

# INSURTECH: INNOVATION ENABLING AGING IN PLACE

JUNE 21, 2019

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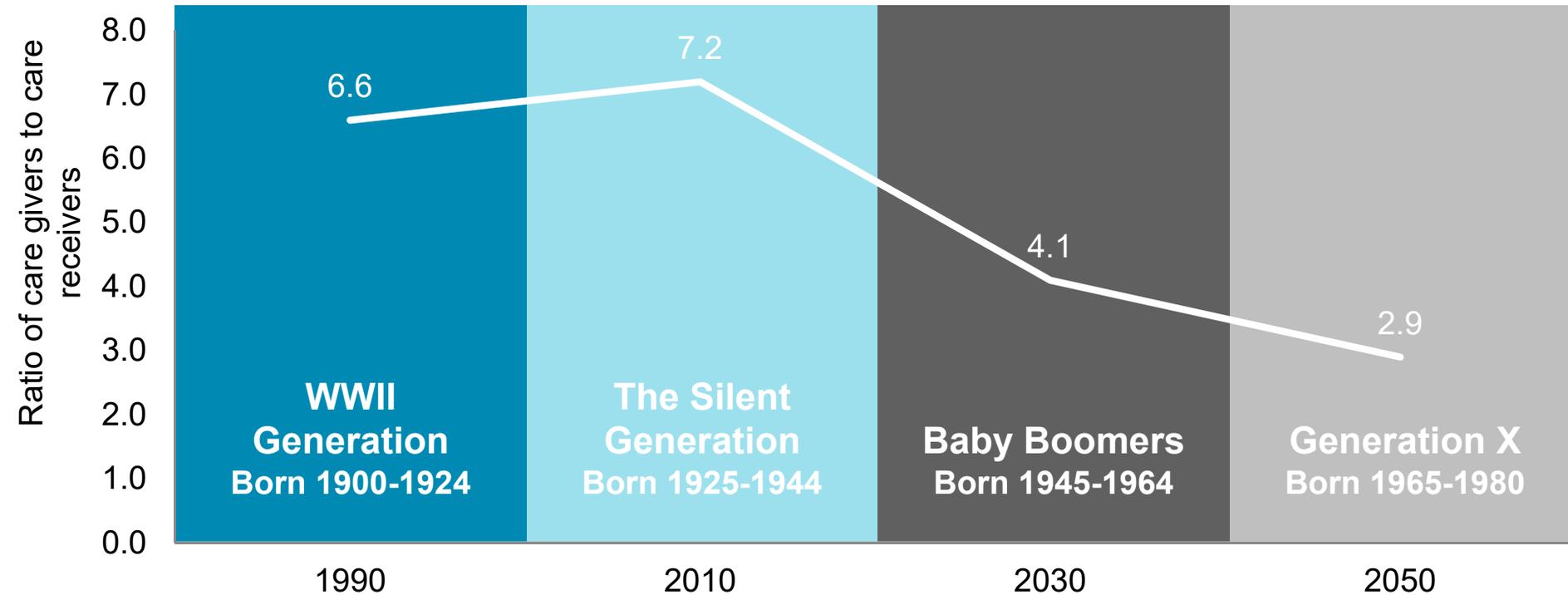
# Background

- The imminent crisis
- The Society of Actuaries Long Term Care Think Tank
- From Shark Tank to InsurTech LTC
- Chasing shiny objects

Note: The information presented should not be interpreted as an endorsement or a validation by the Society of Actuaries or Oliver Wyman.

# The imminent crisis

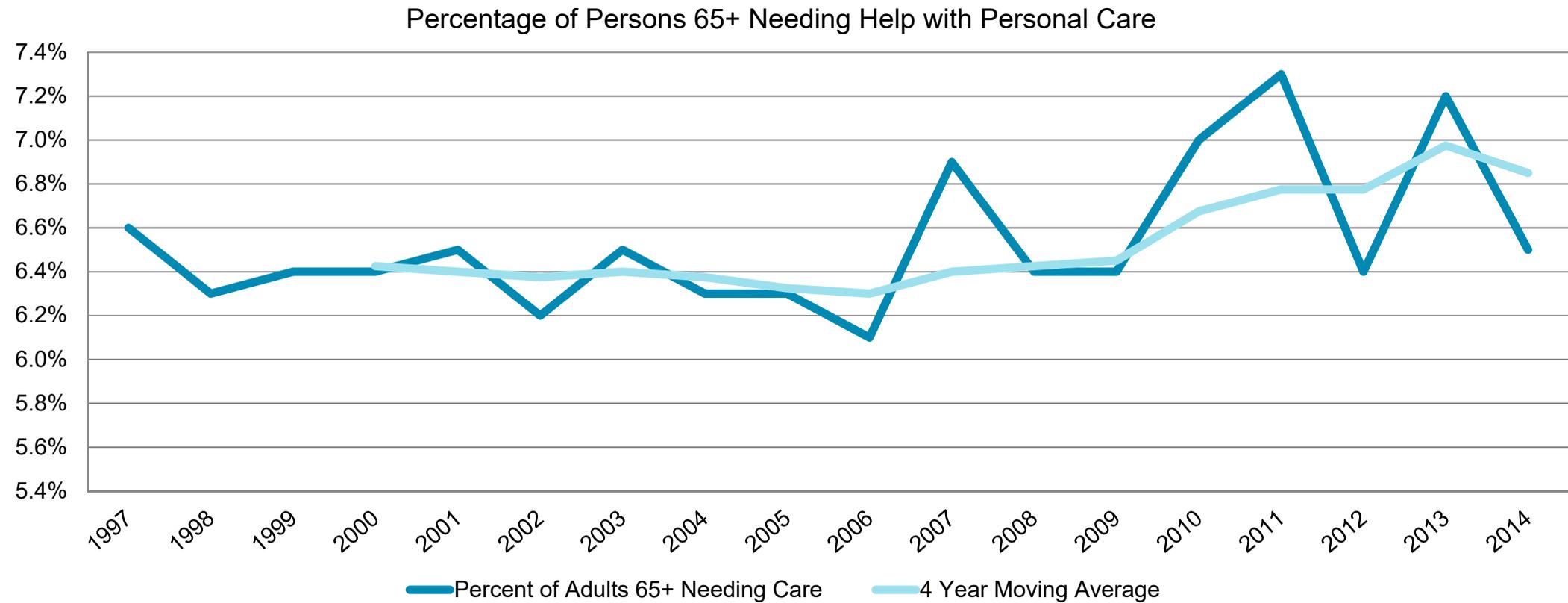
## Who Will Need LTC & Available Resources



- Generation receiving care will start to flip to Baby Boomers
- Rate of care givers to care receivers will drop dramatically
- Both will drive changes in care delivery out of necessity and preference

Source: US Census Bureau 2015 Projection Population

# We are living longer, but are we getting healthier?



Trend of increasing prevalence of disability is further evidence of strain on LTC capacity.

Source: CDC/NCHS, National Health Interview Survey, 1997–September 2015, Family Core component.

# Generational impact on care delivery

## Current

### Who

- Recipients: Silent Generation
- Informal caregivers: Baby Boomers
- Formal caregivers: Generation X

### Generational dynamic

- Silent generation accepts how things are
- Do not want to burden children
- They have busy, mobile children
- Social isolation
- Low tech health system

### Where

- Home
- Assisted living facilities
- Nursing homes

## Emerging

### Who

- Recipients: Baby Boomers
- Informal caregivers: Generation X
- Formal caregivers: Millennials

### Generational dynamic

- Baby Boomers will demand change
- Will not expect help from children
- Will not tolerate isolation
- Will expect to maintain lifestyles
- Emerging tech will be deployed
- More efficient, less labor intensive

### Where

- At home via “smart homes”
- Lifestyle preservation “places”
- Amenities, mobility, social interaction

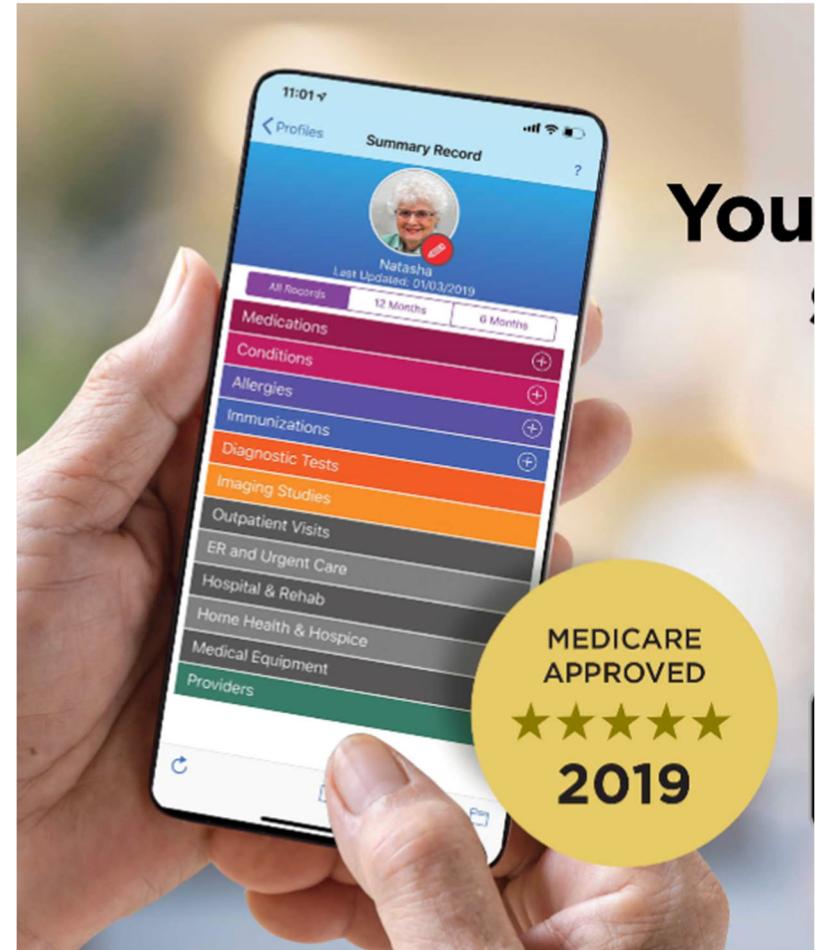
## Emerging solutions can be grouped into 4 categories

1. Prevention and early detection
2. Finding quality care
3. Smarter home, smarter care
4. Family caregiver support

# 1 | Prevention and early detection



- Enables a Medicare beneficiary to access four years of their claims data, and turn it into actionable health care information
- Reduces medical errors and increases system efficiency
- Stores your critical health information in one place for you and your loved ones to have at all times
- Receive personal health insights regarding your medications and conditions
- Review, research, and mark up your records with personal annotations



<https://www.humetrix.com/>



## AGGREGATE

There are many ways that signals come into Livongo (health data sets, health devices, applications, claims data). All of these data get Aggregated into the AI+AI Engine where we create a unique set of Livongo health signals.

## INTERPRET

Livongo's data scientists, behavior specialists and clinicians work together to interpret health signals and create unique signal combinations to support behavior change. This includes determining the most relevant timing, applications, messages, and support for an individual.

## APPLY

In Apply, we are delivering the most impactful health signal via the most useful channel to the right person at the right time. Applications include Livongo's devices, coaching, apps, SMS/text, voice, and other modalities as well as partners' applications.

## ITERATE

As we apply health signals, we constantly iterate on what is valuable to enable optimal behavior. This real-time iteration makes each subsequent interaction higher value and higher impact.

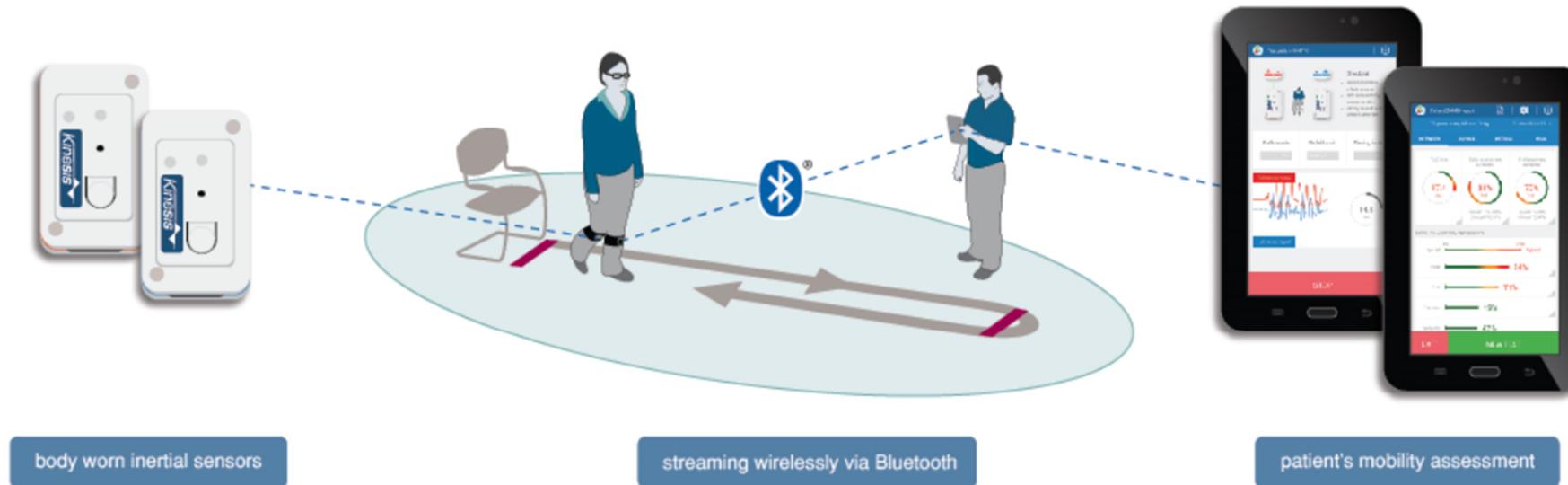
- Links artificial intelligence to smart devices for people with chronic conditions
- The four pillars are AI+AI: aggregate, interpret, apply, iterate
- Livongo's data scientists aggregate and interpret substantial amounts of health data and information to create actionable, personalized, and timely insights and nudges delivered to its users



<https://www.livongo.com/>



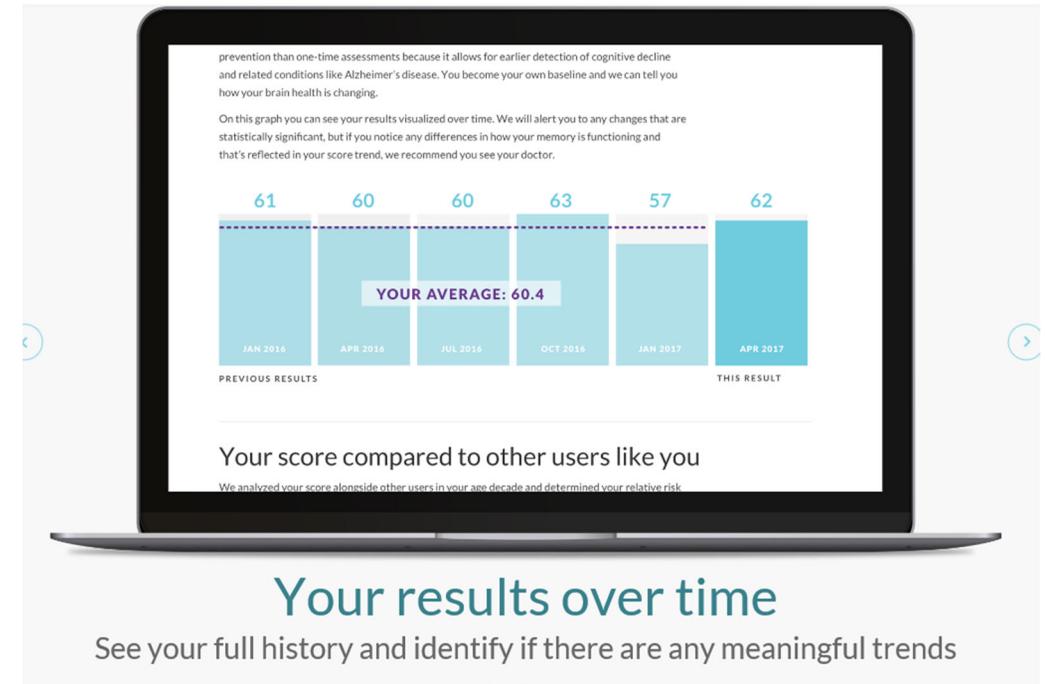
## QTUG™ (Quantitative Timed Up and Go)



- QTUG™ is a tool used by those that are assessing falls risk for the elderly
- It provides a falls risk score (known as the Falls Risk Estimate (FRE)) and a frailty score (known as the Frailty Estimate) along with fast, accurate and objective data
- Wireless sensors are placed on each leg
- Provides a method for objective assessment of mobility, frailty and falls risk. It provides automatic analysis of patient data against average values for patients' age and gender with color coding to indicate deviations from normality



# Neurotrack

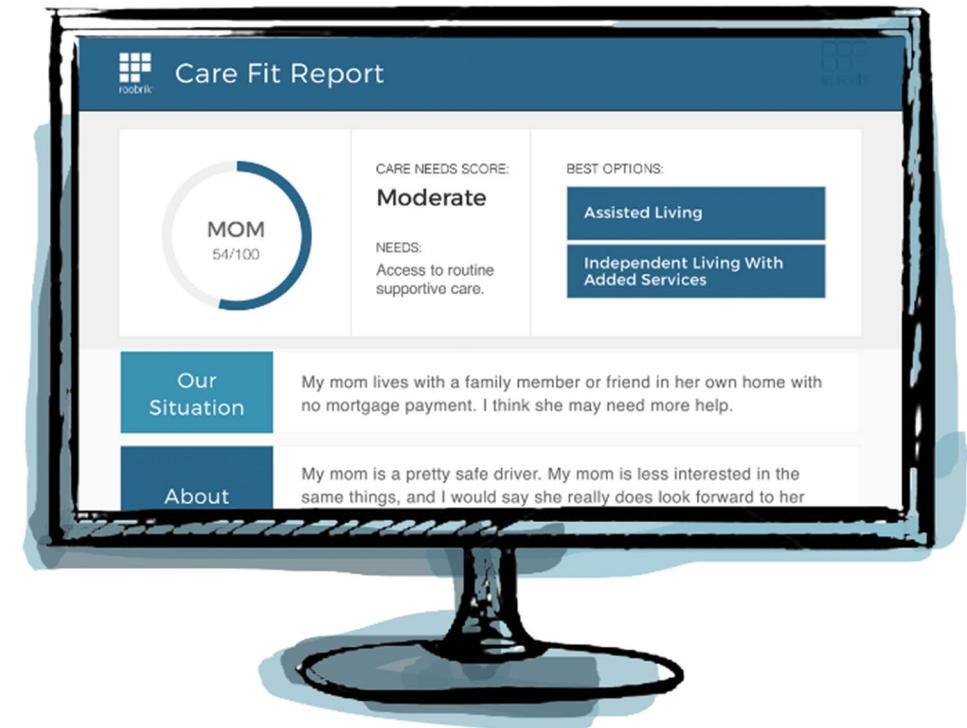


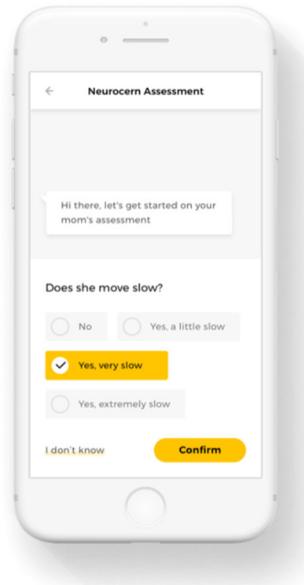
- Online cognitive health scoring tool
- Establishes baselines and monitors memory health over time; prompts for an assessment every 3-6 mos.
- Provides tools, guidance and support to help people protect and preserve their memory
- Diet adherence tools, cites Mediterranean dieters as having a 35%-50% reduction in developing Alzheimer's Disease

<https://www.neurotrack.com/>



- Combines decision science and user-friendly technology to match care needs with senior care options
- Helps seniors and their families think through care and living options with personalized recommendations for next steps
- Customers receive referrals to providers that can provide the recommended level of care
- Care providers receive data that helps to qualify leads and prioritize conversations





Alzheimer's  
disease & related  
dementias



Stroke



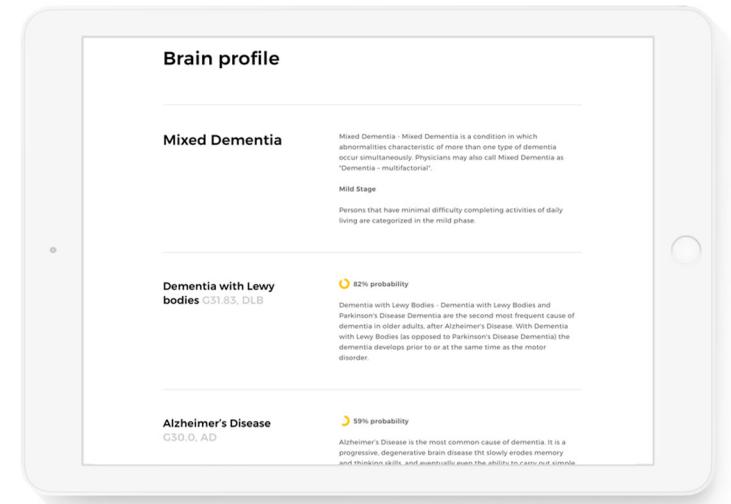
Aging &  
Cognitive  
decline



Parkinson's  
disease



Multiple  
Sclerosis

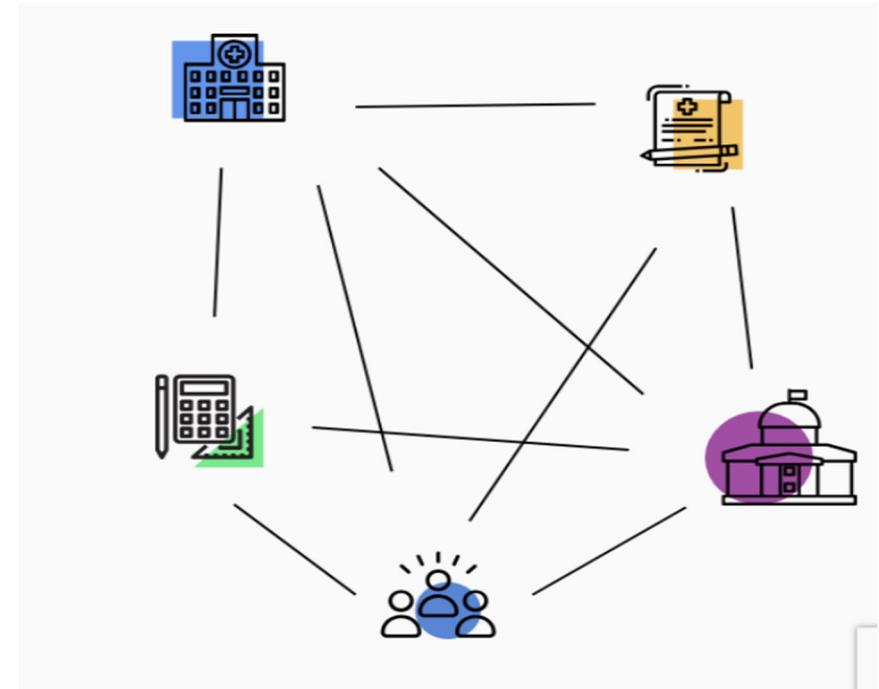


- Online cognitive health assessment tool
- Developed by a leading gerontologist / neurologist, underlying tech is analytics and AI based.
- Provides more than a score - it diagnosis variants of cognitive impairments.
- Identifies cognitive conditions that are temporary, such as post acute care stress
- Provides recommendations for de-risking the chances of cognitive deterioration and variant-specific care plans

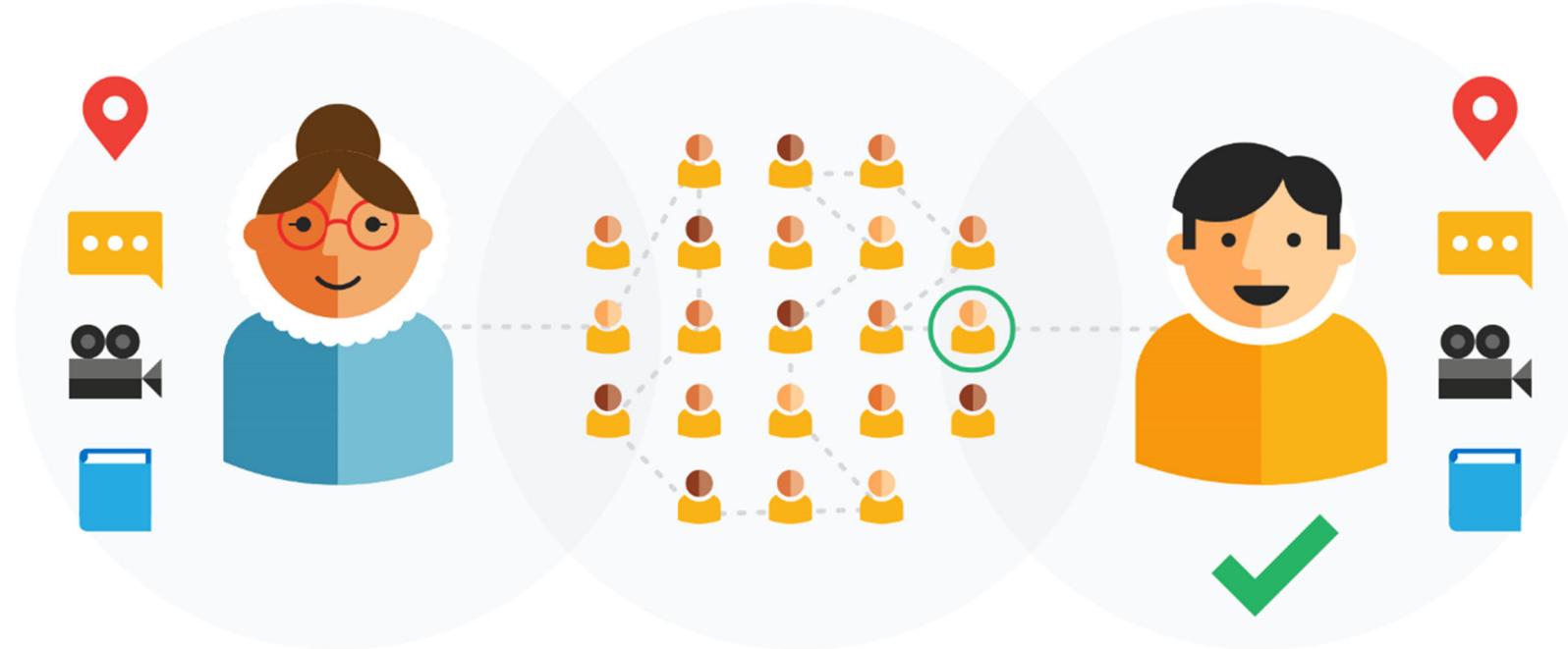
## 2 | Finding quality care

# Aunt **BERTHA**

- Connects people looking for community based services with service providers
- Free for those seeking services
  - No ads
  - Privacy is protected
- Service listing is created and maintained by Aunt Bertha
- Service providers can pay a fee to alter their listing, manage referrals and receive data analytics



<https://www.auntbertha.com/>



**STEP ONE**

Our experts create a custom profile for the senior needing assistance based on interests and personality.

**STEP TWO**

Our analysis quickly finds 2-3 great matches among our hive of helpers. YOU choose the best helper for you.

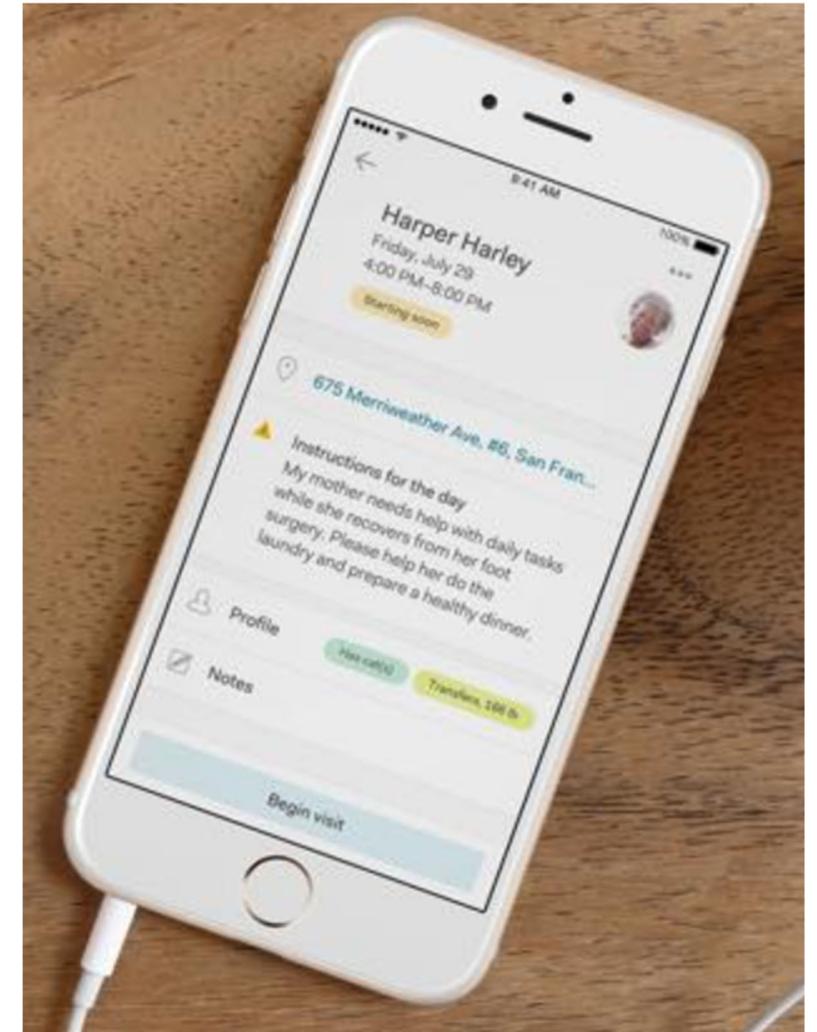
**STEP THREE**

Helper and senior meet to verify that a perfect match has been made! We have a **95% successful matching rate.**

- Matches independent helpers with seniors who need care based upon personality, interests and experience
- Helper applicants must take a series of behavioral questionnaires, aptitude tests and profile assessments prior to being on-boarded into the platform
- Seniors generally enjoy cost savings while the helper earns more than they would with a traditional agency
- Matchmaking can be done via a web-based tool or by working with a “care matching expert”



- Network of vetted home care providers
  - Claims that 99.7% appointments are filled
- Customers access the provider network through a single source
  - Accessible via phone, web and app interface
  - Fast booking and quick reaction time
- Visits can be scheduled and monitored via the app
  - Visit notes are provided for loved ones to review

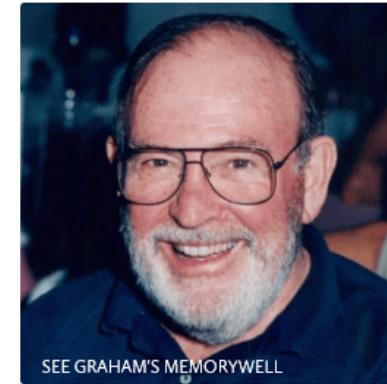


# memorywell

- Service that creates life stories and timelines for care receivers that are stored on a web-based platform
- Material is written by a network of professional writers via an interview process
- Material is reviewed by formal caregivers so that they are better connected and engaged with care receivers
- Allows family members to provide tips to caregivers

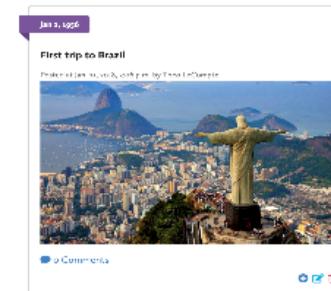
## MemoryWell life stories

Our network of more than 600 writers interviews seniors or family members to produce a 500-word story that can be shared with family members or caregivers.



## MemoryWell Timeline

Care staff and families can share new and old memories about the senior through posting videos, audio, pictures, and letters to our interactive digital timeline.



## 3 | Smarter home, smarter care

- A smart light bulb provides health monitoring, emergency response and caregiver tracking
- Uses infra-red tech, not cameras, which protects privacy
- Monitors sleep duration, respiration and other vital signs of people in the room
- Validates proper delivery of care to reduce abuse and fraud
- Can detect falls
- Sends alerts to family and formal caregiver
- Voice recognition built in



**SafeLight**

<https://www.carevalidate.com/>

# MedMinder™

- Smart pill dispenser
- Reminders range from a blinking compartment, to a phone call
- Compartments can be locked, limiting access to the caregiver
- Medical alert feature
- Caregivers can record reminders
- Reports provided to caregivers
- Pre-filled trays can be sent by MedMinder pharmacy



<https://www.medminder.com/>



- A suite of connected devices and phones that keep care recipients connected to care givers and other services:
  - Emergency call devices
  - “Big button” phones
  - Wearable devices
  - Activity monitoring app for loved ones
- All devices can be connected and work together
- Devices have the ability to contact loved ones, emergency services, medical professionals, and greatcall agents

<https://www.greatcall.com/>





- “Conversational AI for Healthcare”
- The system combines voice and conversational AI, smart phones and speakers, voice assistants and chatbots to engage patients and improve health and care
- It includes Pillo Health, a voice-activated home health and medication management companion that delivers therapy reminders, health information, and companionship to keep patients on track with their care plan

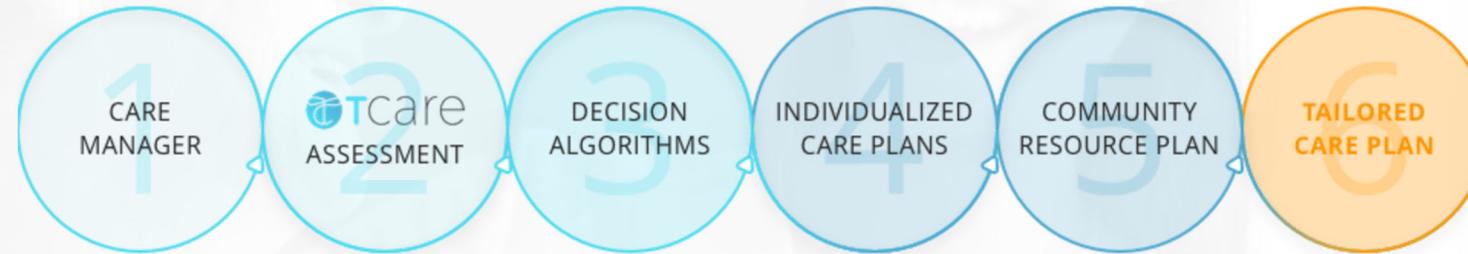


- A system that uses smart-speaker technology to deploy and monitor a senior's daily routines, appointments, activities and medications
- Caregivers can configure schedules, alerts and reminders and can check in on loved ones
- It can also be configured to play a senior's favorite music and TV shows



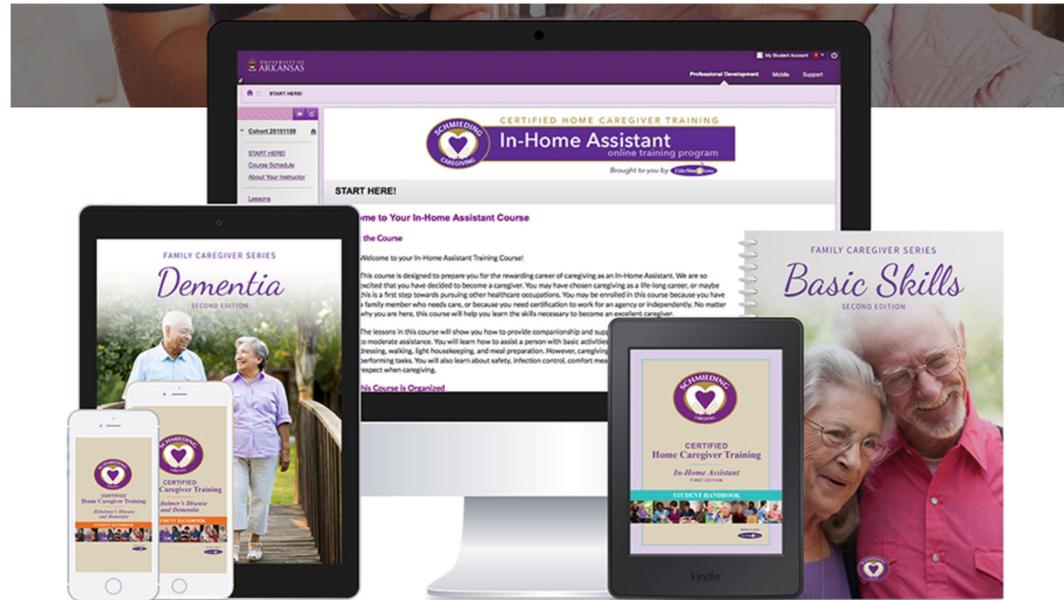
- Essentially, this is the “uber-fication” of non-emergency medical transportation
- Drivers receive special training for health care related transportation, to become “provider drivers”
- Recruits and enrolls independent drivers and existing fleets
- Not just an app – Veyo establishes relationships with health care providers and payors
- Also has call centers to act as dispatchers
- Uses a proprietary algorithm that predicts demand throughout the day. These forecasts are based on historical and future trip data, utilization patterns, and projected pick-up times and delays. It is a self-learning algorithm that continually gets better at predicting demand

## 4 | Family caregiver support



TCARE's scientifically validated algorithms then create individualized tailored care plans which aid care managers to precisely target & map community resources with family caregiver needs at just the right time, so that they can better navigate their caregiving journey.

- A service platform that is aimed at helping **caregivers** cope with their unique types of stress
- Focuses on identity discrepancy (the change that occurs when the role of son, daughter or spouse erodes away and becomes that of a full-time caregiver) as the primary driver of emotional drain on a caregiver, as opposed to specific daily activities of living or hours of care
- Its studies indicate 21 month delayed nursing home placement



- Elder Stay at Home is the exclusive licenser of the Schmieding Method™ Home Caregiver Training curriculum
- The Schmieding Method™ is currently taught in community colleges and training centers in Arkansas, California, Hawaii, and Texas
- Online courses are designed to properly train primary caregivers at every level, from the family member to the seasoned medical professional

<https://www.elderstayathome.com/>



- A service that goes beyond home health care as we have traditionally known it
- It provides a holistic approach to facilitate aging in place, providing a full spectrum of services

## There's So Much We Can Do

Drive to the doctor's office

Provide medication reminders

Prepare meals

Assist with morning routine

Provide companionship

Run errands

Install grab bars

Keep home neat and uncluttered

Provide support in senior housing

Questions?

