

## **Technology to Improve Person-Centered Care of Dementia Residents**

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If dementia care were a company, it would be the world's largest by annual revenue exceeding Wal-Mart (\$414 billion). The World Alzheimer Report 2010 estimated worldwide costs of dementia at \$604 billion in 2010. These costs account for around 1% of the world's gross domestic product. About 70% of the costs occur in Western Europe and North America.<sup>i</sup>

This begs the question: How are we going to cope with so many people suffering from dementia when traditional models of care are not well suited for them in the first place? This is especially concerning given the bi-products of our aging society – a shrinking workforce and declining public funding.

In just 20 minutes a day seniors can combat the threat of memory loss and dementia with the first clinically tested brain fitness software program specifically designed for seniors. The first step is looking to technology to help our seniors proactively fight the negative effects of dementiarelated memory loss. While there is still no cure for Alzheimer's disease, there is some good news: More than 20 years of medical research has

concluded that the risk of dementia can be dramatically reduced with consistent mental stimulation that exercises different portions of the brain.

According to Dakim, the company behind Brain Fitness, in just 20 minutes a day seniors can combat the threat of memory loss and dementia with the first clinically tested brain fitness software program specifically designed for seniors. This interactive, scientifically-based program is filled with oldies music, film clips, news reels, story exercises and plenty of humor, providing a daily dose of game-show-like entertainment for seniors struggling with dementia.

There have also been technological advances from Coro Health, a company dedicated to improving quality of life for long-term care residents. Their

invention, MusicFirst<sup>™</sup>, provides individualized content such as therapeutic music, educational pieces, current events and audio books, all of which can be delivered directly to a resident's room upon request or according to a pre-existing schedule. Emergency response companies are also taking note of technological improvements they can make regarding the senior living market. Since traditional emergency response systems don't work for residents with memory loss (many seniors are unsure of how to operate devices, whether it's pushing a button or pulling a string), some companies have developed products that facilitate seniors' safety without sacrificing dignity or privacy. One of those companies is Vigil Health Solutions – they have created dementia monitoring technology that removes the need for a resident to call for help, or even realize they need help in the first place. This advanced technology identifies normal patterns of behavior for a resident. When the individual's behavior departs from their normal activity, the system notifies a caregiver *immediately* through paging or other communication devices. This is also a time-saver, as caregivers typically spend their time completing rounds, which can be tedious and hindering to a patient who is in need of urgent attention.

As technology continues to evolve, there is even more promise for improving care and seniors' quality of life. These technologies include a wide array of items including GPS devices in shoes to non-invasive vital sign monitoring equipment to robots that may help with everyday care. Furthermore, as demographics and economic demands surpass the ability of our existing care infrastructure to deliver service to those afflicted with dementia, we



will need to look outside of our current care paradigm. Technology cannot provide all of the answers; however, it will play an integral role in how we provide the care we want to give and, perhaps one day, receive.

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<sup>&</sup>lt;sup>i</sup> Source: http://www.alz.co.uk/research/files/WorldAlzheimerReport2010ExecutiveSummary.pdf