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Health Information Technology in Long Term Care

Purpose

This issue brief provides an overview of the opportunities for long-term and post-acute care (LTPAC) providers to use health information technology (IT) to improve care delivery and health outcomes while reducing total cost of care. The first section defines the issue. The second section provides background information on the current landscape of health IT in LTPAC and an overview of the challenges and opportunities to improve care coordination and patient outcomes through the use of health IT in LTPAC settings. The third section highlights promising examples of how health IT tools and standards-based health information exchange (HIE) are enabling patient-centered care. The fourth section summarizes many health care transformation programs that represent opportunities for LTPAC providers to be integrated into health IT-enabled health care delivery and payment programs. The fifth section summarizes the key considerations for the LTPAC community today in deciding how to use health IT to transform care and the sixth and final section provides suggestions for additional resources to aid the LTPAC community as providers implement tools and standards-based HIE.

I. What's the Issue?

Transitions across acute, post-acute, and long-term care settings are common and can be very costly. In 2008, almost 40 percent (38.7%) of all Medicare beneficiaries discharged from acute-care hospitals received post-acute care.[1] Further, of these beneficiaries, 15.5 percent were readmitted to the acute care hospital within 30 days.[2] Other research shows that acute care hospital re-admission rates vary among Medicare beneficiaries receiving post-acute care services, ranging from 11% for beneficiaries discharged to in-patient rehabilitation facilities to 28% for beneficiaries discharged to home health agencies.[3] In addition, among those Medicare beneficiaries using post-acute care services, use of multiple post-acute care sites is common within 60 days following an acute care hospital discharge.[4] See Appendix I for a figure depicting

[1] Expanded Post-Acute Care Episode Analytic File ("Longitudinal Project"). April 2011 – Final Report. http://aspe.hhs.gov/health/reports/2011/pacexpanded/index.shtml#ch1)
[2] See Part 3 of an ASPE sponsored project examining Medicare acute and post-acute care episodes posted in the Chart Book at: http://innovations.cms.gov/initiatives/bundled-payments/learning-area.html)
[3] Examining Relationships in an Integrated Hospital System. March 2008 - Final Report. http://aspe.hhs.gov/health/reports/08/examine/report.html
[4] Examining Relationships in an Integrated Hospital System. March 2008 - Final Report. http://aspe.hhs.gov/health/reports/08/examine/report.html

the post-acute care transition patterns for Medicare beneficiaries following acute-care hospitalizations.

These transitions are often complicated by communication failures, poor coordination, and adverse drug events. For example, one report indicated, "an estimated 60% of medication errors occur during times of transition."[5] Furthermore, many transitions back to an acute care hospital are potentially avoidable. For example, a recent study estimated that 45% of Medicare beneficiaries receiving Medicare-covered skilled nursing facility services or Medicaid-covered nursing facility services experienced potentially avoidable hospital readmissions.[6] Re-hospitalizations, use of multiple-post-acute care sites, and adverse events can be very costly.

Better coordination of care provides a path to improving communication, improving quality of care, and reducing unnecessary emergency room use and hospital readmissions. LTPAC providers play a critical role in achieving these goals. In addition, LTPAC providers benefit by improving continuity of care for patients, establishing or maintaining good referral partnerships, and reducing costs. Most importantly, patients' and their families' experiences will be improved through enhanced coordination of care.

The use of technology is expected to improve quality and coordination of care, and reduce costs. However, use of electronic health record (EHR) technology, including interoperable technology, and participation in HIE efforts by LTPAC providers is believed to be lagging. Although national data on EHR adoption rates across most LTPAC settings is not currently available, the data available for specific settings, such as long-term acute care hospitals and rehabilitation hospitals, show EHR adoption rates behind acute care settings. One recent study indicated EHR adoption rates in long-term acute care hospitals and rehabilitation hospitals were less than half those among short-term acute care hospitals (six percent of long-term acute care hospitals and four percent of rehabilitation hospitals had a basic EHR). This study also noted a low level of HIE among these settings, particularly the ability to send and receive data electronically to inform care delivery.[7]

[5] National Transitions of Care Coalition. Improving Transitions of Care: The Vision of the National Transitions of Care Coalition. May 2008. Available at: http://www.ntocc.org/Portals/0/PolicyPaper.pdf.

[6] Walsh, E., Freiman, M., Haber, S., Bragg, A., Ouslander, J., & Wiener, J. (2010). Cost Drivers for Dually Eligible Beneficiaries: Potentially Avoidable Hospitalizations from Nursing Facility, Skilled Nursing Facility, and Home and Community Based Services Waiver Programs. Washington, DC: CMS.

[7] Wolf L, Harvell J, Jha AK. Hospitals ineligible for federal meaningful-use incentives have dismally low rates of adoption of electronic health records, Health Affairs. 2012 Mar;31(3):505-13.

In addition to not being eligible for the Medicare and Medicaid EHR Incentive Programs, LTPAC providers may experience other challenges that affect their health IT adoption and use, and result in lower rates of technology use in comparison to inpatient and ambulatory care settings. These challenges may include: differences in clinical processes and information needs; lack of staff, leadership and organizational skills and capacity to acquire, implement and use technology; and lack of awareness of and need for interoperable HIE solutions. Although many LTPAC providers have electronic systems, these systems are generally focused on creating and transmitting federally required assessments for payment and quality reporting. For facilities with EHRs, standardized electronic information exchange capability with other settings of care is generally not an integral component of the EHR and vendor adoption of interoperable functionality for LTPAC has been slow and uneven due in part to the fact that LTPAC settings of care are not eligible for the Medicare and Medicaid EHR Incentive Programs. LTPAC providers also have unique processes for collecting and distributing clinical documents and complex, iterative evaluation processes which result in many staff roles requiring access to documents. Further, high staff turnover rates have created continuity challenges with training staff on the use of health IT.[8] Despite existing challenges, it is important for LTPAC providers to use health IT and actively engage in HIE.

Today, numerous opportunities exist for LTPAC providers, hospitals and other community referral partners to engage in HIE to improve care coordination, care delivery, patient outcomes, and patient experience. These opportunities exist through new payment and service delivery reform models and national investments in health IT to support these goals.

II. What's the Background?

The U.S. healthcare system is going through a dramatic period of transformation. Hospitals and physician practices are increasingly using health IT to support this transformation spurred in part by incentive programs for the use of EHRs[9] as well as new and expanded innovative care delivery and payment models authorized by the Affordable Care Act.[10] At the same time, the U.S. population continues to grow older and the demand for health care services by Americans age 65 and older is expected to dramatically increase. Between 2010 and 2050, the U.S. Census

[8] "Improving Transitions of Care in LTPAC: An Update from the Theme 2 Challenge Grant Awardees," Kory Mertz, ONC and William Russell, M.D., ONC Consultant.
[9] American Recovery and Reinvestment Act of 2009 (ARRA), Pub. L. No. 111-5 (Feb. 17, 2009), Division A, Title XIII and Division B, Title IV, Health Information Technology for Economic and Clinical Health Act (HITECH Act) (codified at 42 U.S.C. § 17930, et seq).
[10] Patient Protection and Affordable Care Act (Pub. L. 111-148) §3013 (2010).

Bureau predicts the population of those aged 65 and older will more than double from approximately 40 million or 13 percent to 89 million or 20 percent. During the same period of time, those aged 85 years and over are expected to triple (from 6 to 19 million) largely due to increased longevity. Between 2000 and 2050, individuals utilizing long-term care services are expected to increase from 13 million to 27 million.[11]

Older Americans receive care in a variety of acute, post-acute and long-term care settings, and are often costly to the health care system because of their frequent transitions among care settings and the relative complexity of their medical care. Although most spending is driven by the senior population, people of all ages with physical and cognitive impairments need health and long-term care and related services as well. Sharing patient health information across providers and settings of care will be essential to achieving a more coordinated, person-centric, less costly health care system.

The health IT technology landscape is evolving rapidly in large part due to financial incentives authorized by The Health Information Technology for Economic and Clinical Health (HITECH) Act, enacted by Congress in 2009.[12] Through the Medicare and Medicaid EHR Incentive Programs, HITECH provides financial incentives to eligible professionals and hospitals (eligible providers) as they adopt, implement, upgrade, or meaningfully use certified EHR technology to achieve quality and efficiency goals. "Meaningful Use is the set of standards defined by the Centers for Medicare & Medicaid Services (CMS) that governs the use of electronic health records and allows eligible providers to earn incentive payments by meeting specific criteria."[13] Although LTPAC providers are not eligible providers in the EHR Incentive Programs, that is being implemented in stages, the ability for LTPAC providers and facilities to send and receive information with eligible providers and to electronically exchange standardized data bi-directionally between care settings is paramount to the continuity and quality of patient-centered care. Stage 2 of the EHR Incentive Program (effective in 2014) will take an important first step in supporting the needs of persons who receive LTPAC services by requiring eligible providers to send care summaries during transitions of care, which may include LTPAC providers.

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[11] U.S. Department of Health and Human Services and U.S. Department of Labor. The future supply of long-term care workers in relation to the aging baby boom generation: Report to Congress. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation. Available at: http://aspe.hhs.gov/daltcp/reports/ltcwork.htm. Accessed February 20, 2013.

[12] American Recovery and Reinvestment Act of 2009 (ARRA), Pub. L. No. 111-5 (Feb. 17, 2009), Division A, Title XIII and Division B, Title IV, Health Information Technology for Economic and Clinical Health Act (HITECH Act) (codified at 42 U.S.C. § 17930, et seq).

[13] http://www.healthit.gov/policy-researchers-implementers/meaningful-use

Since HITECH enactment, adoption of EHRs that met the criteria for a basic EHR system by office-based physicians grew by over 80% between 2009 and 2012, from 22% in 2009 to 40% in 2012.[14] Among non-federal acute care hospitals, adoption of at least a basic EHR system has increased by over 260% since 2009, from 12% to 44%.[15] Basic EHR functionality includes areas such as: patient demographics, patient problem lists, patient medication histories, clinical notes, and electronic orders for prescriptions, laboratory results viewing, and imaging results viewing.

In May 2012, the HHS Office of the National Coordinator for Health IT (ONC) convened a LTPAC roundtable of public and private stakeholders to better understand the information needs of LTPAC providers, how these needs could be supported through EHR adoption and HIE, and which priority EHR functions would enable HIE for LTPAC providers. Stakeholders identified three priorities to support LTPAC providers in the criteria for Stage 2 and potentially in the Stage 3 Medicare and Medicaid EHR Incentives Programs including: person-centric longitudinal care plans, transitions of care (TOC), and federally required patient assessments. The Stage 2 EHR Meaningful Use requirements include a focus the interoperable exchange of summary care records, including the exchange of care plans and functional and cognitive status content, if known.

As EHR adoption and interoperability requirements continue to advance in the acute care and ambulatory care sector, it will be increasingly important for LTPAC providers to adopt EHRs that have the capability of exchanging standardized clinical data with care partners such as hospitals, primary care practitioners, reference laboratories, pharmacies, and others to achieve quality outcomes and to mitigate a digital divide. Adopting certified EHR technology – or at a minimum adopting systems that meet ONC defined certification requirements for exchange of clinical care summaries at transitions of care – is one important step to ensuring that EHR systems meet national standards for data exchange. As of the first quarter of 2013, nine LTPAC vendors have obtained the ONC-Authorized Testing and Certification Body (ATCB) modular certification and four have obtained the Certification Commission for Healthcare Information Technology (CCHIT) 2011 Long Term and Post-Acute Care Certification. This LTPAC certification

[14] Hsiao CJ, Hing E. Use and characteristics of electronic health record systems among office-based physician practices: United States, 2001–2012. NCHS data brief, no 111. Hyattsville, MD: National Center for Health Statistics. 2012.

[15] Charles D, King J, Patel V, Furukawa MF. "Adoption of Electronic Health Record Systems among U.S. Non-federal Acute Care Hospitals: 2008-2012," *ONC Data Brief, no 9*. Washington, DC: Office of the National Coordinator for Health Information Technology. March 2013.

is independent from the ONC HIT Certification program since it's not tied to the CMS EHR Incentives Program but is still offered by an ATCB. To receive CCHIT Certification for LTPAC "an EHR must demonstrate that it meets comprehensive functional, interoperability, and security criteria developed by a workgroup of industry representatives and designed to support primary clinical needs for LTPAC providers."[16]

In an effort to advance standards adoption for health IT across the industry, ONC organized a multi-stakeholder supported Standards and Interoperability Framework. Within this Framework is the Longitudinal Coordination of Care Workgroup, a community-led initiative with multiple public and private sector partners, each committed to overcoming interoperability challenges in long-term, post-acute care (LTPAC) transitions. This Workgroup supports and advances interoperable HIE on behalf of LTPAC stakeholders and promotes care coordination on behalf of medically-complex and/or functionally impaired persons. Its primary goal is to identify standards that support care coordination of medically-complex and/or functionally impaired persons that are aligned with and could be included in the EHR Incentive Programs, in particular Meaningful Use Stage 3. The Workgroup consists of two active sub-workgroups: 1) Longitudinal Care Plan, focused on the identification of standards for an interoperable, longitudinal care plan which aligns, supports and informs patient-centric care delivery regardless of setting or service provider; and 2) LTPAC transitions, focused on the identification of data elements for LTPAC transitions of care and care plan information exchange. LTPAC stakeholders interested in participating in the workgroup, providing feedback, or piloting emerging standards are encouraged to participate. The Health IT Policy Committee and Health IT Standards Committee, two federal advisory committees that make recommendations to the National Coordinator for Health IT on policy and standards related to Meaningful Use, are considering refinements related transitions of care and care planning for Stage 3 Meaningful Use.

Partnership and collaboration also will be important as the nation progresses towards a person-centric health care system. The LTPAC HIT Collaborative, a group of stakeholder associations, is an important partner for the broader LTPAC stakeholder community and has been convening since 2005 to advance health IT issues through coordinated efforts including publication of a LTPAC HIT Roadmap and an annual conference.[16]

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[16] LTPAC HIT Collaborative Website http://www.ltpachealthit.org/; LTPAC Collaborative Summit http://www.ltpachealthit.org/content/annual-ltpac-health-it-summit, LTPAC HIT Roadmap http://www.ltpachealthit.org/content/2012-2014-roadmap-hit-ltpac.

III. How are LTPAC Providers using HIT?

While health IT adoption and exchange of health information across LTPAC providers and settings has not yet reached broad scale adoption, many privately and publically funded programs offer valuable and accessible lessons and examples for LTPAC providers across the country. Programs focused on improving care coordination, remote monitoring, and community based services along the LTPAC continuum are supported by funders such as ONC Beacon Communities and Challenge Grants, the Administration for Community Living (formerly the Administration on Aging), the Office of the Assistant Secretary for Planning and Evaluation (ASPE), the SCAN Foundation, the Center for Technology and Aging, and many others. Together, these initiatives showcase use of different health IT tools and call attention to the practical considerations around implementation and interoperability for LTPAC providers.

Health IT Enabled Care Coordination

One of the most practical applications of health IT for LTPAC providers involves increasing electronic access to information that is already collected, either for documentation or reporting purposes. Several on-going initiatives demonstrate how simple electronification of existing administrative processes, e.g., documentation and reporting, can improve care coordination without the need for high cost IT infrastructures.

Oklahoma is one of four State HIE Cooperative Agreement Program Challenge Grantees funded through ONC to improve LTPAC transitions.[17] The OK Challenge Grant focuses partuclarly on: transitions between (to and from) nursing homes and hospitals, and electronic recording (and re-use of information) in nursing homes related to change in resident condition. The Challenge Grant also addresses gaps in access to health IT infrastructure by providing nursing homes with broadband capabilities. Oklahoma is currently working with five nursing homes, a referring hospital, and an established regional provider of health information exchange to improve information sharing at transitions between acute and LTPAC providers. They have several IT-enabled evidence-based transitions of care tools, and have implemented an electronic clinical documentation tool for nursing home providers, which includes the collection of change in condition documentation. Additionally, they have digitized a nursing documentation tool that includes critical transition-related information sent via DIRECT exchange messaging from the

[17] http://www.healthit.gov/providers-professionals/health-information-exchange-challenge-grant-program.

nursing home to hospital emergency department providers.[18] The transition document is accompanied by a universal transfer document (UTF), which provides a more complete account of the patient. A similar set and flow of information will follow the patient back to the nursing home upon discharge from the hospital.[19] In addition to Oklahoma, the other State HIE Challenge Grantees also are targeting direct exchange of information to support transition of care demonstrating the extent to which this is a significant alignment opportunity for LTPAC providers.

In Rhode Island, the Beacon Community and State HIE Program targeted LTPAC providers as part of their efforts to improve HIE across settings of care. Through this initiative, which offered support and training around use of patient consent, over eighty nursing homes across the state are now equipped to access the state HIE, CurrentCare. With this information, LTPAC providers are able to understand the full picture of care for their patients, and improve coordination of care with hospital-based and clinic-based providers.

IC3 Utah Beacon Community (IC3) has launched an innovative project to make information about patient wishes more accessible electronically, specifically through an electronic registry for Physician Orders for Life Sustaining Treatment (ePOLST). The ePOLST registry allows patients to make their own decisions in advance of emergency scenarios to avoid unwanted, painful, or expensive procedures at end of life. Access to this information in the field by emergency responders helps ensure that patients wishes for end of life care is available at the point of care and emergency medical personnel and providers are being trained on how to effectively access ePOLST information.[20]

Remote Monitoring to Support Care at Home

Use of tele-monitoring devices offers unique opportunities to increase the capacity of home-health care providers, improve care coordination between these providers, primary care providers, and hospitals, and more proactively manage a patient's health and health care.

Western New York Beacon Community launched a tele-monitoring pilot using data from their HIE (HEALTHeLINK) to maximize care at home, while also improving communication across

[18] ONC LTPAC paper. "What Do Long-Term and Post-Acute Care (LTPAC) Providers Need to Know About Health Information Exchange?"
[19] "Improving Transitions of Care in LTPAC: An Update from the Theme 2 Challenge Grant Awardees," Kory Mertz, ONC and William Russell, M.D., ONC Consultant. The Theme 2 Transitions of Care Challenge Grant Awardees. February 7, 2013.
[20] http://www.healthit.gov/sites/default/files/beacon-factsheet-utah.pdf.

providers and settings. A local home health and visiting nurse organization deploys the tele-monitoring devices for high-risk diabetic patients; using these devices patients regularly submit glucose, blood pressure, and weight readings.[21] Home health nurses review and triage at-risk information via the HIE to primary care providers and alert primary care providers to potential complications without burdening them with data associated with routine monitoring. The pilot data is showing early indicators of improvements in HgA1c control and increases in patient engagement over all. The pilot is also expected to help demonstrate the potential for cost reductions as a result of fewer ER visits; for example with only one less ER visit per quarter, the tele-monitoring tool would pay for itself.[22]

The Bangor Beacon Community supports electronic medical record implementation for Eastern Maine HomeCare (EMHC), which provides home skilled nursing, therapy, and medical social work, as well as Tele-HomeCare services to expand chronic disease management for diabetes, congestive heart failure, and hypertension. Tele-HomeCare nurses intervene at key clinical points in the care process to better manage care for their patients with chronic disease and ideally reduce emergency department visits and related hospital admissions for population. In addition to EMR implementation, the Bangor Beacon Community will also create an EMR interface (a way to view and access electronic health information) that is compatible with their HIE, other EMR/EHR tools, and homecare monitoring equipment. This allows home care providers, hospitals, and primary care providers access to patients' current health and medication status from the home care record.

The Bangor Beacon Community is carefully documenting the effectiveness of the tele-health home care program because it anticipates tele-monitoring for these patients will improve quality outcomes and significantly reduce the cost of managing this population and their chronic disease.[23]

New Tools to Improve Outcomes and Support Care Planning

While EHR adoption among LTPAC providers remains very low, an innovative program, The On-Time Quality Improvement Program (On-Time), is demonstrating how tools such as clinical decision support can be used to improve outcomes and care planning. Stakeholders interested

[21] http://www.healthit.gov/sites/default/files/beaconfactsheet_westernny.pdf.
[22] http://www.informationweek.com/healthcare/patient/telemonitoring-pilot-attacks-diabetes/231600952.
[23] http://www.bangorbeaconcommunity.org/reports/bbc2011.pdf.

in nursing home quality improvement (QI) to support their technology investments can benefit from the On-Time manual. The manual provides an introduction to the On-Time QI approach, as well as tools, process improvement key action steps, implementation tips, and quotes from teams who have implemented On-Time.[24] Funded by the Agency for Healthcare Research and Quality (AHRQ), this program has demonstrated early results around pressure ulcer prevention and is now being applied to other clinical areas such as falls prevention and management, pressure ulcer healing, and prevention of emergency department and inpatient hospital transfers. Participating facilities report many positive effects of the On-Time program including:

- Improved prevention practices and timely interventions for high-risk residents,
- Improved clinical outcomes (pressure ulcer rates),
- Increased Certified Nursing Assistant (CNA) engagement in process improvement, and
- Improved communication about high-risk residents among the entire care team.[25]

KeyHIE Transform, an innovative, accessible, and cost effective tool developed through the Keystone Beacon Community aims to help ensure that valuable patient information related to LTPAC stays will be more available, ultimately allowing access to a more complete patient picture for care providers in the community. This software tool extracts clinical information from the federally required patient assessments, Minimum Data Set (MDS) for nursing homes, and OASIS for home health, and identified clinically relevant subsets of these assessments that could be clinically useful to exchange. The Keystone Beacon Community developed a software tool that would extract the subset of assessment data and convert the data into a standard format (i.e., the Continuity of Care Document (CCD)) using the same standards endorsed by ONC for of Stage 2 Meaningful Use requirements for the CMS Medicare and Medicaid Incentives Program. This standard format enables a nursing home or home health agency – regardless of IT tools in place – to share this information with other care providers within/across their HIE.

The Keystone Beacon Community contracted with a vendor to host the tools as a web service and currently plans to make the low cost web-based service available to any nursing home, home health agency, or health information exchange organization in the U.S. in the second quarter of 2013. Through this service, KeyHIE will receive the MDS or OASIS patient assessments, transform them into

[24] Sharkey S, Hudak S, Horn, S. *On-Time Quality Improvement Manual for Long-Term Care Facilities*. AHRQ Publication No. 11-0028-EF, January 2011. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/research/ltc/ontimeqimanual/.

[25] On-Time Quality Improvement for Long-Term Care. Download Information. April 2012. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/research/ontime.htm.

interoperable, standards-compliant LTPAC Summary Documents, and return the LTPAC Summary document to the authorized recipient. The following link provides information regarding the Keystone Health Information Exchange web-based service that will transform the MDS and OASIS assessments into interoperable LTPAC Summary Documents, including their pricing schedule for this service: http://transform.keyhie.org/.

As described in the Oklahoma Challenge Grant, Direct messaging (DIRECT), a standard for the "transport" of information, offers the ability to exchange messages and electronic attachments securely and brings immediate benefit to care providers across settings and their patients.[26] Using DIRECT, LTPAC providers can quickly and easily send and receive secure messages and electronic attachments to others in their network (i.e. primary care providers, other specialists, health caregivers, case managers, acute care providers and payers) minimizing the dependence on phone calls or faxes to convey patient information to other providers. With DIRECT, health professionals can draft a message, attach a file (i.e., lab result, referral paperwork, or prescription) and immediately send it securely to a colleague without moving from desk to printer to fax machine. Clinicians can exchange referral and payer forms, along with care summaries, medication lists, and lab results with their colleagues in advance or after their encounter with the patient, as needed. Importantly, DIRECT enables LTPAC providers to send and receive messages with patient clinical information to and from with hospitals and physicians with DIRECT email addresses. DIRECT also enables better communication with patients and families. For instance, a provider has the ability to provide updates to a long-term care patient or his/her family member about a diagnosis and send a lab result directly to the patient. Similarly, patients or family members can send messages to schedule an appointment or to update providers on health indicators often monitored at home, such as blood pressure or weight.[27]

The Commonwealth of Massachusetts is deploying a novel strategy linking health IT standards and payment reform initiatives for organizations participating in the state's multi-payer model to help LTPAC providers across the state share information electronically and join the electronic continuum of care coordination. The IMPACT (Improving Massachusetts Post-Acute Care Transfers) project is funded through the ONC Challenge Grant Program.[28] They are working to meet LTPAC providers where they are today with technology adoption and to ensure they can

[26] http://statehieresources.org/wp-content/uploads/2012/07/State-HIE-Implementation-Guidelines-for-Direct-Security-and-Trust_7-2012.pdf.
[27] ONC_LTPAC paper. "What Do Long-Term and Post-Acute Care (LTPAC) Providers Need to Know About Health Information Exchange?"
[28] http://mehi.masstech.org/what-we-do/hie/impact.

receive needed information electronically to care for their patients. On the technology side, IMPACT is working with tools to allow facilities with EHRs and those without EHRs to be able to create, download and exchange electronic health information with others, including new care documents and clinical information vital to the LTPAC setting. Massachusetts, as part of a larger public/private collaborative, is supporting development of a more robust implementation guide to support the interoperable exchange of transition of care information. This public/private collaborative includes many partners (such as providers, vendors, and researchers participating in the Standards and Interoperability Framework's Longitudinal Coordination of Care Workgroup, and public partners (such as ASPE) working to advance national standards for the exchange of a clinical summary documents that will support the interoperable exchange of transitions of care data sets and care plans, including the home health plan of care.

Many of the preceding activities underscore the availability of low-cost solutions that enable interoperable exchange and re-use of information needed to support care of persons who receive LTPAC services. The two pronged developments of IMPACT, data sets that meet the data needs of LTPAC providers and low costs tools, is expected to better enable LTPAC providers to actively participate in new payment and care models.

Tools for Managing Care across the Continuum

Several organizations have continued to support programs that explore how technology can better meet the needs of the elderly frail, and improve connections between community based organizations with other care systems for this population.

The Geriatric Resources for Assessment and Care of Elders program (GRACE) is a promising program funded by the Center for Technology and Aging and Tech4Impact award with support from the Scan Foundation. The intervention, called GRACE Team Care, includes home-based care management by a nurse practitioner and social worker who collaborates with a primary care physician and a geriatrics interdisciplinary team. With the support of an electronic medical record and longitudinal tracking system, the GRACE support team provides ongoing care management and coordination of care across multiple geriatric syndromes, providers, and sites of care. GRACE has been shown to improve both quality of care and person-level outcomes while reducing costly emergency room and hospital use in high-risk elders. Given great success

in this program thus far quality of care improvements and cost reductions, the Scan Foundation is currently supporting the replication of GRACE at three additional sites in California.[29]

The Center for Technology and Aging (CTA) has helped develop a series of successful and progressive interventions supporting LTPAC care in the community. The ADOPT Toolkit helps organizations more quickly and easily design health technology-focused programs and accelerate diffusion of proven technologies. The Toolkit offers tools in four areas: Remote Patient Monitoring, Medication Optimization, Care Transitions, and Mobile Health.[30] Other key technology initiatives supported by CTA include medical adherence technologies such as In-Home Automated Medicine Dispensers, which have resulted in a 98% adherence rate, medication management technologies such as the Virtual Pharmacist Counseling, and remote patient monitoring technologies such as heart failure monitoring and messaging.[31]

Notably, the Administration for Community Living (ACL) and CMS partnered with CTA to include a special funding opportunity within the 2010 Aging and Disability Resource Center (ADRC) Evidence Based Care Transition Program grant announcement. This "Tech4Impact" award was designed to accelerate adoption and diffusion of technologies within ADRC evidence based care transitions programs. The five Tech4Impact grantees expanded the use of technologies that better empower patients/consumers in the care transitions process and enhanced care transitions program evaluation.[32]

The San Diego ADRC was one of the recipients of a Tech4Impact grant from the Center for Technology and Aging. With ACL/CMS transition grant funding, the ADRC partnered with Sharp Memorial Hospital to implement the Care Transition Intervention® (CTI®) for high-risk patients in order to reduce hospital re-admission rates in the San Diego area. The Tech4Impact grant supported participants' adherence to CTI® beyond the four-week intervention through adoption of technology. Patients use the San Diego ADRC Network of Care (NoC) website to locate services and resources, plan for their long term care needs, and learn how to improve their health and wellbeing. As a key component of NoC, ADRC staff members train patients with chronic conditions on how to use the electronic Personal Health Record (ePHR) component of the website. The ePHR enables communication and collaboration between patients, family members, caregivers, and physicians.

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[29] http://www.thescanfoundation.org/grants-grantees/what-we-fund/promising-programs.
[30] http://toolkit.techandaging.org.
[31] http://www.aoa.gov/aging_statistics/docs/AoA_ACA_Slides_062111.pdf.
[32] http://www.techandaging.org/Tech4Impact_Grants_Abstracts.pdf.

The target populations for this transition program included younger adults with disabilities and patients with medication management challenges. Within two years, this ADRC transition partnership realized an 82% reduction in 30-day readmissions for the same diagnosis among program participants readmitted to Sharp Memorial Hospital. Due to the ADRC program's success, the San Diego Beacon Community supported expansion of the program to serve chronically ill patients who are medically and socially complex, and at high-risk for readmission at Sharp Memorial Hospital as well as other local hospitals. The San Diego ADRC, in collaboration with community and hospital partners, was also recently selected to participate in the CMS Community-based Care Transitions Program.

IV. What Are the Opportunities Today?

At both the federal and state level, significant progress is being made towards transforming the health care delivery system to a more patient-centric, cost-effective system. These efforts include opportunities for the LTPAC provider community to foster improved care coordination, patient outcomes, and cost-effective care through use of health IT and exchange of health information with other providers and across settings of care. For example, at the federal level, there are various innovative care and payment models, quality reporting programs, and grants that are or will provide funding for health IT implementation for long-term care providers or incentivize other providers to assist long-term care providers' implementation efforts. Many of these programs were authorized by the Affordable Care Act; but others either pre-date or have been developed or expanded as part of the ongoing transformation of the health care delivery system. In addition, new payment policies, such as readmission penalties and bundled payments, are incentivizing information exchange among acute and post-acute care providers. These and other programs and policies are described in further detail below. In some cases, these are permanent federal programs that are ongoing and will impact a broad number of LTPAC providers. In other instances, they are demonstration or grant programs that are in various stages of implementation and represent opportunities for ongoing learning and/or partnership with participating or funded entities.

There is also significant activity at the state level to use existing Medicaid waiver authorities and state-based programs to improve the quality of care delivered and reduce the overall cost of care delivery. LTPAC providers are critical to these initiatives, particularly as most long-term care services are reimbursed primarily by Medicaid and are often costly leaving little room for funding for health IT infrastructure and related expenses. However, several states are working creatively using Medicaid waiver authorities and their 90% match rate to support health IT

infrastructure in the LTPAC provider community. These and other programs and policies also are described in further detail below.

Financial Incentives for Quality Reporting

The Affordable Care Act requires HHS to establish an "initial core set" of quality measures for Medicaid eligible adults and a "Medicaid Quality Measurement Program" to develop further quality measures for Medicaid eligible adults. State reporting of these measures is voluntary. HHS published the "initial core set" of quality measures for Medicaid eligible adults on December 30, 2010. The Secretary also must establish a quality reporting program for LTCHs and Inpatient Rehabilitation Facilities (IRFs). The LTCH and IRF quality reporting programs will require LTCHs and IRFs to report quality measures in order to avoid a 2% reduction to their annual payment update. CMS has established the LTCH and IRF Quality Reporting Program and payment adjustments will begin during FY 2014. It is anticipated that performance on these quality measures will be improved through better coordinated patient care and facilitated via EHR data collection and reporting. These quality reporting programs supplement the pre-existing CMS LTPAC quality reporting programs for hospice, home health, and SNFs.

New Care Delivery Models and Programs

- *Specific Long Term Care Opportunities.* As required by the Affordable Care Act, the Center for Medicare and Medicaid Innovation (Innovation Center), a component of CMS developed the *Independence at Home Demonstration* and the *Community-based Care Transitions Program*. The *Independence at Home Demonstration* is testing the effectiveness of delivering comprehensive primary care services at home and if doing so improved care for Medicare beneficiaries with multiple chronic conditions. Participating practices will make in-home visits tailored to an individual patient's needs and preferences. Practices that succeed in providing a consistent quality standard while generating Medicare savings will have an opportunity to share in savings after meeting a minimum savings rate. The *Community-based Care Transitions Program* provides funding to community-based organizations (CBOs) and acute care hospitals (ACHs) so they may administer care transition services to "High-Risk Medicare Beneficiaries" as they leave the hospital to successfully transition back to their home or the setting that best suits their needs. The Innovation Center has selected 15 independent practices and 3 consortia, including Cleveland Clinic to participate in the Independence at Home Demonstration and the Innovation Center has awarded funding to 102 sites, or

community-based organizations partnering with hospitals and working with LTPAC providers in the community participating in the Community-Based Care Transitions Program. The LTPAC community should consider participating in these initiatives if available in their communities which provide support and evidence based interventions to improve care transitions to and from hospitals and long-term care settings.

- *State Option to Provide Health Homes for Enrollees with Chronic Conditions.* The Affordable Care Act gives states an option to offer health home services for Medicaid beneficiaries with chronic conditions. Health home services include (1) care management; (2) care coordination; (3) transitional care; (4) support for patients and family; (5) community and social services referrals; and (6) the use of health IT as a means to link services. Use of health IT and HIE is required to the extent "feasible and appropriate" to link services. CMS has approved State Plan Amendments from Iowa, Missouri, New York, North Carolina, Ohio, Oregon, Rhode Island and will continue to accept State Plan Amendments from additional states. LTPAC providers in these states should consider working with their state Medicaid programs to develop and implement these programs as long-term care and support services can be a critical piece of an effective health home.
- *Aging and Disability Resource Center Enhanced Options Counseling Program.* The ADRC Enhanced Options Counseling states are engaged in developing the No Wrong Door (NWD)/ADRC entry point to the long term service and support system for the state and nation. The NWD system is for all populations and all payers and includes programs funded by ACL, CMS and Veterans Health Administration (VHA). The states include Connecticut, Maryland, Massachusetts, New Hampshire, Oregon, Vermont, Washington, and Wisconsin. Many of these states are building an Affordable Care Act community living system that includes the Balancing Incentive Program, the Money Follows the Person (MFP) program, the Community Care Transition Program (CCTP), and the duals financial alignment demonstration program. In addition to this initiative, 36 states received ADRC Sustainability Program Expansion Supplemental Program grants. ACL designed this funding opportunity to help support states in pursuing and developing sustainability strategies for the ADRC Options Counseling Program in conjunction with their health systems transformation and funding from CMS and VHA. Options counselors perform functional assessments and capture other person level data that if exchanged across LTPAC providers and community partners would enable longitudinal care planning and continuity of care. The LTPAC community should consider participating in these initiatives if available in their communities.

- *Initiative to Reduce Avoidable Hospitalizations Among Nursing Home Residents*. CMS is partnering with eligible, independent, non-nursing facility organizations (referred to as "enhanced care & coordination providers") to implement evidence-based interventions that reduce avoidable hospitalizations, including use of health IT. The following organizations were selected to participate in the testing of this model: Alabama Quality Assurance Foundation, Alegent Health (Nebraska), Health Insight of Nevada, Indiana University, The Curators of the University of Missouri, The Greater New York Hospital Foundation, Inc., and UPMC Community Provider Services (Pennsylvania). Each enhanced care and coordination provider is collaborating with states and nursing facilities to implement its intervention in at least 15 partnering nursing facilities. While the solicitation for this initiative has closed, the LTPAC community should consider whether they may partner with groups participating in these initiatives if available in their communities.
- *Medicare Shared Savings Program (MSSP) and the Pioneer Accountable Care Organization Model*. The MSSP is a permanent Medicare program allows providers to organize into Accountable Care Organizations (ACOs) in order to provide coordinated, quality care. ACOs may share any savings generated with Medicare if they meet specified quality improvement benchmarks. Currently over 250 ACOs are operating in the Medicare fee-for-service programs, serving more than four million Medicare beneficiaries. The Shared Savings Program starts a new cohort of ACOs annually each January. The LTPAC community could consider participating in these ACOs if available in their communities. For example, in those areas where ACOs are being developed, LTPAC providers could partner with ACOs to provide long term care services to beneficiaries and help improve the coordination of care for the ACO's population. It's possible for ACOs to share savings achieved with providers in their network including LTPAC partners if the LTPAC partners contributed to improved coordination of care leading to savings to the Medicare Trust Funds. It would also possible to use these funds to support implementation of interoperable systems to facilitate electronic health information exchange and care coordination. Alternatively, the ACO or ACO members could provide software and technical assistance within the parameters of the Federal healthcare anti-kickback law safe harbor for the donation of EHR software, technical services, and other assistance.
- *Financial Alignment Demonstrations – Integrating Care for Dual Eligibles*. Under Affordable Care Act authority, CMS is testing models to better align the financing of Medicare and Medicaid and integrate care delivery for people who are enrolled in both Medicare and Medicaid, also known as dual eligibles. Under the Capitated Financial

Alignment model, CMS will contract with states and health plans, and the health plans will receive a prospective, blended payment to provide comprehensive, coordinated care. Under the managed fee-for-service model, a state and CMS will enter an agreement by which the state would be eligible to benefit from savings resulting from initiatives designed to improved quality and reduce costs for both programs. Currently, 15 states have received $1 million dollars to develop better ways to coordinate care for dual eligibles through this demonstration. Four states have entered into Memorandums of Understanding (MOU) to establish the parameters of the demonstrations: Massachusetts, Ohio, and Illinois will be testing the capitated model; Washington will be testing the managed fee-for-service model. State-based strategies within these MOUs include greater flexibility for providing home and community-based services and improving health IT systems. There is a critically important role for LTPAC providers to play in these demonstrations that will require a higher degree of care and care coordination for this fragile and costly population. Ideally this will be achieved through broader HIE among patients, their providers, and health plans.

- *Quality Improvement Organization (QIO) Special Innovation Project.* CMS is working with three QIOs (Colorado, Minnesota, and Pennsylvania) to provide technical assistance to post acute care providers to improve the use of health IT in nursing homes through the 10th Scope of Work. Specifically, the QIOs are working to improve patient care in the nursing homes and home health agencies using health IT solutions that enable enhanced patient coordination, prioritized transitions of care, reduction of medication errors, creation of key partnerships, and implementation of effective quality improvement techniques. LTPAC providers in these states should consider partnering with the QIOs to avail themselves of resources and technical assistance to advance use of health IT in nursing homes.
- *Money Follows the Person.* The Money Follows the Person (MFP) Program is designed to help states balance their long-term care systems and move Medicaid enrollees from institutional care to home and community-based services. The program allows beneficiaries to receive long term care in the settings of their choice. The Affordable Care Act strengthens and expands the MFP Program to more states through September 30, 2016, and appropriates an additional $2.25 billion ($450 million for each FY 2012-2016). There are currently 42 states participating in MFP. The LTPAC community should consider participating in these initiatives if available in their communities.
- *Balancing Incentives Program.* Nine states are participating in the new Balancing Incentives Program which gives states new incentives to transform their long-term care systems and make home and community-based services more accessible to older

Americans and people with disabilities. The Balancing Incentive Program requires states to implement structural changes, including a no wrong door/single entry point system (NWD/SEP), conflict-free case management services, and core standardized assessment instruments. The nine states include New Hampshire, Maryland, Iowa, Mississippi, Missouri, Georgia, Texas, Indiana, and Connecticut. The LTPAC community should consider participating in these initiatives if available in their communities.

- *Bundled Payments*. CMS recently launched a Bundled Payment for Care Improvement demonstration. Long-term care facilities may participate in the initiative, which will explore the effect of bundled payments on quality and cost of care. Two of the four models specifically involve post-acute care services. Episodes of care under Model 2 (a retrospective Acute Care Hospital Stay plus Post-Acute Care Model) will include the inpatient stay in the acute care hospital and related Part A and Part B services for a period of 30, 60, or 90 days after discharge (at the participant's option). Episodes of care under Model 3 (a retrospective Post-Acute Care Only Model) will be triggered by an acute care hospital stay and will begin at initiation of post-acute care within 30 days of discharge at a participating skilled nursing facility, inpatient rehabilitation facility, long-term care hospital or home health agency. Related Part A and Part B services for a period of 30, 60, or 90 days (at the participant's option) will he included in the episode. CMS plans to work with participants in both of these models during an initial period (Phase 1) to prepare for financial and performance accountability for episodes of care prior to becoming awardees and entering the "risk-bearing" period of performance (Phase 2).
- *State Innovation Model Initiative.* CMS recently announced funding for 25 states as part of the State Innovation Model Initiative that will provide nearly $300 million to support the development and testing of state-based models for multi-payer payment and delivery system transformation. More than $250 million was awarded to six states that are ready to implement Innovation Plans (Model Testing states) – these plans describe the states' strategies to improve health care delivery through multi-payer and other state-based initiatives including integration of long-term care supports and services. Some states may be expanding HIT programs to reach LTPAC providers as a part of integration of LTPAC into their new models of care. Three states were awarded funds to conduct pre-testing activities to develop Innovation Plans. Sixteen additional states received model design funding to produce an Innovation Plan. The states receiving awards include: Arkansas, Maine, Massachusetts, Minnesota, Oregon and Vermont for model testing; Colorado, New York, and Washington for pre-testing; and California, Connecticut, Delaware, Hawaii, Idaho, Illinois, Iowa, Maryland, Michigan, New

Hampshire, Ohio, Pennsylvania, Rhode Island, Tennessee, Texas, and Utah for model design support.

New Payment Mechanisms

- *Value-Based Purchasing Programs*. The Affordable Care Act requires the Secretary to develop value-based purchasing programs for Skilled Nursing Facilities and Home Health Agencies. CMS submitted reports to Congress in 2012 detailing their plans to implement Value-Based Purchasing Programs for Skilled Nursing Facilities and Home Health Agencies. It is anticipated that performance in these programs will be improved through better coordinated patient care and facilitated via EHR data collection thus encouraging LTPAC providers to implement EHRs.
- *Readmission Penalties*. HHS has launched the "Hospital Readmissions Reduction Program" (HRRP) that penalizes IPPS hospitals that have excess readmission rates for selected health conditions. CMS finalized rules for the Hospital Readmissions Reduction Program in August 2011. Beginning October 1, 2012, hospitals with excessive readmission rates for Heart Failure, Acute Myocardial Infarction and. Pneumonia will receive a maximum 1% reduction to their IPPS payment. The 1% maximum penalty will grow to 2% for FY 2014 and 3% for FY 2015 and beyond. HRRP will encourage hospitals to coordinate care with LTPAC providers to avoid readmissions and readmission penalties that could lead to health IT and information exchange support from hospitals to long-term care providers.

V. What Does This Mean for LTPAC?

While many challenges still exist for LTPAC providers around adopting and realizing the full potential of health IT, as illustrated in Section III, there are many opportunities for LTPAC providers to use health IT to delivery seamless, patient centered, high quality care. Several organizations and communities are demonstrating how technology can help improve transitions to and from the LTPAC setting and enable care management in home and community based settings. While these examples are promising, challenges related to training and low levels of health IT adoption and interoperability must be addressed before successful, effective, and fully informed, IT-enabled care delivery across LTPAC settings is possible. Nonetheless, the innovations described here showcase the diverse possibilities associated a modernized LTPAC system and highlight approaches to managing some of the implementation

barriers. Together, these examples offer a glimpse of the ever-growing portfolio innovative LTPAC care delivery.

In addition, the examples of current federal programs to support the transformation of the health care delivery identified in Section IV coupled with the examples in Section III clearly illustrate the ways in which LTPAC providers can actively participate in health IT enabled transformation of care delivery. To support ongoing efforts to advance health IT adoption and exchange among LTPAC providers, many organizations have developed tool kits, IT standards, primers, health IT selection tools and other resources to assist the LTPAC community (see section VI). LTPAC providers are encouraged to adopt and use EHRs or health IT products that have received ONC ATCB certification for the transition of care criterion to facilitate exchange with hospital and other partners. As care delivery moves away from a silo-based approach to a patient-centered, coordinated approach, LTPAC providers are encouraged to identify and participate in opportunities that best support an integrated vision of health care delivery to support improved outcomes across the entire system. For example, LTPAC providers might consider taking any of the following next steps to explore opportunities to improve care coordination and health care quality through use of health IT and information exchange.

1) Explore access to existing provider, community or state based HIE services or portal views of EHRs from larger hospital systems that refer to LTPAC facilities. This may include using new (and low cost) tools such as the KeyHIE (http://transform.keyhie.org/) to transform MDS into a summary of care document to share with hospitals and other treating providers in the community.
2) Identify potential partnership opportunities with community based care transitions organization in your area. This may include supporting care transitions by sharing of summary records from hospitals to skilled nursing facilities (SNFs) and primary care providers (PCPs).
3) Identify potential partnership opportunities with ACOs in your service area. This could include working with them to implement an interoperable HIE infrastructure and supporting care transitions across providers and settings of care.
4) Explore potential HIT donations from partners, such as health systems or hospitals in your service area that would be compliant under the existing federal health care program anti-kickback law and physician self-referral (Stark) law exceptions for the donation of EHR software and technical assistance.
5) Consider participation in any community-based effort to support accountable care arrangements or HIE and inform the business model and pricing strategy to ensure services are affordable and accessible for LTPAC providers.

6) Explore new payment arrangements with commercial payers such as prospective payment or rewards for high performance.
7) Find out if the state Medicaid program is planning or implementing new care delivery and reimbursement models that rely on health information exchange across settings of care.

VI. What Resources are Available?

Below is a list of resources that could assist in the planning, selection and implementation of health IT and related interventions to enable patient-centered long-term and post acute care.

General Health IT in LTPAC Initiatives and Reports

LTPAC HIT Collaborative

http://www.ltpachealthit.org/

The LTPAC HIT Collaborative is a group of stakeholder associations, government agency staff, and thought leaders that was formed to advance LTPAC HIT issues through coordinated efforts such as hosting an annual Summit and publishing a Road Map to advance strategic priorities and inform provider organizations, policy-makers, vendors, payers, and other stakeholders.

LTPAC HIT Collaborative 2012-2014 Roadmap for Health IT in Long-Term and Post-Acute Care

http://www.ltpachealthit.org/sites/default/files/LTPAC_HealthIT_Roadmap_2012-2014%28Final%29.pdf

The LTPAC HIT Collaborative publishes a Road Map every two years to provide guidance to provider organizations, policy-makers, vendors, payers, and other stakeholders on how the LTPAC health sector can be incorporated into national goals to provide all Americans access to electronic health records.

LTPAC Roundtable Summary of Findings

http://www.healthit.gov/sites/default/files/pdf/LTPACroundtablesummary.pdf

This report summarizes key findings from the Long-Term and Post-Acute Care (LTPAC) roundtable discussion and outlines options based on the discussion for ONC's Federal Advisory Committees members—the HIT Policy and HIT Standards Committees—to consider when developing recommendations for additional EHR Certification Criteria (EHR CC) and additional Stage 3 MU requirements and measures.

Health IT and EHR Selection Tools and Resources

Stratis Health - Health Information Technology Toolkit for Nursing Homes

http://www.stratishealth.org/expertise/healthit/nursinghomes/index.html

The Health Information Technology Toolkit for Nursing Homes can be used for implementing a comprehensive HIT or EHR system, for acquiring individual applications, or for overhauling existing systems.

Leading Age Center for Aging Services Technologies - EHR for LTPAC: A Primer on Planning and Vendor Selection

http://www.leadingage.org/uploadedFiles/Content/About/CAST/Resources/EHR_For_LTPAC_2012.pdf

The purpose of this paper is to aid LeadingAge members, CAST members and other aging services organizations in choosing an Electronic Health Record (EHR) system that fits the needs of the organization, its providers and patients/consumers. This paper builds upon and references specific tools from the Stratis Health Nursing Home and Home Health toolkits.

Leading Age Center for Aging Services Technologies - Electronic Health Records Selection Tool

http://www.leadingage.org/ehr/search.aspx

The EHR selection tool can help LTPAC providers learn which of the reviewed EHR products meet their organizational needs.

CIO Consortium: Electronic Medical Records (EMR) Cost Study

http://www.leadingage.org/uploadedFiles/Content/About/CAST/Resources/CIO_Consortium_EMR_Cost Study.pdf

The objective of this study was to determine all costs to evaluate, deploy, and operate an Electronic Medical Record (EMR) system for a "typical" 25-facility chain providing nursing care and rehabilitation services.

Care Transition Initiatives and Resources

INTERACT: Interventions to Reduce Acute Care Transfers

http://interact2.net/tools.html

INTERACT is a quality improvement program designed to improve the early identification, assessment, documentation, and communication about changes in the status of residents in skilled nursing facilities. The goal of INTERACT is to improve care and reduce the frequency of potentially avoidable transfers to the acute hospital.

Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents

http://innovation.cms.gov/initiatives/rahnfr/

This new effort aims to improve the quality of care for people residing in nursing facilities. CMS is supporting 7 organizations that are partnering with nursing facilities to implement evidence-based

interventions to improve care for long-stay nursing facility residents who are enrolled in the Medicare and Medicaid programs, with the goal of reducing avoidable inpatient hospitalizations. All seven sites funded will be using the INTERACT program. Several sites will also implement the use of a standardized electronic transfer form to eliminate the need for the paper-based format and provide real-time access to beneficiary information to all providers across the continuum of care.

The CMS Community-based Care Transitions Program

http://innovation.cms.gov/initiatives/CCTP/

The CCTP, launched in 2011, will run for 5 years. Participants will be awarded two-year agreements that may be extended annually through the duration of the program based on performance. Community-based organizations (CBOs) will use care transition services to effectively manage Medicare patients' transitions and improve their quality of care. Up to $500 million in total funding is available for 2011 through 2015. The CBOs will be paid an all-inclusive rate per eligible discharge based on the cost of care transition services provided at the patient level and of implementing systemic changes at the hospital level. CBOs will only be paid once per eligible discharge in a 180-day period of time for any given beneficiary.

The ACL Aging and Disability Resource Center Care Transitions Program

http://www.acl.gov/Programs/Integrated_Programs/EvidenceCare/Index.aspx

The Aging and Disability Resource Center Program (ADRC), a collaborative effort of the Administration for Community Living (ACL), the Centers for Medicare & Medicaid Services (CMS) and the Veterans Health Administration (VHA) supports state efforts to streamline access to long-term services and support (LTSS) options for older adults and individuals with disabilities. ADRC care transition programs help older adults or persons with disabilities remain in their own homes after a hospital, rehabilitation or skilled nursing facility stay. These grants help break the cycle of readmission to the hospital that occurs when an individual is discharged into the community without the long term services and supports they need. Currently there are **154** ADRC sites in **40** states partnering with **355** hospitals to offer care transition programs. An additional **84** ADRC sites are planning transition programs with **152** hospitals in **8** states.

ACL Affordable Care Act Webinar Series: Care Transitions

http://aoa.gov/AoARoot/Aging_Statistics/Health_care_reform.aspx

This series of webinars focuses on the Affordable Care Act and its impact on older adults, people with disabilities and the aging and disability networks. HIT related webinars include “Building Community Technology Systems to Support Care Coordination” and “Utilizing Patient-Centered Technologies to Support Care Transitions.”

Health Information Exchange Resources

Implementing Health Information Exchange in the LTPAC Community – Perspectives for Providers and Affiliated Organizations Webinar

https://www.ahimastore.org/ProductDetailAudioSeminars.aspx?ProductID=16224

This recorded webinar provides a brief overview of industry and government influences shaping the direction and requirement for health information exchange (HIE) in the long-term/post-acute care setting, provides information on current demonstration projects and programs for HIE, provides practical tools and resources for implementing HIE, and outlines some of the challenges for further implementation.

Opportunities for Engaging Long-Term and Post-Acute Care Providers in Health Information Exchange Activities: Exchanging Interoperable Patient Assessment Information

http://aspe.hhs.gov/daltcp/reports/2011/StratEng-C.pdf

The report identifies opportunities for and provides tools to support interoperable HIE by long-term/post-acute care providers. The report leverages federally-required electronic assessment content available in all Medicare and Medicaid NHs and HHAs, and applies Health IT standards to this assessment content to support needed improvements in quality and transitions of care envisioned in the Affordable Care Act and the meaningful use of EHRs by LTPAC providers. The standards identified and applied through this contract are being used and extended in: ONC HIE grant programs, the ONC-sponsored Standards and Interoperability Initiative, CMS activities to standardize the CARE (Continuity Assessment Record and Evaluation) data set, and are expected to be considered by the Health IT Policy Committee.

ONC LTPAC Challenge Grant Plan Summaries (MA, MD, CO, OK)

http://statehieresources.org/program-initiatives/challenge-grant-consumer-innovations/

The Direct Project

http://directproject.org/content.php?key=overview

The Direct Project establishes standards and documentation to support simple scenarios of pushing data from where it is to where it's needed, in a way that will support more sophisticated interoperability in the future.

Standards and Interoperability Framework - Longitudinal Coordination of Care

http://wiki.siframework.org/Longitudinal+Coordination+of+Care

The Longitudinal Coordination of Care WG participants have identified several critical components to support and advance patient-centric interoperable health information exchange across the long-term and post-acute care spectrum. To promote Longitudinal Care Management between all relevant sites and providers built around the needs and experience of the patient, three sub-workgroups are charged with tasks including the identification of data elements necessary for LTPAC information exchange, data

elements and exchange scenarios for patient assessments, and data elements and functions of a longitudinal care plan.

Remote Monitoring Initiatives and Resources for HEALTH IT in Home Health Care

The Center for Technology and Aging (CTA)

http://www.techandaging.org/

CTA is a Center of Excellence with the aim to identify and rapidly diffuse technologies that hold the promise of improving the quality and affordability of care for seniors and helping those with chronic health care conditions to maintain their independence as long as possible. The **ADOPT Toolkit** helps organizations more quickly and easily design health technology-focused programs and accelerate diffusion of proven technologies. The Toolkit offers tools in four areas: Remote Patient Monitoring, Medication Optimization, Care Transitions, and Mobile Health. Other key technology initiatives supported by CTA include medical adherence technologies such as In-Home Automated Medicine DisMore information on the Center for Technology and Aging is available at: http://www.techandaging.org/Tech4Impact_Grants_Abstracts.pdf

Positive Results and Lessons Learned from the NEHI Remote Patient Monitoring (RPM) Project Lead to Expansion of RPM to all Patients with Heart Failure at Atrius Health

Sharp HealthCare: Reducing 30-day Hospital Readmissions for Congestive Heart Failure Patients by Utilizing Remote Patient Monitoring (RPM) Technology

Remote Patient Monitoring Grantee, Centura Health at Home (CHAH), Completes CTA Grant

Project with Positive Outcomes and Impacts Policy in Colorado

Remote Patient Monitoring Diffusion Grants Program Project Abstracts

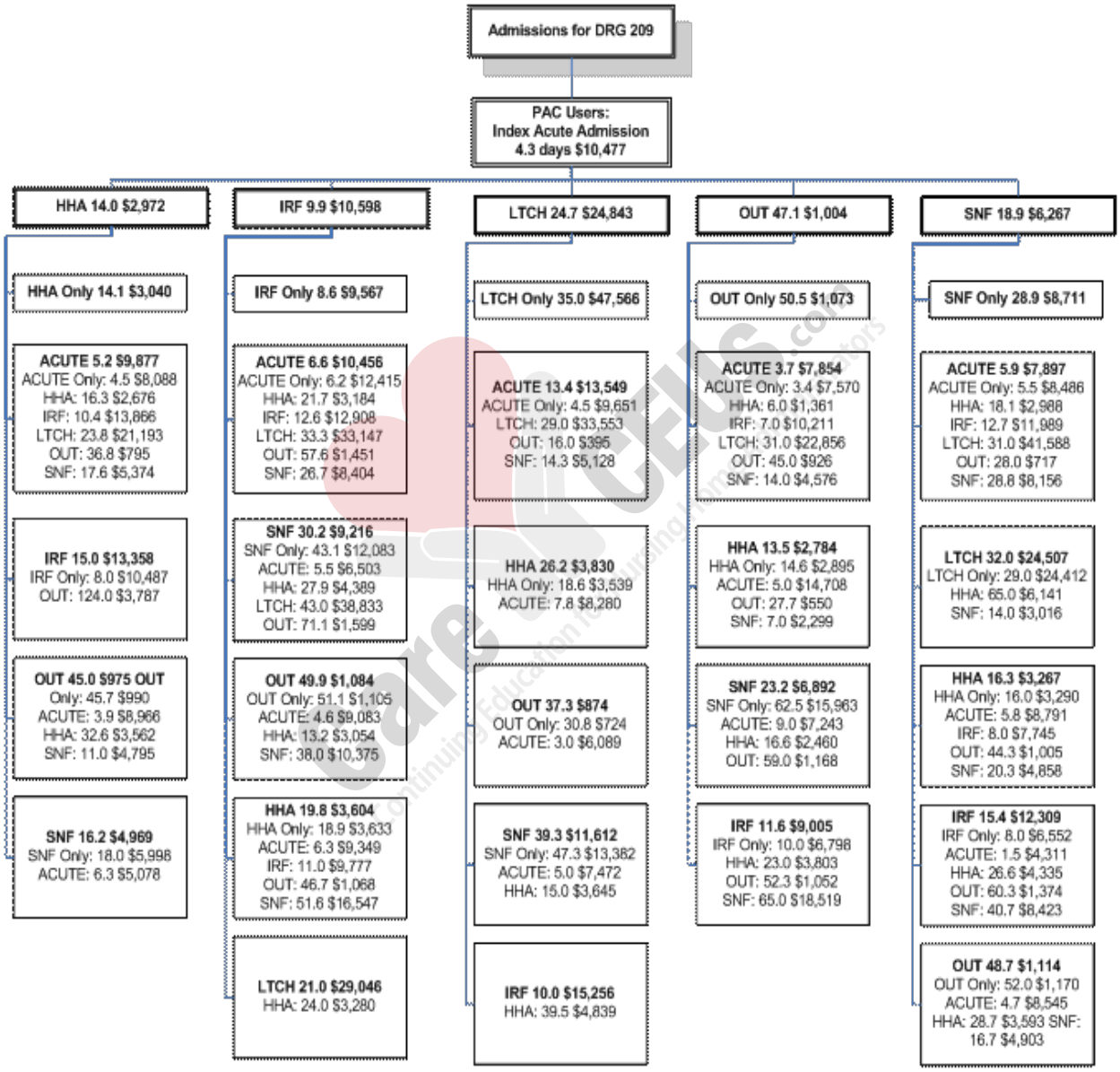
Fact Sheet: Highlights from the Remote Patient Monitoring Position Paper

Position Paper: Technologies for Remote Patient Monitoring in Older Adults

Appendix I

Post-Acute Care Transitions for Acute Hospital Discharges, 2005

Number and Percent of Admissions



Source: **Examining Relationships in an Integrated Hospital System.** March 2008 - Final Report. Figure 4-1a. http://aspe.hhs.gov/health/reports/08/examine/report.html

"This course was developed from the public domain document: Health IT in Long-term and Post Acute Care: Issue Brief –The Office of the National Coordinator for Health Information Technology."