

Seniors Living at Home:

How Can Information Technology Support Improved Health and Well-Being?

Summary

As the demographic tidal wave of baby boomers approaches retirement and old age, our already challenged ability to meet the health care needs of the growing number of seniors is likely to be overwhelmed. This crisis demands fresh thinking and new approaches. Research suggests that certain emerging information technology (IT) applications show promise in improving health and safety for seniors at home by improving the flow of information among healthcare personnel, family members and seniors. But despite the appeal of these technologies, progress toward wide-scale deployment has been slow. This issue brief discusses the challenges facing seniors who are aging at home, and how technology can help promote their health and well-being.

Aging at Home: Multiple Challenges

How can IT be best used to help seniors remain independent for as long as possible? Answering that question requires

a good understanding of the system breakdowns that make it difficult for seniors to remain independent in the face of illness or the infirmity that accompanies old age.

Individual isolation

Seniors may suffer from social isolation, cognitive impairment or declining physical strength that can interfere with the tasks of daily living. At the same time, many seniors must cope with managing multiple medications and numerous trips to the doctor.

Challenges facing caregivers

Family members are hampered in their ability to care for their elderly loved ones by a lack of knowledge about resources that are available for seniors living at home. Often, there is no unified system enabling family members to navigate the maze of available resources, including health-related information. A shortage of paid caregivers and nearby family members who can or are willing to serve as

caregivers, a lack of suitable housing for the elderly, and a shortage of transportation options for seniors, particularly those in rural areas, also negatively impact seniors' capacity to remain independent.

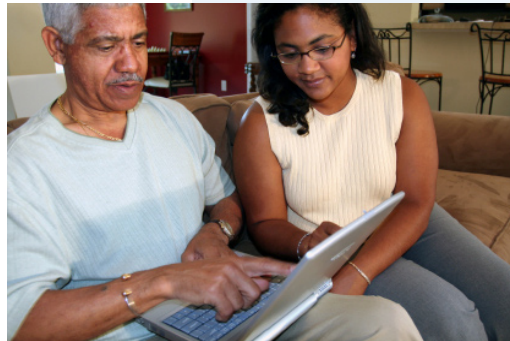
Lack of coordination in care delivery

Even when well-trained caregivers are available, seniors are often stymied in their desire to remain independent because of two delivery-of-care issues impacting many seniors today: a lack of care coordinated among the often-times multiple health care professionals involved in the life of a senior, and the often inadequate discharge planning and transitional care provided to seniors who have been hospitalized or who have serious health issues. Poor communication between individuals and their care professionals and between health care professionals and caregivers is frequently to blame.

Reimbursement issues

A lack of reimbursement for home health care, a reimbursement bias toward institutional care, and few incentives favoring aging at home are major system breakdowns. Even the limited available reimbursement for home health care is often buried within a fragmented system that is opaque to seniors and family members searching for financial help. Resources are particularly scarce for individuals who belong to the "near-poor," which includes seniors who do not qualify for Medicaid yet do not have the

financial resources to live independently when burdened with significant medical expenses.



Lack of IT Infrastructure

Health IT experts note that there is a shortage of capital available for building an IT infrastructure that might support seniors and help address some of the system burdens restricting the ability of seniors to live at home. These experts also acknowledge that funding for IT infrastructure development will not increase significantly until researchers demonstrate the financial benefits of health care IT. A lack of appropriate research metrics, consistent terminology for services, and system measures of efficacy, for example, make it difficult to assess the value of a given IT system and compare the efficacy and cost effectiveness of different IT systems.

Liability risks associated with the use of IT in monitoring seniors living at home are another major concern for a variety of stakeholders who might deploy an IT-based home health care system.

Harnessing IT

The hallmark characteristic of well-implemented IT is that it enables communication among parties that might otherwise struggle to reach one another. Since communication problems are a critical factor in system breakdowns that hinder the ability of seniors to live independently, there should be many opportunities to use IT to provide a range of innovative solutions using existing technologies, such as:

Real-time connectivity among the home-based elderly patient, his or her physician, other care providers and family members. Such a system could serve to monitor a patient's environment and alert the patient or family member when something is going awry. In an ideal implementation, an interactive IT system would help with medication compliance, allow family members to "drop in" and say hello, and provide immediate contact between a senior at home and his or her network of care providers.

Information management, including a Web accessible, comprehensive database of resources available to seniors and their caregivers, would help alleviate the growing problem of matching available resources to the needs of seniors and their families. Better information management would also serve well for case managers and caregivers who are often overwhelmed by multiple care orders given by multiple physicians, and in the case of emergency care, would make all of a patient's medical records and care orders available to the physician on call.

Blue Shield of California Foundation's Initiative

Over the next year, Blue Shield of California Foundation (BSCF) will engage a group of experts to explore new initiatives for harnessing IT to enable home care for seniors. On November 14, 2006, the Foundation hosted a workshop of experts in the field of home health care, senior care and IT to help the Foundation begin to identify key barriers that prevent seniors from living independently at home, both in their ongoing life and following discharge from a hospital. The discussion highlighted those system breakdowns that could be addressed with better IT and communications technologies, and identified potential solutions.

Building on this meeting, BSCF will continue to foster the identification and exploration of solutions to one or more of the challenges and opportunities identified by the workshop. BSCF will reach out to health systems stakeholders to provide information about the issues noted in this brief. In addition, BSCF will work to identify the range of technologies on the horizon for seniors, while also considering senior and caregiver opinions regarding the role of IT in supporting senior health and independent living. In the future, BSCF may support projects aimed at demonstrating the effectiveness of harnessing IT for improved senior health and well-being.

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