## POSITION STATEMENT

# TECHNOLOGIES FOR ADDRESSING THE HEALTH CARE NEEDS OF OUR AGING POPULATION

***Adopted by the IEEE-USA***
***Board of Directors, 20 Nov. 2009***

IEEE-USA believes efficient use of technology can help address the health care needs of our aging population. Appropriate adoption of existing and emerging technology can improve the efficiency and quality of health care delivery, restrain cost increases and, perhaps most importantly, improve the quality of life for our aging population. Specifically, IEEE-USA recommends that the federal government should:

- Provide incentives to encourage physicians and other health care professionals to specialize in geriatric care, and receive training in utilizing information, communication and remote sensing technologies to facilitate non-institutional treatment of our aging population. These incentives should include financial inducements, educational grants, research grants, and regulatory changes.

- Provide incentives to encourage manufacturers and vendors of information technology to specifically tailor medical information technologies and enhanced communication capabilities for senior population usability. These incentives should provide funding for research, testing and implementation of new home based medical and communication devices.

- Encourage manufacturers and vendors of information technology to expand remote sensing and adoption of home self-care management programs to promote efficient and effective patient management between office visits.

- Promote the use of communication and security standards to facilitate effective communication and information sharing between various medical technologies and devices.

- Provide funding for research, testing, and implementation of new medical/communications devices and methods to bring 21st century health care into every home in America.

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- Address the specific medical information needs of our aging population, their caregivers and their providers thru The National Health Information Network.

These needs include: home health care provider secure access to integrated electronic medical records to both obtain and disseminate health information; patient-centric medical information on long-term management of chronic illness; and communication mechanisms with appropriate response capabilities between health care stakeholders and patients based on distributed health care in a home-treatment environment.

This transformation will need:

- Revision of Medicare reimbursement/payments to promote independent senior living

- Revision of Medicare reimbursement/payments to promote secure communication technologies that allow those receiving home health care and their caregivers to communicate with health care providers

- Legislation to support patient autonomy and establish National Advanced Medical Directive guidelines

- Research to document which specific home-health technologies and processes improve outcomes and are cost effective

- Improved training and certification for caregivers using home-health technologies

- Liability support for caregivers and providers utilizing home health technologies

- Extension of the development of health information standards to the secure exchange of health information between health care professionals and home-health caregivers

- Greater emphasis on disease prevention in our aging population by utilizing technologies to better monitor participation, compliance and outcomes for accepted health care guidelines such as distribution of inexpensive home-health blood pressure monitoring devices to decrease the incidence of stroke and heart failure in our aging population

- Greater emphasis on performance outcomes rather than services based on interpretation of computational analytics of treatments/outcomes. Increased use of secure home-health telecommunications will enable increased collection of health data. This additional benefit of “aging in place” technology will facilitate the evaluation of the performance of various treatments, including drugs, devices and procedures.

Such techniques as checklists for medical devices, laminated information cards attached to devices, device website assistance, and improved user interfaces should be evaluated for benefit.

As we continue to expand the use of information technology in health care it becomes increasingly critical that these systems be designed to securely support the environments in which they will operate. Health care is a 24 by 7 environment, requiring high availability, and in which defects can have life and death consequences.

This statement was developed by IEEE-USA's Medical Technology Policy Committee and represents the considered judgment of a group of U.S. IEEE members with expertise in the subject field. IEEE-USA advances the public good and promotes the careers and public policy interests of more than 210,000 engineers, scientists and allied professionals who are U.S. members of IEEE. The positions taken by IEEE-USA do not necessarily reflect the views of IEEE or its other organizational units.