

C. HUANG, B. CHUANG, H. HSIEH, J. CHANG. *Innovative Telecare and Telehealth care model and its challenges. Gerontechnology 2010;9(2):219*; doi:10.4017/gt.2010.09.02.217.00 **Purpose** Taiwan has started to be an 'aging society' since 1993. Factors such as the advancement of medical technology, and changing concepts of marriage and family have sped the aging of the Taiwanese population from 10% to 30% in a span of 40 years, making Taiwan first in the world in terms of aging speed. Many investigations found that the elderly in Taiwan prefer to live at home or in the community, so called 'aging in place', over staying in nursing homes for Long-Term care. Given these facts, we created and implemented an innovative telecare and telehealth care system for the elderly. **Method** The service was held by Chu-Shang Show Chwan Hospital (CSSCH). This caring system was specially designed for the rural clans in middle Taiwan. Before implementation, we developed a structured questionnaire, which included demographic variables, cognitive and service acceptance and demand for investigation. Based on the results, we designed a care system consisting of a 'telehealth care system', in the community (Zi-Nan Gong temple), to monitor vital signs data for the visited elderly. The elderly and their family members can view the results from a website and get a Short Message Service (SMS) alert from CSSCH care platform. Also, a telecare safety system has been installed at the residences of 50 elderly volunteers who suffer from high-risk chronic disease. The emergency call and video phone were monitored 24-hours a day by the CSSCH care center. The evaluation included formative and summative approaches, employing qualitative and quantitative methods with data collection from telecare and telehealth care events, participants and existing databases. **Results & Discussion** The identified success factors, including the provision of an overarching architecture and infrastructure, strong program management, thorough user's requirement analysis and detailed applications to match the identified needs, should improve the sustainability of e-health projects. Many experiments have shown that the system can provide ubiquitous care services and the initial operation by the CSSCH care center proved that the system can improve the quality of care and safety for elderly residents.

References

1. Chen HS, Su MJ, Tsai TH, Teng SS, Zhang HW, Lai JS, Lai FP, Chen CY. Proceedings of the 9th International Conference on e-Health Networking, Application and Services; 2007; Volume 6; pp 187-190
2. Garsden H, Basilakis J, Celler BG, Huynh K, Lovell NH. Engineering in Medicine and Biology Society, 2004. IEMBS '04. 26th Annual International Conference of the IEEE; 2004; Volume 2; pp 3151-3154
3. Celler BG, Lovell NH, Basilakis J. Medical Journal 2003;179(5):242-246

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Address: NKUT, Taiwan; E: crhuang@nkut.edu.tw

One Community telehealth care

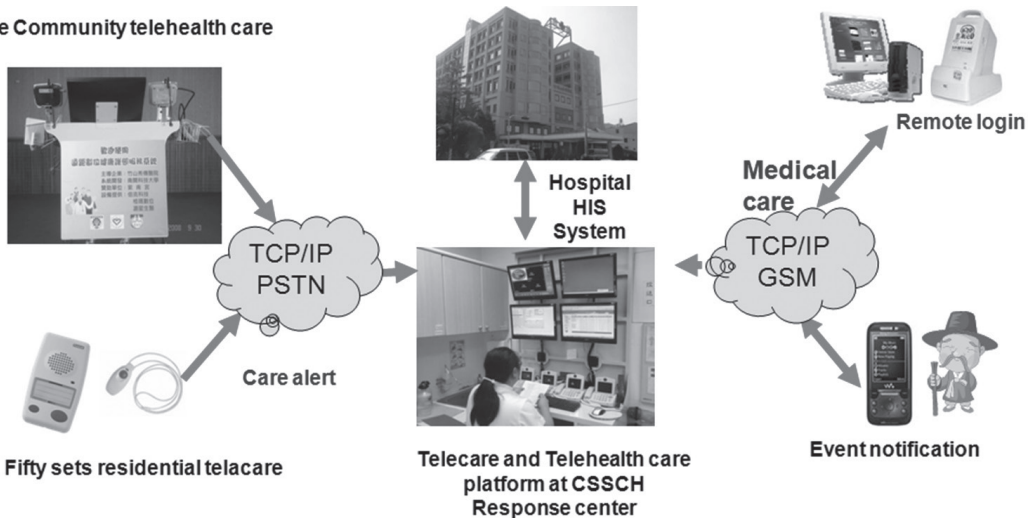


Figure 1. Innovative telecare and telehealth care architecture for Taiwan elderly