

Home health technologies look to reshape patient care

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Soaring costs in the care of patients with chronic diseases are compelling health care providers to look at technologies such as telehealth for solutions. Telehealth involves the remote exchange of physiological data between patient and doctor using phone lines or wireless technology to assist in diagnosis and monitoring. A home gateway unit aggregates readings from vital-signs monitors for remote clinical review.

Telehealth is one of several emerging health technologies and initiatives (independent living, consumer medical devices, personal emergency response systems, wearables, and health gaming are others) designed to provide a holistic approach to patient care and reduce readmission and mortality rates.

Demographic and disease trends highlight telehealth's importance in the future. The proportion of the US population aged 65 or older will double by 2050—over 90% of whom will have a chronic health condition. Worldwide, 1.4 billion people are overweight, and within 20 years diabetes prevalence is expected to increase 55% to almost 600 million people.

Moreover, a shortage of health care personnel is projected. The World Health Organization estimates 4.3 million more medical staff will be needed by the end of 2015 to maintain health care levels globally. In response, health care is moving from the fee-for service model to quality of care to improve efficiency. Quality of care refers to services that increase the likelihood of desired health outcomes. US health care organizations are increasingly adopting the Accountable Care Organization model, which focuses on population health management (PHM)—facilitating preventive care to healthy patients, changing the behavior of those at risk for chronic diseases, and managing the health of people with chronic diseases.

Home health care technologies such as telehealth are at the center of this movement. For PHM to succeed, providers need patient-generated data—and the more structured the data, the more efficiently care can be administered. Home health technologies also boost patients' engagement and receptiveness to care because most prefer their homes to hospitals.

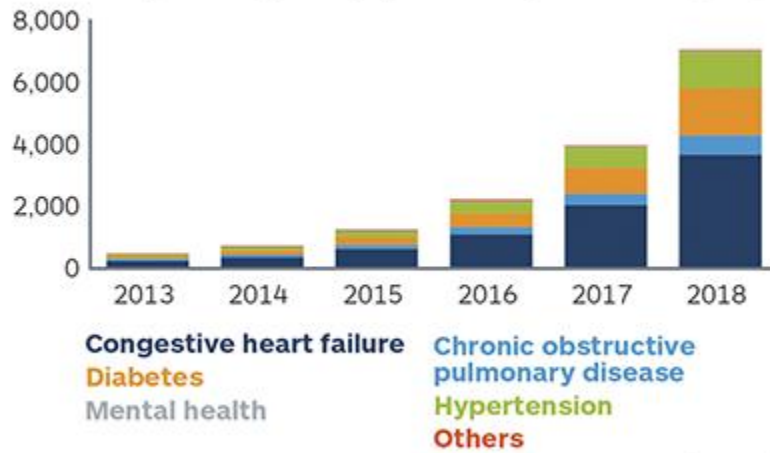
In the US, the Affordable Care Act is helping drive both telehealth and the movement toward quality of care. Under the law, starting in October 2014 health care providers will lose 3% of their reimbursement for readmissions within 30 days. The UK has also implemented a readmission reduction program.

According to the US Center for Medicare and Medicaid Services, one in seven patients is readmitted within 30 days at an average cost of \$9,600 and a cumulative cost of \$28 billion annually. The American Medical Association estimates that 78% of ER, urgent care, and doctor visits can be avoided through remote care.

While the telehealth market has been slow to develop, it is expected to expand quickly (see figure) as technologies become less expensive and more widely available across standard smart devices—and as physicians realize the time and cost savings they afford.

Remote monitoring of chronic diseases set to take off

Telehealth patients globally by condition, 2013 - 2018 (000s)



Source: IHS