Riding the Silver Tsunami

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“The Silver Tsunami”

metaphor for the expected increase in the senior population
Sources: Modern Healthcare, American Community Survey five-year estimates, US Census 2017 National Population Projections (revised)
Speed of population ageing

Time for percentage of population **over age 60** to double
Current American Development Paradigm

“meet the perceived needs of families with children”
Impact

Policy: Predominance of single-family detached homes within auto-centric transportation networks and largely separated from commercial and industrial uses.

Environment: rapid land conversion, increased demands for energy and water, and growing carbon emissions.

Social: longer and more costly commutes, increased social isolation, higher infrastructure costs, greater dependency on automobiles for mobility and independence, and more financial vulnerability associated with housing costs.
Emerging American Development Paradigm

“meet the perceived needs of seniors”
Impact

All systems and arenas:

- Policy, Justice, Housing, Transportation, Healthcare, ...

1. **Total national health expenditures are $4 billion today and $5 billion by 2025** – US Census Bureau & CMS

2. **National health expenditures as a percentage of GDP hit more than 15% in 2016, and that figure will climb to 19.4% of GDP (approximately $6 trillion) in 2027** - CMS

![Image showing US Seniors Account For The Largest Portion Of Healthcare Spending](image-url)

Note: Data is for 2015, the most recent year available. Source: Kaiser Family Foundation, 2017
Long-Term Problems

More than half of U.S. adults at least 65 years old are projected to need nursing-home or other care services...

Length of care needed*

- Five years or more: 14%
- Two to less than five years: 27%
- Less than two years: 12%
- No need: 48%

...and the cost of care is steep for those who need it...

Projected spending on needed care

- No care: 48%
- Less than $10,000: 5.7%
- $10,000-$49,999: 9.7%
- $50,000-$99,999: 9.7%
- $100,000-$249,999: 11.7%
- $250,000 or more: 15.2%

...so millions of Americans have bought long-term-care coverage.
Long Term Care

“... the current system as structured is being stressed to its limits and its functioning is inadequate, with serious problems in cost and financing, and in access to and quality of, long-term care services”*

Current Problems in Long Term Care

• Demand significant exceeds supply
• Lack of standards and adoption
• Facility Preparedness
  • Shortage of staff at LTC facilities,
  • Facility occupancy averaged ninety percent annually
  • Low process maturity
  • Technology Coherence
  • Technology Maturity
  • Timeframe for application and approval takes months
Long Term Care, Technology & Data

“Limited adoption and use of Health Information Technology and quality measurement”

- Insufficient business and/or financial incentives for service providers to acquire and use health IT to support coordination of services
- Minimal national standards for quality measurement in LTSS outcomes
- Lack of uniformity in the terminology and definitions of data elements
- Lack of consensus on the interrelationships between a beneficiary’s plans across care, services and supports;
- Lack of evidence and understanding of how health IT may benefit the beneficiary and encourage their adoption and use of technology.

- Office of the National Coordinator for Health Information Technology
Current Solution Initiatives

electronic Long-Term Services and Supports (eLTSS) Initiative

The PACIO Project
### Initiatives’ Focus Areas

<table>
<thead>
<tr>
<th>eLTSS</th>
<th>The PACIO Project</th>
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<tbody>
<tr>
<td>• LTSS Eligibility Determination, eLTSS Plan Creation and Approval</td>
<td>• (Post-Acute) Care Coordination</td>
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<td>• Sharing a Person-Centered eLTSS Plan</td>
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Project Focus

Speed up the intake and onboarding for a senior entering a care home
Long Term Goal

**LTC_CAP** aims to develop a FHIR resource specification, and associated enabling technologies, for a senior that has found a care home and is in the process of securing their place in that home.
Methodology

Use existing knowledge and tools, while collaborating with LTC facility providers on a useful end-result for them.

LTC Facility (19)
Current Status

1. Collaborating with our 19 LTC facility providers, we identified an initial set of common data elements.
2. Created a generic database schema for this initial set.
3. Cross-referenced this initial set against the work done by the PACIO project and the CMS Data Element Library to determine the FHIR resources that need to be incorporated.
4. Documented a draft LTCFacilityApplication FHIR specification.
Current Status

5. Used Health Samurai’s IGPOP tool to craft a draft FHIR implementation guide. Imported into Health Samurai’s FHIRBase tool.
   • The use of FHIRBase allows the data from Pearl Long Term Care Solutions (“Pearl”) to be read by our authorized provider partners.

6. Ongoing work to create a translator (in Python) that converts from Pearl’s internal data system (a mix of MySQL and Mongo DB) into the draft FHIR spec.

7. Open sourced and assets available via Github.
Structure Definition

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Ask #1

LTC Facility Owners and Managers

Reach out and provide input on the data you require during your application
Ask #2

LTC Facility Owners and Managers

Tell us about your systems and their FHIR capabilities
IT Vendors for LTC Facilities

Work with us on “translators”
Thank You