful software analyzes the data, looking for unusual circumstances and potential emergencies.
5. Alerts for potential emergencies are sent to staff via pagers, cell phones, and/or email.
6. Staff can respond to possible emergencies more quickly in order to provide proactive care.

### **About QuietCare**

- Living Independently Group, Inc. designed and built QuietCare® and made it commercially available in 2003.
- In 2008 GE Healthcare and Living Independently entered into a distribution and technology collaboration agreement. GE Healthcare distributes and co-markets Living Independently's QuietCare® products.
- The QuietCare® system is in use by senior housing communities in the United States.
- QuietCare® was recently listed with the US FDA as a Class II medical device.

### **GE Healthcare and Home Health**

Home Health is a key priority for GE Healthcare. In addition to its strategic relationship with Living Independently Group, the company has made a number of acquisitions and alliances in the Home Health area.

- In March 2008 GE Healthcare acquired VersaMed Corporation, a provider of portable critical care ventilators for respiratory care that can be used in the home setting.
- In October 2008 the company acquired Vital Signs Inc., a provider of products for home respiratory care, particularly in the management of sleep apnea.
- In November 2008 GE Healthcare announced it is leading a consortium of Hungarian companies and universities in a \$5M home health research program, funded by the Hungarian government.
- In March 2009, GE and Intel announced they plan to form an alliance for the development and commercialization of home health technologies.

### **Home Health Monitoring offers the potential to transform healthcare delivery and reduce the long-term costs of care.**

The predicted rapid increase in the number of seniors is leading healthcare policy makers to look at new ways of delivering cost effective and targeted care.

- The United States Census Bureau predicts, "In 2030, when all of the baby boomers will be 65 and older, nearly one in five U.S. residents is expected to be 65 and older. This age group is projected to increase to 88.5 million in 2050, more than doubling the number in 2008 (38.7 million). Similarly, the 85 and older population is expected to more than triple, from 5.4 million to 19 million between 2008 and 2050." <sup>1</sup>
- In 2000 in the United States, the total direct cost of all fall injuries for people 65 and older exceeded \$19 billion. The financial toll for older adult falls is expected to increase as the population ages, and may reach \$54.9 billion by 2020 (adjusted to 2007 dollars).<sup>2</sup>
- In the United States, 15,800 older adults died as a result of falls in 2005 and the incidence of fall-related deaths has risen significantly over the past decade.<sup>2</sup>
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- One in three adults 65 and older falls each year. Of those who fall, 20% to 30% suffer moderate to severe injuries that make it hard for them to get around or live independently and increase their chances of early death.<sup>2</sup>
- Many residents in Assisted Living Facilities have osteoporosis, increasing the risk of fractures and serious complications from falls.
- As many as 50% of residents in Assisted Living Facilities may have some form of cognitive impairment. As a result seniors may have difficulty talking about unusual symptoms or difficulties, making early detection of health problems much more difficult.

1. US Census Bureau. [www.census.gov/population/www/projections/2008projections.html](http://www.census.gov/population/www/projections/2008projections.html)

2. Centers for Disease Control: [www.cdc.gov/HomeandRecreationalSafety/Falls/index.html](http://www.cdc.gov/HomeandRecreationalSafety/Falls/index.html)