



The Office of the National Coordinator for
Health Information Technology

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.



9.1 Support for long-term and post-acute care



Educational Module for Long-Term and Post-Acute Care Providers

Long-term and post-acute care providers can use health information exchange to address patient engagement challenges and improve accuracy of patient data. This module will help you understand the value of integrating health IT and health information exchange in your setting.



[Go to the Educational Module for Long-](#)

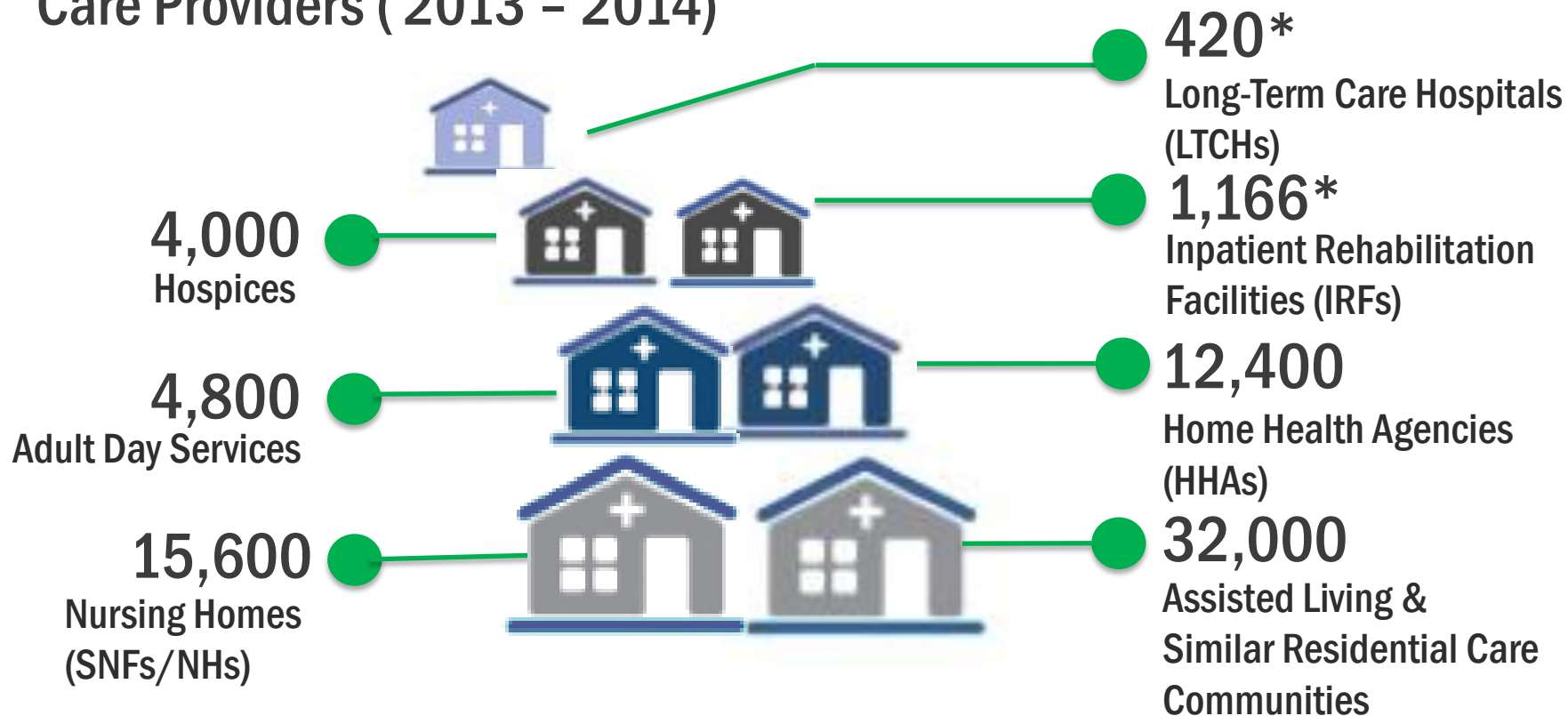
<https://www.healthit.gov/playbook/care-settings/>

Modules 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: Coordinated 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 and Implementation**
 - » What is Health Information Exchange? Why is It Important for LTPAC?
 - » National HIE Adoption Perspective
 - » Federal and State-based LTPAC HIE Implementations
 - » Why is Patient Engagement Important for LTPAC
 - » Case Study #3: CORHIO

Snap Shot of LTPAC Settings

Total Number of Settings From National Study of Long-Term Care Providers (2013 - 2014)



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.

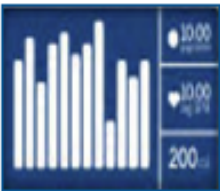
Sources: Opportunities for Engaging Long-Term and Post-Acute Care Providers in Health Information Exchange Activities (<https://aspe.hhs.gov/report/long-term-and-post-acute-care-providers-engaged-health-information-exchange-final-report>);

Why is Health IT Important for LTPAC Organizations?



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 can 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 standards¹
 - 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

Source: Gregory Alexander, John Derr "Critical Conversations in Transitions of Care- Part 2" HIMSS Annual Conference 2016

ONC Data Brief: EHR Adoption and Interoperability among U.S. Skilled Nursing Facilities in 2016

- 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.

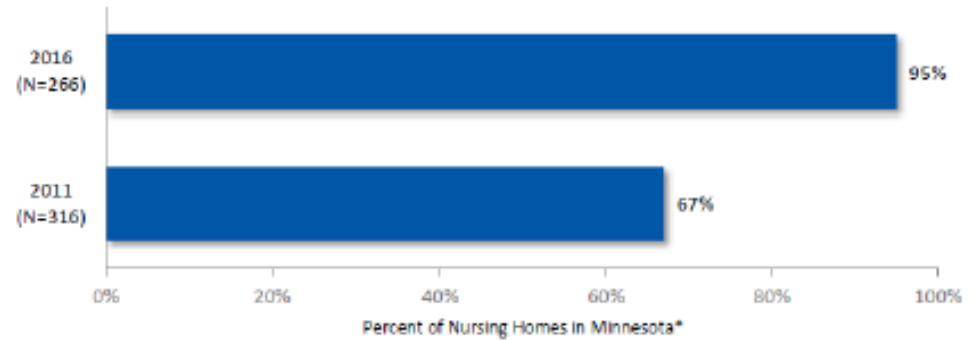
<https://www.healthit.gov/sites/default/files/electronic-health-record-adoption-and-interoperability-among-u.s.-skilled-nursing-facilities-in-2016.pdf>

Examples of State Advancement in LTPAC EHR Adoption

MN LTPAC EHR Adoption



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



* Percentages are based on the number of responding nursing home.

95% of 266 MN Nursing Homes
have adopted EHRs in 2016

However, most information exchange
is not happening electronically.

Source: [Minnesota Nursing Homes e-Health Report, 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

Health IT Toolkits for LTPAC



Stratis' Health Information

Technology Toolkits can be used to implement a comprehensive EHR system, overhaul existing systems, or acquire individual Health IT applications.

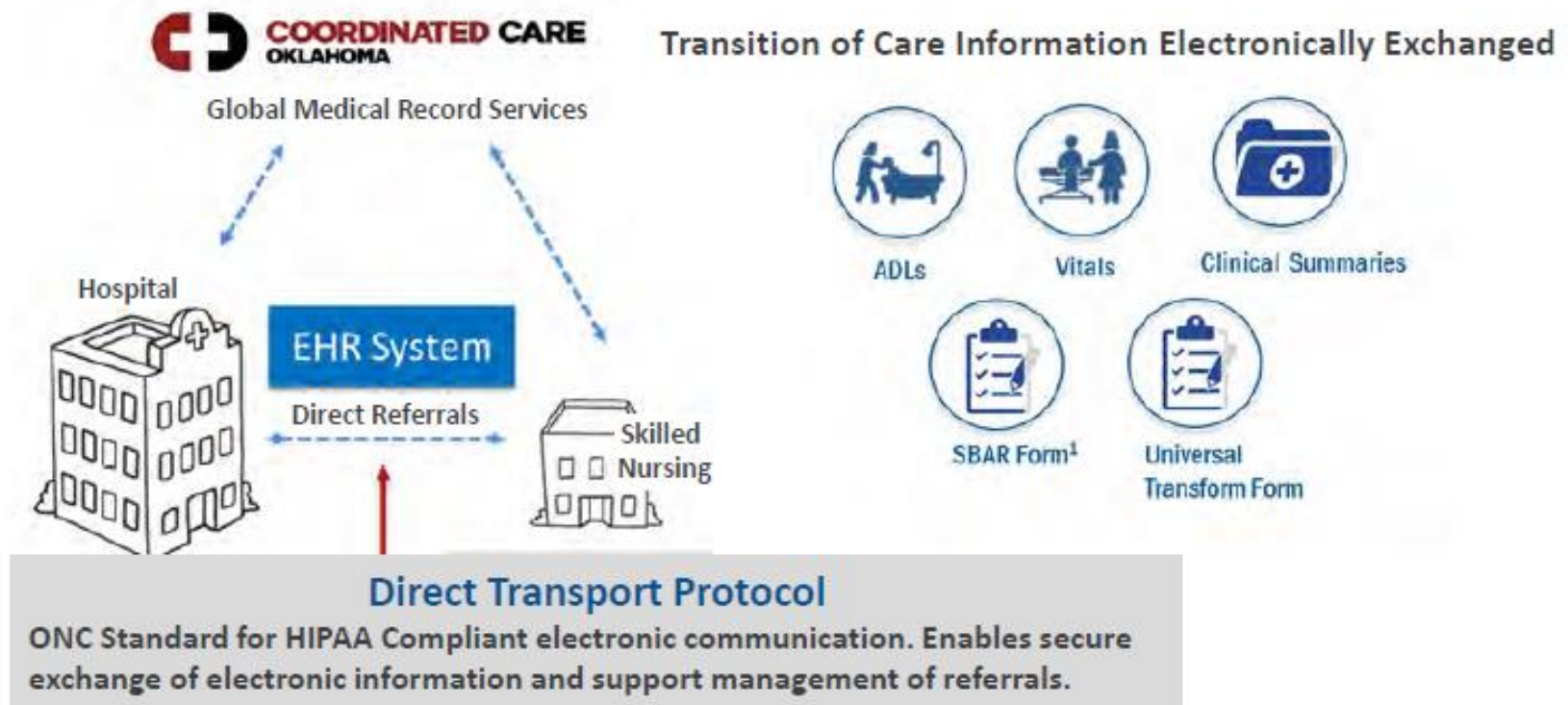
Toolkits for Nursing Homes and Home Health Agencies can be used to help setting engage in e-health activities by optimizing the use of an EHR and facilitating information sharing through HIE and other forms of Health IT.

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

Source: <https://www.stratishealth.org/expertise/healthit/>

Case Study: Coordinated Care Oklahoma Pilot

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 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:

<http://www.saferhealthcare.com/sbar/what-is-sbar/>

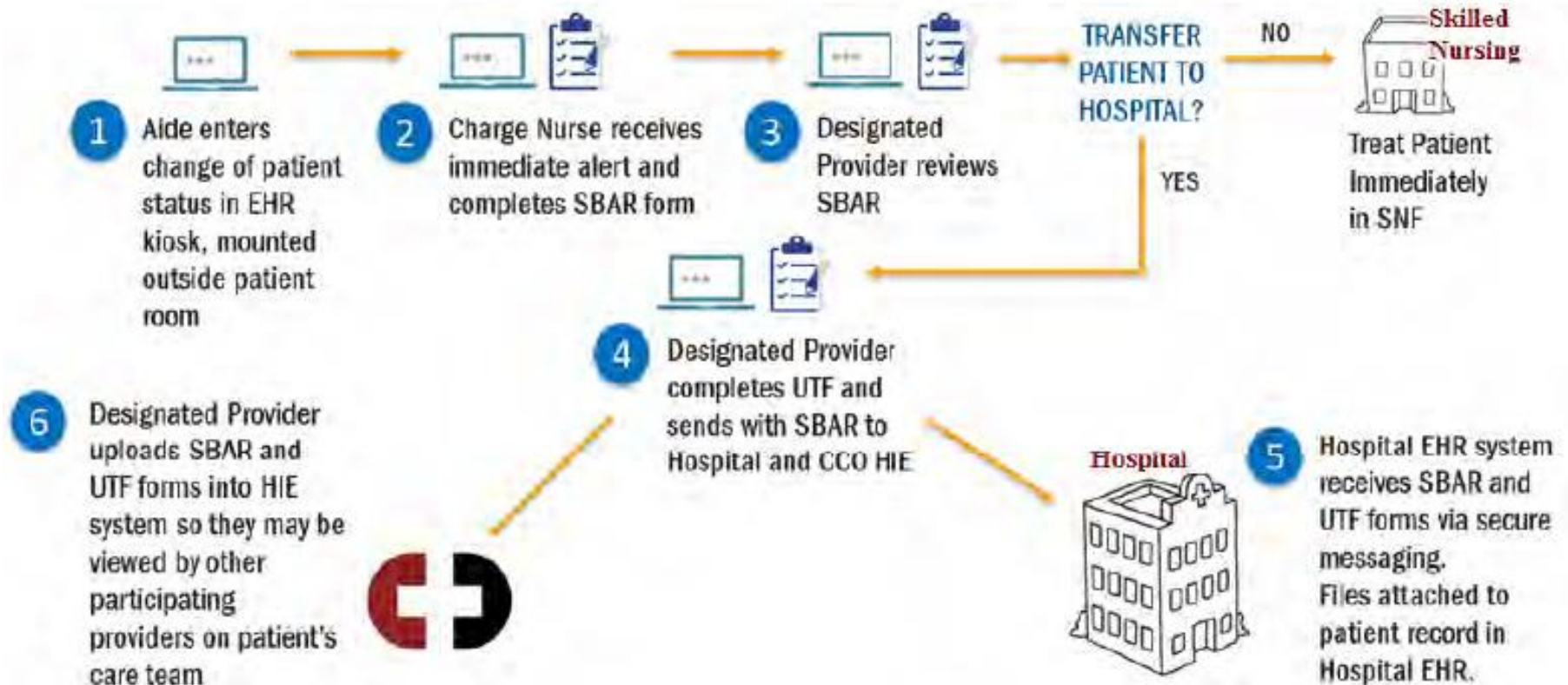
Case Study: Coordinated Care Oklahoma Pilot

- Existing transfer agreement with local Hospital;
- Existing sharing agreement and access to CCO
- Adoption of EHR system
- Adoption of standardized clinical documentation forms to record patient status: the SBAR and UTF.



Skilled
Nursing

- 10 patients to 1 Aide
- 1 charge nurse per shift
- 1 Designated Director of Nursing
- 1 Advanced Practice Registered NP
- 1 Medical Director



Source:

<http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-20-2015/No3-Sept-2015/Care-Transitions-in-Long-term-Care-and-Acute-Care.html#Using>

Case Study: Coordinated Care Oklahoma Pilot



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%

Reductions in readmissions in one year

KEY SUCCESS FACTORS: Adopting new provider communication workflows and health IT tools like EHR kiosks that require little if any previous training or computer skills and that can be conveniently accessed by all provider groups.



Thank you!

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@HHSOHC



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

with MAJD ALWAN, PH.D.

Models & Enabling Technologies

Integrated/ Coordinated Health Care

- + Interoperable EHRs & HIE
- + Remote Monitoring/
Telehealth
- + Care coordination tools

Community-Based Support Services

- + Interoperable EHRs & HIE
- + Remote Monitoring/
Telehealth
- + Care coordination tools

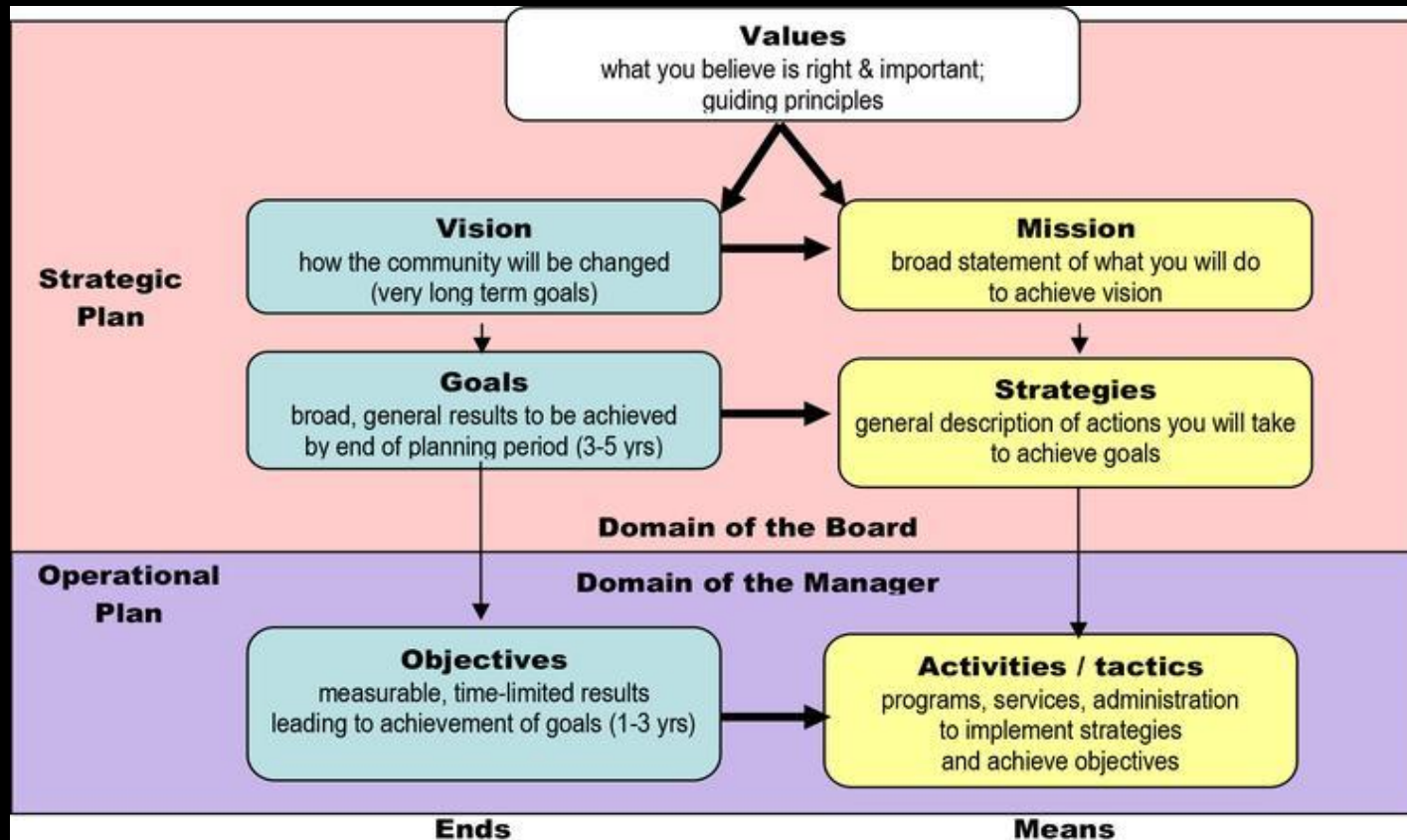
- + Remote monitoring and
assistive devices
- + Wellness & quality of life

Real Estate Based

- + Interoperable EHRs & HIE
- + Remote Monitoring/
Telehealth
- + Care coordination tools

- + Remote monitoring and
assistive devices
- + Wellness & quality of life
- + Facility management

CAST Strategic Planning & Strategic IT Planning Workbook



<http://www.leadingage.org/strategic-it-planning-tools>

CAST Technology Selection Tools



EHR



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



**REDUCING THE USE OF PSYCHOTROPIC DRUGS
AND IMPROVING QUALITY OF LIFE THROUGH
ENTERTAINING TECHNOLOGY-DRIVEN ACTIVITIES**

Category

Functional/ Behavioral/ Health Outcomes
Cost of Care to Payers
Quality of Life/Satisfaction with Care

Organization Name

Western Home Communities



Contributor:

Josh Hansen
Technology Director

Organization Type

Continuing Care Retirement Community

Other Partners

It's Never 2 Late® (IN2L) provides a variety of adaptive and engagement computer hardware experiences for individuals living in senior living communities. Their solutions can benefit all residents throughout the continuum of care, but their particular focus is on older adults with physical and cognitive disabilities. Their systems are primarily well suited for delivering dementia engagement programming, as well as innovative therapy interventions. They have systems in approximately 2,000 communities, across the United States and four (4) countries, serving thousands of older adults each and every day. They are a Colorado based LLC and have been in business since 1999.

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>

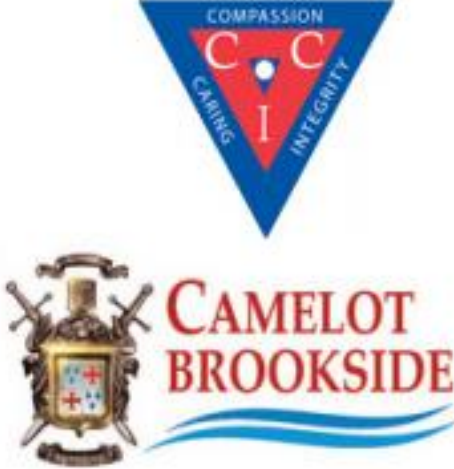
<http://www.leadingage.org/cast/case-studies/cast-supporter-and-patron-case-studies>




EXAMPLE CASE STUDIES



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



Contributor:
Marti Andries,
ANP/FNP-BC, CWCN-AP



- 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 Shared

- ***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](http://www.leadingage.org/sites/default/files/Central_Control_Case_Study.pdf)



Readmits  **from 16% to 5%**
for congestive heart failure

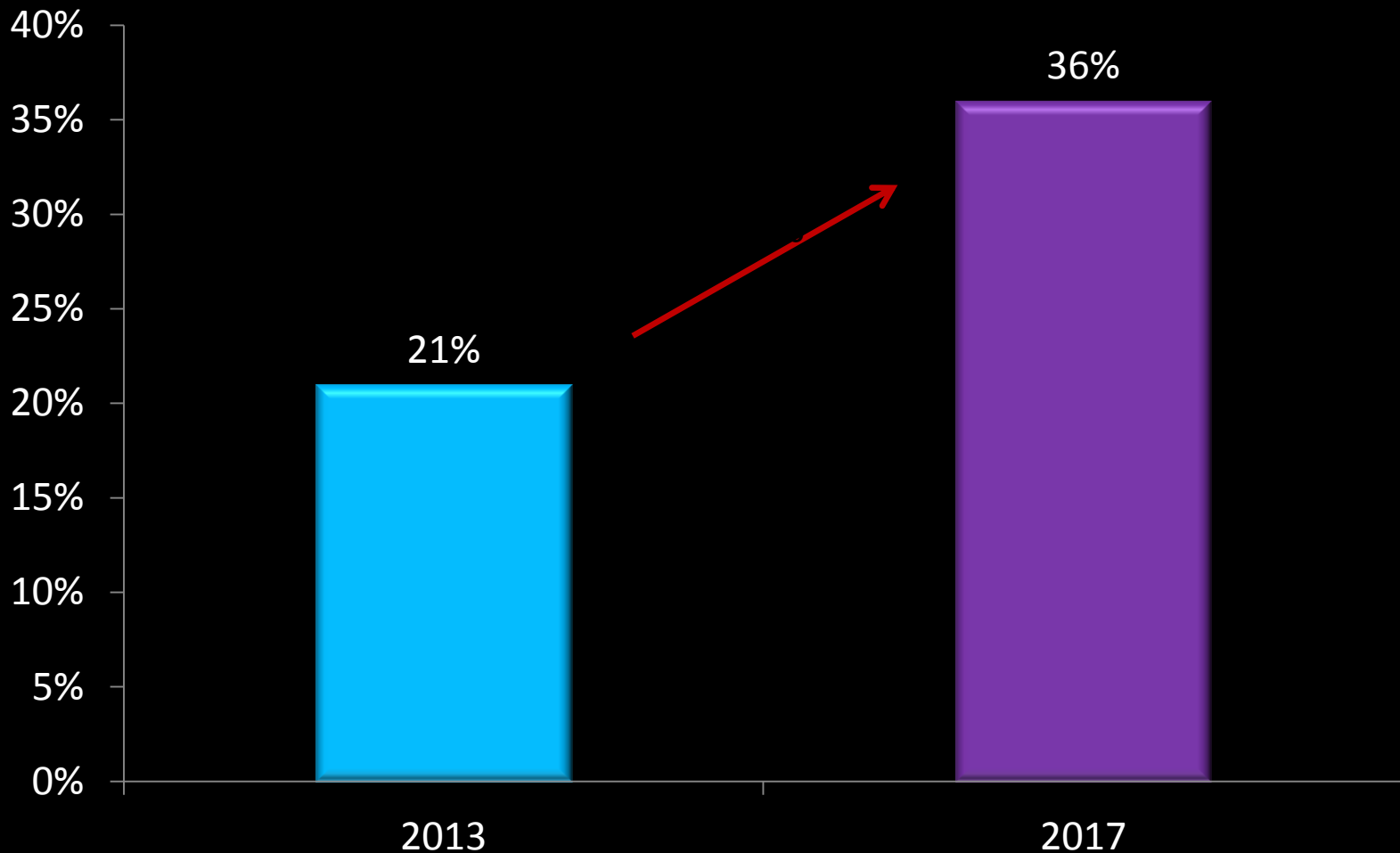
http://www.leadingage.org/sites/default/files/Jewish_Home_Lifecare_Case_Study.pdf

A close-up photograph of a white, rectangular electronic device, likely a Ziegler-CAST technology component. The device features a small, rectangular green LCD display screen in the upper right quadrant, which shows some faint, illegible text. Below the screen, a red circular button is partially visible on the right edge. The device is mounted on a wooden surface, and a white plastic component is visible in the lower left foreground.

Ziegler-CAST Technology Adoption Survey

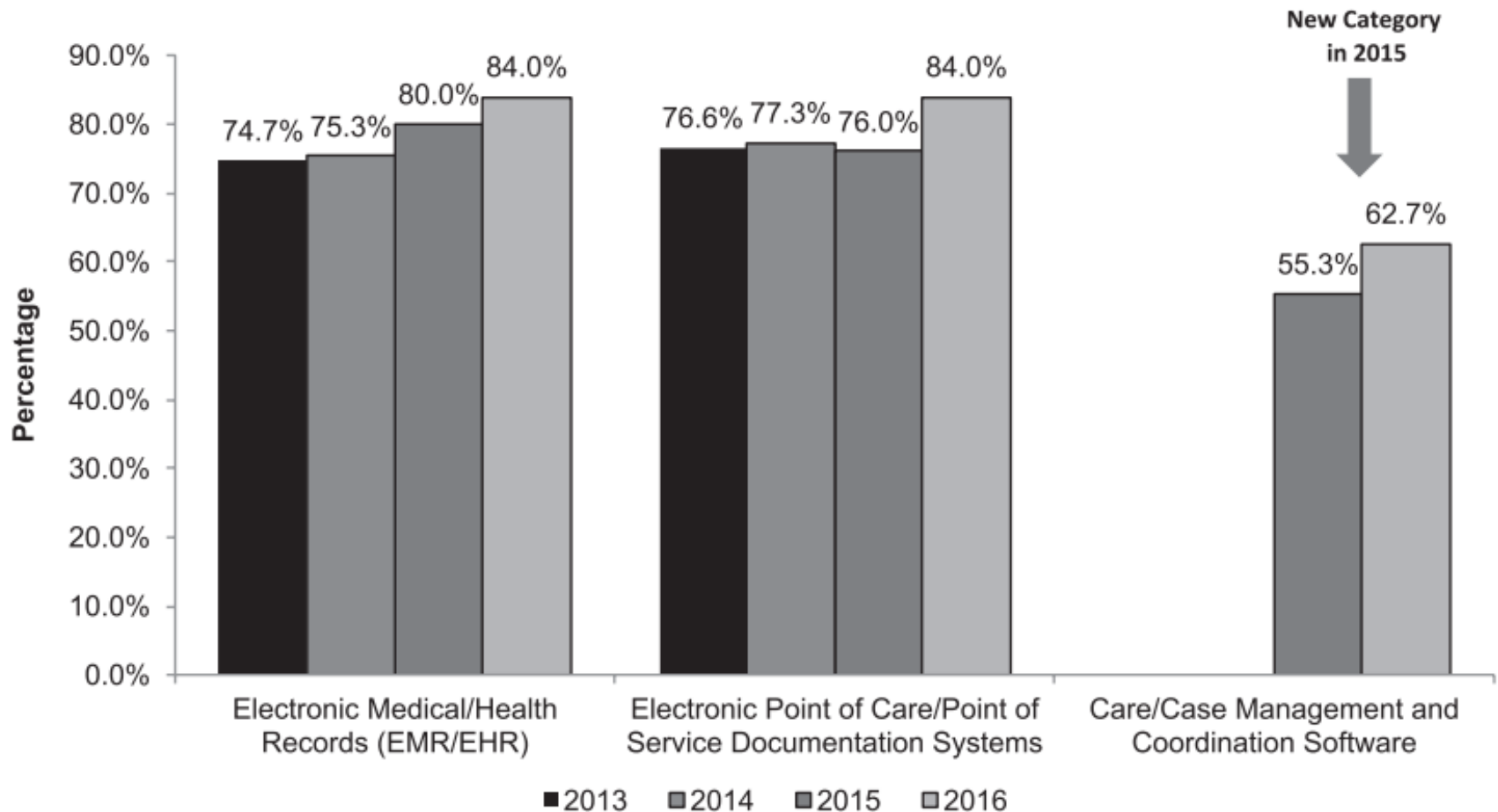
Chief Technology/Information Officers

Percent of “LZ 150” with a CIO/CTO



LZ-150 Technology Adoption

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



<https://www.leadingage.org/reports/leading-age-ziegler-150-survey-reveals-technology-adoption-and-staffing>

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

Stage
7

Interoperability & Health Information Exchange

Stage
6

Engagement & Basic Information Exchange

Stage
5

External Ancillary Services Integration

Stage
4

Advanced EHR (Internal Quality-Focused)

Stage
3

Ancillary & Clinical Administration (Non-Integrated)

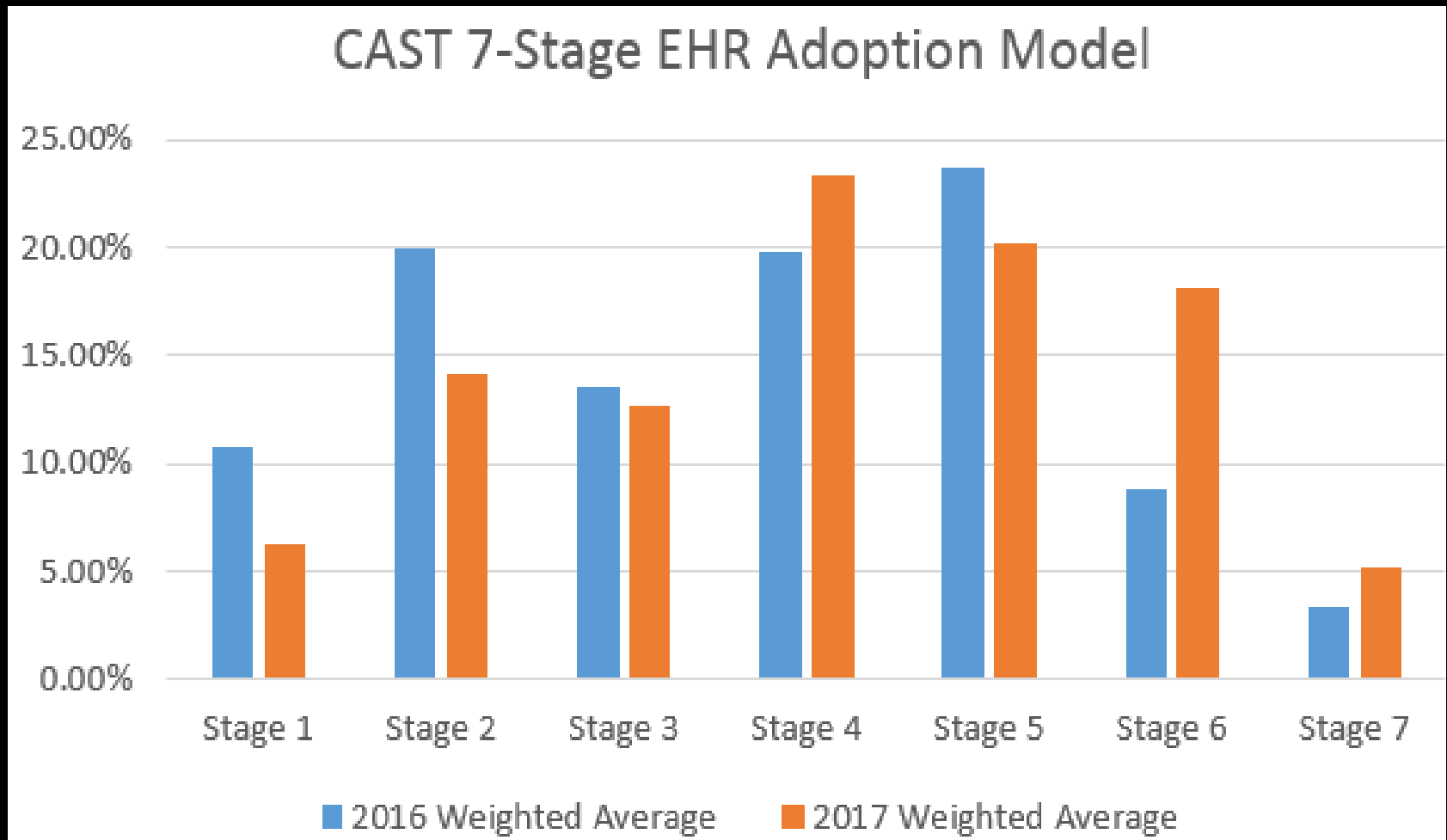
Stage
2

Basic EHR

Stage
1

Basic Information System

LTPAC Sector According to Vendors



LZ-150 EHR Adoption by Stages

N = 117

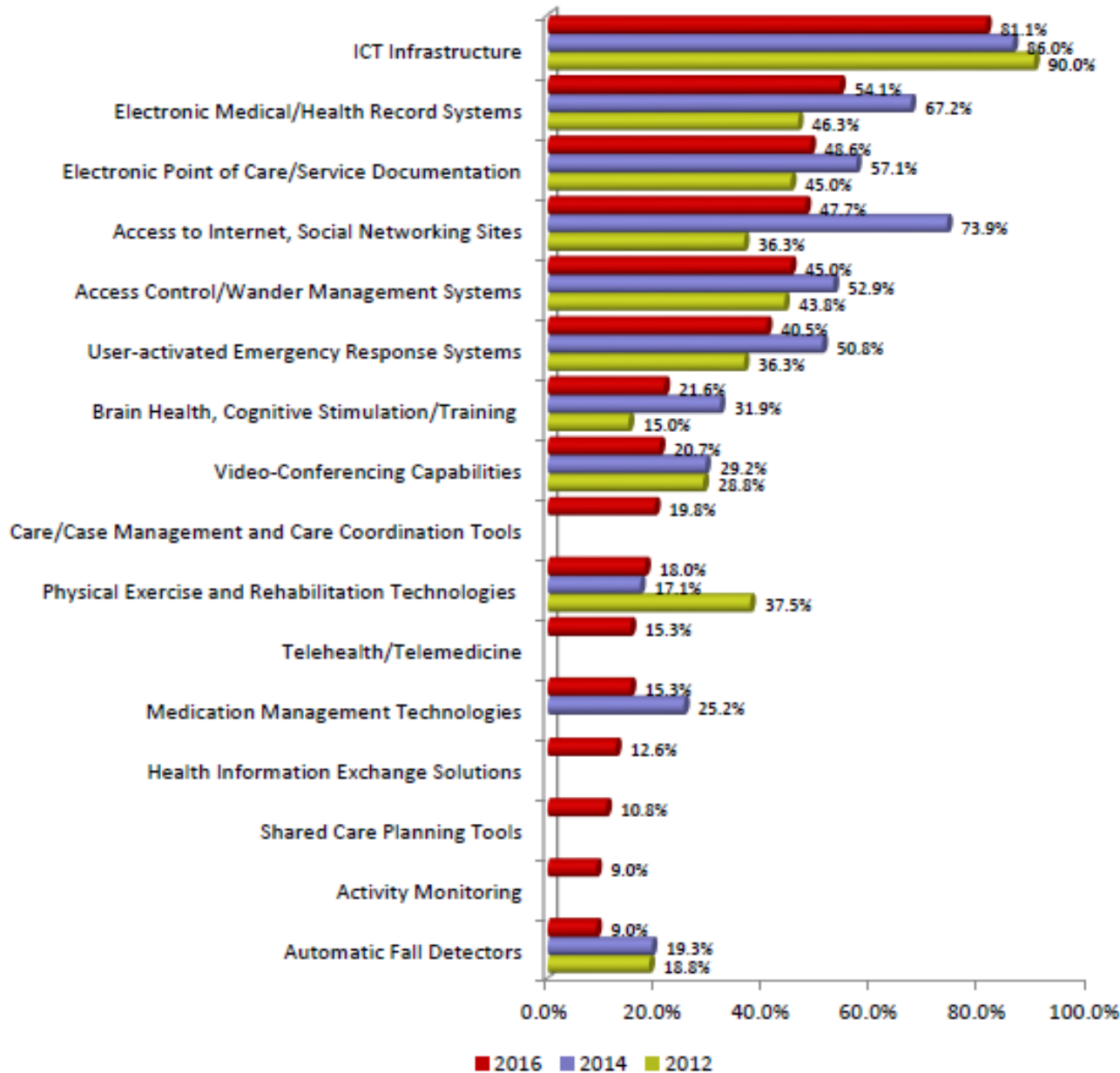
Stage	Respondents	Percentage of Providers at each Stage
Stage 1	2	1.7%
Stage 2	3	2.6%
Stage 3	18	15.4%
Stage 4	26	22.2%
Stage 5	33	28.2%
Stage 6	21	17.9%
Stage 7	14	12.0%

<https://www.leadingage.org/press-release/larger-nonprofit-senior-living-organizations-leading-way-ehr-adoption-and>

A close-up photograph of a white laboratory instrument, likely a pipette or similar device. The image shows a white plastic body with a green LCD screen in the upper right corner. Below the screen is a white dial with a textured surface. The background is a solid brown color.

Ziegler-CAST Technology Spending Surveys

Investments in Technologies in Past 12 Months



Technology Spending Categories

Percent Technology Spending

	Percentage of total <u>Capital</u> Budget devoted to technologies		Percentage of total <u>Operating</u> Budget devoted to technologies	
	<u>2016</u>	<u>2014</u>	<u>2016</u>	<u>2014</u>
Average percent (<i>TOTAL</i>)	11.8%	12.2%	2.5%	2.7%
Median percent (<i>TOTAL</i>)	7.0%	9.5%	2.0%	2.0%
Average percent (<i>Single-sites</i>)	11.7%	12.1%	2.4%	2.5%
Median percent (<i>Single-sites</i>)	7.0%	10.0%	2.0%	2.0%
Average percent (<i>Multi-sites</i>)	11.8%	12.2%	2.6%	2.9%
Median percent (<i>Multi-sites</i>)	7.0%	8.0%	2.0%	2.0%

	Percentage of total <u>Capital</u> Budget devoted to campus/building/facilities		Percentage of total <u>Operating</u> Budget devoted to campus/building/facilities	
	2016*	2014	2016*	2014
Average percent (<i>TOTAL</i>)	6.9%	13.4%	2.1%	3.8%

	Percentage of total <u>Capital</u> Budget devoted to technologies for HCBS		Percentage of total <u>Operating</u> Budget devoted to technologies for HCBS	
	<u>2016</u>	<u>2014</u>	<u>2016</u>	<u>2014</u>
Average percent (<i>TOTAL</i>)	2.4%	1.6%	1.5%	1.2%

Additional CAST Resources

- CAST/ Technology Listserv
 - CAST@Lyris.LeadinAge.org
 - Archive: lyris.leadinAge.org/read/?forum=cast
- Newsletter archive: <http://www.leadinAge.org/cast-tech-time-newsletter-archive>
 - Manage subscription on My.LeadinAge.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>

LeadingAge[™] **CAST**
center for aging services technologies

Thank You...

&

Questions?

MAIwan@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

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

This list provides examples and is not meant to be all inclusive

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 /](http://www.nahc.org/)
www.hctaa.org
www.leadingage.org
www.leadingage.org/CAST
www.nasl.org
www.npaonline.org
www.paltc.org
www.strategichie.com
www.vnaa.org

Dissemination and Re-use: Reaching the Community



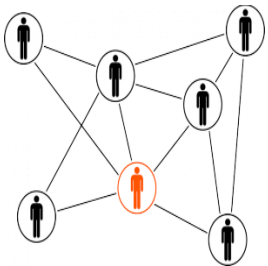
Policy and Government Channels

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



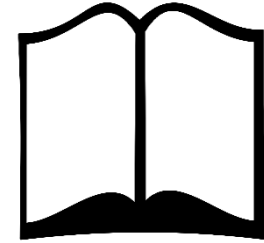
State Networks and Supports

- 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

delivering **the promise of science**
for global good



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

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