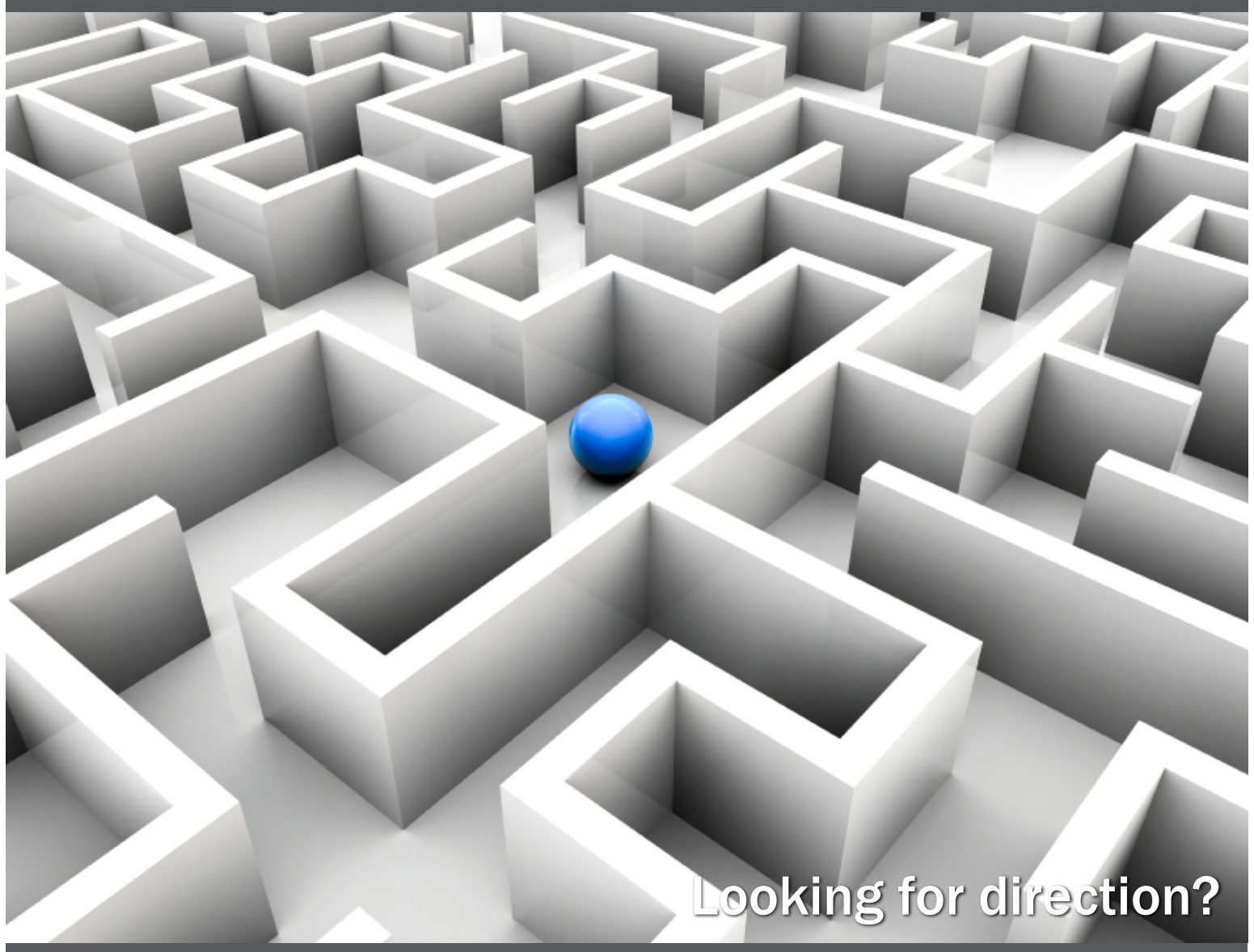


A Roadmap for Health IT in Long Term and Post Acute Care (LTPAC) 2010–2012



Looking for direction?

A Roadmap for Health IT in Long Term and Post Acute Care (LTPAC)

About the Road Map:

Since 2005, a group of stakeholder associations known as the Long Term and Post Acute Care (LTPAC) HIT Collaborative, recognized their common interests and vision for health information technology. The collaborative was formed to advance HIT issues through coordinated efforts, hosting of an annual LTPAC HIT Summit and publishing of a Road Map. The 2010–2012 LTPAC Health IT Road Map is the third Road Map published by the Collaborative to provide guidance to provider organizations, policy-makers, vendors, payers, and other stakeholders. This road map identifies the progress made in the past years and formalizes the priorities for the next 24 months. The LTPAC Health IT Road Map is available at: www.ahima.org/advocacy/lt pachit.aspx

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Executive Summary

When the 2004 Presidential Order to establish the person-centric integrated electronic health record (EHR) was issued, a collaboration of long-term supports and services and post-acute care (LTPAC) stakeholders, as well as, ASPE, CMS and ONC representatives, was established to represent this important healthcare sector on issues concerning health information technology (HIT). Since then, the LTPAC HIT Collaborative has hosted annual Health IT Summits, published two Roadmaps for Health IT in LTC, provided input to policy and regulatory agencies on LTPAC HIT, and promoted the participation of LTPAC in the emerging agenda to leverage health IT and EHR interoperability. Given recent events, including the HITECH Act, introduction of a national health care reform, a maturing of health information technologies, and an expanding awareness of the key role that LTPAC plays as a third pillar in the nation's healthcare ecosystem, the LTPAC HIT Collaborative is now publishing a third Roadmap to update progress and priorities that will assure the effectiveness of LTPAC in serving our nation's post-acute, chronic care and wellness needs. This Roadmap calls for advocacy and support for expanded direct and indirect participation by LTPAC in the incentives, investments, and initiatives driving interoperable healthcare and health information exchange (HIE) to benefit the populations served by LTPAC; the effective adoption of interoperable health IT by sector participants with a particular focus on transfers of care and e-prescribing; and, finally, a continued advocacy and discovery toward a person-centered model for a quality healthcare experience in the United States.

The last two years have seen notable milestones. The interoperable EHR agenda has been codified and accelerated by the HITECH Act with significant funding and incentives to support the adoption of EHR systems for hospitals and physicians. A foundational set of standards necessary for LTPAC participation in an interoperable health information ecosystem have been completed. EHR certification efforts are underway including efforts that will benefit LTPAC EHR technology vendors. Perhaps, most importantly, a sharper clarity regarding the importance, definition, and role of LTPAC as the nation's third healthcare pillar is emerging. LTPAC providers are beginning to participate in many of the nation's health information exchange initiatives, significant calls are being made to expand HIT meaningful use incentives to LTPAC, and healthcare reform includes consideration of the needs for person-centered funding for long-term services and supports.

The expanded LTPAC vision encompasses a broad range of providers: home and community-based services; nursing homes; assisted living; long-term acute care hospitals; rehabilitation and post-acute care facilities; PACE programs; hospice; chronic disease and co-morbidity management; medication therapy management and senior pharmacists; wellness providers; and others. What distinguishes this sector is its focus on coordination of supportive services and care, restoring and maintaining health, wellness and functional abilities, and a particular, almost programmatic, focus on the particular needs and goals of each of its consumers and their families. This focus demands an application of health IT towards shared care, transitions of care, and person-centered longitudinal health and wellness records to ensure a person receives affordable, quality and coordinated care when they need it, where they need it.

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The prominence of LTPAC is being driven by an the emergence of an expanding base of consumers, an expanding consumerism with a growing preference of personal choice and control, and the emergence of a wide array of technologies (care documentation, communications and coordination technologies, remote monitoring and health delivery (telehealth) technologies, medication therapy management, and electronic health record repositories). The size of the LTPAC sector has always been understated. While the sector is officially responsible for around 10-15% of total healthcare spending, very significant out of pocket investment in health, wellness, and age-supportive products and services, personal care giving, assistive technologies, and housing modification give the sector a much larger impact. In particular, LTPAC is a significant participant in transfers of care (CMS notes over 35% to post-acute settings alone), a primary use-case for health information exchange to ensure that electronic quality measures are person-centric and are carried from care site to care site. LTPAC recipients are also among the heaviest users of medications.

In the current roadmap, the Collaborative is prioritizing three sets of efforts:

1. The Collaborative is advocating for full participation, consideration and benefits for LTPAC providers in national, state, and regional HIT incentives, investments, and initiatives. This includes participation in government HIT funding initiatives, participation in HIE entities, incorporation of LTPAC in meaningful use definitions, continued stewardship of standards that support LTPAC, and inclusion in research programs.
2. The Collaborative is promoting effective demonstration and adoption of HIT by the LTPAC sector. This includes expanding EHR certification to solutions across the LTPAC spectrum, assessing the level of LTPAC EHR adoption and HIT capabilities, showcasing technology and interoperability adoption, identifying and disseminating effective practices for information use and sharing, HIE use-cases for shared care, personal health and transitions are all priorities with a particular urgency around improving the experience of consumers during transitions of care and the extended management of medications.
3. Ultimately, health is about maintaining well-being, quality of life, and independence. The Collaborative believes that the LTPAC sector must promote a person-centered vision of health and wellness across the total spectrum of healthcare and not just within a setting. With transitions and medications as an important first steps, we champion a continued focus on developing technologies; service delivery strategies and models; and incentives that enable consumer control and choice. The Collaborative calls for research, demonstration, timely implementation of approved programs, proper funding, and flexible insurance options that support innovative personal uses of health IT to improve population and personal health.

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2010-2012 Priorities and Recommendations for Action

- a. **Leverage Existing Programs and Policies :** To successfully advocate for inclusion of LTPAC in both national and state HIT policies and programs designed to expand the adoption, use, and exchange of health information for all Americans.
- b. **Certify LTPAC Vendor Solutions:** Establish/extend EHR certification criteria to LTPAC providers to promote EHR adoption, coordinate care among health care settings to increase quality of care, and to prepare for possible provider incentives.
- c. **Adopt and Use Health IT and EHRs:** To support LTPAC provider adoption and use of HIT, EMRs, and EHRs.
- d. **Health Information Exchange:** Foster the strongest inclusion and participation of LTPAC providers and vendors in emerging state HIEs and the national health information network (NHIN).
- e. **Prioritize Transition of Care and Electronic Prescribing:** Promote care coordination and continuity of care through the use of HIT during transition of care (TOC) periods and for electronic prescribing (e-prescribing).
- f. **Focus on Person-Centered Health and Healthcare:** Empower persons (consumers, patients, families, caregivers and practitioners) to expect, person-centered and person-directed outcomes (including wellness, independence and control) as they participate in healthcare systems, processes and activities.
- g. **Showcase Valuable and Effective Use of Health IT Solutions:** Move HIT in LTPAC from the phase pilot testing and demonstrations of value to becoming sustainable part of operations that continuously result in improved care quality, increased efficiencies, and cost-effectiveness.
- h. **Promote and Disseminate Research:** Define and advance an EHR/HIT research agenda that includes a focus on LTPAC and contains identified priorities.
- i. **Strengthen LTPAC HIT Collaboration:** Strengthen the effectiveness of the LTPAC HIT Collaborative and to achieve sustainability and viability as a volunteer organization.

Immediate Next Steps

- Promote the LTPAC HIT Roadmap Agenda to Stakeholders, Change-Agents and Policymakers
- Mobilize LTPAC Stakeholders
- Participate in National, Regional, Local and Private HIE Initiatives and Agendas
- Educate, Assess and Accelerate EMR/EHR Adoption by LTPAC Stakeholders

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2010 – 2012 Priorities and Recommendations for Action

The 2010 through 2012 LTPAC HIT Road Map builds on progress made since 2005. The third Roadmap updates priorities to assure the effectiveness of LTPAC in serving our nation's post-acute, chronic care and wellness needs. This Roadmap calls for advocacy and support for expanded direct and indirect participation by LTPAC in the incentives, investments, and initiatives driving interoperable healthcare and health information exchange (HIE) to benefit the populations served by LTPAC; the effective adoption of interoperable health IT by sector participants with a particular focus on transfers of care and e-prescribing; and, finally, a continued advocacy and discovery toward a person-centered model for a quality healthcare experience in the United States.

(a.) Leverage Existing Programs and Policies

Goal: To successfully advocate for inclusion of LTPAC in both national and state HIT policies and programs designed to expand the adoption, use, and exchange of health information for all Americans.

Rationale: Enactment of the HITECH Act in 2009 provided the tools, direction, and substantial funding to advance the development and adoption of HIT. The Act also provided financial incentives to encourage the adoption and use of HIT. Unfortunately, these incentive programs were focused primarily on hospitals and physicians only. Further, many of the electronic quality measures to verify meaningful use for incentive payments require interoperability with LTPAC providers. Quality measures in a person-centered environment are most effective when they are coordinated between providers and not siloed. LTPAC was excluded, but some of the programs, such as state grants to support information exchange, Beacon Communities and the state Medicaid programs may be leveraged to encourage inclusion of LTPAC as a critical provider setting for HIT adoption and information exchange.

There is an additional need to promote LTPAC as a critical component of our nation's healthcare system and key to achieving national goals of providing all Americans with cost-effective, high quality healthcare.

Objectives:

- 2010 and beyond: Promote an expansion of HIT Policy and Standards Committees discussions and recommendations ensuring the Committees are inclusive of electronic health information exchange for elderly and disabled LTPAC beneficiaries.
- 2010: Inclusion of LTPAC in at least 5 health information exchange entities.
- 2011: Meaningful use definition includes exchange of clinical summary document (Continuity of Care – CCD) with LTPAC providers.
- 2011-2012: LTPAC included as a required entity for information exchange in meaningful use definition.
- 2013 or before: Establishment of incentive payments for HIT use/exchange by LTPAC providers.

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Strategies:

- Develop an iterative policy framework and strategies for inclusion of LTPAC in national health information exchange (HIE) activities and electronic quality measures.
- Advance policy framework and recommendations to HIT Policy and Standards Committees and other decision making bodies.
- Draft letter for states to submit to state designated entity encouraging the inclusion of LTPAC providers in their plans for HIT/HIE programs as a requirement, so that true interoperability and interconnectivity can be achieved across the spectrum of care.
- Leverage state affiliates to use policy framework and letter or talking points to reach out state designated entities to emphasize importance of including LTPAC in information exchange.
- Draft and coordinate response(s) to requests for comments from federal and state policymakers and coordinate such efforts among state affiliates and with other empathetic providers, as appropriate.
- Leverage resources from regional extension centers to support LTPAC.
- Advocate for expansion of regional extension center to support LTPAC.
- Promote to Beacon Community grant recipients to include LTPAC providers in their programs.
- Develop a whitepaper that documents the role of LTPAC in the flow of health information/data and the impact of failing to include LTPAC in the information exchange.
- Leverage research to emphasize the need for LTPAC to be included in information exchange in order to create savings while improving quality.
- Ensure that LTPAC is included in the HITECH Act mandated report to Congress that outlines what other providers (in addition to hospitals and physicians) would greatly benefit from incentive payments for HIT adoption and meaningful use.
- Work with national quality entities that are developing the hospital and physician quality measures for proving the meaningful use EHR to ensure that the quality measures are coordinated with LTPAC care settings.

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(b.) Certify LTPAC Vendor Solutions

Goal: Establish/extend EHR certification criteria to LTPAC providers to promote EHR adoption, coordinate care among health care settings to increase quality of care, and to prepare for possible provider incentives.

Rationale: Certification criteria for EHRs used by LTPAC providers will support several national HIT policy goals including:

- Enabling the electronic exchange and use of health information consistent with a nationwide health information technology infrastructure;
- Utilization of a certified EHR for each person in the United States, including frail, elderly, and disabled individuals receiving care from LTPAC providers, by 2014;
- Supporting improvements in quality and continuity of care;
- Promoting the coordination of care; and
- Improving population health.

Certification will provide LTPAC providers looking to adopt EHRs with “buyer’s assurance” that the EHR has proven to meet minimum criteria to exchange health information with other providers, including hospitals and physicians, using systems from different vendors. In addition, LTPAC providers may in the future become eligible for adoption incentives for meaningful use of certified EHRs, and/or subject to penalties for failure to use such systems.

Objectives:

- Launch Certification Commission for Health Information Technology (CCHIT) LTPAC EHR certification criteria in 2010 for nursing homes, Medicare licensed home care agencies, and long-term acute care hospitals. Continue to certify other LTPAC providers like hospice starting in 2011.
- Ensure that a majority of LTPAC EHRs are certified by 2012.

Strategies:

- Support the adoption of LTPAC EHR certification criteria by HHS.
- Support all LTPAC EHR certification activities, such as the CCHIT LTPAC workgroup efforts to launch certification criteria in 2010. The initial certification criteria will take effect in 2011, with a roadmap for more comprehensive certifications in 2013 and 2015. CCHIT is the first recognized certifying organization; other recognized organizations will be supported as they become established.

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- Recommend and facilitate changes to the Office of the National Coordinator’s “Meaningful Use” Matrix of electronic quality measures to reflect LTPAC industry needs as participants in interoperability initiatives. The initial matrix focused only on physicians and hospitals.
- Ensure that standards-based interoperability is incorporated into the certification criteria to allow meaningful data exchange across all care settings.
- Improve quality at the transfer of care by requiring certified systems to share the Continuity of Care Document (CCD).
- Ensure that e-Prescribing and medication therapy management requirements needed for LTPAC are incorporated into the EHR certification criteria to advance LTPAC providers toward a closed loop medication management process.
- Ensure that the HL7 LTC- NH EHR-S Functional profile is reflected in the certification criteria as appropriate.
- Educate both LTPAC vendors and providers about the benefits of EHR certification.
- Work with the HIT Policy Committee to identify and recommend to the ONC the need for certification criteria for EHRs for LTPAC providers.
- Work with the HIT Standards Committee to consider, identify, and recommend to the ONC certification criteria for EHRs for LTPAC providers.
- Meet with the ONC and other HHS officials to educate them about the availability of, and need for, EHR certification criteria for LTPAC.
- Populate both the CCHIT LTPAC Advisory Task Force (ATF) and Work Group with LTPAC HIT thought leaders.
- The LTPAC ATF established the umbrella term, “LTPAC”, consisting of nursing facilities, home care, inpatient rehabilitation, long-term acute care, hospice, and others.

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(c.) Adoption and Use of Health IT and EHRs

Goal: To support LTPAC provider adoption and use of HIT, EMRs, and EHRs.

Rationale: Fully adopting health IT solutions to improve quality and continuity of care requires a significant commitment from providers to invest money, time and human resources working both within their organization, as well as with other external partners. Emphasis must be placed on advancing the adoption and use of HIT and EHRs by LTPAC providers, including use of electronic medication management and participation in health information exchange.

Objectives:

- Educate and provide tools that are necessary to help LTPAC providers understand the importance of adopting and meaningfully using HIT.
- Promote understanding and support among policymakers and regulators, at all levels, for the need of LTPAC providers to be included as national HIT strategies are rolled out.
- Promote and support research and the ongoing dissemination of HIT Best Practices among LTPAC providers.

Strategies:

- Develop and promote educational tools on certified and interoperable HIT (EMRs, EHRs, e-prescribing, workforce) at the federal, state, and local level.
- Develop practical decision-making tools to guide providers through process of selection, preparation, implementation, and on-going monitoring of HIT use.
- Assist LTPAC providers with work-flow and process changes required for the new world of electronic data and interoperable HIT.
- Prioritize focus areas and questions to be addressed in best practice studies and encourage the presentation of the results of best practices demonstrations or studies in the form of practical implementation guides that are usable by providers.
- Summarize lessons learned and successful strategies for participation in HIEs.
- LTPAC involvement in 10% of State Level HIEs by 2011.
- LTPAC involvement in 10% of State HIT grant programs.
- Widely disseminate the 2010-2012 LTPAC HIT Roadmap and its updates.
- Work with LTPAC HIT Collaborative members on education programs.

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- Continue the current annual LTPAC HIT Summit which provides all LTPAC provider, vendor, regulators and policymakers, a forum to discuss, learn, and take action on issues that have a focus on LTPAC HIT and the interoperability/interconnectivity with acute and ambulatory care providers.
- Promote value of certified EHR products.
- Develop and implement a strategy to educate LTPAC providers and vendors, and policymakers about getting ready for the adoption of HIT and EHRs. This includes:
 - Disseminate information on what is known about costs and benefits of HIT in LTPAC, current policies advancing the use of HIT, and gaps in, as well as barriers to, the implementation of HIT/EHR use on behalf of persons receiving LTPAC.
 - Develop and share educational tools (i.e. webinars, PowerPoint presentations) that address the various stages to the adoption of HIT and EHRs (including certified technologies). Such tools will include a focus on e-prescribing, medication management, and an array of workforce considerations. Make existing tools (e.g. the Stratis Health HIT Toolkit) and new tools available at the Summit and other industry events.
 - Educate policymakers at federal, state, and local levels of LTPAC readiness to be included in key public policy activities (i.e. state grants to facilitate and expand HIE, public health reporting, etc.)
- Encourage the inclusion of, and participation by, LTPAC providers in state grants to promote HIT.
- Encourage a focus on LTPAC providers in the HIT Extension Program (both at the National Research Center and in the Regional Extension Centers).
- Support “best practice” studies on return on investment, business case, value of certification and successful strategies for participation in HIEs.

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(d.) Health Information Exchange

Goal: Foster the strongest inclusion and participation of LTPAC providers and vendors in emerging state HIEs and the national health information network (NHIN).

Rationale: The HITECH Act provides incentive payments to hospitals and physicians to encourage the adoption and “meaningful use” of HIT, but LTPAC providers were excluded, even though over 40% of hospital discharges are to LTPAC settings. While HITECH Act funds flowing to the states to foster the growth and expansion of health information exchanges primarily focus on acute care providers, LTPAC providers and vendors do have the opportunity to be included and must work with state officials to ensure they are included in all HIE efforts. Early and continuing LTPAC involvement in state HIE projects will ensure the smooth flow of electronic information between acute and ambulatory care and post-acute care settings and the meaningful implementation of electronic quality measures. This seamless exchange of timely health information is critical to reducing needless transfers and re-hospitalizations, clinical errors, and overall costs, as well as verifying “Meaningful Use” of EHRs to qualify for ARRA incentives.

Objectives:

- Maximize LTPAC inclusion in state HIT strategic plans and involvement in state HIE programs.
- Advocate for the adoption and utilization of standardized health summaries (e.g. Continuity of Care Document (CCD)) for patient health information exchange between hospitals and LTPAC settings.

Strategies:

- Set up meetings with state HIT officials, hospitals and physician groups for purposes of getting LTPAC included in the state’s HIT strategic plan and involved in all state HIE efforts.
- Encourage state HIE committees that LTPAC be included in health information technology grants as a provider of Medicaid and Medicare service.
- LTPAC HIT vendors must work with their provider customers and hospital HIT vendors to develop methods of exchanging health information based upon established standards to achieve interconnectivity and interoperability between LTPAC providers, hospitals, physicians, consumers, ancillary providers, etc.
- Encourage LTPAC providers to leverage health information exchange with physicians that deliver care while their elderly or disabled patients are in the care of LTPAC providers.
- Encourage LTPAC providers to establish methods of sharing information with consumers and their personal health record.

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(e.) Prioritize Transitions of Care and Electronic Prescribing

Goal: Promote care coordination and continuity of care through the use of HIT during transition of care (TOC) periods and for electronic prescribing (e-prescribing).

Rationale: The Centers for Medicare and Medicaid services estimate that nearly 18% of Medicare patients are re-hospitalized within 30 days of discharge and that 13% of all admissions costing \$12 billion dollars are potentially avoidable. These costly adverse events and avoidable complications often occur as a result of lack of information and poor communication among caregivers, healthcare professionals, and patients during TOC. Emphasis must be placed on educating providers on the problems that occur due to poor TOCs.

Electronic prescribing standards are well defined for use in the LTPAC settings. Although stand-alone e-Prescribing solutions are available for the LTPAC setting, adoption of EHRs will increase the use of e-Prescribing as a component of the process. Medication management, as it relates to TOC, is connected to medication reconciliation and obtaining an accurate medication list. Collecting, transmitting and receiving critical medication and allergy information is essential when patients move from one practice setting or level of care to another.

Objectives:

- Improve LTPAC provider practices in the exchange of health care information at times of transitions in care.
- Enhance federal, state, and local health policymakers understanding about the importance of “Transition of Care” and “e-Prescribing” in the LTPAC setting.

Strategies:

- Educate providers and policymakers about the need for timely electronic information exchange between settings to reduce medication errors, duplication of services, and waste of resources, which may lead to reduction in hospital admissions and readmissions as well as an effective person-centered medication therapy management programs throughout the spectrum of care.
- Educate providers about the best practices on medication management and encourage adoption of e-prescribing in the LTPAC setting.
- Encourage the use of industry accepted health IT standards in the LTPAC setting for health information exchange at times of transition.

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- Develop a resource list of facilities/agencies that are including LTPAC settings when exchanging information during TOC.
- Identify LTPAC settings that are exchanging information during TOC to use as a resource to develop best practices for implementation and adoption.
- Develop research tools that should be used during TOC.
- Provide a list of references showing the outcomes of the exchange of information during TOC.
- Encourage the adoption of e-Prescribing as part of EHR adoption.
- Encourage standards in collecting, transmitting and receiving medication information during transfer from one practice setting to another.
- Encourage skilled nursing and assisted living facilities to have an electronic medication administration record (eMAR) component as part of their EMR/ EHR system.

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(f.) Champion Person-Centered Health and Healthcare

Goal: Empower persons (consumers, patients, families, caregivers and practitioners) to expect, person-centered and person-directed outcomes (including wellness, independence and control) as they participate in healthcare systems, processes and activities.

Rationale: LTPAC affirms an orientation toward the person and their need to function in the context of daily life. Typical LTPAC providers often integrate social, residential, health and wellness services to support their consumers. Emerging information, monitoring, diagnostic, communications, coordination and assistive technologies are enabling capabilities that dramatically empower consumers and their caregivers to pursue personal health, wellness and independence goals. Leveraging these capabilities will require the emergence of new business models, service delivery models, care practices and care relationships that support person-centered, and person-directed health and wellness outcomes. As the healthcare space evolves through the HITECH Act, healthcare reform, systems innovation, disruptive technologies and consumerist demand, we will advocate for and promote solutions, strategies, policies and incentives that privilege the person, enabling consumer empowerment, control and choice, empowering caregivers, and enhancing wellness services relationships.

Objectives:

- Ability to receive detailed electronic summaries of care upon completion of healthcare service, or, if extended across time, on a daily basis from all healthcare providers, including LTPAC.
- Availability of PHR/EHR based personal health and wellness solutions and services that support healthy living based on the individual consumer's profile and goals.
- Personal health and wellness monitoring technologies and functional and wellness assessments will converge to provide an effective basis for health and wellness pursuit and care.
- Direct, real-time access to peer groups, caregivers, loved ones, and practitioners that support their wellness through extended relationships.

Strategies:

- Promote support of personal health care summaries by LTPAC providers.
- Promote partnerships between LTPAC providers and Personal Health Record and Personal Health Solution providers.

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- Promote the development of health and wellness assessment strategies to incorporate and integrate with personal health and wellness monitoring technologies and information to form a broader basis for personal health assessment.
- Evaluate and disseminate the “observations of daily living” approach to enhancing personal life and wellness.
- Promote use of social networking for wellness communities supporting both professional and voluntary interactions and relationships.
- Ensure the equal recognition of quality of life and quality of care as objectives in programs.

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(g.) Showcase Valuable and Effective Use of Health IT Solutions

Goal: Move HIT in LTPAC from the phase pilot testing and demonstrations of value to becoming sustainable part of operations that continuously result in improved care quality, increased efficiencies, and cost-effectiveness.

Rationale: Interoperable HIT and the exchange of health information have the potential to transform healthcare, improve quality, increase efficiencies, and increase cost savings. Today's healthcare system is episodic, static, and reactive. We must move to a dynamic, proactive, health and wellness promoting system through the patient-centered longitudinal electronic health record. Interoperability and security/privacy standards, as well as the certification of electronic health records, will play a central role in enabling the exchange of health information and this transformation. However, we can only attain the full benefits of HIT when the LTPAC sector implements interoperable HIT and actively participates in health information exchange along with other healthcare providers. As such, LTPAC providers must have interoperable HIT and the ability to exchange health information and provide on-going outcomes measurement as strategic goals. It is important for the LTPAC sector to demonstrate the benefits of interoperable HIT and health information exchange to legislative and regulatory agencies, health information exchange organizations, and consumers. Additionally, it is important that successful LTPAC HIT implementations be showcased so that all providers may learn what HIT-enabled practices are emerging, what lessons were learned, and requirements that must be fulfilled.

Objectives:

- Drive the adoption of interoperable HIT as a strategic operational necessity to LTPAC providers.
- Promote the on-going measurement and evaluations of the outcomes of interoperable HIT on quality, efficiency, health outcomes and return on investment measures.
- Develop and disseminate a body of best-practices based on HIT implementations in LTPAC.

Strategies:

- Educate LTPAC providers about the importance of HIT, health information exchange, interoperability, client outcomes, quality measures, and the potential impact HIT will have on their operations. (Such impacts, in part, include efficiencies and return on investment, enhanced outcomes, etc.)
 - Emphasize the importance of incorporating HIT in organization-wide strategic planning efforts.

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- Emphasize the importance of collecting data on outcome, quality and performance measures as well as evaluation methods and how such evaluation should become part of their normal operations and on-going process improvement activities.
 - Emphasize the importance and value of interoperability and health information exchange, particularly in cases of shared care and transitions, and emphasize the adoption of interoperable solutions with a focus on standards-based and certified products.
 - Emphasize the importance of the LTPAC providers as a partner in HIT projects involving the medical home, accountable care organizations, and PACE programs.
- Provide tools to help providers strategically plan for, select, implement, and evaluate interoperable HIT solutions and establish an ongoing evaluation process.
- Encourage providers to showcase interoperability by:
 - Partnering with other care providers who participate in providing care to their residents/ clients, particularly acute care providers (physician groups, hospitals etc.)
 - Participating in Health Information Exchange organizations on the regional, state and national levels, including health information exchange solutions that use personal health records and web-based health information repositories.
 - Partnering with acute care providers and HIE organizations on outcome-oriented research to demonstrate the value of health information exchange with LTPAC providers to legislators, regulators, healthcare providers, health information exchange organizations, and consumers.
- Develop best-practices and extract the lessons learned from HIT implementations and evaluations in LTPAC.
- Showcase LTPAC field accomplishments and disseminate best-practices that resulted in quality improvements, as well as lessons learned, through conferences, interoperability showcases and the web.

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(h.) Promote and Disseminate Research to Advance Health IT

Goal: Define and advance an EHR/HIT research agenda that includes a focus on LTPAC and contains identified priorities.

Rationale: An increased focus on HIT, as a tool to support improvements in the delivery of care, heightens the need for a research agenda that includes LTPAC provider priorities and addresses practical questions that focus on efficient and effective use of HIT.

Objectives:

- Shape the HIT research priorities and questions related to LTPAC providers. Identified priorities include:
 - Adoption
 - Costs and Benefits:
 - Medication therapy management (MTM)
 - Computerized Physician Order Entry (CPOE) including e-prescribing
 - Use of HIE technologies in LTPAC (including technologies to support transitions in care, telehealth, etc.)
 - Workforce
 - Implementation strategies / Workflow redesign / Process improvements
 - Identifying best practices related to providers' use of HIT/EHRs
 - Identify where and how HIT fits into providers' workflow
 - HIT and clinical practice improvements
- Encourage LTPAC providers to participate in research efforts by partnering with research institutions, including academic institutions, to expand their research agenda to include examining chronic care and co-morbidities over long periods of time and beyond episodic care.
- Disseminate HIT research findings related to best practices /process improvements regarding the use of health IT solutions.

Strategies:

- The LTPAC Collaborative shall develop, produce and disseminate a written document that summarizes the proposed HIT research priorities of the LTPAC community.
- The LTPAC HIT Collaborative shall ensure research activities align, as appropriate, with emerging meaningful use definitions

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- The LTPAC HIT Collaborative shall ensure that research activities integrate, as appropriate, adopted HIT standards
- The LTPAC HIT Collaborative shall advocate for including post-acute and long-term care providers in the ARRA/HITECH “Other Provider Study”.
- The LTPAC HIT Collaborative shall encourage providers to participate in research related to HIT. Specifically the goal is to promote and advocate participation of a broad spectrum of providers in applied, community-based research.
- The LTPAC HIT Collaborative shall disseminate research priorities and findings related to HIT in LTPAC to key policymakers (including, HHS officials, the HIT Policy Committee, etc.) and providers.
- The LTPAC HIT Collaborative shall identify organizations that fund HIT research in LTPAC and arrange discussions with each organization for the purposes of advocating further HIT research priorities of LTPAC.

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(i.) Strengthen LTPAC Health IT Collaborative

Goal: Strengthen the effectiveness of the LTPAC HIT Collaborative and to achieve sustainability and viability as a volunteer organization.

Rationale: It is important that LTPAC providers and vendors speak to policymakers and regulators with a single voice. The reason for this is that persons requiring chronic care with co-morbidities will move from one LTPAC setting to another during their life time while hospitals mainly treat episodic conditions. The Collaborative provides the forum for LTPAC HIT. While the work of the Collaborative has grown substantially in recent years, its size and initial informal structure have not changed. Some, if not all members of the

Collaborative, point to the “passionate spirit” of collegiality and cooperation among members as its greatest strength. There is a desire to keep the working relationship simple, but also to recognize that, as an informal organization, there is a need for the Collaborative to adjust its organizational structure somewhat to be more inclusive of additional stakeholder participation to further amplify the Collaborative advocacy voice with policymakers and industry leaders. There is also a need to balance the Collaborative’s workload in a more efficient and effective way. The Collaborative is made up high-level stakeholder executives who have access to major decision makers within the stakeholder organizations. It is a volunteer organization of LTPAC thought leaders that provide the experience guidance on LTPAC HIT issues and programs.

Objectives:

- Retain informal nature of the Collaborative’s “core” organizational structure, but expand its cross-organizational leadership responsibilities.
- Identify ways that the current voluntary board members may be able to share responsibilities in a more balanced way.
- While the Collaborative operates as an informal non-profit organization, there may well be a desire or a need to develop minimal fundraising efforts to support the Collaborative. This should be an item on our agenda in 2010.

Strategies:

- Maintain current Collaborative stakeholder organizations (representatives) as a voluntary governing board, but consider creating informal “workgroups” as needed to be populated by new organizational members or individuals who strongly share the Collaborative’s primary goal and are anxious to become actively involved. This could include those LTPAC representatives

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now serving in government or as representatives to national panels, such as the HIT Policy and Standards Committees at the Office of the National Coordinator, the Certification Commission for Health Information Technology, etc.

- Consider having the “workgroups” assume responsibilities such as providing recommendations and advancing Collaborative efforts on advocacy issues; taking responsibility for planning certain parts of the Summit; or by taking the lead in state organizational advocacy/grassroots efforts, etc.
- Consider individual members of Collaborative’s “core” organization to serve as Chairpersons of these voluntary “workgroups”, if created.
- Define an approval process for Collaborative consensus.
- Consider formally selecting Collaboration leaders and rotating that leadership.
- Consider ways to begin communicating on a regular basis with Summit attendees to involve them in the Collaborative efforts that occur in between the annual Summits.
- Develop a list of Collaborative tasks under the conference planning and advocacy objectives and examine leadership and work flows to determine where there are opportunities to collaborate or rotate assignments. (Examples: meeting planners from the associations would share responsibilities or rotate leadership responsibilities for coordinating Summit planning activities; designate a current Collaborative stakeholder to lead certain efforts such as Summit marketing, document drafting, advocacy opportunity identification, stakeholder/policymaker communication and education, etc.)
- Develop and prioritize a “funding needs” list with cost estimates that could include the following:
 - Developing and managing a webpage
 - Roadmap printing/Distribution
 - Materials development/Distribution
 - Research
 - Educational programs
 - Hiring of a full or part-time staff member

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Appendix A: 2008-2010 Priorities: Achievements and Progress on Recommendations for Action

Recommendation: Strengthen cross-organizational Collaborative.

- Achieved getting Collaborative members and a strong LTPAC voice on key national HIT panels including: the Policy and the Standard Committee, created by the HITECH Act, that provide guidance to the Office of the National Coordinator and a Collaborative member was named as a commissioner at the Certification Commission for Health Information Technology.
- Submitted comments on a variety of HIT issues including recommendations to the HIT Policy Committee in the Office of the National Coordinator on the need to include long term care and post acute care in the definition of “Meaningful Use”.
- Provided detailed comments to CMS on the need to delay the release of MDS 3.0 until it incorporated all currently approved standards.
- Met directly with the Dr. David Blumenthal, HIT National Coordinator, who agreed that the HIT needs of long term and post acute care should to be included in our national HIT policy that is now primarily, focused on ambulatory and acute care providers.
- Met with Dr. Robert Kolodner, former HIT National Coordinator, on our issues. Dr. Kolodner served as a keynote speaker at the 2008 LTC HIT Summit.
- Expand scope and representation from long term and post acute care settings.
- Held conversation with key CMS policy officials regarding the importance and feasibility of incorporating standards when implementing patient assessment instruments including the MDS 3.0 and OASIS-C.
- Developed sample comments for those wanting to submit them to CMS (in response to CMS’ request in the proposed rule for SNF payment for FY 2010 and regarding the importance of using standards when implementing MDS 3.0).
- Worked together with AHCA, NASL, and NAHC to develop electronic quality measures for skilled nursing facilities and home care matching the HHS Standards Committee hospital and physician ARRA quality measure matrix. Even though LTPAC is not included as yet a provider in Meaningful Use, the Collaborative is working to ensure continuity of care when it comes to electronic quality measures.

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Appendix A:

2008-2010 Priorities: Achievements and Progress on Recommendations for Action

Recommendation: Increase the consumer-focused approach to quality initiatives and health IT, EHR, and e-prescribing.

- Collaborative worked together to provide the HIT Standards Committee electronic quality measures that would be used in skilled nursing facilities and home care settings. These quality measures currently apply to hospital and physicians only and ties into the ARRA HIT incentives.

Recommendation: Advocate for and identify tools to support provider's adoption and implementation of electronic health records.

- Long term care assessments included in HITSP IS09 Consultation and Transfers of Care Use Case.
- ONC study on best practices of Health IT in Nursing Homes.

Recommendation: Prioritize e-prescribing and medication management initiatives.

- In January 2008 and February 2009, long-term care industry representatives provided testimony to NCVHS regarding the status of e-prescribing in long-term care. All representatives, including pharmacists, physicians, technology vendors, and facilities advocated for deleting the exemption for long-term care in the e-prescribing rules, thus requiring the NCPDP e-prescribing standard for all e-prescriptions transmitted for long-term care residents. In addition, industry representatives advocated for use of SCRIPT Version 10.6, which not only includes the exchange of long-term care specific info (e.g., resident's bed/unit), but also includes important allergy information.
- Through NCPDP's Long-Term Care Work Group (WG14), further changes have been made to the NCPDP SCRIPT ePrescribing standard to accommodate the needs of the long-term care setting, including exchange of allergy information.
- Numerous professional associations and long-term care stakeholders submitted comments to the Drug Enforcement Administration (DEA) regarding their proposed rules for e-prescribing of controlled substances, specifically requesting that the new rule take into account for the three-way transmission of prescription information between the pharmacy, facility, and prescriber and recognition of the facility nurse as an agent of the prescriber.
- The Commission for Certification in Health Information Technology (CCHIT) certification criteria for long-term care EHR systems includes e-prescribing.

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Appendix A:

2008-2010 Priorities: Achievements and Progress on Recommendations for Action

Recommendation: Certify EHR and e-prescribing solutions to reduce risk.

- Completed the Long-Term Care Nursing Home EHR-System (LTC-NH EHR-S) Functional Profile. The profile was balloted, approved and registered with HL7 as a normative standard.
- Provided both the CCHIT LTPAC Advisory Task Force (ATF) and Work Group with subject matter experts.
- Expanded LTC industry efforts on EHR product certification to include home health, health and wellness, and the like.
- The LTPAC ATF established the umbrella term, “LTPAC”, consisting of nursing facilities, home care, inpatient rehab, long-term acute care, hospice and others.

Recommendation: Demonstrate interoperability using emerging standards.

- The first LTC-HIT Interoperability Showcase in 2009 was a success with 12 technology companies and providers demonstrating their current interoperable solutions (both Standard and non-Standards based).
- The LTPAC HIT Collaborative were successful in having LTPAC provider and vendor community representatives selected as members of the HHS Advisory Committee’s on policy and standards, and CCHIT. In the 2008 – 2010 time frame there were no specific HIE objectives only to work on interconnectivity and interoperability between all care settings. Significant success has been made but it is important that now, LTPAC providers become members of HIEs.

Recommendation: Encourage further research investigating relationships between health IT, quality, and outcomes across the full spectrum of aging services and care.

- See Appendix B

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Appendix B: Health Information Technology Research Activities

This Appendix identifies the research initiatives that have been undertaken and completed since the 2008-2010 Roadmap for Health IT in Long Term Care was published in January 2008.

Adoption

Title & Sponsoring Organization	Brief Description
Health IT Usage in New York Nursing Homes , <i>Commonwealth Fund</i>	This project involves collecting data on the usage of health care information technology in New York Nursing Homes. Using survey data on technology usage and organizational practices combined with regulatory data on nursing home costs and performance, we are investigating whether investments in HIT are associated with lower costs or improved quality. The goal is to better understand the economic payoff of HIT investments in nursing homes and the organizational practices that affect these benefits of adopting HIT.
National Nursing Home Survey (NNHS): Use of Electronic Information Systems Nursing Homes: United States, 2004 , <i>AAHSA/CAST</i>	The NCHS fielded the NNHS in 2004 which for the first time included questions on whether the responding NH has an Electronic Information Systems (EIS) for patients records, and the functionalities used in these systems.
National Home and Hospice Care Survey (NHHCS): Use of Health Information Technology in Home Health and Hospice Care Agencies: United States, 2007, <i>AAHSA/CAST</i>	The NCHS fielded the NHHCS in 2007 which for the first time included questions on whether the responding HHA has an electronic medical record, and if so, whether the HHA uses certain EMR functions or whether these functions are either not used or not available.
The National State of the Home Care Industry – Preliminary Findings. 2009	The National State of the Home Care Industry is a major national study to determine the present technology, clinical, and operational state of the home care industry and future strategies that leaders are considering as we move into the new realities of home care and health care.
National Survey of Residential Care Facilities (NSRCF) , <i>NCHS, ASPE</i>	Includes questions on electronic health information systems. Scheduled to be fielded in May 2010.
Minnesota Nursing Home Health Information Technology Survey Results , <i>Stratis Health</i>	The Minnesota Department of Health (MDH) contracted with Stratis Health to determine the level of health information technology (HIT) use in Minnesota nursing homes, by surveying all Medicare-certified nursing homes in the state.

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Appendix B: Health Information Technology Research Activities

Adoption

Title & Sponsoring Organization	Brief Description
Survey Question Design for LTC and Home Care Adoption (Fall 2008) : NH HIT/EHR Survey Questions on Adoption, Use, and Barriers to Use, <i>ASPE, University of Colorado, Denver</i>	UC identified both (i) core and (ii) expanded survey questions regarding Nursing Homes use of HIT/EHRs. The questions could be used in a future fielding of the NNHS and/or by other entities seeking to gather information about adoption and use of HIT/EHRs in NHs, and barriers to such adoption and use.

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Appendix B: Health Information Technology Research Activities

Costs & Benefits by Provider Type

Title & Sponsoring Organization	Brief Description
<u>Long-Term Care Facilities Adoption of Electronic Health Record Technology:</u> A Qualitative Assessment of Early Adopters' Experiences FINAL REPORT October 1, 2009, <i>Texas Department of Aging and Disability Services</i>	Long-term care (LTC) facilities that successfully implemented electronic health record (EHR) systems reported improved care quality, increased employee satisfaction, financial benefits in excess of system costs, and that they intend to continue using the technology – generally. The systems commercially available are able to meet most LTC facilities' needs for both clinical and administrative purposes. Further, the EHRs in use were interoperable with the state's data repositories.
<u>Understanding the Costs and Benefits of Health Information Technology in Nursing Homes and Home Health Agencies:</u> Case Study Findings. (June 2009), <i>ASPE, University of Colorado, Denver</i>	UCHSC conducted site visits to four nursing home and four home health care providers to qualitatively examine the benefits and costs of health IT implementation by these providers. Benefits were categorized in terms of: 1) Anytime and Anywhere Access to Health Information; 2) Greater Efficiency in Meeting Administrative and Federal Requirements; 3) Improved Quality Management; and 4) Health Information Exchange and Telehealth.
<u>The Value of Provider to Provider Telehealth Technologies.</u> <i>CITL</i>	CITL examines the value of telehealth technologies in which providers are involved in both the near, or patient side, and far side of the encounter.

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Appendix B: Health Information Technology Research Activities

Quality & Safety

Title & Sponsoring Organization	Brief Description
<u>Study Shows that HIT Improves the Quality of Care that Chronic Disease Patients Receive</u> , <i>Healthcare IT News</i>	According to a five year study on 10 large physician practices across the US, HIT improved the quality of care that chronic disease patients receive. CMS launched a study titled, "The Medicare Physician Group Practice Demonstration," to give doctors the opportunity to demonstrate that proactive and coordinated care reduces health care spending. The results of the study revealed that the doctors were successful in their efforts.
<u>Partnering to Improve Patient Safety in Rural WV</u> , <i>AHRQ</i>	Expands the reporting of medical errors and near misses, monitors safety event reporting, and develops a learning network among small, rural hospitals and their associated ambulatory care facilities, long-term care facilities, and home health agencies.
<u>Improving Healthcare Quality via Information Technology</u> , Vermont	Implements an integrated electronic patient medical record, electronic medication administration record, computerized physician order entry, and clinical decision support software that will be accessible at all participating facilities which include an acute care hospital, home health care agency, ambulatory clinics, a rehab facility, and to the patient/resident from home. Surveys suggest that staff notions of patient safety have indeed evolved in particular ways that mirror the efforts of administration to promote improved communication, standardization of clinical practice, the use of IT, and the promotion of a "culture of safety" throughout the organization.
<u>Nursing Home IT: Optimal Medication and Care Delivery</u> , <i>AHRQ</i>	Implements a health IT system with added best-practices decision support modules in 7 nursing homes and evaluates the impact on care processes, resident health outcomes, and staff efficiency and satisfaction. The objectives of the nursing home grant were to implement a health IT system with added best practices decision support modules in 15 participating nursing homes and evaluate impact on care processes; resident health outcomes, including pressure ulcers and staff efficiency and satisfaction.

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Appendix B: Health Information Technology Research Activities

Telehealth

Title & Sponsoring Organization	Brief Description
<u>Nurses Relying on Mobile Technology to be More Efficient</u>	The nursing shortage has decreased time with patients and quality of patient care, according to a recent survey of nurses conducted by a mobile device application vendor.
<u>Hospitalizations are Reduced by 36 Percent at Henry Ford Health System</u> <i>Healthcare IT News</i>	A Patient Centered Team Care program at the Henry Ford Health System in Detroit has reduced the number of expected hospitalizations for their heart failure patients by 36 percent. The non-profit healthcare system is using “Tel-Assurance” as part of their patient-centered medical home model. This wireless patient-monitoring technology has allowed healthcare providers at Henry Ford to better serve patients in underserved and difficult to reach communities.
<u>Denmark Plans to Launch Two Telehealth Pilot Projects Nationally</u> <i>e-Health Europe</i>	Denmark has launched two telehealth pilot projects, which the country plans to implement nationally over the next three years. One pilot project is currently in progress at Odense University Hospital. The project uses video conferencing services to connect foreign patients who do not speak Danish, with a call center staffed with multi-lingual operators. The operators translate patients' needs or problems to the treating health care providers, in turn, helping them receive a faster and better diagnosis. The second telehealth pilot project monitors chronic obstructive pulmonary disease patients from their homes.
<u>Chronically Ill Patients Benefit From Remote Monitoring, New Study Shows</u> <i>Healthcare IT News</i>	New research into the impact of remote monitoring on the health of chronically ill patients demonstrates the positive effect that the use of telehealth technologies can have. Among other findings in “Trends in Remote Patient Monitoring 2009,” 97 percent of healthcare organizations utilize remote patient monitoring as a way to improve health outcomes for chronically ill patients. Additionally, almost all of the organizations who funded such projects experienced a strong return on their investment. The report also addresses the unwillingness of most healthcare payers to reimburse providers for remote monitoring services, even though multiple studies have shown it to be effective.

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Appendix B: Health Information Technology Research Activities

Telehealth

Title & Sponsoring Organization	Brief Description
<u>For Veterans, “Health Buddy” Helps Lead to Positive Lifestyle Changes</u>	<p>The “Health Buddy,” a new home telehealth device, is helping many Texas veterans to make positive changes in their lifestyle. Through the Michael E. DeBakey VA Medical Center in Houston, nearly 500 veterans have had their homes equipped with the devices, which track vital signs like blood pressure and blood glucose levels, transmitting them electronically to coordinating nurses. Both nurses and patients have reported positive outcomes from the program, saying that it allows for earlier intervention into potential health issues, as well as encouraging patients to play a more active role in their care.</p>
<u>The Systematic Implementation of Health Informatics, Home Telehealth, and Disease Management to Support the Care of Veteran Patients with Chronic Conditions. 2008.</u>	<p>Department of Veterans Affairs, Office of Care Coordination Services</p>
<u>Vital Signs Via Broadband: Remote Health Monitoring Transmits Savings, Enhances Lives. October 24, 2008</u>	<p>Department of Veterans Affairs, Office of Care Coordination Services</p>
<u>Diabetes Patients in Rural Pennsylvania Benefit from New Technologies.</u> <i>Pennsylvania St. Luke’s-Miners Hospital, AHRQ Health IT Portfolio</i>	<p>For rural diabetes patients, particularly those who are elderly, visits to endocrinologists can involve long, costly, and exhausting trips to distant offices in larger cities. Yet with a condition like diabetes, which requires constant monitoring of symptoms, such consultations are vitally important. A new Pennsylvania telehealth system is seeking to solve this dilemma by giving diabetic patients access to quality care while allowing them to remain closer to their homes. Through videoconferencing technologies, the program, based at St. Luke’s-Miners Hospital, connects area diabetic patients to specialists in some of Pennsylvania’s larger cities.</p>
<u>Using Telehealth to Improve Quality and Safety,</u> <i>AHRQ Health IT Portfolio</i>	<p>Findings from the AHRQ Health IT Portfolio:</p> <ul style="list-style-type: none"> - Home Heart Failure (HF) Care Comparing Patient-Driven Technology Models (Long Term Care – Home Health Care) <p>Telewoundcare Network (Wound Care – Long Term Care – Home Health Care)</p>

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Appendix B: Health Information Technology Research Activities

Telehealth

Title & Sponsoring Organization	Brief Description
INTEGRIS Telewoundcare Network -- Oklahoma	Demonstrates and evaluates the clinical effectiveness and cost-savings of utilizing telehealth technology to reduce the days to healing for chronic wounds by improving access to caregivers, point of care processes, and dissemination of best practice information.
THE TELEHEALTH PROMISE Better Health Care and Cost Savings for the 21st Century <i>UTMB</i> <i>AT&T Center for Telehealth Research and Policy</i> <i>Electronic Health Network</i>	The growing cost of medical care and gaps in coverage are creating enormous pressure on both providers and public policymakers to identify new strategies for delivering cost-effective and quality care to all citizens. Many health care experts believe that part of the answer lies with telehealth applications made possible by the increasing power of information technology and the spread of broadband connectivity. Indeed, we believe widespread implementation of telehealth could save the U.S. health care system \$4.28 billion just from reducing transfers of patients from one location, such as a nursing home, for medical exams at hospitals, physicians' offices, or other caregiver locations. When appropriate diagnosis and care can be provided remotely via telemedicine, a patient transfer creates unnecessary cost as well as hardship for the patient.

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Appendix B: Health Information Technology Research Activities

Health Information Exchange

Title & Sponsoring Organization	Brief Description
<u>Health Information Exchange in Post-Acute and Long-Term Care Case Study Findings: Final Report</u> , ASPE, University of Colorado, Denver	September 2007 Update (Nov. 2008)
<u>In Chronic Condition: Experiences Of Patients With Complex Health Care Needs, In Eight Countries, 2008</u> , Commonwealth Fund	This survey of chronically ill adults in Australia, Canada, France, Germany, the Netherlands, New Zealand, the United Kingdom, and the United States finds major differences among countries in access, safety, and care efficiency. U.S. patients were at particularly high risk of forgoing care because of costs and of experiencing inefficient, poorly organized care, or errors. The Dutch, who have a strong primary care infrastructure, report notably positive access and coordination experiences. Still, deficits in care management during hospital discharge or when seeing multiple doctors occurred in all countries. Findings highlight the need for system innovations to improve outcomes for patients with complex chronic conditions.
<u>Falling through the cracks: Challenges and opportunities for improving transitional care for persons with continuous complex care needs</u> , University of Colorado Health Sciences Center	Persons with continuous complex care needs frequently require care in multiple settings. During transitions between settings, this population is particularly vulnerable to experiencing poor care quality and problems of care fragmentation. Despite how common these transitions have become, the challenges of improving care transitions have received little attention from policy makers, clinicians, and quality improvement entities.
<u>EHR Application Helps Doctors Better Manage Medicaid Patients in Mississippi</u>	In an effort to help physicians manage the state's 600,000 Medicaid beneficiaries, Mississippi Medicaid has begun using Shared Health's electronic medical record (EHR) and health information exchange and electronic prescribing software, reports <i>Health Data Management</i> . The EHR is populated with Medicaid data that includes lab results, medications, immunization and allergies. The EHR is also populated with hospital discharge information. Mississippi is the first state to try the system.

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Appendix B: Health Information Technology Research Activities

Health Information Exchange

Title & Sponsoring Organization	Brief Description
<u>Maryland Receives Final Approval of Startup Funds for Health Information Exchange</u>	In 2008, the Maryland Health Care Commission issued an award to begin the development of a blueprint of a “consumer-centric” private and secure health information exchange. Essentially, patients would have control of their medical data being shared. Since then, funding has been approved. According to <i>Healthcare IT News</i> , Maryland State officials recently announced, the approval of up to \$10 million in startup funding for the Chesapeake Regional Information System (CRISP), a non-profit membership corporation made up of state healthcare stakeholders. The startup funding will come from hospital reimbursement rate adjustments, and will be dispersed over the next two to five years to help build the health information exchange.
<u>Using IT to Improve Medication Safety for Rural Elders</u> , Oregon Health and Science University, AHRQ	Implements a Patient-Centered Medication Information System (PCMIS) to provide secure access to accurate, complete, and current medication information for patients, clinicians, pharmacists, and nurses, reconcile differences in medication information, and provide a platform for evidence-based decision support; assess the benefits and costs of the system. The RxSafe project was essentially an attempt to build a mini-regional health information organization (RHIO) focused on medication management.
<u>Health Information Technology in the Nursing Home</u> , Jerry Gurwitz	Assesses the effects of clinical decision support systems in nursing homes on medication ordering and monitoring for residents in long term care setting; also tracks costs and assesses productivity, impact, and nursing home culture and organization.

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Appendix B: Health Information Technology Research Activities

Medication Management

Title & Sponsoring Organization	Brief Description
Assessing the performance characteristics of signals used by a Clinical Event Monitor to detect adverse drug reactions in the nursing home. <i>University of Pittsburgh School of Medicine, Department of Biomedical Informatics and Division of Geriatric Medicine</i>	Development and evaluation of a NH-specific active medication monitoring system using a list of signals to detect ADRs in nursing home residents. <i>Annual Symposium Proceedings/AMIA Symposium</i> . 2008. 278-282. PMID:18998853 PMCID:PMC2656060
Consensus List of Signals to Detect Potential Adverse Drug Reactions in Nursing Homes, <i>Journal of the American Geriatrics Society</i> . Sept. '07	A multidisciplinary expert panel was able to reach consensus agreement on a list of signals to detect potential ADRs in nursing home residents. The results of this study can be used to prioritize an initial list of signals to be included in paper or computer-based methods for potential ADR detection.
A White Paper from an Expert Symposium on Medication Management in Assisted Living, <i>Center for Excellence in Assisted Living</i> 2008	

Workforce

Title & Sponsoring Organization	Brief Description
<u>Caregivers and Computers: The Effect of EMRs on Employment and Labor Relations in Nursing Homes</u> , <i>New York Update</i>	
<u>Health IT Toolkit for Nursing Homes</u> , <i>Stratis Health</i>	

Personal Health Records

Title & Sponsoring Organization	Brief Description
<u>Project Health Design</u>	Project HealthDesign was created to stimulate innovation in personal health information technology.

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Appendix B: Health Information Technology Research Activities

Research Initiatives In Progress

Title & Sponsoring Organization	Brief Description
ARRA/HITECH	<ol style="list-style-type: none"> 1. Incentive Payments for use of Certified EHRs by Other Providers (§4104(a) study) 2. Aging Services Technology (§13113 study) 3. ONC Cross Cutting Evaluation of HITECH Implementation
HEALTH INFORMATION EXCHANGE	<ol style="list-style-type: none"> 1. Standardizing Assessments and Supporting Health Information Exchange, ASPE/AHIMA. The goals of this study are to apply industry standards to federally required assessment instruments and to develop the infrastructure to support exchange of assessments and patient summaries through the use of a CDA and CCD. 2. Use of the CCD for Transfer Documents in LTC, ASPE/AHIMA.
MEDICATIONS – CPOE and CDS	<ol style="list-style-type: none"> 1. Handler SM, Shirts BH, Perera S, Studenski SA, Becich MJ, Castle NG, Hanlon JT. Frequency of laboratory monitoring of chronic medications administered to NH residents: Results of a national Internet-based study. The Consultant Pharmacist. 2008;23(5):387-95. PMID: 18540792 PMID:PMC2597281. Currently assessing the frequency and predictors of suboptimal medication monitoring in the VA and non-VA settings. The goal is to demonstrate that we are not monitoring frequently enough and that medication monitoring (and not prescribing decision support) can improve provider and patient outcomes in the NH. 2. Hanlon JT, Aspinall SL, Semla T, Weisbord S, Fried L, Good CB, Fine M, Stone R, Pugh MJ, Rossi M, Handler SM. Consensus guidelines for oral dosing of primarily renally-cleared medications in older adults. Journal of the American Geriatrics Society. 2009;57(2):335-340. PMID:19170784 PMID:PMC2640432. Currently assessing the frequency and predictors of suboptimal medication monitoring in the VA and non-VA settings. 3. Wong AK, Stephens SB, Aspinall MB, Visweswaran S, Hanlon JT, Handler SM. Assessing the quality of prescribing and monitoring erythropoiesis stimulating agents in the nursing home setting. Journal of the American Medical Directors Association. 2009; 10(6):436-439. PMID: 19560723 PMID: PMC Journal – In process.--> An epi paper highlighting one of the most expensive and potentially dangerous medications. We have developed a monitoring decision support system for use in the NH setting. 4. Medication management, remote dispensing (in Nursing Homes); Univ. of MD; Michael Bordelon, EVP - Remote Dispensing Solutions. "Cause, Effects, and Solutions to Medication Waste in Long-Term Care (LTC)."

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Appendix B: Health Information Technology Research Activities

Current Research Initiatives (In Progress)

Title & Sponsoring Organization	Brief Description
LAB ORDERING AND RESULTS	1. Shirts BH, Perera S, Hanlon JT, Roumani YF, Studenski SA, Nace DA, Becich MJ, Handler SM. Provider management of and satisfaction with laboratory testing in the nursing home setting: Results of a national study. <i>Journal of the American Medical Directors Association</i> . 2009;10(3):161-166. PMID:19233055 NIHMS: 99413: PMC Journal: In process. à This article demonstrates the need for better laboratory order entry and reporting systems for use in the NH setting. This is a set up for the current evaluation of web-based order entry and results reporting system that is in place in our local nursing homes.
ADOPTION	1. NH EHR/HIT Questions 2. National Survey of Residential Care Facilities (NSRCF) will be fielded in May 2010. The survey includes questions on EHR/HIT use. The NSRCF was developed and will be fielded with ASPE and NCHS support.
PERSONAL HEALTH RECORD	1. Project Health Design. Robert Wood Johnson Foundation.
STANDARDS	1. CCHIT 2. Application of industry accepted standards to MDSv3 and OASIS-C 3. Description of using CCD for certain use cases 4. Personal Health Monitoring Report
QUALITY AND SAFETY	1. Evaluation of AHRQ's On-Time Pressure Ulcer Program (non-hospital-based adverse event systems integrated into LTC HIT). AHRQ Action grant. Terry Moore, Abt Associates, BDU@abtassoc.com, S Horn, S Sharkey. 2. Reducing avoidable hospitalizations in nursing home residents – Integrating INTERACT Tool Kit into LTC HIT. Commonwealth Foundation. J Ouslander, S Handler, S Sharkey, S Hudak
TELEHEALTH	1. Telemonitoring in Rural Nutrition Centers: The Technologies for Enhancing Access to Health Management (TEAhM) Study. Agency for Healthcare Research and Quality (AHRQ) Action Contract; Contract No.: HHS2902006000241. Helaine Resnick, Ph.D., American Association of Homes and Services for the Aging (AAHSA), Washington, D.C.

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Appendix C: Health Information Technology Resources

EHR Implementation

- [Stratis Health](#), Minnesota's Medicare Quality Improvement Organization, has developed and made available free of charge the [Health Information Technology Toolkit for Nursing Homes](#) and [Health Information Technology Toolkit for Home Health Agencies](#). The toolkits provide web-based resources for implementing a comprehensive HIT or EHR system, for acquiring individual applications, or for overhauling existing systems.

Health IT Standards Resources

- The [National Committee for Vital and Health Statistics](#) (NCVHS) provides advice on ways to shape national information strategy for improving national health.
- The [Health Information Technology Standards Panel](#) (HITSP) is a public/private effort to identify standards to enable and support interoperability between healthcare software.
- The [Certification Commission for Healthcare Information Technology](#) is a public/private organization that has certification authority for electronic health records and networks.
- The Consolidated Health Informatics (CHI) initiative is one of the Office of Management and Budget's (OMB) eGov initiatives. CHI is a collaborative effort to adopt health information interoperability standards, particularly health vocabulary and messaging standards, for implementation in federal government systems. About 20 department/agencies including the HHS, DoD, and VA are active in the CHI governance process. The [CHI reports](#) include a report on standards for disability, functioning, and patient assessments. The [Secretary responded](#) to the CHI recommendations on disability, functioning, and patient assessments.
- The Federal Register Notice informing the public of the adoption of these new CHI standards (as well as standards for Multimedia and Allergy) and announcing that the "[Federal government will require all future federal health information acquisitions to based on CHI standards...](#)".
- [Health Level 7](#) (United States). Develops standards for electronic interchange of clinical, financial, and administrative information among healthcare oriented computer systems.
- [NCPDP](#) creates and promotes standards for the transfer of data to and from the pharmacy services sector of the healthcare industry.

A Roadmap for Health IT in Long Term and Post Acute Care (LTPAC)

Appendix C: Health Information Technology Resources

Public/Private Health IT Cooperative Resources

- [Connecting for Health](#) is a public-private collaborative of more than 100 organizations committed to enabling health professionals and patients to use information technology so that they can achieve the best care possible in emergency and routine situations, as well as in managing chronic illness.
- The [HIT Champions Partnership](#) is public and private initiative to help state lawmakers understand Health Information Technology issues.

Health Information Technology Resources

- [Healthcare Information and Management Systems Society](#) (HIMSS) is a US not-for-profit organization dedicated to promoting a better understanding of healthcare information and management systems.
- [The eHealth Initiative](#) (eHI) and the Foundation for eHealth Initiative are independent, nonprofit affiliated organizations whose missions are the same: to drive improvement in the quality, safety, and efficiency of healthcare through information and information technology.
- The [American Health Information Management Association](#) (AHIMA) has as its mission to improve healthcare by advancing best practices and standards for health information management and the trusted source for education, research, and professional credentialing.
- [Integrating the Healthcare Enterprise](#) (IHE) is an initiative by healthcare professionals and industry to improve the way computer systems in healthcare share information. IHE promotes the coordinates use of established standards such as DICOM and HL7 to address specific clinical need in support of optimal patient care.
- The [HIT Implementation Testing and Support](#) web site, developed in partnership by CCHIT, HITSP, NIST and ONC, provides health IT implementers with access to the tools and resources needed to support and test their implementation of standards-based health systems.

LTPAC Health Information Technology Policy Resources

- Center for Aging Services Technologies (CAST), a Program of the American Association of Homes and Services for the Aging, has a focus on Technology policy and posts information on [National](#) as well as [State](#) Technology Policy.

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The 2010-2012 Road Map was Developed by the LTPAC Health IT Collaborative

The 2010-2012 LTPAC Health IT Road Map can be found at:
www.ahima.org/advocacy/ltpachit.aspx



www.isicor.com

