**Background:** This white paper was commissioned by InnovateLTC of Louisville, Kentucky. Interviewees included:

Joe Steier, President and CEO of Signature HealthCARE,

Mary Haynes, CEO of Nazareth Homes

Dr. Marc Rothman, CEO of Kindred Healthcare

Steve Hopkins, COO, LifeChoice Solutions, Evangelical Homes of Michigan

#### THE BUSINESS OF LONG-TERM CARE HAS CHANGED DRAMATICALLY

Over the past decade, post-acute care facilities have undergone wrenching change and re-examination. Between 2000 and 2009, thousands of skilled nursing home (SNF) beds were eliminated.¹ Some of the care for the oldest and sickest transitioned to a state-by-state makeshift mix of less regulated assisted living. Some candidates for long-term care remained at home with a mix of care provided by families, companion care and home health care. As a result, the traditional 'Long-term care facility' model had to change.

"Old business models are evaporating, Acuity level of patients is rising; lower care people are now in assisted living or served by home health care as a result of Medicaid waivers; 38% of nursing homes will close by 2020" (Joe Steier)

During this period, many long-term care providers consolidated into larger business structures and ownership models. As the Affordable Care Act (ACA) implementation began in 2010, penalties were enacted that targeted readmission of Medicare patients to hospitals within a short time period. In year three, Medicare fined 2610 hospitals in October, 2014, continuing to boost benefits of discharge to a 'post-acute facility' that provided skilled nursing care.

Patients were discharged from hospitals 'sicker and quicker' -- thus providing the long-term care industry with a business opportunity. They could transform their offerings into a mix of short-term post-discharge stays, funded by higher Medicare reimbursements, in addition to traditional skilled nursing residents, mostly covered by lower reimbursements from Medicaid.

# The evolution of the industry and its technology use has been heavily influenced by outside forces

Although there was no federal mandate and related incentives to implement Electronic Health Records (EHR) in long-term care facilities, by the time of hospitals' January, 2015 deadline, consolidation of the industry will have pushed efforts to standardize systems, including use of EHR records. In 2013, as surveyed through Leading Age/Zeigler, EHR records were identified as in-use by 75% of the largest facilities.<sup>2</sup> But as an industry, most providers would admit that they are technology laggards compared to other industries.

"We have been held back as an industry by our business models and clinging to selfreporting our own data -- it has been part of our culture." (Hopkins)

Even without incentives or mandate, long-term care providers must receive and exchange information with discharging and sometimes re-admitting hospitals. Or they may find that consolidation puts them inside an EHR-standardized organization, making non-compliance a non-starter. LTC organizations may find themselves in need of systems to reduce labor-intensive calls to-and-from pharmacies; communicate with doctors and hospitals; and to improve record-keeping, particularly when staff and shift changes challenge status hand-offs and may undermine accuracy of information.

# Technology innovation pushes providers to evaluate technologies...

While regulations and external communication requirements have been catalysts for provider technology evaluation and selection, the long-term care industry has also been influenced by outside forces, including market description and definition from thought leaders like AARP. AARP noted that investors were not recognizing the \$3.1 trillion market purchase power of the 50+ consumer. But more striking, AARP noticed that the specific opportunities for business growth of services, products, and supporting industries also needed to be articulated.

Since 2013, AARP Health Innovations @50+ and Parks Associates have published research reports to identify the categories of health innovation technology that will make a difference in the lives of older adults -- labeling these market opportunities and sizing their potential in what AARP has deemed the "Longevity Economy." The list is sorted in descending order by market size opportunity:



# ...While changes in regulation and new reporting requirements force them to act

Nursing home regulatory changes from the ACA between 2010 and 2013 have had major impacts on skilled nursing facilities -- requiring reporting on changes in ownership structure, staffing, costs, complaint, billing processes, and public information.<sup>3</sup> And shrinking reimbursements from insurers and government have further pressured profit margins, which in turn force re-evaluation of labor-intensive processes and may boost the potential for new technologies to automate some tasks, as:

- **EHR compliance.** Mandates to their adjacent partners coupled with new communication, billing and reporting requirements.

"Our systems must be integrated. We need systems to talk to our pharmacy, which is outside. And electronic Health Record Systems deployment leaves no room for innovation -- we have had nothing new since 2000. As for the EHR systems, they are all the same." (Haynes)

- **Profit pressure.** Shrinking reimbursements from insurance and government agencies have driven LTC providers into consolidation, but continuing pressure

has resulted in little profit without careful managing of the mix of services -- long-term care, short stay rehabilitation, and home health and related services.

"Cost is being wrung out of post-acute care by government and insurers - average margin is 1.5% across this industry" (Rothman)

Bundled and capitated payments highlight the need for enterprise platforms. As part of their new world order, LTC firms find themselves pressured to report status and statistics -- but without the supporting data to make that reporting feasible. Executives worry that they are being asked for information that is not well-specified -- with a lack of supporting regulatory infrastructure to even 'dare to try' to roll out these systems that they do not have.

"The consumer has a right to know outcomes -- like unplanned doctor's visits, average length of stay in independent living. Providers complain about the 5-star rating system, but instead they should improve the result and maintain transparency -- or complement transparency with their own data." (Hopkins)

# BUT LTC IS NOT READY FOR PROCESS CHANGES FROM SYSTEM DEPLOYMENTS

Under the best of conditions, all organizations struggle when manual processes are replaced with new system-defined processes. Outside of healthcare, organizations have equipped themselves with IT experience, prior implementation track records and extensive process and training resources. But post-acute care facilities have not, historically, established the job roles and teams that are ready to help; and thus their staff members can be unprepared for what may be destabilizing process change.

"For care, staff works at the top of their license. In technology, they are at the bottom of their capabilities. Fifty percent of what you have to be facile with today is NOT taught in school. This is true for the CNA, the nurse, the doctors, everyone. There is nobody out there to elevate people ability in the tech space." (Rothman)

Despite the apparent benefits of implementing new processes and systems -- along with the decision-support and external reporting these enable -- the evolution of the industry has left it with gaps that are problematic for successful pilots, let alone completed new system deployments:

- Lack of roles to train staff and manage change. Long-term care organizations follow the paths taken by the healthcare delivery industry as a whole -- pushed into regulatory compliance requirements and/or the benefits of automation, they have not historically developed the job roles or skills that enable implementations to succeed. Staff members are not well-prepared for potentially radical changes in job functions -- like dealing with outside pharmacies or updating health records. Poor staff retention rates are problematic as well, and if staff is not stable, training on new processes and systems may be provided, but disappears with a departed employee.<sup>4</sup>
- **Buildings are old and projects are not fully scoped.** But beside the lack of job roles and success history, long-term care providers have other constraints, including buildings that are old and lack wiring infrastructure for high speed local area networks that are critical for data sharing among staff. And even a basic, like adequate electric power, is an issue in older buildings. Changes to wiring and networks may not have been factored into projected system return-on-investment, providing further pressure on margins that may cause projects to halt at the pilot stage or even canceled before the contract is signed.

"Costs are not well-communicated when you must redo a contract just for bandwidth, then consider adding GPS tracking, campus-wide geo-fencing, wireless access -- you had better have infrastructure that can handle it." (Hopkins)

Technologists do not understand risk and requirements. But even if all of these problems were mitigated, interviewed providers feel that technology purveyors (software, hardware, consulting) do not really understand their business model and processes. They are often presented with applications that do not easily integrate with systems that they already have, or have features and functions (like configuring and tracking continuous biometric monitoring) that require staff administration labor they cannot provide. Or they find that the technology company over-promises benefits from doing a pilot."

"The tech company lacks industry experience – a pilot may yield less results than predicted, making costs higher." (Steier)

"We lack the integration framework that new systems can be attached to 'or bolted on' to, means that the end result is more cost, not less cost. And remember that old systems do not go away -- they stay." (Rothman)

### What do they like?

- Funded meaningful pilots of new technology that fits their business processes
- Innovation Champions at many levels of the organization, not just at top are key to implementing and testing new products/technologies. "At Signature our goal is to have innovation as a key metric for our divisions' scorecards." (Steier)
- "Give someone an iPad and have them fill out a checklist for 2 weeks. Better than calling and wasting time with missed calls and interruptions." (Rothman)
- Resident engagement systems that provide a way to provide staff, residents, families with information -- **CareMerge**, **LivWell**, **IN2L**, and **Independa**.

#### What are recommendations for based on interviews?

- 1. **Panel:** At post-acute summits and events, incorporate a panel of best practice learnings from implementation experiences.
- 2. **Change Manager Role:** Add a new role (can be drawn from various in-house champions) Change Manager for technology-enabled process changes role has incentives associated with it to facilitate more effective deployments.
- **3. Make sure there is a multi-disciplinary task force:** Include clinical and non-clinical representation to advocate for and support the implementation.
- 4. **Integrator/Consulting Task Force:** Form a team of representatives from integration/consulting and software companies be convened and regularly review learnings from deployments -- what worked, what doesn't.
- 5. **Tips, tools, tech sharing site:** Create a tips, tech, tools shared site be established for helping long-term care businesses that may not be as far along as interviewees in system implementations

#### About InnovateLTC:

InnovateLTC is the brainchild of its CEO, John Reinhart, and Joe Steier, President and CEO of leading long-term care company Signature HealthCARE. These two forward-thinking industry veterans spent several years honing the concept before bringing it to

fruition in 2010. As Signature HealthCARE mulled over options to move its corporate headquarters, also in 2010, a unique opportunity arose from conversations with the progressive leadership at the University of Louisville and its Nucleus initiative.

Nucleus is establishing a life-sciences and innovation center near the university's downtown Health Sciences Campus with the goal of commercializing promising research technologies and innovations. The plan dovetailed perfectly with John's and Joe's vision of establishing a similar type of center, but with a specific emphasis on aging care. And Louisville was the ideal location, considering the city is home to more than half of the nation's top 10 senior care companies.

### **About Aging in Place Technology Watch:**

Laurie M. Orlov, a tech industry veteran, writer, speaker and elder care advocate, is the founder of **Aging in Place Technology Watch**, a market research firm that provides thought leadership, analysis and guidance about technologies and services that enable boomers and seniors to remain longer in their home of choice. In addition to her technology background and years as a technology industry analyst, Laurie has served as a volunteer long-term care ombudsman and has been certified in Geriatric Care Management from the University of Florida. Laurie has been quoted widely in the press and has published many white papers and research reports (found on <a href="http://www.ageinplacetech.com">http://www.ageinplacetech.com</a>).

<sup>&</sup>lt;sup>1</sup> The Death of Nursing Homes, Howard Gleckman, 2009

<sup>&</sup>lt;sup>2</sup> http://www.leadingage.org/Long-Term Care and Interoperable EHRs A Strategic Match V3N4.aspx

<sup>&</sup>lt;sup>3</sup> http://www.canhr.org/newsroom/newdev\_archive/2013/ACA%20Nursing%20Home%20Report.pdf

<sup>&</sup>lt;sup>4</sup> http://www.ahcancal.org/qualityreport/Documents/AHCA 2013QR ONLINE.pdf