Deep Dive: Resources and Case Studies to Support Long Term and Post-Acute Care Health IT Adoption and Health Information Exchange

ONC Annual Meeting 2017
Session Agenda

- ONC LTPAC Educational Modules Overview
- Leading Age CAST Resources Available to Help Long-Term & Post-Acute Care (LTPAC) Providers Thrive
- Reuse and Dissemination of ONC LTPAC Educational Materials
LTPAC Educational Modules

• The purpose of this educational module is to help early adopter LTPAC providers better understand the value of health information technology (health IT) and health information exchange (HIE).

• The module contains resources and information for LTPAC providers seeking to adopt and implement health IT.

• The goal of this module is to help LTPAC providers prepare for success in today’s evolving health IT and value based payment environment.

https://www.healthit.gov/playbook/care-settings
Understanding the Value of Health IT: Overview

• MODULE 1: CURRENT HEALTH CARE LANDSCAPE AND VALUE OF HEALTH IT FOR LTPAC
  » What is Health IT? Why is it important in LTPAC settings?
  » Understanding Drivers, Key Policies, and Regulations related to Health IT and LTPAC
  » CASE STUDY 1: Coordinating Care Oklahoma

• MODULE 2: HEALTH IT ADOPTION AND IMPLEMENTATION
  » National EHR Adoption Perspective
  » State-based EHR Adoption and Implementation
  » Health IT Adoption Challenges
  » Health IT Adoption Resources
  » Case Study 2: Camelot Brookside Care Center

• MODULE 3: HEALTH INFORMATION EXCHANGE ADOPTION & IMPLEMENTATION
  » What is Health Information Exchange? Why is it important for LTPAC?
  » National HIE Adoption Perspective
  » Federal and State-based LTPAC HIE Implementations
  » What is Patient Engagement important for LTPAC
  » Case Study 3: CORHIO
In 2014, nearly 67,000 LTPAC providers served over 9 million Americans.
Why is Health IT Important for LTPAC Organizations?

Transitions of Care Complexity

40%
Of Medicare patients discharged from acute hospitals receive LTPAC services

25%
Of Medicare patients discharged to a skilled nursing facility were readmitted within 30 days

LTPAC providers receiving patients from other settings must gather information from multiple sources using multiple communication and exchange methods. Health IT can support efficiencies and economies of scale.

Sources: Opportunities for Engaging Long-Term and Post-Acute Care Providers in Health Information Exchange Activities
Adopting Health IT Infrastructure to Support Care Coordination
Care coordination is critical to team based and accountable care and elevates the need for advanced health IT infrastructure and to enable integrated care.

Quality and Performance Measure Collection and Submission:
There is value in capturing measures electronically and in using existing electronic data to inform progress toward achieving quality goals.

Workflow, Process Improvement & Efficiencies:
The delivery of care and services can be made more efficient through the use of electronic information received from other settings and the patient.

Patient Identification & Matching:
Health IT facilitates the ability to identify patients, supports longitudinal care planning and help ensure the care team is treating the correct patient.

Re-use of Data for Other Purposes:
LTPAC providers benefit from re-use of data for public health reporting, patient safety reporting, adverse event reporting, and research.
Business Case for Interoperability in LTPAC

**Situation**

**Market Forces:**
Healthcare is going through a paradigm change from an episodic model to a person-centric electronic longitudinal care model with focus on prevention and wellness.

**Admission Challenges:**
Patient is discharged to LTPAC on a Friday afternoon at 4:30pm to not incur additional ‘Length of Stay’ (LOS) days. Care is initiated over the weekend.

**Patient Care:**
First 48 hours of care

**Motivation (Business Driver)**

- Meet the Triple Aim – better care, smarter spending, and healthier people
- Be a shared risk partner with hospitals for new payment models
- Implement nationally recognized transitions of care data exchange standards
- Diagnose chronic care requirements earlier

- Timely preparation requirements for admission (assessments, administrative, room)
- Special services: respiratory, kidney, therapy, dietary
- Medication reconciliation and availability
- Medical doctor input

- Chronic care diagnosis and longitudinal care plan developed and implemented
- Pressure ulcer diagnosis and wound treatment
- Sepsis diagnosis and special isolation
- Pain management and medications

• About two-thirds (64%) of SNFs used an EHR in 2016 and about one-fifth (18%) of SNFs used both an EHR and a state or regional health information organization (HIO).

• Three out of 10 SNFs electronically exchanged (i.e., sent or received) key clinical health information.
  
  » SNFs that used an EHR and an HIO could electronically send, receive, find, and integrate patient health information at higher rates than those facilities that used an EHR alone.

• Nearly two-thirds (62%) of SNFs had information electronically available from outside sources at the point of care.
  
  » SNFs that used both an EHR and an HIO had patient health information electronically available from outside sources at the point of care at higher rates than those facilities that used an EHR alone.

Examples of State Advancement in LTPAC EHR Adoption

MN LTPAC EHR Adoption

 Exhibit 1: EHR Adoption among Minnesota's Nursing Homes, 2011-2016

In 2016, the MN e-Health Roadmap for Behavioral Health, Local Public Health, LTPAC and Social Services was published and includes use cases, a person-centered view, recommendations, and actions to support and accelerate the adoption and use of e-health.
Stratis’ Health Information Technology Toolkits can be used to implement a comprehensive EHR system, overhaul existing systems, or acquire individual Health IT applications.

Toolkits for Nursing Homes and Home Health Agencies can be used to help settings engage in e-health activities by optimizing the use of an EHR and facilitating information sharing through HIE and other forms of Health IT.

Care Coordination Toolkit available to assist multiple provider groups working together to provide patient-centered, coordinated care.

Source: https://www.stratishealth.org/expertise/healthit/
Pilot Program initiated with five LTPAC facilities and one acute care hospital, Norman Regional Health System. Each LTPAC site adopted a new workflow that leveraged key features of the facility's new EHR system to capture patient information quickly and accurately. The new workflow required aides to document patient's health status on wall-mounted kiosks immediately after providing care.

The SBAR (Situation-Background-Assessment-Recommendation) technique provides a framework for communication between members of the health care team about a patient's condition. Please see: https://healthcareitskills.com/what-is-sbar/
Case Study: Coordinated Care Oklahoma Pilot, continued

- Existing transfer agreement with local Hospital
- Existing sharing agreement and access to CCO
- Adoption of EHR system
- Adoption of standardized clinical documentation to record patient status: the SBAR and UTF
- 10 patients to 1 Aide
- 1 charge nurse per shift
- 1 Designated Director of Nursing
- 1 Advanced Practice Registered NP
- 1 Medical Director

1. Aide enters change of patient status in EHR kiosk, mounted outside patient room
2. Charge Nurse receives immediate alert and completes SBAR form
3. Designated Provider reviews SBAR
4. Designated Provider completes UTF and sends with SBAR to Hospital and CCO HIE
5. Hospital EHR system received SBAR and UTF forms via secure messaging. Files attached to patient record in Hospital HER.
6. Designated Provider uploads SBAR and UTF forms into HIE system so they may be viewed by other participating providers on patient’s care team

Case Study: Coordinated Care Oklahoma Pilot, continued

**98%**
Compliance

**97%**
Patient Satisfaction

With Daily Assessments by Nursing Aids

- **78%**
  Reduction of 30-day readmission overall in all five participating facilities

- **70%**
  Reduction of 30-day return to ED post-acute care discharge

- **50%**
  Reduction in readmissions in one year

**KEY SUCCESS FACTORS:** Adopting new provider communication workflows and health IT tools like HER kiosks that require little if any previous training or computer skills and that can be conveniently accessed by all provider
Thank you!

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CAST Resources Available to Help Long-Term & Post-Acute Care (LTPAC) Providers Thrive

with MAJD ALWAN, PH.D.
## Models & Enabling Technologies

<table>
<thead>
<tr>
<th>Models</th>
<th>Integrated/Coordinated Health Care</th>
<th>Community-Based Support Services</th>
<th>Real Estate Based</th>
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<tbody>
<tr>
<td>+ Interoperable EHRs &amp; HIE</td>
<td>+ Interoperable EHRs &amp; HIE</td>
<td>+ Interoperable EHRs &amp; HIE</td>
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<td>+ Remote Monitoring/Telehealth</td>
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<td>+ Care coordination tools</td>
<td>+ Care coordination tools</td>
<td>+ Care coordination tools</td>
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<tr>
<td>+ Remote monitoring and assistive devices</td>
<td>+ Remote monitoring and assistive devices</td>
<td>+ Remote monitoring and assistive devices</td>
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<tr>
<td>+ Wellness &amp; quality of life</td>
<td>+ Wellness &amp; quality of life</td>
<td>+ Wellness &amp; quality of life</td>
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<td></td>
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<td>+ Facility management</td>
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CAST Strategic Planning & Strategic IT Planning Workbook

[Diagram showing the planning process with boxes for Vision, Mission, Goals, Strategies, Objectives, and Activities / tactics, linked to Values and Domain of the Board and Domain of the Manager]

http://www.leadingage.org/strategic-it-planning-tools
CAST Technology Selection Tools

- EHR Selection
- Telehealth/RPM
- Medication Management
- Functional Assessment
- Shared Care Planning & Coordination
- Social Connectedness & Engagement

http://leadingage.org/technology-selection-tools
Provider Case Studies

Lessons Learned While Preparing for the Future: 
*Revisiting the Accomplishments of Technology Pioneers in the Field of Aging Services*

AN UPDATE TO 13 CASE STUDIES 
FROM PIONEERS IN THE FIELD 
June 2015

Strategic IT Planning Provider Case Studies 2015

Updated Business Case Studies

Initiative Case Studies

CAST Patron/Supporter Case Studies

http://www.leadingage.org/members/cast-business-case-studies

http://www.leadingage.org/strategic-it-planning-case-studies

Reducing Admissions from Nursing Homes by Use of Electronic Collection of Vital Signs

• Central Control is a recognized provider and employer of choice in the markets it serves

• Manages/operates seven skilled nursing facilities in Louisiana, a hospice division in Arkansas, a national nurse practitioner placement firm and has launched a telehealth software product line

• Camelot Brookside is a 120 beds for-profit Nursing Home in Jennings, LA.
The Problem & Solution

• Losing $5000 a month
• 26% Hospital Readmission Rate
• Caregivers were not capturing and documenting vitals in a timely manner--and the accuracy of vitals was also questionable!

• Multi-faceted approach:
  – CareConnection Vitals at the Point of Care (POC)
    • Mobile
    • Touch screen
    • Multi-user
  – Integration to Camelot’s EHR system (PointClickCare) with Dashboard Alerts
  – Added advanced practice nurses (APRNs), and
  – Instituted focused daily meetings.
Outcomes, Challenges and Advice

**Outcome:**
- Reduction of Readmissions from 26.3% to 10.4%

**Challenges:**
- Resistance to change by CNAs
- Support of the new technology at the management level
- Promised the team that they would save time and their jobs would become easier
- Management insisted that CNAs adhere to the new processes.

**Lessons Learned:**
- Communication is the key to prevention
- Actions based on accurate and timely data were the key to success
- Improved communications, daily meetings, enhanced relationships with APRNs and physicians played a significant role in improving the level of proactive care.

http://www.leadingage.org/sites/default/files/Central_Control_Case_Study.pdf
Readmits from 16% to 5% for congestive heart failure

http://www.leadingage.org/sites/default/files/Jewish_Home_Lifecare_Case_Study.pdf
Ziegler-CAST Technology Adoption Survey
Chief Technology/Information Officers

Percent of “LZ 150” with a CIO/CTO

- 2013: 21%
- 2017: 36%

Increase of 12%

Source: LeadingAge Ziegler 150
LZ-150 Technology Adoption

4-19a PERCENTAGE OF LZ 150 COMMUNITIES/OPERATIONS USING ELECTRONIC DOCUMENTATION TECHNOLOGIES


Source: 2016 LeadingAge Ziegler 150
CAST’s 7-Stage EHR Adoption Model

- Developed a model amenable to be applied across multiple LTPAC settings
- Create a framework to assess the level of EHR adoption and sophistication of use
- Support post acute providers on their technology focused initiatives towards better health outcomes
LTPAC Sector According to Vendors

![Bar chart showing the comparison of LTPAC sector percentages between 2016 and 2017 across different stages.](chart_image)

- Stage 1: 2016 Weighted Average: 10%, 2017 Weighted Average: 15%
- Stage 2: 2016 Weighted Average: 20%, 2017 Weighted Average: 25%
- Stage 3: 2016 Weighted Average: 12%, 2017 Weighted Average: 18%
- Stage 4: 2016 Weighted Average: 22%, 2017 Weighted Average: 24%
- Stage 5: 2016 Weighted Average: 23%, 2017 Weighted Average: 22%
- Stage 6: 2016 Weighted Average: 10%, 2017 Weighted Average: 5%
- Stage 7: 2016 Weighted Average: 5%, 2017 Weighted Average: 3%
## LZ-150 EHR Adoption by Stages

<table>
<thead>
<tr>
<th>Stage</th>
<th>Respondents</th>
<th>Percentage of Providers at each Stage</th>
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<tbody>
<tr>
<td>Stage 1</td>
<td>2</td>
<td>1.7%</td>
</tr>
<tr>
<td>Stage 2</td>
<td>3</td>
<td>2.6%</td>
</tr>
<tr>
<td>Stage 3</td>
<td>18</td>
<td>15.4%</td>
</tr>
<tr>
<td>Stage 4</td>
<td>26</td>
<td>22.2%</td>
</tr>
<tr>
<td>Stage 5</td>
<td>33</td>
<td>28.2%</td>
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<tr>
<td>Stage 6</td>
<td>21</td>
<td>17.9%</td>
</tr>
<tr>
<td>Stage 7</td>
<td>14</td>
<td>12.0%</td>
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N = 117

Ziegler-CAST Technology Spending Surveys
## Technology Spending Categories

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<tr>
<th>Category</th>
<th>2016</th>
<th>2014</th>
<th>2012</th>
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<tbody>
<tr>
<td>ICT Infrastructure</td>
<td>81.1%</td>
<td>16.0%</td>
<td>90.0%</td>
</tr>
<tr>
<td>Electronic Medical/Health Record Systems</td>
<td>54.1%</td>
<td>67.1%</td>
<td>46.3%</td>
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<tr>
<td>Electronic Point-Of-Care/Service Documentation</td>
<td>48.6%</td>
<td>57.1%</td>
<td>40.6%</td>
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<tr>
<td>Access To Internet, Social Networking Sites</td>
<td>36.3%</td>
<td>71.9%</td>
<td>67.2%</td>
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<tr>
<td>Access Control/Wanderer Management Systems</td>
<td>45.0%</td>
<td>51.9%</td>
<td>48.0%</td>
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<tr>
<td>User-Activated Emergency Response Systems</td>
<td>21.6%</td>
<td>31.9%</td>
<td>15.0%</td>
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<tr>
<td>Brain Health, Cognitive Stimulation/Training</td>
<td>15.0%</td>
<td>29.1%</td>
<td>23.1%</td>
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<tr>
<td>Video-Conferencing Capabilities</td>
<td>10.8%</td>
<td>20.7%</td>
<td>19.5%</td>
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<tr>
<td>Care/Case Management And Care Coordination Tools</td>
<td>19.8%</td>
<td>19.0%</td>
<td>19.0%</td>
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<tr>
<td>Physical Exercise And Rehabilitation Technologies</td>
<td>18.0%</td>
<td>17.1%</td>
<td>15.3%</td>
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<tr>
<td>Telehealth/Telemedicine</td>
<td>17.1%</td>
<td>17.1%</td>
<td>15.5%</td>
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<tr>
<td>Medication Management Technologies</td>
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<td>Health Information Exchange Solutions</td>
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<tr>
<td>Share Care Planning Tools</td>
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<tr>
<td>Activity Monitoring</td>
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<td>9.0%</td>
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<tr>
<td>Automatic Fall Detectors</td>
<td>9.0%</td>
<td>19.3%</td>
<td>18.5%</td>
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*Top bar - 2016, Middle bar - 2014, Bottom bar - 2012*
<table>
<thead>
<tr>
<th>Average/Median Percent</th>
<th>Percentage of Total Capital</th>
<th>Percentage of total Operating</th>
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<tbody>
<tr>
<td></td>
<td>2016</td>
<td>2014</td>
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<tr>
<td>Average percent (TOTAL)</td>
<td>11.8%</td>
<td>12.2%</td>
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<tr>
<td>Median percent (TOTAL)</td>
<td>7.0%</td>
<td>9.5%</td>
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<tr>
<td>Average percent (Singlesites)</td>
<td>11.7%</td>
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<tr>
<td>Median percent (Singlesites)</td>
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<td>10.0%</td>
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<tr>
<td>Average percent (Multi-sites)</td>
<td>11.8%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Median percent (Multi-sites)</td>
<td>7.0%</td>
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<tr>
<td></td>
<td>2016</td>
<td>2014</td>
</tr>
<tr>
<td>Average percent (TOTAL)</td>
<td>2.4%</td>
<td>1.6%</td>
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Additional CAST Resources

• CAST/ Technology Listserv
  – CAST@Lyris.LeadingAge.org
  – Archive: lyris.leadingage.org/read/?forum=cast

• Newsletter archive: http://www.leadingage.org/cast-tech-time-newsletter-archive
  – Manage subscription on My.LeadingAge.org

• CAST LinkedIn Technology Discussion Group (a sub-group of LeadingAge LinkedIn Group):
  https://www.linkedin.com/groups/2301204

• Have a list of LTPAC Technology Professionals.
The Eco-System

High-Tech Aging Improving Lives Today!

http://www.leadingage.org/cast/resources/high-tech-aging-improving-lives-today
Thank You...

&

Questions?

MAlwan@LeadingAge.org
Deep Dive: Resources and Case Studies to Support LTPAC Health IT Adoption and HIE

Reuse and Dissemination of ONC LTPAC Educational Materials

Michelle Dougherty, MA, RHIA, CHP
RTI International

ONC Annual Meeting, December 1, 2017
There won’t be a one-size-fits all approach for outreach and dissemination

Understand the differences in LTPAC practice settings

Understanding the clinical and business issues will help connect health IT solutions to a need.

Each practice type has unique business and clinical needs (and influencers)

There are early, mid and late adopters of health IT/HIE in each LTPAC practice setting

Differences in needs for post-acute care vs. long-term care
There won’t be a one-size-fits all approach for outreach and dissemination

**Recognize the impact of market forces**

Health IT is used in LTPAC, but advanced features such as interoperability and exchange capabilities have lagged due to lack of Meaningful Use Incentives.

Other business and clinical drivers impact interest and desire

- Competitive environment (rural vs. urban)
- Relationships, partnerships and availability of new models
- Payment, policy, and regulatory drivers
- “Entrepreneurial spirit” – vision to see new opportunities and markets
There won’t be a one-size-fits all approach for outreach and dissemination

Target multiple LTPAC stakeholders and influencers
Share liberally – multiple stakeholders and roles should be targeted at the same time.

Thought leaders and Policy leaders
Vendors, Consultants/HIT Contractors
Organizational Leaders: BOD, administrators, executive directors, medical directors, nurse executives, pharmacists, CIOs
Technical/Informatics Roles: (identify current roles that could be leveraged for health IT roles)
Dissemination and Re-use: Reaching the Community

Trade and Professional Associations
- National Conventions and Committees
- State Conventions and Committees
- Regional Roundtables/Meetings

Advocacy/Special Interest Groups/Meetings
- LTPAC Health IT Collaborative
- HIE Organizations (e.g. SHIEC)
- Others: ACOs, Medicaid Directors, Telehealth

LTPAC Vendor User Groups/Meetings
- Regional user group meetings
- User group conference calls

www.aanac.org
www.ahcancal.org
www.ahima.org
www.americantelemed.org
www.allianceni.org
www.ascp.com
www.amrpa.org
www.himss.org
www.medicaiddirectors.org
www.naacos.com
www.aaaco.org/
www.nahc.org
www.hctaa.org
www.leadingage.org
www.leadingage.org/CAST
www.nasl.org
www.npaonline.org
www.paltc.org
www.strategiche.com
www.vnnaa.org

This list provides examples and is not meant to be all inclusive.
Dissemination and Re-use: Reaching the Community

Policy and Government Channels
- CMS Communication Channels, MedLearn, etc.
- State Medicaid and HIT office Channels
- State Round Roundtables/Meetings

State Networks and Supports
- Health Information Exchange Organizations
- Quality Improvement Organizations
- State Policy Forums

Expectations of Clinical & Business Partnerships
- Preferred networks and partnerships
- ACO networks
- Referral sources

Other Means
- Articles/Publications (industry and journals)
- Research Studies
- Peer Reviewed Journals
- Universities/Faculty
Summary

- Identify how health IT addresses a current need
- Demonstrate real-world application
- Connect to a compelling impact

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