Healthcare through satellite communications

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Singapore: Millions of people in Southeast Asia today lack access to affordable, quality healthcare. According to Rural Poverty, four billion people in Asia are scattered throughout rural areas or compacted into towns and cities on a land area of almost 45 million km², roughly 17 percent of the world's surface. In rural Myanmar, 70 percent of the country's 58 million people live in villages that lack basic healthcare, according to IRIN Asia. In the event of an emergency, it may take days for a villager living in a remote community to reach hospitals or clinics located only in towns.

If they had instant access to healthcare information and data during a medical emergency, imagine the number of lives that could be saved. Technologies that enable instant communications play a vital role in transforming the healthcare sector into a more efficient, patient-centered system where individuals have easy access to eHealth and telemedicine solutions. As connected devices become ever-present in the region, many companies and NGOs are developing innovative eHealth solutions to address this issue.

According to a 2011 survey conducted by NetMotion Wireless Inc, 62.7 percent of respondents working in hospitals or multi-hospital systems reported increased productivity for mobile clinicians and staff since deployment of wireless data applications. Accessing telemedicine and eHealth technologies through a wireless network provides instant information which enables medical workers to reach out to isolated communities. However, this is compromised as most remote communities have poor telecommunications infrastructure or no telecoms available at all.

This is where satellite communications can bridge the gap. Satellite technologies connect remote and urban communities by providing the connectivity needed to deploy eHealth solutions that allow for the provision of healthcare in areas not covered by telecommunications infrastructure. Equipping mobile doctors, healthcare workers, NGOs, missionaries, military personnel and civil servants with mobile satellite solutions opens opportunities for isolated communities to access quality healthcare anywhere and anytime. For instance, eHealth for remote Australia will allow The Royal Flying Doctor Service instant access to the essential medical history information of more than 750,000 Australians living in remote and isolated areas of New South Wales, South Australia, Queensland and Western Australia, according to Getnetworking.

Satellite terminals are designed to be portable and lightweight which allow users to easily connect remote clinics and medical teams. This enables them to access eHealth solutions, be it access to intelligent decision support systems that aid them in diagnosis and treatment, or transmitting a patient's vital signs in real-time to experts in urban areas, who can diagnose and monitor patients remotely.

The same can also be applied to natural disasters such as floods or droughts. Data on extreme weather conditions can be quickly relayed to remote workers enabling them to warn rural villages before it is too late. High broadband connectivity also allows for quality video across camera feeds, allowing doctors to see both patient and real time medical images and readings without an external video mixer or toggling between images. There is no doubt the future of the eHealth market is prosperous, especially in Asia-Pacific. Increased awareness in providing affordable medical care services to a wider population and government commitment will play a huge role in driving uptake.

Frost and Sullivan Healthcare Industry Analyst, Ms Natasha Gulati stated that governments across Asia-Pacific are and will continue to be the major architects of the telehealth industry in this region. Government involvement will drive initiatives including pilot projects, grants and funds to promote or even construct telehealth systems. This in turn will create opportunities for private ICT infrastructure companies, software vendors, and device manufacturers to partner with government.

Growth in the Asia-Pacific region will be driven by improved awareness of the ability to provide affordable medical care to the wider population, with the governments of India and China rapidly adopting and pushing telehealth to cater to the needs of their huge rural patient populations. With such need and momentum it is expected that by 2018 the region will contribute up to $8 billion to the global telehealth and telemedicine market, up from $2 billion in 2011, state healthcare sector experts GlobalData.

With satellite technologies, the untapped medical benefits to remote communities are vast and with this comes a greater demand for more bandwidth. As satellite technologies continue to evolve, we can foresee a future where isolated and remote communities have increased access to quality healthcare; a right that the world's population deserve, no matter where they live.