E-Health

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Doctors with super powers

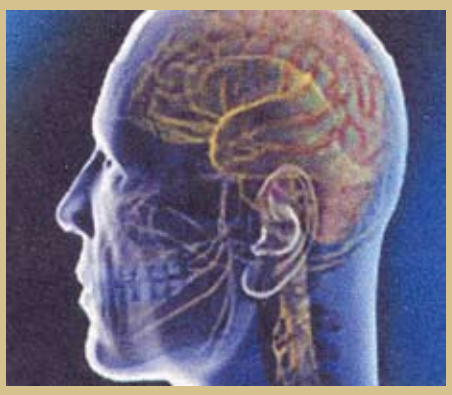
3-D representation of the human body

In five years from now, IBM forecasts there will be a computer-generated onscreen image - a three-dimensional avatar of a patient's body, enabling the physician to tap on a body part to view lab results and other records. This projection is part of IBM's annual report, "Five in Five," a forecast of where technology is headed in the next few years and is based on projects in their research laboratories, business think tanks, and input from IBM staff members around the worldEnvision this…when you visit the doctor, your 12-inch stack of paper medical records will have morphed into a walking, talking avatar, a 3-D representation of the human body.

Your doctor can "click" on a specific part of your avatar's body, such as the heart, and instantly see all of the available related medical history, including text entries, lab results and MRIs.

Going even deeper, they can then access 3-D visualizations and audio clues of the heart—at a scale and resolution beyond anything they can view today—to better understand your ailment. The computer will automatically compare those visual and audio clues to thousands or hundreds of thousands of similar patient records, and be much more precise in diagnosing and treating you. The explosion of medical information and emerging visualization technologies that were once the sole domain of supercomputing geeks will transform how doctors diagnose and treat you right in their office.

In effect, doctors will gain superpowers: technologies to allow them to gain x-ray like vision to view medical images, super-sensitive hearing to find tiniest audio clues in your heart beat, and ways to organize information in the same way they treat a patient, by using the human body as a metaphor for a filing cabinet.



Cheshire Council says telecare now mainstream

Cheshire County Council, UK has said that it has made telecare services for older people a mainstream part of its service delivery, with the services valued by users for offering security and improved quality of life.

In a recent survey of 128 people using telecare 94% of respondents receiving Telecare services said they are pleased with the service and reported that they felt telecare helped them to feel safer and more secure in their own home.

The survey also revealed that 90% of carers said telecare helped them in their role by giving them confidence that people they are caring for are safe when alone in their home, which provided them with peace of mind and greater independence in their personal life.

In 2007 Cheshire County

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Australian Government
Department of Defence
Department of Veterans' Affairs

The University of Queensland
AUSTRALIA

The University of Adelaide
AUSTRALIA

Charles Darwin University

Philips National Study on the Future of Technology and Telehealth in Home Care

Philips Electronics has released the final results of a survey conducted by Fazzi Associates And the National Association for Home Care & Hospice (NAHC), of nearly 1,000 home care agencies in the United States. Results of the Philips National Study on the Future of Technology and Telehealth in Home Care show that nearly one third of large agencies are currently using a telehealth system and that industry use of telehealth is expected to double over the next two years, principally as a means of managing patients with chronic disease. In addition, over 88 percent of agencies report that telehealth services led to an increase in quality outcomes, as evidenced by a reduction in unplanned hospitalizations and ER visits, and over 71 percent report an improvement in patient satisfaction.

According to Dr. Robert Fazzi, project co-director, the Philips study was designed to address questions that are most on the minds of agency leaders about the role of four major home care technologies: human resources and billing systems, point of care systems, electronic medical records, and telehealth systems. Given the importance of telehealth to the future of home care and hospice agencies, much of the study focused on the various types of telehealth systems being used, the components of these systems, what agency leaders liked and disliked about their systems and most importantly, what leaders felt were the most significant impact of these systems on various aspects of quality and financial outcomes. Among the findings were:

17.1 percent of agencies use some type of telehealth system. A much higher percentage of large agencies (32.0%) report that they provide telehealth services.

88.6 percent report that telehealth led to an increase in quality outcomes:

76.6 percent report a reduction in unplanned hospitalizations

77.2 percent report a reduction in emergency room visits

71.3 percent report that telehealth services improved patient satisfaction. No agency reported that it reduced patient satisfaction.

83.9 percent state that less than one in ten patients refused a home telehealth system.

79.2 percent of patients or family members were reluctant to have the telemonitoring system removed.

42.8 percent report that telehealth led to a reduction in cost. A similar number reported it as cost-neutral.

63.5 percent report that telehealth had no impact on clinical caseloads. As more agencies use telehealth and move up the learning curve, clinical productivity measures may increase :

49.7 percent report telehealth decreased on-site visits

45.2 percent report telehealth increased the number of referrals

56.9 percent report that their nurses were very receptive to having a telehealth service after one year as compared to 36.3 percent at the beginning of the program.

89.1 percent stated that given everything they know today, they would still have started their telehealth program.

To receive a copy of the full report, go to: www.philips.com/HomeCareStudy.

Philips has been active in telehealth for over seven years, and has recently focused on the home care market after its acquisitions of Lifeline and Healthwatch, both in the medical alert business

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Cheshire Council says telecare now mainstream

Council secured £1m government funding from the Preventative Technology Grant (PTG). As a result it is now able to offer telecare services across the county. By January 2008 it was providing tailored packages to a total of 600 service users with long-term care needs.

The telecare projects officer for Cheshire County Council said: "Some of the most popular sensors include the bed sensor and property exit sensor, which are particularly useful for people with dementia, alerting their carers if they have fallen out of bed or left the house during the night. This reassures the carer that they will be notified if something happens and the user feels secure that help is on hand if needed.

"Being able to stay in their own home for longer has made such a difference to the quality of life for service users and their carers – providing this type of support is the way forward for assistive technology. Mainstreaming telecare is something that needs to be considered by health and social care services across the UK."

FORT DETRICK, Md., April 10, 2008

American Council for Technology Honours MC4 Program with 2008 Top 5 Excellence.gov Award

Medical Communications for Combat Casualty Care Recognized for Impact and Improvements on Battlefield Healthcare

The American Council for Technology and Industry Advisory Council recently honoured the U.S. Army's Medical Communications for Combat Casualty Care (MC4) program with the 2008 "Top 5 Excellence.gov" Award. The top five winners exemplified programs that improved organizational performance by using information technology. Over the past year, MC4 expanded the use of its electronic medical recording (EMR) systems to the Air Force, fielded an improved inpatient system and helped implement a new EMR best business practices initiative on the battlefield. It is the program's third consecutive year being named in the top 20 and first top five award.

In 2007, the program expanded to the Pacific Command when it opened a new training and support hub in South Korea. Later that year, MC4 launched a new medical logistics system that allows for the automated restocking and maintaining of critical medical supplies on the front lines and in combat support hospitals.

"MC4's capturing of 4.8 million electronic health records demonstrates how the program is adding value to the deployed medical community," said Gary Winkler, Program Executive Officer, Enterprise Information Systems (PEO EIS).

To date, MC4 has trained more than 24,000 health professionals and has fielded 23,242 systems to the battlefield in support of Operations Iraqi and

Enduring Freedom, as well as contingency operations worldwide.

Medical Communications for Combat Casualty Care (MC4) integrates, fields and supports a medical information management system for Army tactical medical forces, enabling a comprehensive, lifelong electronic medical record for all Service members, and enhancing medical situational awareness for operational commanders. The Army's Program Executive Office, Enterprise Information Systems (PEO EIS),Fort Belvoir, Va. Overseas the MC4 Product Management Office, headquartered at Fort Detrick, Md.

Caregiver Technological Assistance Programs Receive $4.7 Million From US Dept of Veterans Affairs

The American Telemedicine Association has reported that eight caregiver assistance pilot programs specialising in technology will share in a $4.7 million award from the Department of Veterans Affairs, the government agency announced. The money will be used to expand and improve healthcare education, and provide training and resources for caregivers who assist disabled, elderly veterans in their homes. Many of the projects used by home-bound caregivers require access to technology, such as computers, Web-based training, videoconferencing and teleconferencing. Pilot programs receiving the award were VA medical centres in Florida, Tennessee, New York and California.

Editorial

Alas, this is my last bulletin as Editor. I go off to 'other' pastures in another e-Health role, this time back 'behind the wire' of Defence Health Services. It has been a privilege and a pleasure to bring you snippets, news and information about e-learning in the health environment, health informatics and telemedicine over the last twelve months and indeed through CMVH in general over the last two and a half years. I think we have come a considerable way in that time. There have been many changes over that time on the Australian e-Health landscape; hopefully, most for the better. There is still a long way to go in both the veterans' health and Defence health arenas, as indeed the wider Australian Health industry.

E-Health is the way of the future. In ten years time we will look back at such supposedly insurmountable issues as semantic interoperability, mastering archetypes and ontologies, and data mining in the same way that we look at wikis, Bluetooth and the Ipod now. Every journey starts with the smallest step.

I trust that the E-Health Section of the Research Pillar of CMVH will make a substantial contribution to the advancement of e-Health technologies for veterans and serving military in the years ahead. We aren't about 'blue sky', nor are we about convincing you of applications in front of your nose that vendors will tout left and right. Our raison detre is the technology just around the corner and/or whether it (and any vendor's current product) is applicable to 'You'!

I pass the baton to a comrade and great friend of mine, Lieutenant Commander Steve Pullman who like me comes into this position straight from an exchange with the USN at their Naval Medical Information Management Center[sic] in Bethesda, Maryland. Steve will bring a new perspective to the role with different experiences and challenges.

In this edition we, to a degree, concentrate on the area of home healthcare. It is a new and evolving area of e-Health. The developed world has an ageing population and the propensity in healthcare is now to delay or prevent if possible in-patient care. One strong munition in that armoury is telemedicine. We will see what some organisations and countries are doing to harness this capability.

Have a safe and professionally fulfilling remainder of 2008. Yours in e-Health.

Bob Curtis
Lieutenant Commander, RAN
CMVH E-Health Pillar Head

Current Principles and Practices of Telemedicine and e-Health'

A new book has just been released by IOS Press titled 'Current Principles and Practices of Telemedicine and e-Health' and is part of the "Studies in Health Technology and Informatics" series. One particular chapter has drawn my attention. It is 'Telemedicine & Wound Care'. The following is an abstract of that chapter:

Although wound care has been practiced for centuries, telewound care is a relatively new concept. Telewound care has yet to achieve the popularity and recognition of its other telemedicine predecessors amongst members of the health care industry and public alike. The tremendous potential of incorporating the technology of telemedicine into wound care must be realized. Wound care is a representation of the care of chronic and debilitating conditions that require long-term specialized care. The percentage of worlds' elderly and those with chronic medical conditions that would require medical attention is rising. With the escalating costs of health care, and the push of the industry towards outpatient care, this is a part of the health care crisis that demands immediate attention. We have seen positive outcomes in the care of other chronic medical conditions using telemedicine such as home telecare programs. In addition, the effectiveness of several programs using available advances in technology such as the field of radiology has been established. Wound care can build on success created in these fields to create an effective and useful method of care.

The aim of this chapter is to recognize the impact of this problem, to introduce several pilot programs in several different aspects of wound care and to build on current resources in order to achieve a novel method of wound care. The goal would be to create a technologically advanced, cost-effective and user-friendly program, and be able to bridge the gap between the sick and available specialized care. Both store-and-forward technology and televideo have a role to play in telewound care, the latter greater in the role of home telecare and teleconsultation, and the former in post-operative patients and the follow-up of chronic wounds. Either way, both have been underutilized and underdeveloped. With the advances in the field of telecommunications in connecting people across distances at a fraction of the time and costs, improved outcomes reported in other fields of telemedicine and positive legislative changes, there is an enormous potential in this field.

I recommend this chapter and indeed this book to our readership.

Britain launches largest-ever home telecare trial

Britain's National Department of Health (NDS) has launched a $A56.5 million , two-year pilot program designed to reduce use of acute hospital care by patients with complex health and social care needs by helping them receive hi-tech treatment at home. The Whole System Demonstrator Programme, the largest telecare and telehealth program ever implemented by NDS, is also designed to help the government cope with a rapidly aging population that will place tremendous pressure on medical services within the next 20 years, according to Health Secretary Alan Johnson. Over the next six months the government will also ask the public and stakeholders for their views about care and support of creating the new system. The British public can contribute to the debate through a series of events and via a new national Web site at http://www.careandsupport.direct.gov.uk.

For further details, visit http://nds.coi.gov.uk/environment/...