In the U.S., a national discussion is underway about how to lower the cost and improve the performance of the healthcare system. Compared to any peer country, the U.S. spends far more per person and ranks last in population health, according to a recent study by the Conference Board of Canada. Large sections of the American public suffer from a wide range of preventable or treatable conditions: 65 million people have hypertension; 65 million are pre-diabetic; 122 million are overweight or obese; and 150 million have some form of visual impairment. The delivery of health care needs to be transformed into a more preventative and proactive approach versus a reactionary one, referred to as “find it, fix it” by Dr. Ralph Snyderman, chancellor emeritus of the Duke University Health System.

At the forefront of innovation, SoloHealth* is advancing wellness and prevention programs with solutions that incorporate the latest computing and networking technologies. Currently in test market, its SoloHealth Station allows people to screen their vision, blood pressure, weight/body mass index (BMI) and overall health – or any combination of the four – in seven minutes or less. The station can be conveniently located in the workplace or a retail environment, giving workers and shoppers tools and information to positively impact their own health.

SoloHealth is also committed to working with strategic partners to increase general public health awareness, having received a substantial grant from the National Institutes of Health and having recently presented the SoloHealth Station to a panel including Secretary of Health and Human Services Kathleen Sebelius.

“Our health screening kiosks empower consumers and employees to take charge of their own health, while reducing costs and improving access to care.”

– Rick Voight
VP, Channel Development
SoloHealth*
The Technology That Helps Drive Innovation

Based on the latest Intel® technologies, the SoloHealth Station provides a multi-screen testing experience along with actionable health recommendations, medical product information and local physician listings. The kiosk was also designed with the ability to expand offerings to meet the challenges of today’s changing health care system.

CHALLENGES

• **Multi-service station:** Develop a self-service kiosk capable of conducting multiple health screenings via a simple touch screen and helpful interactive videos.

• **Interoperability:** Design a solution that easily ties into other systems (e.g., “Cloud Computing”, personal health records).

SOLUTIONS

• **High performance platform:** A high-performance Intel® Core™ i5 processor-based computer runs various health tests and manages multiple screens simultaneously.

• **Secure connectivity:** The station communicates over the Internet and mobile broadband (cellular service) to other systems using security technologies (e.g., encryption, VPN).

The Self-Service Experience

The SoloHealth Station administers simple tests with help from straightforward touchscreen menus and interactive instructional videos. The station provides consumers a customized report that shows an assessment of their near and distance vision, blood pressure, weight and body mass index (BMI), as well as educational videos on a number of health topics and conditions, a listing of doctors, and valuable offers from healthcare partners. Consumers can choose a doctor on the screen and immediately connect with his or her office to schedule an appointment. As a result, the physicians listed by the kiosk will have greater access to new patients, particularly as the patient pool expands as a result of the new healthcare legislation.

The SoloHealth Station does not replace an examination by a medical professional. It is designed simply to provide an initial screening and encourage consumers to visit a healthcare provider for a follow-up exam when needed. As consumers become more educated about health issues involving weight, blood pressure and eyesight, they are likely to visit their healthcare professionals on a more regular basis, resulting in better outcomes.
New Opportunities for Corporations and Retailers

Many companies are exploring new ways to reduce health care costs, including programs designed to motivate employees to become more aware and proactive about their overall health. Such programs can be reinforced by encouraging employees to regularly perform health screening at self-service kiosks located in high traffic areas, such as the company cafeteria or gym.

Beyond The Kiosk

The SoloHealth experience may start at the kiosk, but can extend to numerous consumer touchpoints using digital, email, mobile, social and other technologies. After the initial screening, users can create accounts accessible from any SoloHealth Station, as well as a future online portal and mobile applications. With the consumer’s approval, these applications (Figure 2) will facilitate the tracking and trending of health data among corporate wellness programs, motor vehicle departments, healthcare providers and insurance companies, among others:

- **Corporations**: Offer incentives based on employee progress toward wellness program goals
- **In Store**: Increase sales by displaying targeted advertising, promoting store specials, offering coupons
- **Insurance Companies**: Enroll patients (e.g., Medicare Part D) and perform risk assessments
- **Mobile / Web**: Make it easier for consumers to access and track health data from anywhere, anytime
- **Local Providers**: Attract new patients and monitor current patient health screening results
- **Data Insights**: Tie the health screen data to personal health record (PHR) and collect shopper market data

Figure 2. Touchpoints Enabled by the SoloHealth* Platform

Supermarkets and other mass merchant retailers also provide convenient access to health screening for a large portion of the populace that typically goes shopping once or twice a week. Without changing their behavior, consumers can get tested outside of the doctor’s office. Moreover, kiosks, often placed near pharmacies, can help retailers increase shopper loyalty and drive higher sales of pharmaceuticals and other health-related products. The SoloHealth Station is currently in test trials in stores operated by Schnucks Markets*, a chain of more than 100 stores in the Midwest.

Taking the Self-Service Kiosk to a New Level

The SoloHealth Station builds on its predecessor, the award-winning EyeSite vision-screening kiosk, which currently serves retail outlets in nine metro markets. The new kiosk performs three additional tests and was designed with high speed connectivity and cloud computing in mind. All of the functionality is supported by a single computer board equipped with an Intel Core i5 processor that eliminates the need for multiple computers. The high-performance processor is quick to respond to touchscreen inputs, enabling an exceptional user experience.

For its previous design, the station required a second computer for its digital signage display. Now the high definition digital signage, user interface screen and vision testing display are all supported by the Intel Core i5 processor-based board. This consolidation helps to minimize the kiosk footprint, which requires about the same floor space as traditional blood pressure machines. The Intel® processor-based board allows SoloHeath to run the entire station on one PC, instead of two, which lowered the overall cost, size and complexity of the machine.

The Intel Core i5 processor-based computer has the capability to execute multiple health screenings simultaneously, while playing video content on multiple screens and responding to users’ touchscreen inputs. The processor platform can also communicate in a secure fashion with other systems over local area networks (LAN), the Internet or mobile connections. The platform uses the latest security encryption technologies to ensure the consumer data is not compromised.
Lowering the Total Cost of Ownership

SoloHealth designed its kiosks using technologies that lower operating expenses for companies and retailers. Reducing support costs, the SoloHealth Station can be serviced remotely, with functions such as rebooting, diagnosing problems and, in some cases, restoring corrupted software. When system issues are resolved remotely, expensive onsite repair visits aren’t needed. SoloHealth is also able to gather valuable data and generate reports regarding overall usage patterns and demographics.

The computing system in the SoloHealth Station is Intel® vPro™ technology-compatible; so in the future, SoloHealth can turn on a set of technologies that improve system manageability, software flexibility and security. For instance, one of the technologies is Intel® Active Management Technology (Intel® AMT)3, which provides advanced remote management and maintenance. It enables IT professionals to query, fix and protect networked devices, even when they’re powered off, not responding or have software issues. “Since many retail stores don’t have onsite IT departments, getting systems repaired can be an expensive and time-consuming proposition. Intel AMT enables maintenance, upgrades and repairs over a network connection without a truck-roll to the site,” says Alex Zilberman, market development manager at Intel.

Just the Beginning

The SoloHealth Station is focused on some of the most common and serious health conditions of the population – obesity, cardiovascular disease, diabetes and vision impairment. SoloHealth, with active involvement from Intel, designed its kiosk with the leading-edge technologies and performance headroom needed to accommodate expansion to meet future needs. “Self-service healthcare options will play an extremely important role in reducing healthcare costs and improving access moving forward, and we are excited to be a leader in this pivotal new space,” says Bart Foster, CEO of SoloHealth.

For more information about the SoloHealth Station, visit www.solohealth.com

For more information about health care solutions from Intel, visit www.intel.com/go/medical

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1 Source: www.conferenceboard.ca/press/newsrelease/11-05-12/Health_Spending_Other_Countries_Get_Better_Results_For_Less.aspx


3 Intel® Active Management Technology (Intel® AMT) requires the platform to have an Intel AMT-enabled chipset, network hardware and software, as well as connection with a power source and a corporate network connection. With regards to notebooks, Intel AMT may not be available or certain capabilities may be limited over a host OS-based VPN or when connecting wirelessly, on battery power, sleeping, hibernating or powered off. For more information, see http://www.intel.com/technology/manage/amt.

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“The SoloHealth Station will impact millions of Americans by providing them with free and easy health screenings, connecting them with local physicians and allowing them to track their results over time.”

- Bart Foster
CEO
SoloHealth.