



QUALCOMM® WIRELESS REACH™ IN JAPAN

Qualcomm believes access to advanced wireless technologies can improve people's lives. Wireless Reach is a strategic initiative that brings wireless technology to underserved communities globally. Wireless Reach invests in programs that foster entrepreneurship, aid in public safety, enhance the delivery of health care, enrich teaching and learning and improve environmental sustainability.

Formalized in 2006, Wireless Reach has grown to include over 100 programs in 40 countries. Wireless Reach collaborates with non-governmental organizations, universities, government institutions, nonprofits, development agencies and other private sector companies to develop programs which demonstrate innovative uses of Qualcomm technology for social and economic development.



WIRELESS REACH PROGRAMS IN JAPAN

3G SMARTPHONE & TABLET X DIGITAL TEXTBOOK (EDUCATION)

Since 2011, Wireless Reach has collaborated with Renaissance Academy on the 3G Smartphone & Tablet x Digital Textbook program, enabling students to obtain high school diplomas via correspondence learning on mobile devices. The program has provided more than 750 students and teachers with devices to provide an interactive learning experience with a non-traditional approach to learning. Students can conveniently study anywhere, anytime using 3G-enabled smartphones and tablets with digital educational content and innovative Augmented Reality Experiences (ARE). Teachers can assist in the learning process by interacting with students in many different ways using applications and other tools and content that is relevant to their lives in many cases helping to motivate them to complete their education, while also seeking vocational training and holding part-time jobs.

Results of the intervention include:

- » The longer students use tablets, the more comfortable they become with the technology.
- » 80 percent of surveyed students reported always using a tablet for learning, up from 59 percent in a previous survey.
- » Students overwhelmingly believed tablets and smartphones are more useful than a PC. Initially, 52 percent of students said smartphones are most useful and 43 percent said tablets. Later in the program, 24 percent of respondents said smartphones were most useful while 67 percent said tablets.
- » When comparing a PC to a smartphone or tablet, 76 percent of students surveyed answered that the use of a smartphone or tablet would help improve their academic performance, up from 67 percent in previously.

WIRELESS_HEALTH_CARE@HOME (HEALTH CARE)

Since 2010, Wireless Reach has partnered with Medical Platform Asia, Chealcomm, NTTPC Communications, Sapporo Medical University, Iwate Medical University, and EBMRCE (Evidence Based Medical Research Center from Osaka University) on a remote monitoring mHealth program. In many disaster-affected and rural areas of Japan, emergency and advanced health care resources are lacking; gaining access to medical facilities can prove difficult – especially for senior citizens. In these situations, the ability for people to manage their health information at home and remotely share it with doctors using 3G wireless connectivity enables them to receive timely treatment and can help prevent illnesses from becoming more serious. The Wireless_Health_Care@Home program allows more than 550 patients to use mobile devices to send critical health data about themselves to doctors via a wireless network. The program also enables nearly 70 health care workers, many in disaster-affected areas of Iwate Prefecture, to use 3G/LTE-enabled tablets and a cloud application to improve operational efficiencies and deliver more effective patient care.

Among the results of the program:

- » 23% of patients lowered their blood pressure over a period of 24 months.
- » Many patients who rarely sought healthcare before the program's intervention began going to the hospital on a regular basis after receiving feedback from doctors via their mobile devices.
- » Multiple patients called or sent letters and photos to doctors thanking them for monitoring their blood pressure, demonstrating how the wireless monitoring system helps build relationships between patients and doctors.
- » Program doctors said the wireless monitoring system helped:
 - ensure the health and safety of patients
 - manage and control lifestyle-related diseases such as hypertension
 - enhance cooperation with local communities

CONNECTED CARE (HEALTH CARE)

Along with local stakeholders and armed with lessons learned from our initial mHealth intervention, Wireless Reach and Japan telemedicine Society began a new program aiming to monitor the safety and status of senior citizens in their homes using 3G/4G LTE technologies in 2015. A goal of the program is to establish a system that enables social workers to check health care data on tablets collected from senior citizens. Target beneficiaries are elderly residents living in the City of Kamaishi. Due to Japan's aging population, the issue of isolated elderly patients is a growing concern. In order to tackle this issue, the Ministry of Health, Labor and Welfare recently announced that subsidies would be prioritized for municipalities engaging in community-wide monitoring programs. This program will support the government's effort and showcase a best practice for potential expansion across Japan.