Personal Health & Health Information Technology

Intel advocates policies that stimulate proactive healthcare models that use technology to anticipate, pre-empt and manage health status changes and risks – at the same time that it works to improve quality of life and quality of care.

Rapidly aging populations, chronic diseases, citizens’ demands on healthcare quality, a shrinking workforce, rising costs, and threats of pandemic contagion underscore the need to modernise our healthcare systems worldwide.

Two factors impacting Europe’s healthcare landscape are the growth of the over-60 population and the spike in chronic diseases. Current trends show that in Europe the number of people aged from 65 will rise by 44% between 2010 and 2030, and nearly 80% by 2060\(^1\). The ageing of the population will result in a dramatic increase in chronic diseases such as cardiovascular disease, diabetes, Alzheimer’s disease, cancer, respiratory disease and musculoskeletal problems and these already cause 77% of the disease burden in Europe\(^2\).

The convergence of medical and consumer electronic technologies offers new possibilities for early detection of chronic disease and helping patients receive care through personal, adaptive home health systems.

Moving Care to the Home: An imperative

While the bulk of healthcare today is delivered in hospitals and clinics, today’s acute care-centred system is unsustainable in the future. With the increasing demand for services by individuals with chronic conditions and the elderly, we need to move away from the institutional care delivery paradigm toward a patient centric model where delivery and funding are channelled via care teams with a community approach towards care.

Technologies, such as Telehealth and Telemedicine\(^3\), use computerised technology and secure Internet-based connectivity to allow patients to communicate their vital signs and health status on a daily basis to their care provider without the need for an office or home visit. The data enable clinicians to detect early deterioration in illness and actively intervene before emergency room utilisation or hospitalisation is needed, thereby pre-empting unnecessary costs and improving patient care. At its best, telehealth and telemedicine have the potential to serve both patients and clinicians by allowing patients to stay in their homes enabling doctors and nurses to use their time and resources more efficiently and effectively.

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\(^1\) EUROP2008, Eurostat
\(^2\) WHO Regional Office for Europe
\(^3\) COM(2008)689 final - Communication on telemedicine for the benefit of patients, healthcare systems and society
Reimbursement policies should be reformed to more effectively promote a comprehensive approach to patient care that is focused on keeping seniors and chronically ill patients independent and at home.

Telehealth and home monitoring technology should be recognised by the health insurance systems as part of this coordinated care approach and as a reimbursable cost.

**Health information technology - Interoperability**

A comprehensive Electronic Health Records (EHRs) system offers to caregivers at any location access to a patient’s medical history. Results of tests and treatments could be added easily as they become available, thereby improving treatment, preventing duplicate testing, and reducing medical errors.

But one of the critical gaps in today’s existing healthcare IT is the lack of interoperability. Hospitals and clinics have no shortage of expensive advanced technology, but often these systems do not communicate well with each other. The lack of electronic communication among practitioners can result in duplicate testing; an inefficiency which wastes time and money while the patient waits for a critical decision.

Both the EU\(^4\) and the private sector are making progress to accelerate interoperability. Through the Continua Health Alliance, a worldwide non-profit, open coalition of healthcare and technology companies, its 230 members are voluntarily developing a collection of interoperability guidelines together with a certification program that is promoting the harmonisation of personal health products. A similar effort – Integrating the Healthcare Enterprise – is promoting the interoperability of clinical enterprise systems.

Policy makers should move immediately to offer incentives for the adoption of interoperable EHRs systems and support initiatives such as the Continua Health Alliance and Integrating the Healthcare Enterprise.

**Broadband as Critical Public Infrastructure**

How do we extend the benefits of telehealth to underserved areas in a cost-effective manner without broadband? Broadband is a key enabling ingredient to ensure that novel telehealth solutions can reach the homes of all European citizens. To allow for rapid, cost-effective exchange of increasingly large amounts of data, broadband has become a critical component of robust health IT systems. Enabling doctors to retrieve best practices through an electronic exchange of patient data relies on bandwidth. And, in many occasions, the populations that live in remote areas are those that will benefit the most from telehealth for chronic diseases, exchanging the long drive to the hospital for a telehealth visit at home.

Policymakers should consider the benefits of telehealth as a key component in the deployment of national “broadband for all” agendas.

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