WELCOME
Forces Pushing for Change in Seniors Housing

Prepared for 2018 Fall AHCA/NCAL CEO Conference

November 16, 2018

Brian Jurutka
President & CEO, NIC
Enabling access and choice in seniors housing and care
Connecting what NIC does with those NIC serves

Increased access and choice in seniors housing and care for America’s Elders
Three key drivers of change in Seniors Housing & Care

- Consumer Preferences
- Health Care Pathways and Payment Models
- Technology
Three key drivers of change in Seniors Housing & Care

- Consumer Preferences
- Health Care Pathways and Payment Models
- Technology
The average age in today’s IL/AL is 83, equivalent to a birth year of 1935

- Greatest Generation: 55 Million
- Silent Generation: 47 Million
- Baby Boomers: 76 Million
- Generation X: 55 Million
- Millennials: 66 Million
- Post Millennials: 65 Million

Number of Live Births (1909 to 2013, 000s)

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The “oldest old” population, those 85+, will double in size by 2037 and triple by 2054

Growth of US Population by select Age Groups indexed to ‘16

<table>
<thead>
<tr>
<th>Year</th>
<th>&lt;20</th>
<th>20 to 64</th>
<th>65 to 84</th>
<th>85+</th>
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<tbody>
<tr>
<td>'16</td>
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<tr>
<td>'60</td>
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</tbody>
</table>

85+ Pop (MM) 6.5 14.6 18.9 19.7

Source: NIC analysis based on 2014 National Population Projections, census.gov
Most seniors housing and skilled nursing stock was designed for the Greatest Generation and now houses the Silent Generation.

### Distribution of Property Types by Age of Property in 2018

<table>
<thead>
<tr>
<th>Age of Property in 2018</th>
<th>% of All Open Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;50 to 50</td>
<td>0%</td>
</tr>
<tr>
<td>51 to 45</td>
<td>46%</td>
</tr>
<tr>
<td>46 to 40</td>
<td>41%</td>
</tr>
<tr>
<td>41 to 36</td>
<td>36%</td>
</tr>
<tr>
<td>36 to 31</td>
<td>31%</td>
</tr>
<tr>
<td>31 to 26</td>
<td>26%</td>
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<tr>
<td>26 to 21</td>
<td>21%</td>
</tr>
<tr>
<td>21 to 16</td>
<td>16%</td>
</tr>
<tr>
<td>16 to 11</td>
<td>11%</td>
</tr>
<tr>
<td>11 to 6</td>
<td>6%</td>
</tr>
<tr>
<td>6 to 0</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Greatest Generation Turns 83 (1984 to 2010)**

- Majority SN: 94%

**Silent Generation Turns 83**

- Majority IL: 83%
- Majority AL: 74%
Generations share common experiences in defining times of their lives

Pivotal Events Impacting Generations During Formative Years

- **Great Depression** ('29 to ‘39)
- **WW II** ('39 to ‘45)
- **McCarthy Era** ('50)
- **Korean War** ('50 to ‘53)
- **Vietnam War** ('55 to ‘75)
- **Civil Rights Movement** ('54 to ‘68)
- **Women’s Rights Movement** ('60s and ‘70s)
- **Woodstock** ('69)
- **Sexual Revolution** ('60s)

Age and Generation

- **Boomers**
- **Silent**
- **Greatest**

Year

- '28
- '29
- '30
- '31
- '32
- '33
- '34
- '35
- '36
- '37
- '38
- '39
- '40
- '41
- '42
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- '58
- '59
- '60
- '61
- '62
- '63
- '64
- '65
- '66
- '67
- '68
- '69
- '70

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The Silent Generation, compared to the Boomers, have a particularly strong bond forged in times of sacrifice.

## Modern historic events by generation

**Q. Please name the 10 historic events that occurred in YOUR lifetime that you think have had the greatest impact on the country. This could be one specific event, a series of related events or any other historic development or change that had an important impact on the nation.**

<table>
<thead>
<tr>
<th>Event</th>
<th>Baby Boomers</th>
<th>Silent Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 11</td>
<td>70%</td>
<td>59%</td>
</tr>
<tr>
<td>JFK assassination</td>
<td>45</td>
<td>44</td>
</tr>
<tr>
<td>Vietnam War</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>Obama election</td>
<td>38</td>
<td>37</td>
</tr>
<tr>
<td>Moon landing</td>
<td>35</td>
<td>29</td>
</tr>
<tr>
<td>The tech revolution</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>Civil rights movement</td>
<td>18</td>
<td>Civil rights movement</td>
</tr>
<tr>
<td>Fall of Berlin Wall/ end of Cold War</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>MLK assassination</td>
<td>15</td>
<td>Korea War</td>
</tr>
<tr>
<td>Iraq/Afghanistan wars</td>
<td>11</td>
<td>Iraq/Afghanistan wars</td>
</tr>
</tbody>
</table>

Note: Shown are the top 10 events mentioned, including numerical ties. While events are ranked numerically for ease of reading, not all differences between ranked events are statistically significant. Look to accompanying text to highlight significant differences.

Source: Survey conducted June 16-July 4, 2016.

"Americans Name the 10 Most Significant Historic Events of Their Lifetimes"

PEW RESEARCH CENTER
### Generalizations used to describe generations

<table>
<thead>
<tr>
<th>Greatest</th>
<th>Silent</th>
<th>Boomer</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Patriotic</td>
<td>• Hardworking</td>
<td>• Experimental</td>
</tr>
<tr>
<td>• Responsible</td>
<td>• Loyal</td>
<td>• Individual-focused</td>
</tr>
<tr>
<td>• Frugal</td>
<td>• Respectful of Authority</td>
<td>• Free spirited</td>
</tr>
<tr>
<td>• Community Minded</td>
<td>• Dedication</td>
<td>• Social cause-oriented</td>
</tr>
<tr>
<td>• Team Player</td>
<td>• Sacrifice</td>
<td>• Optimistic</td>
</tr>
</tbody>
</table>
Redefining Retirement and Aging

Retirement of the Past

• “To Go Away” = Disengage, Disconnect, Decline, Disappear
• “I’m Finished, Done!”
• The Golden Years/Twilight Years
• Value Safety, Security, Comfort

The Future of Retirement

• “Reboot” = Engage, Enrich, Experience, Enjoy
• “What Will I Do Next!”
• The Purposeful Years/Boomer Power
• Value Engagement, Connection, Enrichment
What will the impact of Boomers be on the Seniors Housing product of tomorrow?

• 1960s – Social protests/counterculture
• 1990s – Options for their parents
• 2000s – Redefining retirement for themselves
• 2030s – Boomers start turning 83
Three key drivers of change in Seniors Housing & Care

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- Technology
When Medicare was passed in 1965 the demographic distribution was similar to a pyramid.
The distribution of demographics has changed

Source: census.gov

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Medicare and Medicaid, combined, make up 25% of the Federal Budget

Medicare as a Share of the Federal Budget, 2016

Total Federal Outlays, 2016: $3.9 trillion
Net Federal Medicare Outlays, 2016: $588 billion

NOTE: All amounts are for federal fiscal year 2016. 1Consists of mandatory Medicare spending minus income from premiums and other offsetting receipts. 2Includes spending on other mandatory outlays minus income from offsetting receipts.
SOURCE: Congressional Budget Office, An Update to the Budget and Economic Outlook, 2017 to 2027 (June 2017).
Medicaid makes up the single largest share of Total State Budget and 16% of State Funded budget.

Source: MACPAC, Distribution of Medicaid, Education, and All Other Spending from Total State Budgets versus State-Funded State Budgets, SFY 2015
Government will continue to push for private sector innovation through population based health plans like Medicare Advantage.
MA penetration is 33% overall but varies significantly by state. What impact will 100% Managed Care have on your organization?

Medicare Advantage Penetration by State, 2017


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Medicaid spending is moving from SN to HCBS

States Have Shifted Spending to Home- and Community-Based Services, and Away From Institution-Based Services

Share of total Medicaid long-term care services and supports spending*

*Including for seniors and people with disabilities
Source: IBM Watson Health, “Medicaid Expenditures for Long-Term Services and Supports (LTSS) in FY 2016”

The Proportion of Medicaid Long-Term Services and Supports Spending For Home and Community-Based Services Varies by State, 2013

NOTE: All spending includes state and federal expenditures. HCBS expenditures include state plan home health services, state plan personal care, targeted case management, hospice, home and community-based care for the functionally disabled elderly, and services provided under HCBS waivers. Expenditures do not include administrative costs, accounting adjustments, or expenditures in the U.S. territories.

Source: Urban Institute estimates based on data from CMS Form 64 as of September 2014.

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Skilled Nursing has occupancy pressures with a shift from traditional Medicare to various value based care models.
**Skilled Nursing Snapshot as of June 30th**

<table>
<thead>
<tr>
<th>Payor</th>
<th>Occupancy</th>
<th>Revenue Per Patient Day ($)</th>
<th>Revenue Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>66%</td>
<td>208</td>
<td>49%</td>
</tr>
<tr>
<td>Managed Medicare</td>
<td>6%</td>
<td>427</td>
<td>23%</td>
</tr>
<tr>
<td>Medicare</td>
<td>7%</td>
<td>521</td>
<td>27%</td>
</tr>
<tr>
<td>Private</td>
<td>9%</td>
<td>255</td>
<td>12%</td>
</tr>
<tr>
<td>All Other*</td>
<td>4%</td>
<td>235</td>
<td>8%</td>
</tr>
</tbody>
</table>

*SN occupancy is seeing a move away from traditional Medicare with Medicaid and Managed Medicare increasing share of Revenue Mix*

* "All Other" includes VA, hospice, and other revenue sources*

Source: NIC Skilled Nursing Data Initiative
10% of Medicare Beneficiaries make up 60% of spend

Medicare Spend (2016)

Total Per Capital Medicare Spending on Seniors, 2006 ($000s)

Seniors with 2+ ADLs result in ~4X Medicare spend relative to seniors without disabilities

Source: Scan Data Brief No. 17, September, 2011, based on an Avalere analysis of 2006 MCBS Cost and Use file; limited to respondents who indicated they receive help or standby assistance in two or more ADLs. It includes all nursing home residents. Residential care is defined as AL, retirement communities, CCRC, and other types of residential care facilities. Limited to 65 or older in Medicare FFS.
The SH and SN opportunity: lower Medicare spend relative to similar community residents

Total Per Capital Medicare Spending on Seniors, 2006 ($000s)

Total Per Capital Medicare Spending on Seniors, 2006 ($000s)

- <2 ADLs: 4.4
- 2+ ADLs: 16.5
- Community Residents with 2+ ADLs: 18.3
- Residential Care Residents with 2+ ADLs: 14.0
- Nursing Home Residents w/ 2+ ADLs: 14.6
Healthcare costs are driven in large part by non-medical factors

“Chronic disease...is responsible for 86% of healthcare costs and is strongly linked to non-medical factors. Health outcomes are dependent on things like whether people take their medications as directed — something that only half of patients do.”

Jeroen Tas, CEO of Philips Connected Care & Health Informatics.

• 40% of a person’s health status is driven by behavior, such as what he eats or drinks or whether he smokes
• 30% by family history and genetics
• 20% from environmental factors
• 10% from healthcare services

Bernard Tyson, CEO, Kaiser Permanente

Three key drivers of change in Seniors Housing & Care

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- Health Care Pathways and Payment Models
- Technology
Unemployment is the lowest in nearly ½ a century

U.S. Unemployment Rate

Dec. 1969

Oct. 2018

Source: BLS.gov
Voluntary Quits are near an all time high

U.S. Quits

Source: BLS.gov
All industries are competing for talent

US retailers struggling to fill holiday jobs
By Henry Fernandez | Published September 18, 2018 | Retail | FOXBusiness

Hotel trade groups seek solutions to labor-shortage problem
By Danny King | Jan 25, 2018

The New York Times
A Worker Shortage Is Forcing Restaurants to Get Creative

2017 State of Industry Outlook
Recruiting is a Top Challenge
Continued shifts in the distribution of the population will force service industries to look for solutions to minimize manpower. Thousands

Source: census.gov
Impending Caregiver Shortage

Ratio of Caregivers (45-64 year olds) To Those Over 80

Source: U.S. Census
An investment in technology allows for improved output per person

Source: opentextbc.ca; Creative Commons Attribution 4.0 International License

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Technology grows at an exponential rate

Source: Wikimedia Commons
Exponential growth, however, is difficult to comprehend
Within the next decade $1,000 of computing power will buy you the same calculations per second as the human brain.
Technology and innovation: Opportunity and threat?

• Tech to address labor issues
  • Scheduling
  • Hiring/retention
  • Sensors + AI to identify concerns

• Internet of health
  • Benefits both in the community and in SHC, however easier to grow scale in SHC
  • Healthcare coming to seniors rather than seniors going to healthcare

• Autonomous cars
  • Increase the age/frailty of new residents?
  • Encourage aging at home?

• Care coordination and integration w/ health care to provide better outcomes
Trends impacting seniors housing and care

- Aging, Demographics, Acuity Levels and Disabilities
- Fewer Family Caregivers
- Social Engagement, Support and Emotional Well-Being

Multifamily or SF Homes
Age Restricted Housing
Independent Living
Assisted Living
Memory Care
Skilled Nursing
Hospital

- Value Based Payment

Technology
What’s the next innovation trigger?

Innovation Trigger?

Peak of Inflated Expectations

Trough of Disillusionment

Plateau of Productivity

Innovation Trigger?

Time

1980 1995 2003 Now-ish?
Some questions to think about

1. How will individual operators choose to interact with Healthcare?

2. Is my current product what Boomers want?

3. How will technology come in to play?
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