



The Affordable Care Act offers funding for State Medicaid Programs to Adopt “Health Homes” for Enrollees with Chronic Conditions

Health Homes: Requiring coordinated care and the integration of health information technology to improve patient outcomes and lower overall health care costs.



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What is a Health Home and how can it be integrated into a State Medicaid Plan?

Under the Federal Patient Protection and Affordable Care Act (PPACA), States have the option to allow eligible individuals with chronic conditions to select as their designated medical assistance provider a “health home” for their health home services. CMS strongly encourages states to adopt health homes through their preliminary guidance document located at: <https://www.cms.gov/smdl/downloads/SMD10024.pdf>. Health Homes, relying on Health Information Technology to coordinate care for the success of these programs, offer greater patient care while reducing Medicaid payments .

Why should States consider adding health homes and encouraging the use of health information technology?

CMS will reimburse states for planning and development up to, and potentially exceeding, \$500,000 and payments made to providers for Health Homes will be reimbursed at 90% for the first two years. Medicaid Health Homes are based upon a team approach to coordinate care for patients with chronic disease among their many healthcare providers: clinicians, pharmacies, therapists, homecare agencies, clinics, virtual care providers, etc. CMS notes that Health Homes bolster “person centered systems of care” while improving overall health care and patient outcomes through improving the experience and quality of care. Health homes seek to improve the health of populations while reducing health disparities and lowering utilization rates. Health Homes strive to reduce health care costs. Specifically CMS’s guidance points out expected savings through lower use of emergency room visits, improved compliance with recommended care, lower hospital admissions and re-admissions, and less reliance on long term care facilities.

Health Homes allow patients with one or more chronic diseases the enhanced integration and coordination of services and supports. Whether it’s primary medical care and behavioral health services or social and family service and long term community care services, Health Homes offer the opportunity to integrate these vital services for this population under a “whole-person” philosophy.

Utilization of Health IT in health homes will improve care coordination across the care continuum while reducing costs.

These Health Home models are greatly flexible to suit the needs of existing medical home initiatives and integrate seamlessly with existing care. One of the best ways to integrate these services is through technology. Health Information Technology is the link to assist and facilitate Health Homes to run in an effective and cost effective way. CMS recognizes the importance of health information technology in furthering the aims of the health home model of service delivery. In fact, CMS’ guidance document states that all health home projects conducted under this Act should demonstrate a capacity to use health information technology to link services, facilitate communication among team members, as well as between the health team, the individual and family caregivers. Health home projects will provide feedback to practices, as feasible and appropriate.

The Act defines teams of health care professionals broadly to include a wide variety of service providers to operate in various ways, such as free standing, virtual or based at a hospital, community health center, community mental health center, rural clinic, clinical practice, clinical group practice, academic health center or any entity that can provide these goods and services approved by the state and CMS.



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Studies prove that integration of health information technology in Medicaid health homes is essential for success.

Health IT and patient monitoring have been successfully leveraged in many US and international settings to show documented benefits and costs savings while dramatically reducing hospital readmissions.

We have included as an addendum a number of studies that clearly demonstrate the efficacy of Health Homes, especially when Health IT is integrated into those systems.

How do States add health homes?

The State option becomes effective on January 1, 2011. A State may elect to adopt this provision through an amendment to its Medicaid State plan. CMS has developed a draft template for States to use in designing and developing health home State plan amendments (SPA) and have provided a web-based submission process. For more information, refer to the CMS guidance which goes into detail on topics including payment methodologies, enhanced Federal medical assistance percentage rates, provider types as stipulated in the Act, qualification for designated providers (functions of which are pending final guidance), support for State planning activities (State applicants can spend up to \$500,000 of title XIX funding for planning activities related to SPA's), quality measure reporting requirements and evaluation. Another interesting reference is a website created by the Agency for Healthcare Research and Quality (AHRQ), which has convened a Federal collaborative around the Patient-Centered Medical Home: www.pcmh.ahrq.gov.

Key Patient Groups - Who it Helps and Why

Heart Patients

Heart patients can greatly benefit from Health Homes. Congestive heart failure (CHF) and coronary artery disease (CAD) account for a large and increasing proportion of health care expenditures. Regular measurement of weight, blood pressure, heart rate, and blood oxygen saturation is critical for providing effective care for these patients. Studies show that heart patients receiving home telehealth care experience lower mortality rates and the duration of hospital admissions is reduced.

COPD

Chronic obstructive pulmonary disease (COPD) sufferers form another key patient group that can benefit from Health Homes. Regular monitoring has been shown to improve COPD patient outcomes and reduce costs, by allowing nurse case coordinators to intervene at earlier stages of exacerbations with inhalers or antibiotics, identifying complicating conditions such as pneumonia, and as a result avoiding some hospitalizations.

Health Homes achieve better outcomes by improving the experience and quality of care and improving the health of populations while reducing health disparities and lowering utilization rates.

How will the States be reimbursed for pilots?

The potential for Health Homes is so important that payments made to providers will be treated as medical assistance (during the first 8 fiscal year quarters that the State plan amendment is in effect), with the Federal percentage equal to 90% and then at the traditional Federal medical assistance percentage (FMAP) for those services.

Planning Grants: CMS will reimburse states for planning and development up to and potentially exceeding \$500,000 for Health Homes and will also assist in drafting state amendments. CMS has also developed a draft template to prepare for SPA submissions. A two-page planning proposal is required.

What Populations are eligible for health homes?

The Act gives States the option to offer health home services to “eligible individuals with chronic conditions” who select a designated health home provider. The chronic conditions include a mental health condition, a substance use disorder, asthma, diabetes, heart disease, and being overweight, as evidenced by a body mass index over Additional chronic conditions, such as HIV/AIDS, will also be considered for incorporation into health home models.



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- The health home population each State elects must consist of individuals eligible under the State plan or “under a waiver of such plan” who have at least two chronic conditions, or one chronic condition and be at risk for another, or one serious and persistent mental health condition.
- The State may elect, in their State plan, to provide health home services to individuals eligible to receive health home services based on all the chronic conditions listed in the statute, or provide health home services to individuals with particular chronic conditions. However, States have flexibility. While all individuals served must meet the minimum statutory criteria, States may elect to target the population to individuals with higher numbers or severity of chronic or mental health conditions.
- The provision allows States the ability to offer health home services in a different amount, duration, and scope than services provided to individuals who are not in the health home population.

CMS notes that Health Homes bolster “person centered systems of care” while improving overall health care and patient outcomes.

What services should be provided?

The Act defines health home services as “comprehensive and timely high quality services,” and include the following health home services to be provided:

- Comprehensive care management;
- Care coordination and health promotion;
- Comprehensive transitional care from inpatient to other settings, including follow-up;
- Individual and family support, which includes authorized representatives;
- Referral to community and social support services, if relevant; and
- The use of health information technology to link services, as feasible and appropriate.

CMS recognizes the importance of health information technology in furthering the aims of the health home model of service delivery. Below is one way which Health IT can be greatly beneficial to delivering quality health care through Health Homes.

Technology – Powerful Connections.

Remote Patient Monitoring promotes a powerful connection between healthcare professionals and the patient through the availability of actionable, individualized health data. Using health data monitoring and two-way communication, the devices assist healthcare professionals in their decision-making process by providing them with timely information about the patient’s health status. It is also a communication tool that can help patients stay connected to their medical networks through exchanging information and video conferencing.

Communication is primarily conducted by a patient’s participation in a health session designed by the healthcare professional and personalized for the patient’s specific situation. Remote monitoring allows patients the ability to measure their vital signs, respond to health assessment questions, receive educational information and motivational messages and complete surveys. Information is communicated in real-time or through a store and forward process providing results to healthcare professionals who can use the latest recorded information to assess each patient’s health status and to modify the patient’s care plan accordingly. Some devices include an integrated video camera, allowing healthcare professionals to arrange and conduct two-way video calls or video chats with their patients. This strengthens interaction with patients by allowing them to view their patients performing specific tasks and also to provide advice and encouragement.

Nearly \$200 billion in Savings Possible from Home Telehealth

Economist Robert Litan* estimates the use of home telehealth can bring about the following net savings to the health care system over the next 25 years by preventing hospitalizations for patients with:

- Congestive Heart Failure \$102.5 billion
- Diabetes \$54.4 billion
- Chronic Obstructive Pulmonary Disease \$24.1 billion
- Chronic Skin Ulcers \$16.0 billion

*Robert E. Litan, Vital Signs Via Broadband: Remote Health Monitoring Transmits Savings, Enhances Lives. 10/24/2008



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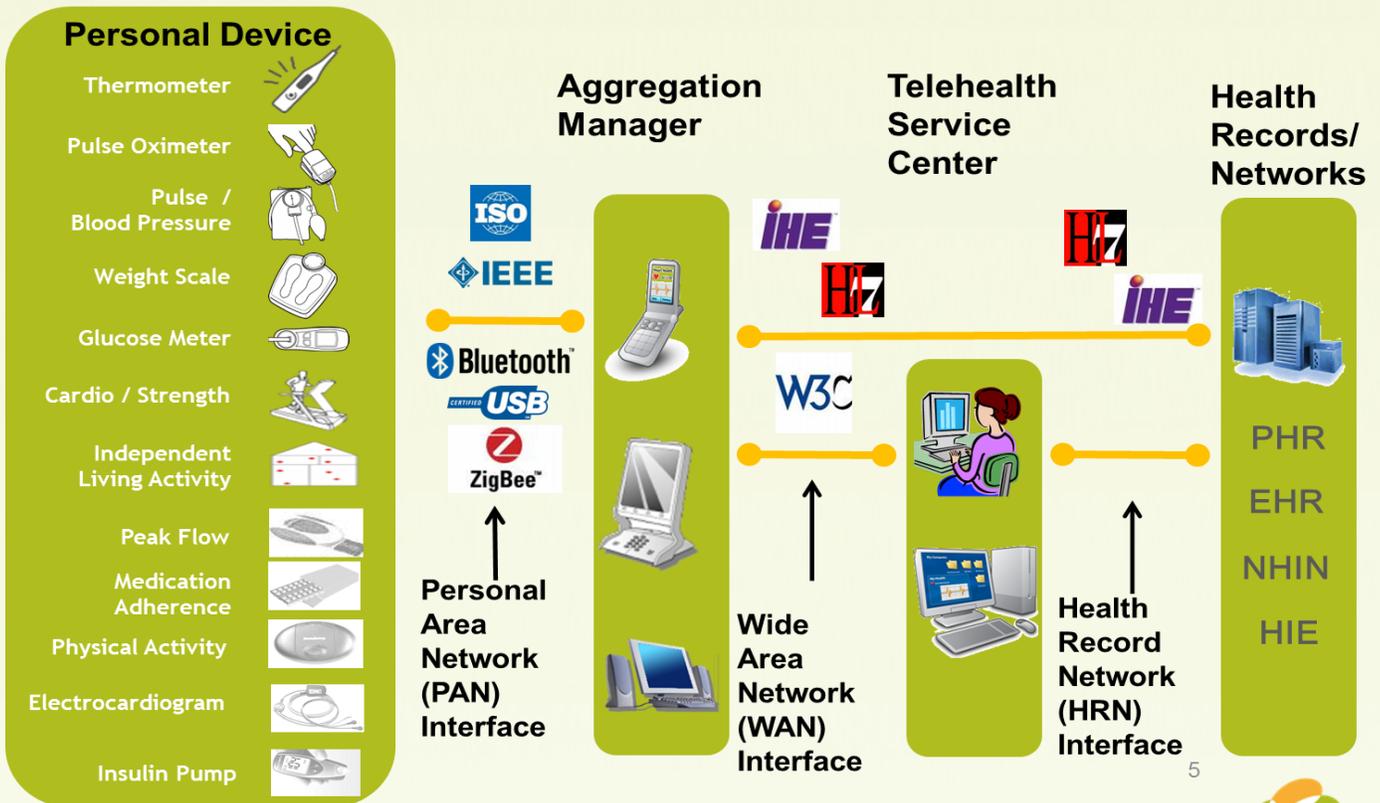
How health information technology makes health homes work.

Technology supports virtually all aspects of health homes. From sensors and medical devices that monitor patients, to devices that aggregate vital patient health information, to devices that send data to loved one's, clinicians and doctors that are monitoring patients and meaningfully using patient electronic health records; it is health information technologies in various forms and modalities that makes the ecosystem possible.

A network created to assist health homes can easily integrate with health information technology systems. These networks simply work to augment your State's health information technology exchange and relay information with other health information technology systems in order to populate patient electronic health records in an orderly and secure manner. From enrollment, through treatment and finally payment; health home health information technologies can flawlessly and efficiently assist health care delivery.

As demonstrated in the illustration below, at the heart of capturing electronic health data from patients are personal devices. Those include everyday home use medical devices such as electronic thermometers, pulse oximeters, blood pressure cuff monitors and weight scales; to more sophisticated medical devices like peak flow meters, electrocardiograms and insulin pumps. As technology has evolved, so too has personal connected care. Through widely adopted interfaces (wired and wireless) such as USB, Bluetooth and ZigBee, those devices can now interoperate through information hubs and send collected data to aggregators and telehealth service centers where information is diverted to the proper end user, service or health records network to populate EHR's or PHR's.

Interfaces & Standards



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What are the State requirements for health homes?

- States will require hospitals that are participating providers to establish procedures for referring any eligible individuals with chronic conditions who seek or need treatment in a hospital emergency department to designated providers.
- States shall consult and coordinate, as appropriate, with the Substance Abuse and Mental Health Services Administration (SAMHSA) in addressing issues regarding the prevention and treatment of mental illness and substance abuse among eligible individuals with chronic conditions.
- States shall include a methodology for tracking avoidable hospital readmissions and calculating savings that result from improved chronic care coordination and management; and a proposal for the use of health information technology in providing health home services and improving service delivery and coordination across the care continuum (including the use of wireless patient technology to improve coordination and management of care and patient adherence).

Payment models.

As evidenced by successful models, payment varies according to sponsoring organization, federal and state demonstration projects. The primary models have included:

1. Monthly payment for telehealth services: Payment for remote patient monitoring including collection, transmission, and interpretation of physiological biometric patient data and interactive video conference encounters including a per patient lease fee or equipment purchase fee.
2. Diagnosis fee: Pays for use of equipment per episode or per patient day; or at a monthly capitated rate; regardless of the geographic location of the patient; and type and location of the residence.
3. Payment for remote monitoring data analysis: Provided by any Medicaid eligible clinician; and at a rate that includes a per day/hour professional fee; or per episode professional fee.
4. Federal Qualified Health Clinics: Comprehensive payment to include telehealth clinician monitoring and equipment, clinician training and instituting a systematic approach for county residents.



How Success is Measured.

Telehealth not only facilitates better care for enrollees but it reduces overall health care costs.

The Center for Medicare and Medicaid Innovation (www.innovations.cms.gov) has established specific program measurement that can be applied to health homes, such as:

- Whether the model includes a regular process for monitoring and updating patient care plans in a manner that is consistent with the needs and preferences of applicable individuals.
- Whether the model places the applicable individual, including family members and other informal caregivers of the applicable individual, at the center of the care team of the applicable individual.
- Whether the model provides for in-person contact with applicable individuals.
- Whether the model utilizes technology, such as electronic health records and patient-based remote monitoring systems to coordinate care over time and across settings.
- Whether the model provides for the maintenance of a close relationship between care coordinators, primary care practitioners, specialist physicians, community-based organizations, and other providers of services and suppliers.



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- Whether the model relies on a team-based approach to interventions, such as comprehensive care assessments, care planning, and self-management coaching.
- Whether, under the model, providers of services and suppliers are able to share information with patients, caregivers, and other providers of services and suppliers on a real-time basis.
- Whether the model demonstrates effective linkage with other public sector or private sector payers.

Other considerations:

- Fraud & abuse control and prevention
- De-identified analytics and research
- Population health improvement

Can your State afford not to adopt the health home pilots?

Given the increased demand for state Medicaid services and the rising costs of healthcare, the PPACA Section 2703 offers states funding to pilot new programs for coordinated care that have the potential to dramatically change the delivery of care for a specific population. The alternative choice is to continue providing traditional fee-for-service reimbursements as the costs of health care continue to rise.



For more information on adopting health homes and integrating health information technologies, turn to the Continua Health Alliance.

The Continua Health Alliance (www.continuaalliance.org) is a non-profit, open industry coalition of over 230 healthcare, technology and medical device companies who have joined together in collaboration to improve the quality of health through the use of remote patient monitoring, telehealth and independent living technologies — what we call “e-Care.”

e-Care, as defined by the Federal Communications Commission (FCC) National Broadband Plan, is the electronic exchange of information that includes data, images and video to aid in the practice of medicine and advanced analytics. e-Care encompasses technologies that enable remote monitoring and “store-and-forward” of information over wireline, wireless or mobile broadband networks. e-Care is a subset of Health Information Technology (HIT), which all are intended to augment – not replace – health care delivery by clinicians, doctors and hospitals.

Continua is dedicated to establishing interoperable personal health solutions based on remote monitoring devices with the knowledge that by extending those solutions into the home fosters independence, empowers individuals, and provides the opportunity for personalized health and wellness.

While CMS has developed a mailbox at healthhomes@cms.hhs.gov, we also encourage State Medicaid offices to contact the Continua Health Alliance to provide use case, technology and work flow integration assistance free of charge as you consider instituting the State Medicaid Health Homes. Feel free to contact us at: state_policy_uspwg@continuaalliance.org.

With over 230 member companies worldwide and permanent representation in Europe, The U.S., and Japan, the Continua Health Alliance can be contacted for general information at:

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Checklist for State Medicaid Departments to Get Started

- ✓ **Target Communities:** Examine communities with high percentages of chronic care patients and those with shrinking numbers of clinicians and community supported home based care.
- ✓ **Assess Qualified Patients:** Assess chronic care patients to determine if remote patient monitoring would bolster health outcomes.
- ✓ **Develop Care Plan:** Develop care plan for patients including vital signs to record on a daily basis, clinician review and procedures for adjusting care plans.
- ✓ **Identify Team Members:** Form community care teams with those professionals currently serving patients: hospitals, home health, social workers, labs, pharmaceuticals, therapists and others.
- ✓ **Assess Health IT Systems:** EHR's allow access to patient information. e-Care helps populate those records. HIT drives the "hand off" between patient transitions from home to the hospital to assisted living, skilled nursing and long-term care.
- ✓ **Plan Technology:** Choose appropriate functions and features for the targeted patient populations.
- ✓ **Establish Protocols:** Physician communication, clinical protocols, proven education techniques, proven history of coordinating care with home health agencies, physicians and insurance case managers.
- ✓ **Develop Training:** Training is essential for all team members.
- ✓ **Overall Plan:** Develop a plan that will offer tangible benefits to all stakeholders.
- ✓ **Technology Testing:** Have vendors test all technology prior to implementation.
- ✓ **Construct program for Data Analysis:** Ensure that patient status is fed into larger healthcare system to track team effectiveness, patient satisfaction, wellness, reduction in hospital readmissions and emergency room visits.



How do you successfully build health homes into your Medicaid delivery system?

Technical Aspects

Products and Technology – Have appropriate patient facing device/monitor and clinician-viewing back-end equipment.

Peripheral Medical Devices – Make sure optional peripherals are provided case-by-case to assure optimal patient outcome.

Connectivity – Check with the patient first to see what they already have and coordinate with products being utilized for proper usage.

Deployment and Installation – Have appropriate staff deliver, install and train patients in home to assure proper utilization (if the product is not easily self-installed).

Monitoring – Have available staff to monitor clinical data, conduct data review and to respond to patients that have alerts.

Technical Support – Have staff available to conduct patient technical support, troubleshooting and to communicate with vendors regarding issues.

Inventory Management/Refurbishment – Develop a process to re-provision/re-package devices that can be reused for other patients.

Operational Aspects

Care Plans/Protocols - Options will vary for each technology vendor, but States will need to make decisions on what care plans and protocols look like.

Training – Make sure appropriate staff is properly trained on relevant facets of the program.

Outcomes – Have a process in place to track the progress of program and measure outcomes.

Financial Aspects

Upfront Investment – Craft plans to procure the right equipment from vendors and have dedicated staff.

Sustainability – Make sure the program will be successful with long-term revenue source planning.

Return on Investment – Create metrics to calculate your return on investment throughout the life of the program.

Policies / Communication

Overall Program Policies and Procedures – Develop a set of working documents to operate the program and for staff to follow.

Communications Model – Develop methods for communicating results and patient specifics with patients, family members, physicians and other health care providers.

Marketing – Make sure that your state's health home program is properly described in documents and via the web.

Vendor Communications – Have appropriate staff responsible for communications with chosen vendors that are providing the technology.



ADDENDUM

The following studies demonstrate the efficacy of health homes styled programs, especially when health information technology is integrated.

Example #1

Oxford Health Care – Missouri

Oxford Health Care in Missouri pioneered telehealth in the home in 2002 and they have now monitored over 20,000 patients. They established programs based on population needs. In order to be successful they devoted time to proper deployment and training, patient education and support, biometric monitoring with daily clinic oversight and overall care coordination with all stake holders. The key to their success was developing customized programs that could work 7 days a week, 24 hours a day. The services they offer range from telephonic education and support to intense clinical oversight and timely care coordination. Nursing services are key with certified chronic care nurses and specialized nursing programs, including cardiac, endocrine, neurology, geriatric, orthopedics and oncology. Oxford saw that medical providers all needed to understand their individual role in serving patients through their telehealth program and thus coordination of care has been a top priority of Oxford's experience. This has produced a proven track record of overall cost savings, less hospitalization and fewer ER visits. The program has also seen tremendous physician acceptance and patient accountability, which has worked through established communication methodology and buy-in from all stakeholders involved. Importantly, those serving patients also demonstrated very high payer satisfaction.

Example #2

Eddy Visiting Nurse Association – New York

Eddy Visiting Nurse Association, a not-for-profit home health agency based in Troy, NY, recently completed a one-year pilot study that identified several benefits from the utilization of telehomecare intervention, including a dramatic drop in the rate of hospitalizations, ER visits and total medical costs.

Eddy VNA documented interventions and substantial cost savings for 30 of the 53 patients who benefited the most from the service. Eighty-nine percent of the physicians used the data received from the telehomecare nurse to actively administer treatment changes, resulting in 93 documented physician interventions, such as medication changes, seeing the patient in the office quickly, and referring the patient to a specialist.

As a result, the study showed a remarkable drop in the number of hospitalizations for these patients -- a 55 percent reduction from 178 hospitalizations the prior year to only 80 with telehomecare intervention; while emergency visits dropped from 137 the prior year to just 97, a 29 percent reduction. The total medical costs also decreased 42 percent dropping from nearly \$3 million the prior year to under \$1.7 million. The only slight increase was in the total pharmacy costs - up a mere percent, from \$337,000 to \$342,000, an expected increase likely due to increased patient compliance and one easily absorbed by the total medical costs savings. <http://www.hca-nys.org/documents/TheEducatorVolume1Edition1.pdf>



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Example #3

Department of Veterans Affairs

From July 2003 to December 2007, the Veterans Health Administration introduced a national home telehealth program, Care Coordination/Home Telehealth (CCHT). Its purpose was to coordinate the care of veteran patients with chronic conditions and avoid their unnecessary admission to long-term institutional care. CCHT involves the systematic implementation of health information, home telehealth and disease management technologies. The forecast for enrollment in 2011 is ~90,000 veterans using home telehealth. The chart demonstrates the success of the program.

Comparisons made from one year prior to enrollment to 6 months post enrollment in remote patient monitoring program:

- 19.74% reduction in hospital admissions,
- 25.31% reduction in bed days of care,
- Patient acceptance high – only 10% declined remote monitoring,
- Patient satisfaction 86%, and
- Average cost \$1,600 per patient per annum compared to \$13,121 for primary care of patients and \$77,745 for nursing home care.

Reduction in Utilization by Condition Monitored (Single and Multiple Diagnoses)		
Condition	Number of Patients	% Decrease in Utilization
Diabetes	8,954	20.4
Hypertension	7,447	30.3
Chronic Heart Failure	4,089	25.9
Chronic Obstructive Pulmonary Disease	1,963	20.7
Post-Traumatic Stress Disorder	129	45.1
Depression	337	56.4
Other Mental Health Condition	653	40.9
Single Condition	10,885	24.8
Multiple Condition	6,140	26

For more information: <http://www.carecoordination.va.gov/telehealth/index.asp>

Example #4

Centers for Medicare and Medicaid Services - Care Management for High-Cost Beneficiaries -

The Health Buddy Project offers a telehealth-based care coordination via organized delivery systems (multi-specialty medical groups, hospital-based systems). The Initial three-year project that began in 2006 at two medical groups in the Pacific Northwest has been extended to 2012 based on having “met and/or exceeded the savings target required in the demonstration agreement.” The project is also being expanded to the Bronx, NY for evaluation with hospital-based system in an urban area.

<http://www.hhn.com/medicare/index.html>



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Example #5

Massachusetts General Hospital – Enrollees in this study used an interactive standing weight scale and a cuff for blood pressure and pulse monitoring. They also utilized text messages to report changes in clinical status and medication compliance. After three months, only 31 percent of the patients in the pilot program were readmitted to a hospital, compared with 38 percent who received usual care and 45 percent of the patients who refused to participate in the study.

<http://www.medscape.com/viewarticle/514121>

Example #6

North Carolina – Roanoke Chowan Community Health Center Telehealth Program – This Telehealth program in the state's most disadvantaged counties utilizes in-home monitors and telehealth kiosks in senior centers, churches and schools that are administered by community health centers. Conditions that were treated include Cardiovascular Disease and Diabetes Mellitus Hypertension. This program included primary care physician treatment of patients in their homes, patient-centered care, long term daily monitoring, nursing assessment, health education, primary care physician intervention and a Patient Centered Medical Home Model. The model found success through extensive training of physicians, nurses and engaging patients. Daily monitoring and case management were handled by nurses, escalating to primary care physicians when critical indicators warranted, allowing early detection and intervention.

Results:

Hospital Charges

6 mos. prior to Telehealth = \$1.2 million

During 6 mos. Telehealth = \$365,000 71% decrease

6-30 mos. post Telehealth = \$438,000 66% decrease

ER Charges

6 mos. prior to Telehealth = \$64,000

During 6 mos. Telehealth = \$16,000 74% decrease

6-30 mos. post Telehealth = \$44,000 30% decrease

Statistically significant difference between pre-, during, and post-telehealth charges (p value < 0.02)

6 mos. prior to Telehealth = \$1.34 M

During 6 mos. Telehealth = \$ 382,000 72% decrease

6-30 mos. post Telehealth = \$483,000 64% decrease

<http://www.mtha.org/annual/sessPDF/A2%20Telehealth.pdf>



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International Studies

Europe - A June 2, 2010 European study showed that patients with heart failure who used an interactive telehealth system with motivational support tools at home spent 73% fewer days in hospital. The results of the Catalan Remote Management Evaluation study (CARME), which was managed by the Spanish Hospital Germans Trias i Pujol Heart Failure Clinic over a 12 month period, are the first to demonstrate how the impact of a telehealth system combining patient monitoring and motivational educational support tools can benefit patients that are chronically ill. The study randomly assigned 92 patients to two groups. In the first, patients received care plan educational videos, motivational messages and questionnaires. In the second, patients received the same information but also monitored their blood pressure, weight and pulse. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2661072/>

Italy - When it comes to treating patients with chronic heart failure, hospital-at-home care may be as effective as traditional hospital inpatient care, according to study by researchers at the University of Torino. For one year, the study examined level of care for 101 elderly patients 75 or older who suffered from acute decomposition of chronic heart failure. Fifty-three were treated in a general medical ward, while 48 used a physician-led hospital-at-home service. After six months, there was no significant level of care differences between the two groups, according to the study. However, those with at-home care experienced improvements in depression, nutritional status, and quality of life issues. The report authors add that recent trends in healthcare favor alternatives to traditional acute hospital care, including “advancement in telehealth technologies and increased demand for treatment at home.” <http://archinte.ama-assn.org/cgi/content/short/169/17/1569?home>

Ottawa - A home telehealth monitoring program developed by the University of Ottawa Heart Institute (UOHI) has reduced hospital readmission rates by 54 percent among heart failure patients after only six months and by 79 percent after two years, according to UOHI researchers. The remote nursing program has also saved more than \$2 million – or roughly \$20,000 per patient safely diverted from the emergency room – that would have otherwise been spent in hospital costs, according to UOHI’s Advanced Practice Nurse of Cardiac Telehealth. Treatment for heart failure is a long-term process, with one of the biggest setbacks being failure of patients to continue taking their medication while recovering at home. The institute’s monitoring program required patients to measure their own vitals – including weight, heart rate, blood pressure, and medication side effects – and report the results to UOHI through an automated calling system. A nurse followed up immediately if the vitals indicated a problem. The institute monitored 121 heart failure patients in 2007 and 2008; prior to monitoring, 69 percent had been readmitted to hospitals at least once in the previous six months. But six months after monitoring began, the readmission rate dropped to 14.8 percent. The program now supports more than 1,200 patients across Canada. <http://www.newswire.ca/en/releases/archive/July2009/09/c4835.html>

