

Daily Essential Activities



Health and Safety Awareness

Care Coordination

Transition Support

Social Well-being

Caregiver Quality of Life

JANUARY 2016

CAREGIVING INNOVATION FRONTIERS

*A universal need, a growing opportunity—
leveraging technology to transform the future*

CAN 40 MILLION CAREGIVERS COUNT ON YOU?

Where can I find reliable help with meals and medications? What does this bill mean, and will my insurance cover it? And how can I help Mom and Dad stay safe and healthy?

As people live longer lives, questions like these touch us all. According to the 2015 report “Caregiving in the U.S.,” an AARP and National Alliance for Caregiving study, nearly 40 million Americans in 2014 were providing unpaid care to people who are older, disabled, or otherwise in need of assistance. A quarter were millennials, and half were under the age of 50.

Some call it “informal” care, but there’s nothing informal about the emotional, financial, and day-to-day stress such a role can involve, or the growing gap between the number of caregivers and the number of care recipients. By 2020, 117 million Americans are expected to need assistance of some kind, yet the overall number of unpaid caregivers is only expected to reach 45 million.

A TECHNOLOGY TIPPING POINT

As online networks bring people together, platform-based solutions extend business reach, and mobile devices put information, connections, and services at people’s fingertips, there’s never been a better time

to harness innovation toward easing an important job and making a social impact.

Companies from established multinationals to startups, mass-market firms to niche players, are recognizing a caregiving market opportunity that’s expected to reach \$72 billion in 2020 alone. The cumulative total

“ *I am her power of attorney, medical representative, and trustee of her living trust. I take her to medical appointments, manage her finances, make sure she has everything she needs, and visit as often as I can. It’s been really hard.*”



for 2016-2020 is expected to be \$279 billion, with \$60 billion of this being caregiver out-of-pocket spending.

Technology holds great promise for helping to reduce the complexities, stress, and sheer hard work of this important job. Yet many current solutions remain under the radar and underused. Take health and safety monitoring devices, for instance: A recent survey conducted for AARP demonstrated that while 67 percent of caregivers say they want to use these solutions, only one tenth are currently doing so.

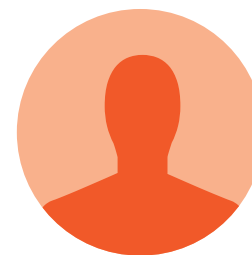
Despite billions in spending, today’s market for caregiving solutions remains extremely fragmented, poorly adapted to caregiver needs, and, in some cases, undefined and underdeveloped. Many solutions also are directed toward recipients of care, not the caregivers themselves.

RELIEF FROM A CAREGIVER’S PERSPECTIVE

Addressing caregivers’ needs is a strategic focus of AARP. With the Caregiving Innovation Frontiers research project, AARP and Park Associates aim to:

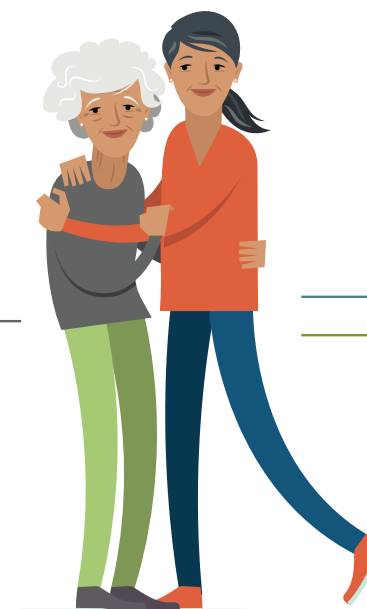
- Guide entrepreneurs, investors, and businesses to clearly defined market segments
- Highlight the needs, wants, and challenges of unpaid caregivers, from the caregivers’ perspective
- Call out examples of solutions already operating in these areas, including pitfalls, pain points, and lessons learned
- Identify gaps between existing solutions and those that are still needed
- Highlight opportunities for joining the caregiving marketplace, including unique technologies and solutions, disruptive business models, and areas with the potential for high growth

CALL FOR ACTION: WE NEED TECHNOLOGY MORE THAN EVER TO BRIDGE THE GAP



117M

Americans are expected to need assistance of some kind by 2020



FORECAST:



45M

UNPAID
CAREGIVERS



5M

PAID
CAREGIVERS

SIX AREAS OF OPPORTUNITY

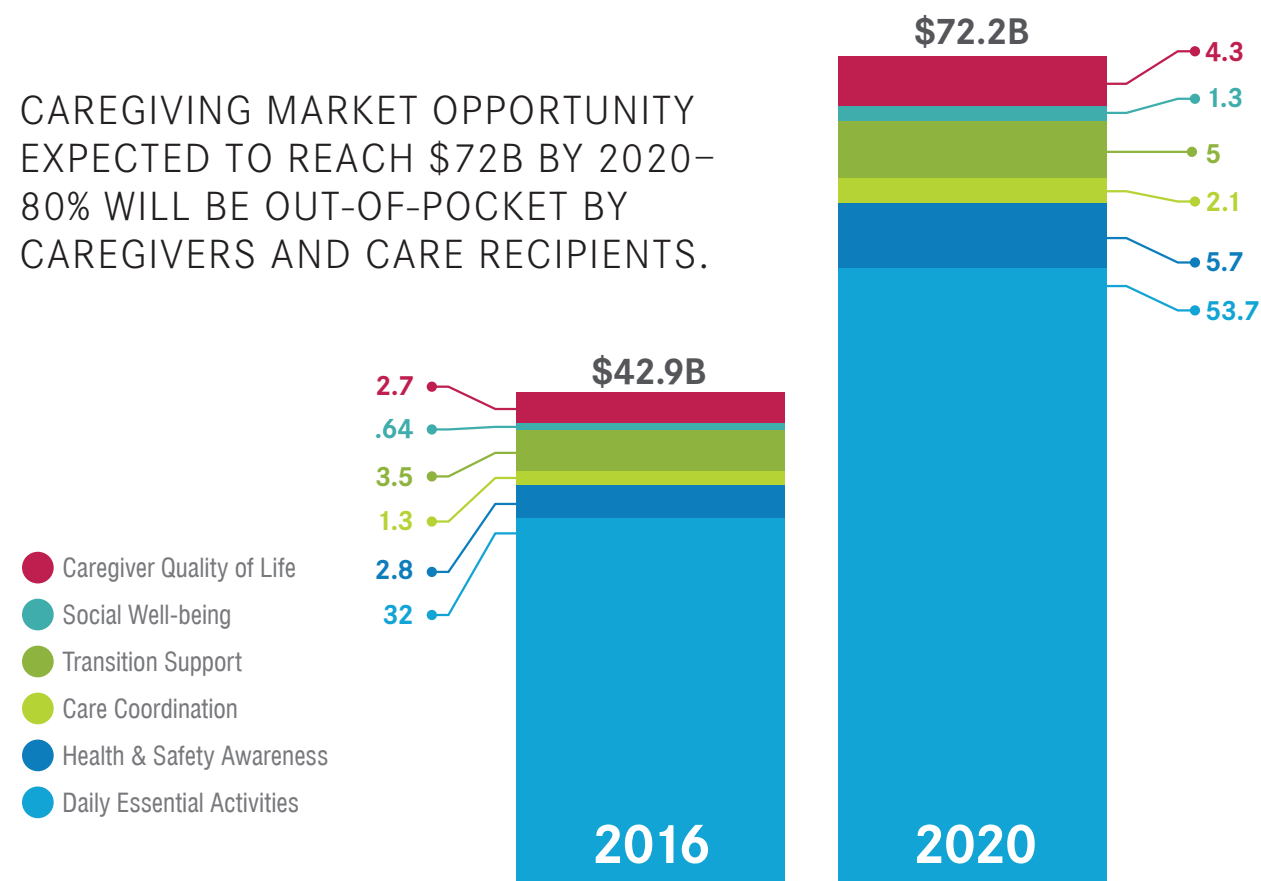
To define the main market segments, AARP and Park Associates started with AARP's own data—including survey data detailing consumer needs, interests, and behaviors—and an examination of services already in the marketplace. Assumptions were checked against existing industry research.



TODAY & TOMORROW

Total market revenues include out-of-pocket spending by caregivers and care recipients, reimbursements by payers (Medicare, Medicaid, private insurance, long-term care insurance), payment by social services, and payment by other third parties such as advertisers, care facilities, and employers.

CAREGIVING MARKET OPPORTUNITY EXPECTED TO REACH \$72B BY 2020—80% WILL BE OUT-OF-POCKET BY CAREGIVERS AND CARE RECIPIENTS.



OVERARCHING TRENDS

A BIG MARKET FOR EVERYDAY RELIEF

Daily Essential Activities represents the largest commercial business opportunity. Caregiver Quality of Life also is a strong market but smaller due to caregivers' tendency to neglect their own needs.

BENEFITS BEYOND REVENUES

The social impact of caregiving is important to consider as well. Social Well-being, Transition Support, and Care Coordination are traditionally underinvested segments; however, they offer entrants the opportunity to alleviate the significant stress associated with many caregiving functions. Online caregiver communities, for example, not only provide practical tools in areas like care coordination and

planning, but also offer a venue for caregivers to support each other and improve well-being for both themselves and care recipients. Companies who deliver such quality-of-life enhancing functions can enhance their customer satisfaction and loyalty, brand power, and social influence.

FIRST-MOVER ADVANTAGE

In many areas, caregiving gives companies the opportunity to get in on the ground floor of an emerging market. Sub-markets with the most dramatic potential to go from small to big include services for planning and coordinating care tasks, services for engaging care professionals, health vital alerts, records and benefits management, and social support for caregivers.

DISRUPTION-FUELED GROWTH

The overall caregiving market is forecast to grow at an average rate of 13% from 2016 to 2020. Because of technology's ability to disrupt incumbent business models—for instance, platform-based solutions that maximize reach, agility, and sustainability—even faster growth is expected in several market sub-segments. These include home delivery, safety monitoring, telehealth, digital inclusion, and life enrichment and empowerment.

And it's not only startups doing the disruption. A major online retailer is consolidating solutions for daily tasks through its ecommerce portal, to make everyday coordination easier for caregivers. A leading security company is working with partners and developers on a

platform and hub for sensors that deliver health and safety awareness solutions.

A RANGE OF BUSINESS MODELS

Caregivers influence the purchase of all of the offerings highlighted in this report and are responsible for the direct purchase of many, such as medication management apps and services like proxy care and legal assistance.

Entrants to this space should look beyond these traditional revenue models. Often a solution

is free to caregivers and care recipients and paid for by either a member of the health system (e.g., an online clearinghouse of long-term referral options) or an employer (e.g., assistance with financial planning). For solutions delivered by the medical system, entrepreneurs and investors will need to keep an eye on what insurance companies or the government will reimburse and get up to speed on reimbursement coding and paperwork.

For social inclusion

offerings like online communities or photo-sharing platforms, revenues often come from advertising, memberships, or sponsorships—a business model that also alleviates the financial stress of caregiving by reducing out-of-pocket spending. Neither caregivers nor care recipients are used to paying directly for these services. However, as solutions with premium and tiered pricing models in this report demonstrate, they can be enticed to pay—if they believe the experience will be unique and compelling.

care support with daily tasks plus care coordination and scheduling care appointments plus managing medical records.

Furthermore, many current offerings are limited to a specific state or region or focus narrowly on only one or two specific needs. Serving a broad geographic area or exploring synergies within and across market segments to address multiple pain points also can be a way to stand out. As innovation

proliferates, companies will join forces to expand their reach and services through partnerships among entrepreneurs and incumbents and win-win acquisitions.

WHAT LIES AHEAD?

Revenues from multiple sources, regulations shaping areas like telehealth, players entering the space and growing through mergers, acquisitions, and horizontal and vertical partnerships—all of this

and more lies ahead in this essential, exciting, and universal market.

With a \$279 billion cumulative market opportunity between 2016 and 2020, a dynamic marketplace up for disruption, and a responsibility as a society to make life easier for those who deliver unpaid care, caregiving is a frontier technology entrepreneurs and investors can't afford to ignore.

HOW TO WIN

Even the most cutting-edge innovation is meaningless if it simply sits on the shelf. Although care recipients have adopted some popular technologies—for instance, Facebook and FaceTime for keeping up with family members—they often find new innovations to be unfamiliar or difficult to operate. New entrants in the caregiving space can distinguish themselves by

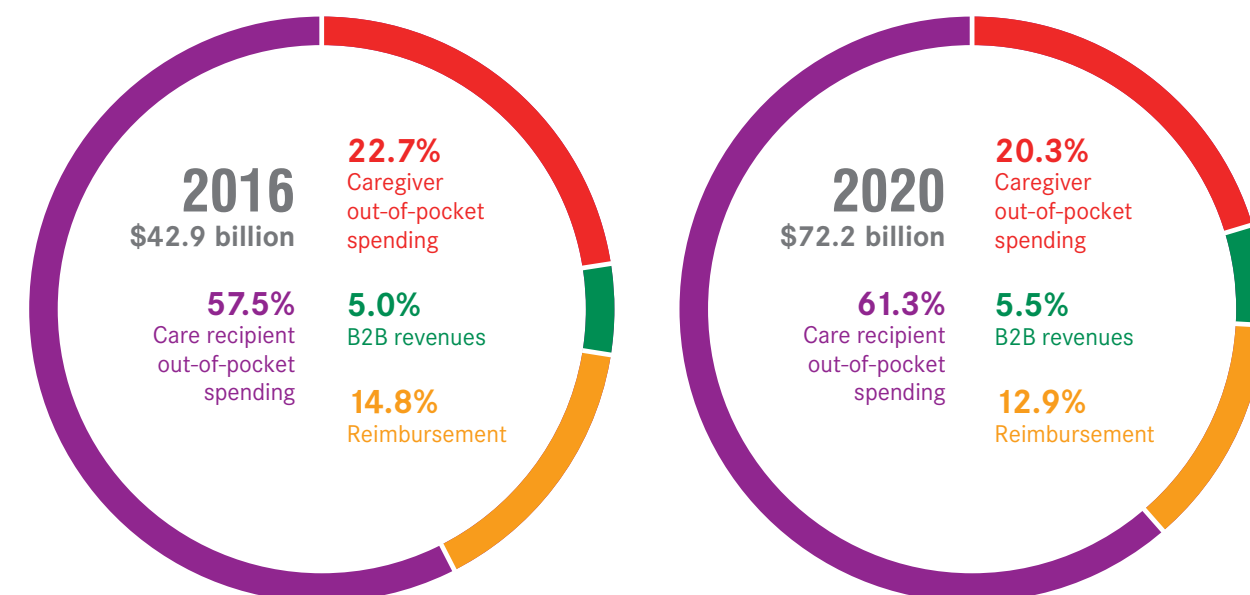
making their services easy to understand, intuitive, convenient to use, and affordable. Financing a solution through an alternative source of revenue, such as Medicare or insurance reimbursement or fees from advertisers or sponsors, can lessen caregiver out-of-pocket spending and financial stress.

New entrants also can take a cue from a leading online home renovation platform by delivering an

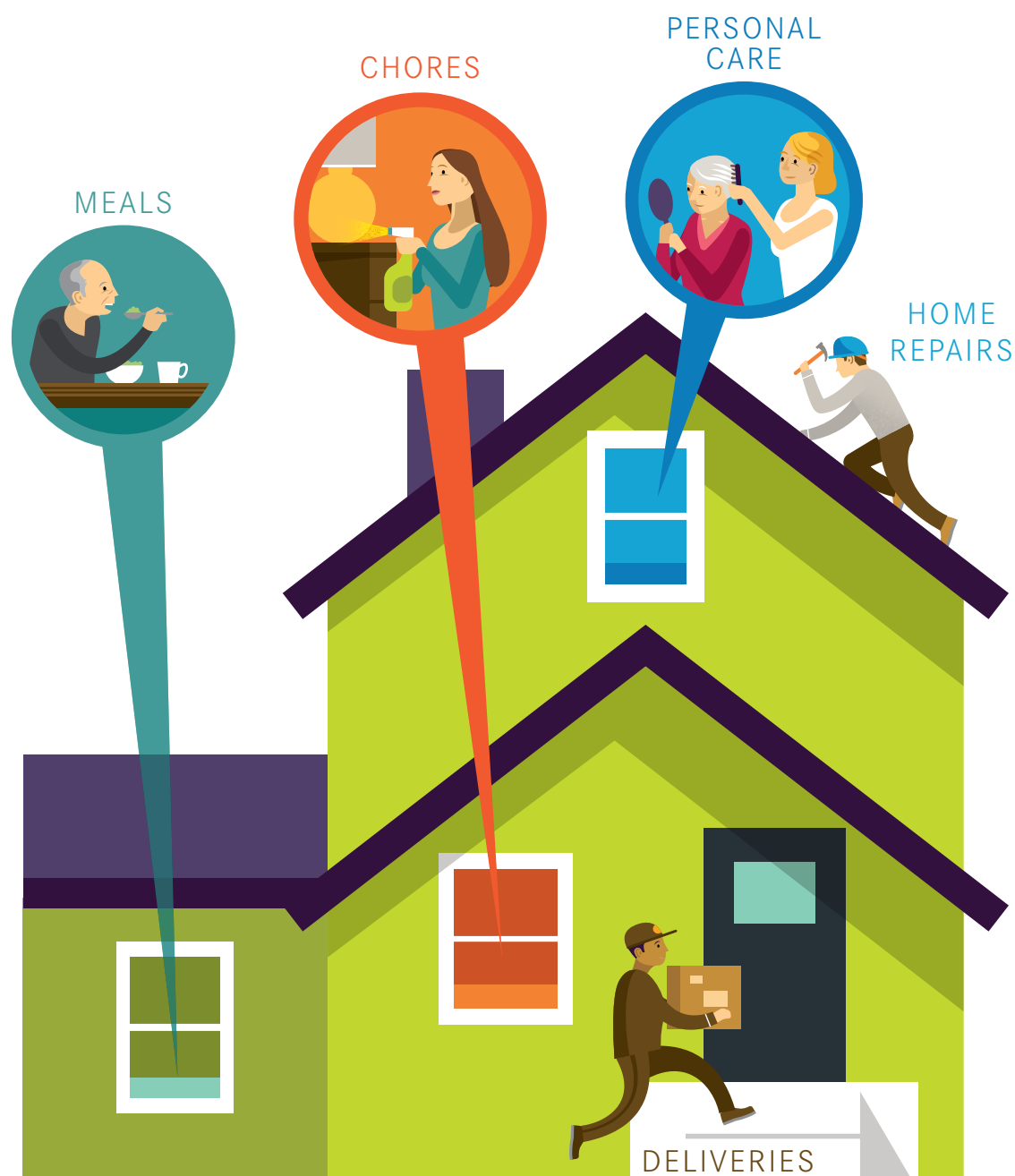
enlightened user experience via a “3C” strategy (content, community, and commerce). An emergence of multifaceted solutions is not surprising given the multifaceted nature of many aspects of caregiving. Take aging in place, for instance, which often requires home retrofitting, health and safety alerts, and help with essential daily tasks.

This report highlights a few companies that serve multiple needs, such as home

REVENUE GROWTH AND REVENUE MODEL CONTRIBUTION



DAILY ESSENTIAL ACTIVITIES



“I’ve learned to be a nurse, counselor, cook, chauffeur, banker, and so much more.”

From cooking meals to combing hair, making household repairs to managing transportation arrangements, the to-do list seems endless for many unpaid caregivers. Crunched by these tasks and other responsibilities at work and home, these caregivers increasingly seek commercial services to make daily life easier.

America’s aging population is driving demand for these services. Yet incomplete information and a lack of standards can make it difficult for caregivers to connect with qualified, affordable solutions. Middlemen like agencies and referral providers have emerged to streamline the search; however, their fees increase (and sometimes inflate) average costs.

MARKET REVENUE FORECASTS 2016–2020

Total market revenue includes out-of-pocket spending from both care recipients and caregivers, as well as reimbursements from private and public insurers and business-to-business spending.

CAREGIVER OUT-OF-POCKET SPENDING

 **\$36.5B**

TOTAL CAREGIVER SUPPORT MARKET

 **\$207.6B**

KEY TAKEAWAYS

- Although caregivers find, evaluate, and manage services, care recipients generally pay, mostly out of pocket with some reimbursement.
- Advertising, subscriptions, and memberships are funding many emerging solutions.
- The biggest growth/disruption is in online home delivery, including niches like customized meals for diabetics.
- Yet the most sizable market (home care) involves traditional, onsite assistance.



SOLUTION MEALS, HOME, AND PERSONAL CARE

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

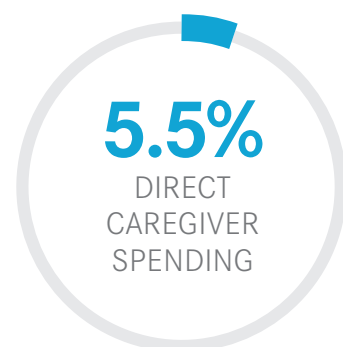
\$3.9–\$4.9B



TOTAL MARKET OPPORTUNITY

\$20.4–\$25.5B

CAGR



THIS INCLUDES

Home care aides, social workers, aide-to-hire apps (dressing, bathing, combing, feeding and personal hygiene), digital recipes, home cooking instruction videos (meal preparation), home chore service providers, and home maid hiring apps (cleaning, vacuuming, laundry and gardening)

EXAMPLES IN THE MARKET



DID YOU KNOW?



The home care industry is expected to add
1 million jobs
from 2012 to 2022.

–Paraprofessional Healthcare Institute (PHI)



SOLUTION HOME REPAIR

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

\$897M–\$1.3B



TOTAL MARKET OPPORTUNITY

\$4.5–\$6.5B

CAGR



THIS INCLUDES

Plumbing, appliance repair/installation, electrical, painting and remodeling services

EXAMPLES IN THE MARKET



DID YOU KNOW?

90% of seniors today
plan to stay in
their homes.



–“Aging in Place: A State Survey of Livability Policies and Practices,” AARP 2011



SOLUTION HOME DELIVERY

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

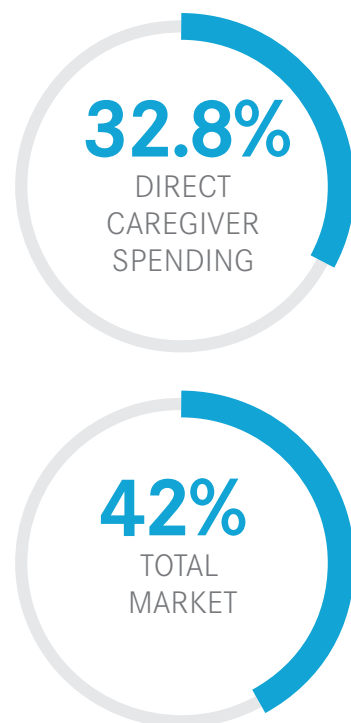
\$641M–\$1.9B



TOTAL MARKET OPPORTUNITY

\$4.9–\$19.1B

CAGR



THIS INCLUDES

Delivery services for essential home items such as groceries, home supplies, meals, and general merchandise

EXAMPLES IN THE MARKET



DID YOU KNOW?

Home delivery service has the second largest market revenue potential in this market category.



SOLUTION TRANSPORTATION SERVICES

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

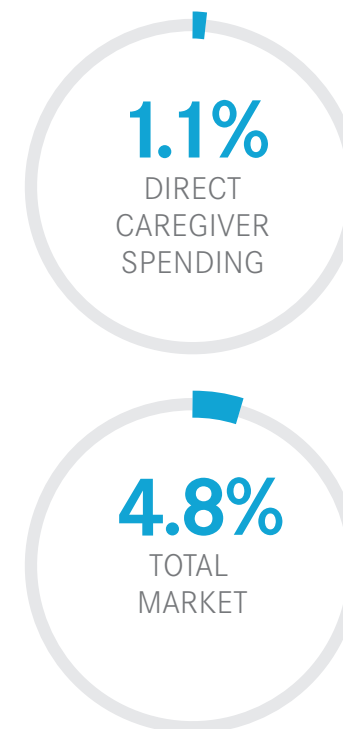
\$640–\$647M



TOTAL MARKET OPPORTUNITY

\$2.1–\$2.6B

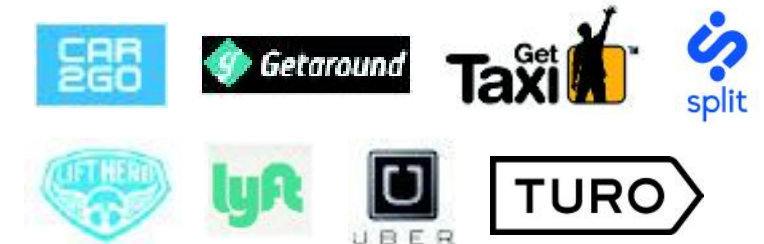
CAGR



THIS INCLUDES

E-hailing and ride-sharing apps

EXAMPLES IN THE MARKET



DID YOU KNOW?



Apps and other online business models are transforming this market.

FINDING OPPORTUNITY IN FORGING CONNECTIONS

Catalyzed by a growing number of Americans in need of care and an increasing desire by these individuals to live independently at home, the home care industry is expected to add 1 million jobs from 2012 to 2022. Stronger labor protections are enticing many of these professionals to strike out on their own as independents.

In this environment, established players and emerging startups are connecting home care professionals with the

parties who seek them, saving caregivers time and ensuring quality and customer satisfaction. In July 2015, startup Hometeam entered the marketplace in New York, New Jersey, and Pennsylvania. This service connects unpaid caregivers with teams that consist of a care advisor, a care coordinator, and a registered nurse. Care teams and caregivers use an iPad to share texts, pictures, and medical updates.

March 2015 marked the

launch of Amazon Home Services, Amazon's expansion into professional services. The service enables caregivers to browse, purchase, and schedule hundreds of services for the home, like cleaning, installations, and repairs, directly on Amazon.com. These pre-packaged services are backed by customer reviews, background checks, and a "happiness guarantee," and pricing is transparently presented upfront, with Amazon taking a 5 percent to 15 percent cut.

CUSTOMER LOYALTY AND SMART CONTRACTING MATTER

While it is too early to gauge the success of Hometeam and Amazon Home Services, a now-defunct provider of home care services, Homejoy, offers lessons for new entrants in the home care space:

- **Be wary of "acquisition by price."** Cut-rate deals to get customers in the door can erode profitability.
- **Keep customers coming back.** This market demands retention rates of at least 35 percent; Homejoy's were only 10 percent to 15 percent.
- **Keep up with the shifting and complex legal landscape.** Homejoy also was damaged by lawsuits alleging that the company forced contractors to work in a manner more similar to an employer-employee relationship.



MARKET TRENDS



- A gradual shift to home care will result in more professional caregivers working outside of health institutions.



- Department of Labor starts to implement and enforce the Fair Pay rules for home care workers.



- Internet/mobile technology is changing the way home care professionals and home service providers are recruited.

WHO WILL WIN?



Battle for
business model



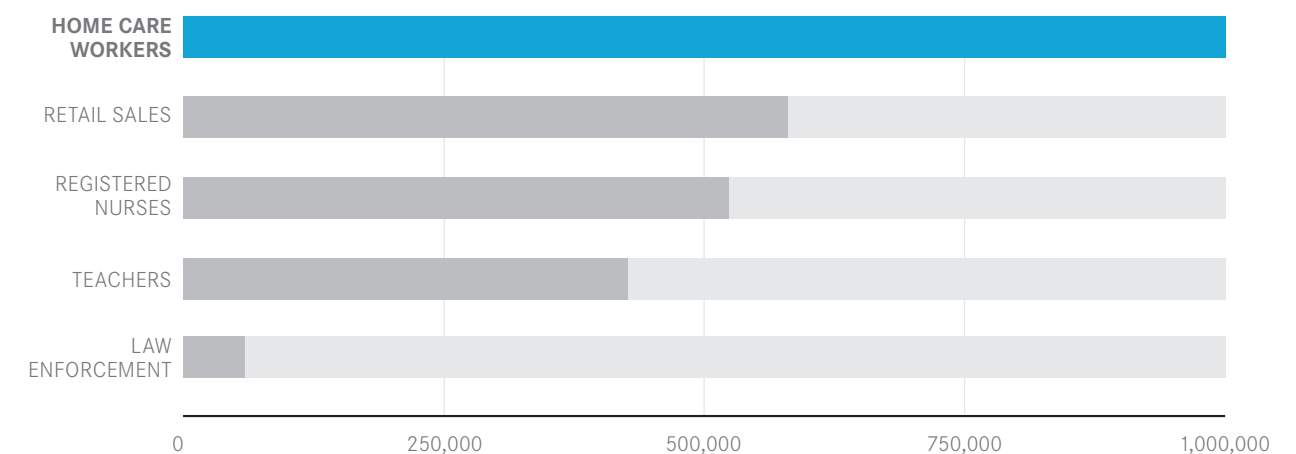
Battle
for labor



Battle for
customer

HOME CARE WILL ADD ONE MILLION JOBS

Highest growth occupations, 2012-2022



HEALTH & SAFETY AWARENESS



“It was always a challenge to stay ahead of someone with dementia because, just as I thought I had things figured out, Granny would be one step ahead of me with something else.”

As a growing number of care recipients experience chronic health conditions like COPD and diabetes, out of sight is not out of mind for caregivers charged with maintaining their health and safety.

As smartphone and tablet ownership increases, big data promises to deliver big peace of mind. Hundreds of devices and services are emerging to track diet and nutrition, medication adherence, and health symptoms that warrant attention. Other offerings promise alerts to abrupt body movements (like a fall), imminent hazards (like a fire), or connections to a doctor anywhere, anytime. In fact, payers have improved reimbursement policies to include telehealth services as part of the overall portfolio to encourage their adoption.

Yet large gaps remain between such a vision and reality. In the current market, some offerings are prohibitively expensive; others are hindered by old technology, lack of geographic range, or regulatory limitations. Often a device or service will track only one thing, like fire or a break-in. Some devices are complex to install, and others deliver sub-par performance.

MARKET REVENUE FORECASTS 2016–2020

Total market revenue includes out-of-pocket spending from both care recipients and caregivers, as well as reimbursements from private and public insurers and business-to-business spending.

CAREGIVER OUT-OF-POCKET SPENDING

 **\$4.3B**

TOTAL CAREGIVER SUPPORT MARKET

 **\$20.3B**

KEY TAKEAWAYS

- Except in medication management, caregivers are more likely to influence, rather than make, purchases.
- Partnerships (ADT and Ideal Life) and m&a activities (the Nortek acquisition of Numera) are being seen in home security.
- Chronic conditions and preventative care are opening up niche markets, such as diabetes-targeted apps and messaging tools.
- Third parties are stepping in to fund services—for example, UnitedHealthcare and Cigna in telehealth and advertisers and care facilities in diet and nutrition.
- Some sub-segments (health vital alerts) are maturing more quickly than others (diet and nutrition).
- Stand out through ease of use, speed of service, and range of offerings.



SOLUTION HEALTH VITAL ALERTS

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION
\$183–\$300M



TOTAL MARKET OPPORTUNITY
\$1.0–\$1.6B

CAGR

13.7%

DIRECT
CAREGIVER
SPENDING

THIS INCLUDES

Connected home medical devices to report blood pressure, glucose, SpO2, temperature, weight

EXAMPLES IN THE MARKET



DID YOU KNOW?

**Simplicity and usability
are key for success.**



SOLUTION DIET AND NUTRITION

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION
\$3.8–\$11.2M



TOTAL MARKET OPPORTUNITY
\$60.4–\$109.6M

CAGR

32.2%

DIRECT
CAREGIVER
SPENDING

THIS INCLUDES

Apps or messaging tools to check ingredient information or alert to symptoms such as dizziness, headache, fatigue

EXAMPLES IN THE MARKET



DID YOU KNOW?



Specialized apps and messaging tools—for diabetics, for instance—represent a niche-market opportunity.

SOLUTION MEDICATION MANAGEMENT

OPPORTUNITY 2016-2020

DIRECT CAREGIVER PORTION
\$108–\$188M

TOTAL MARKET OPPORTUNITY
\$108–\$188M

CAGR



THIS INCLUDES

Reminder apps, monitored pill boxes or pharmacy apps to manage medication timing and dosages, adherence, refill records

EXAMPLES IN THE MARKET



DID YOU KNOW?

Nearly 90% of people over 60 take at least one prescription drug.

30% take five or more.



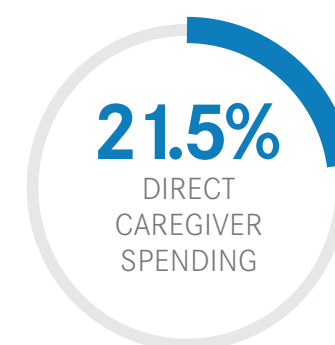
SOLUTION PERSONAL SAFETY MONITORING

OPPORTUNITY 2016-2020

DIRECT CAREGIVER PORTION
\$304–\$684M

TOTAL MARKET OPPORTUNITY
\$1.5–\$2.9B

CAGR



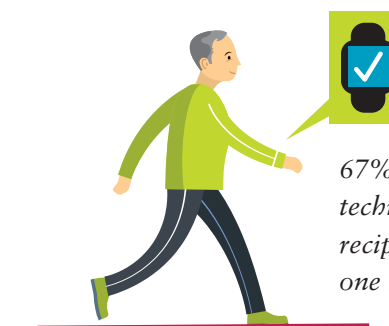
THIS INCLUDES

Devices for hazard prevention and emergency response

EXAMPLES IN THE MARKET



DID YOU KNOW?



67% of caregivers want to use technology to monitor their care recipient's health and safety—but only one tenth are currently doing so.



SOLUTION TELEHEALTH

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

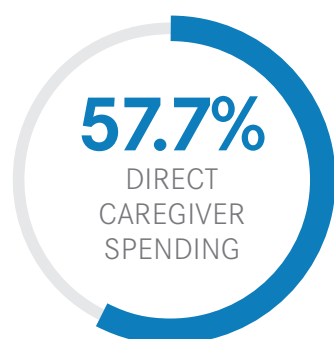
\$5-\$28M



TOTAL MARKET OPPORTUNITY

\$124-\$878M

CAGR



THIS INCLUDES

Online “house call” apps to connect patients and doctors for post-discharge follow-ups, video consultations

EXAMPLES IN THE MARKET



DID YOU KNOW?

Regulations and reimbursement models will play a big role in determining telehealth's adoption and growth.



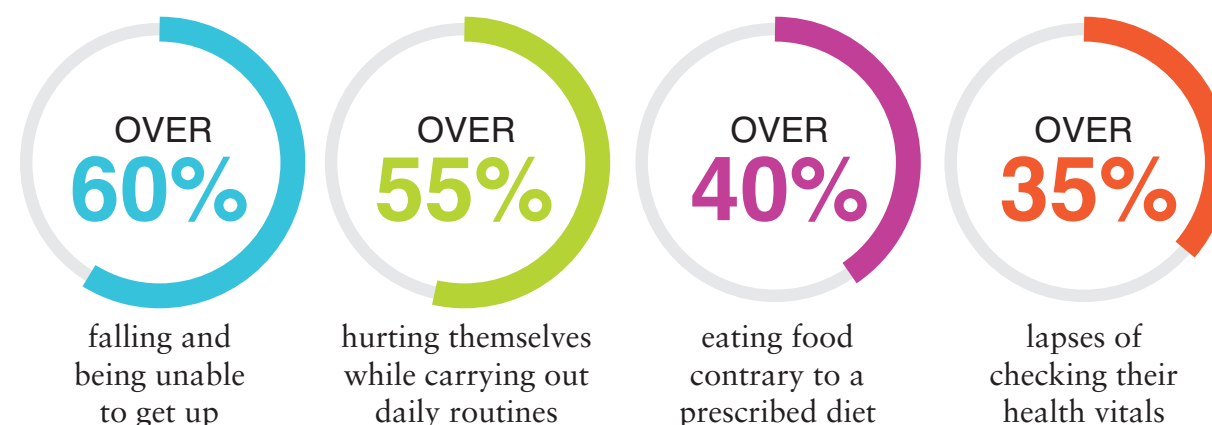
TIMING MATTERS

When innovations involve both technology and health, entrepreneurs and investors must keep a particularly sharp eye on evolving policy.

In telehealth, for instance, regulations on the types of visits payers will reimburse may stymie growth. Consumer awareness and

interest are other areas to watch. In the marketplace for health and safety alerts, readiness and maturity will vary across sub-segments.

CAREGIVER CONCERNS ABOUT IN-HOME ACCIDENTS AND HEALTH-RELATED ISSUES ARE CONSISTENTLY HIGH



PLAYERS AND PAIN POINTS VARY WIDELY

Companies in the health and safety monitoring space range from new apps and Internet of Things devices to old-school security systems. Launched with a Kickstarter in early 2015, **Droplet** is a plastic device that can be attached to a pillbox, a medicine cabinet, or handbag. Via a customizable

app, it delivers medication reminders that users press a button to acknowledge.

Heal gives patients one-hour-or-less access to pre-vetted doctors. So far it has more than 200 physicians recruited across Los Angeles, Orange County, and San Francisco and a 30 percent patient reuse rate.

ADT Health, a division of the nation's largest home security monitoring company, delivers an integrated multi-service solution for remote care, with emergency detection and response, fall prevention, location tracking, and remote health monitoring.

CARE COORDINATION



“All of our lives immediately changed upon her release from rehab in October 2011. She required a caregiver 24/7 because she could no longer care for herself, and she was confined to a wheelchair.”

Who is the best doctor for COPD? Where is the nearest ER with the shortest wait time? What do I need to do after Dad gets home from the hospital—and will his insurance cover this care?

As care needs arise and shift, caregivers are required to navigate the complex universe of health care providers and payers known as the medical system. A growing number of caregivers are using planning and coordination tools to do so. Some of these tools, like solutions for discharge planning and records and benefits management, are offered through entities in the health system as a way to meet mandates or stand out in an increasingly competitive marketplace.

Yet much work remains for easing the care coordination journey for caregivers. The medical “system” often is a siloed hodgepodge of disparate organizations with different legacy IT systems and incomplete coordination across them. Meanwhile, some services, like those related to recovery support, may have rising out-of-pocket costs as the reimbursement climate shifts.

This makes things even more difficult for caregivers already struggling to find trusted information, make decisions, and keep everything coordinated quickly and at low or no cost.

MARKET REVENUE FORECASTS 2016–2020

Total market revenue includes out-of-pocket spending from both care recipients and caregivers, as well as reimbursements from private and public insurers and business-to-business spending.

CAREGIVER OUT-OF-POCKET SPENDING

 **\$737M**

TOTAL CAREGIVER SUPPORT MARKET

 **\$8.4B**

KEY TAKEAWAYS

- Healthcare competition is driving enterprise spending for record management, care professional engagement, and recovery support reimbursement.
- Expect increased interest in care coordination overall by established players, from providers to drug and device manufacturers to pharmacies.
- Cost shifting from provider to patient is leading to tiered pricing and caregiver-funded premium services.
- Providers are acquiring promising startups to gain expertise.

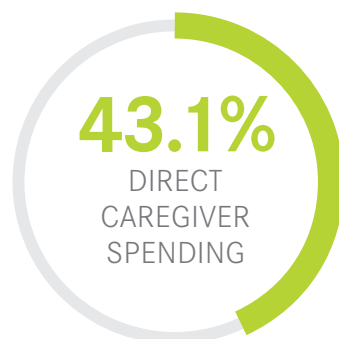
SOLUTION CARE PLANNING

OPPORTUNITY 2016-2020

 DIRECT CAREGIVER PORTION
\$34-\$137M

 TOTAL MARKET OPPORTUNITY
\$34-\$137M

CAGR



THIS INCLUDES

Planning, creating, reminding, coordinating,
updating care tasks

EXAMPLES IN THE MARKET



DID YOU KNOW?

Caregivers tend to spend out
of pocket for these services.



SOLUTION CARE PROFESSIONAL ENGAGEMENT

OPPORTUNITY 2016-2020

 DIRECT CAREGIVER PORTION
None

 TOTAL MARKET OPPORTUNITY
\$432-\$808M

CAGR



THIS INCLUDES

Reviewing, scheduling, communicating with doctors
and hospitals

EXAMPLES IN THE MARKET



DID YOU KNOW?

2-3%



Few consumers with a chronic condition reported
receiving support from a care coordinator.



SOLUTION
RECORDS AND BENEFITS MANAGEMENT

OPPORTUNITY 2016-2020

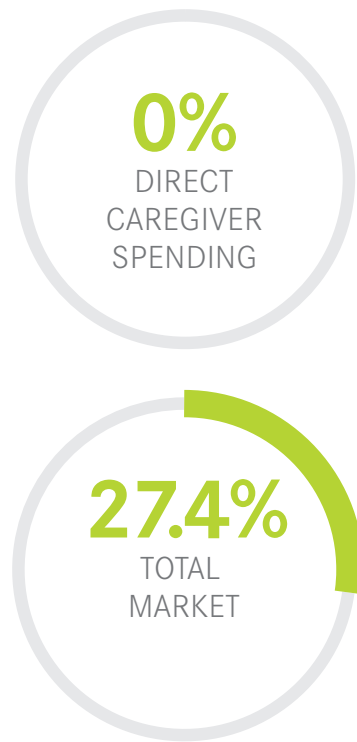


DIRECT CAREGIVER PORTION
None



TOTAL MARKET OPPORTUNITY
\$120-\$314M

CAGR



THIS INCLUDES

Verifying benefits, filing claims, paying medical bills, resolving disputes, storing and managing personal health records

EXAMPLES IN THE MARKET



DID YOU KNOW?



Health systems are offering this service as a way to stand out in a competitive market.



SOLUTION
RECOVERY SUPPORT

OPPORTUNITY 2016-2020

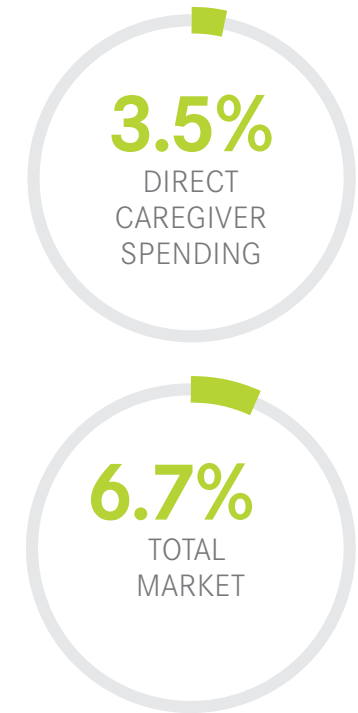


DIRECT CAREGIVER PORTION
\$62-\$72M



TOTAL MARKET OPPORTUNITY
\$676-\$888M

CAGR



THIS INCLUDES

Managing care transition process, coordinating referrals and medications, securing medical equipment and supplies, hiring and managing home health nurses and therapists

EXAMPLES IN THE MARKET



DID YOU KNOW?



Co-pays have been rising on reimbursements related to recovery support.

B2B SPENDING HAS DOMINATED—SO FAR

Recent trends in care delivery, such as the move to integrated care systems and population health, have spurred heavy investments in care coordination. In fact, more than 80 percent of chief medical informatics officers said they are looking to purchase population health management technology in 2015.

Yet caregivers to date have remained largely

passive participants of care coordination efforts.

- Only 2%–3% of consumers with a chronic condition reported receiving support from a care coordinator.
- Extensive training and slow data integration have slowed the rollout of these efforts.

However, hybrid revenue models are emerging. Caresync, for instance, offers care

planning and benefits management in a tiered fashion. Tools for do-it-yourself care planning are free, and for \$29 a month, caregivers can amp this service up to “concierge” level, with a health assistant helping to schedule medical appointments and care coordination tasks. For a \$129 one-time fee, Caresync will aggregate a care recipient’s medical records.

POLICY AND COMPETITION ARE DRIVING GROWTH

Federal mandates for price transparency, plus cost shifts from employers to employees, are spurring market demand for benefits management services. Collective Health currently

offers these services in California, with plans to expand across the United States by 2017.

As healthcare becomes more competitive, health systems are attempting

to distinguish themselves through services that streamline the details. Tyze, a startup acquired by Saint Elizabeth Health Care in Canada, connects caregivers, family, friends, and helpers on a shared calendar and private network for sharing files and photos.



According to a 2015 Public Agenda survey, 56 percent of Americans try to determine out-of-pocket costs or how much insurance will cover before obtaining services.

MARKET TRENDS



- Although the care coordination software and solution market has received plenty of venture funding and care provider organizations have invested heavily in this area, consumers have yet to benefit from them in a meaningful way.



- Spurred by competition, healthcare providers have made online scheduling and ER wait-time alert services more convenient.

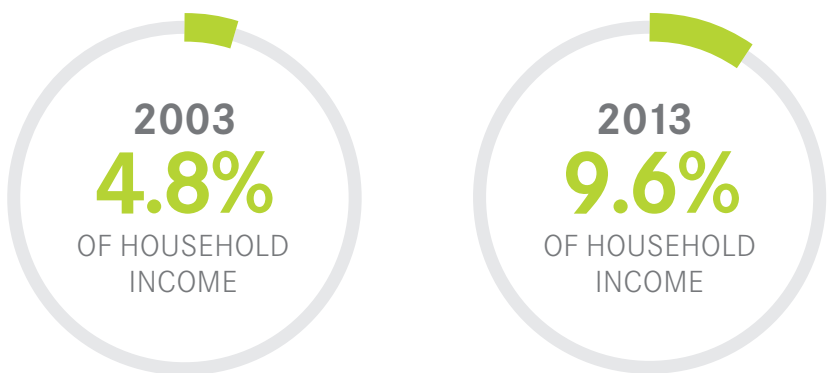


- The recovery support market is largely driven by care providers through their transitional care programs.

DEMAND FOR PRICE TRANSPARENCY

Consumer demand for price transparency is fueled by continued cost shifting from employers to employees and the rising use of high deductible plans.

Out-of-pocket costs for premiums and deductibles (Commonwealth Fund study):



TRANSITION SUPPORT



As care recipients age, an increasing number of caregivers find themselves grappling with transitions. Some struggle to find one of the only 5,500 aging-in-place certified remodelers among more than 650,000 across the country. Others have difficulty finding information about installing mobility solutions, like a wheelchair ramp or an automated chair lift.

If the next step is a long-term care facility, a fragmented market and poor transparency complicate the search. What are the best-priced options in a care recipient's region? Who can provide objective information on service quality? How will Mom's early-onset dementia affect her care options?

With research and guidance more important than ever, a growing number of commercial services and support tools have emerged and become more convenient to use. In many cases, caregivers themselves cover the cost of this added convenience.

MARKET REVENUE FORECASTS 2016-2020

Total market revenue includes out-of-pocket spending from both care recipients and caregivers, as well as reimbursements from private and public insurers and business-to-business spending.

CAREGIVER OUT-OF-POCKET SPENDING

 **\$4.3B**

TOTAL CAREGIVER SUPPORT MARKET

 **\$21.3B**

KEY TAKEAWAYS

- Home retrofit, funded by care recipients, is the biggest opportunity in terms of market size due to America's aging population.
- Watch for big, established players in home retrofit, legal assistance, and long-term care insurance planning.
- Expect caregivers to cover long-term care insurance planning, legal assistance, and hospice/funeral planning and third parties (members of the health system) long-term care referral services.

“I want her to be happy and comfortable in her home with the people she loves for as long as she's alive.”



SOLUTION HOME RETROFIT SERVICE

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

\$512-\$701M



TOTAL MARKET OPPORTUNITY

\$2.6-\$3.5B

CAGR



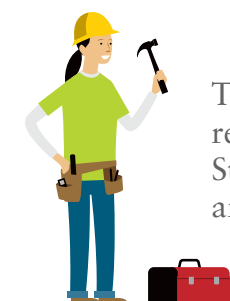
THIS INCLUDES

Information, products, services that make independent living easier and safer

EXAMPLES IN THE MARKET



DID YOU KNOW?



There are over 650,000 remodelers in the United States—yet only 5,500 of them are aging-in-place certified.



SOLUTION LONG-TERM CARE INSURANCE PLANNING

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

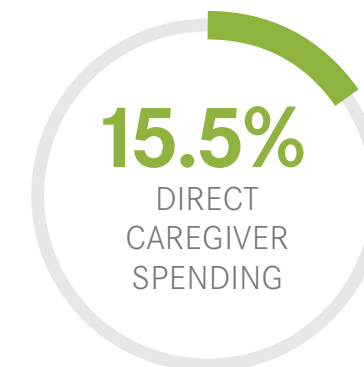
\$59-\$101M



TOTAL MARKET OPPORTUNITY

\$59-\$101M

CAGR



THIS INCLUDES

Resources, purchase guides, quote services

EXAMPLES IN THE MARKET



DID YOU KNOW?



Only 8.1 million Americans are protected with long-term care insurance. And the best age to start planning is between ages 52 and 64.

—American Association for Long-Term Care Insurance





SOLUTION LONG-TERM CARE PROVIDER REFERRAL

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

None



TOTAL MARKET OPPORTUNITY

\$770M–\$1.2B

CAGR



THIS INCLUDES

Guides for comparing nursing homes, placement services

EXAMPLES IN THE MARKET



DID YOU KNOW?



Someone turning age 65 today has almost a 70% chance of needing some type of service or support in their remaining years.

—US Department of Health and Human Services



SOLUTION LEGAL ASSISTANCE

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

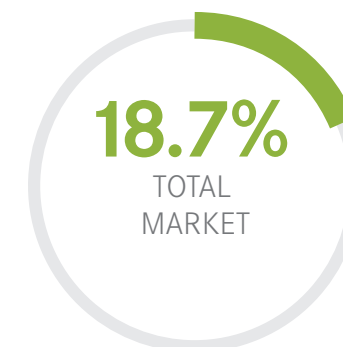
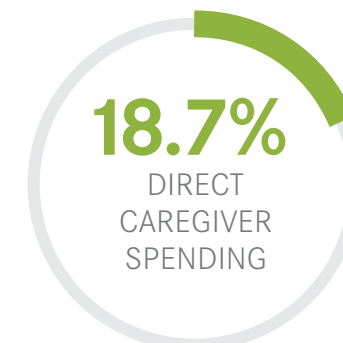
\$91–\$175M



TOTAL MARKET OPPORTUNITY

\$91–\$175M

CAGR



THIS INCLUDES

Power of attorney, advance directive, living will, estate planning documentation

EXAMPLES IN THE MARKET



DID YOU KNOW?

Services are emerging that let consumers hire lawyers and legal assistants like how they hail a cab.





SOLUTION

HOSPICE/FUNERAL PLANNING

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

\$38-\$59M

TOTAL MARKET OPPORTUNITY

\$38-\$59M

CAGR



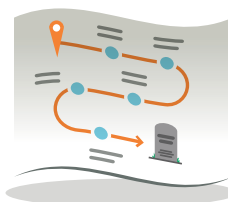
THIS INCLUDES

Provider evaluation, funeral planning, will/trust management

EXAMPLES IN THE MARKET



DID YOU KNOW?



Lack of an end-of-life plan, created well in advance, typically leads to prolonged hospitalization, soaring medical bills, and unnecessary pain and suffering for everyone.

-Dying in America: Improving Quality and Honoring Individual Preferences Near End of Life, Institute of Medicine

PUTTING ALL THE DETAILS IN ONE PLACE

Caregiving transitions can involve a host of tasks and details, often in unfamiliar areas. Passare eases the stress of end-of-life and funeral-related tasks by delivering information, planning tips, and a matchmaking service

for service providers. Funeral professionals pay annual subscription fees for these connections to potential customers.

Avvo serves as a similar hub/clearinghouse for legal services. Funded

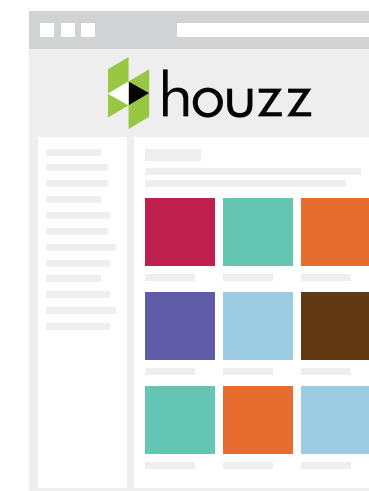
by advertising and other products and services for lawyers, it connects customers for free to information on 225,000 participating lawyers, user reviews, and services including an online forum.

EXPANDING SERVICES-AND REVENUE STREAMS

Avvo expands upon this revenue model with a premium service for caregivers: the ability to hire a lawyer for as low as \$39 for a 15-minute phone call.

Houzz, the nation's largest online community for home renovation and design, takes this diversification even further with its "3C" strategy: content, community, and

commerce. Caregivers can find a wealth of information for a retrofit project, from photos of projects to qualified designers and contractors. Professionals can join the community through listings and paid advertising. The platform also makes money through its extensive online store of furniture, décor, and gift items.



SOCIAL WELL-BEING



“I believe that her ability to stay strong had something to do with my making sure she had a part in all of her decisions—whether medical or personal—and to maintain her dignity as a human being who had gone through a Depression along with many social changes in her lifetime.”

Over the past several years, social networks, smartphones, and digital technology have emerged to help caregivers and the people they care for make social and cultural connections and break down the social and emotional barriers caused by aging. Sharing life’s moments has become easier and more personalized, with activities synchronized in real time, methods of sharing embedded in common mobile apps, and advertising funding these free-to-the-consumer innovations.

As care recipients become more comfortable with social media and increasingly access these networks via smartphones, adoption of such solutions is rising. According to a 2014 Pew Research Center survey, more than 50 percent of people age 65-plus are using Facebook and 63 percent of those age 50-64 are active users. Yet many new technology innovations remain off of seniors’ radar. And a great need still exists for more services that gather content specifically of interest to seniors and deliver it through one easy-to-use and trusted source.

MARKET REVENUE FORECASTS 2016–2020

Total market revenue includes out-of-pocket spending from both care recipients and caregivers, as well as reimbursements from private and public insurers and business-to-business spending.

CAREGIVER OUT-OF-POCKET SPENDING

 **\$552M**

TOTAL CAREGIVER SUPPORT MARKET

 **\$4.7B**

KEY TAKEAWAYS

- All sub-segments except community networking are expected to see double-digit growth.
- While caregivers influence, monitor, and often participate in activities, they only pay out of pocket for life companion services.
- Third parties such as advertisers are supporting services for digital inclusion, life enrichment and empowerment, and community networking.
- Digital inclusion presents the largest market potential—but also competition from large, established players like Instagram and WhatsApp.



SOLUTION DIGITAL INCLUSION

OPPORTUNITY 2016-2020

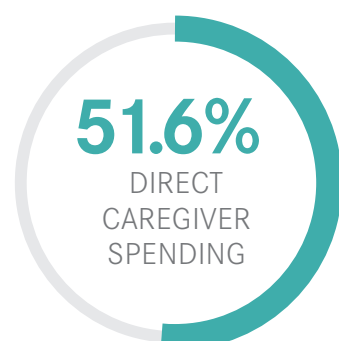


DIRECT CAREGIVER PORTION
\$19–\$100M



TOTAL MARKET OPPORTUNITY
\$65–\$410M

CAGR



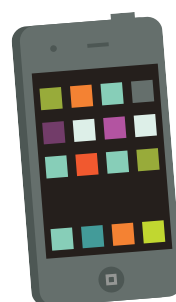
THIS INCLUDES

Photo/video sharing, messaging, video chat,
virtual reading, games

EXAMPLES IN THE MARKET



DID YOU KNOW?



**60% of adults
age 50-59 own
smartphones.**

—The “Getting to Know
Americans Age 50-Plus”
report by AARP



SOLUTION LIFE ENRICHMENT AND EMPOWERMENT

OPPORTUNITY 2016-2020

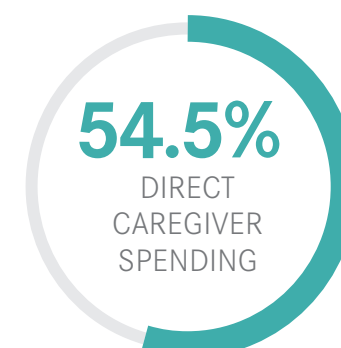


DIRECT CAREGIVER PORTION
\$5–\$25M



TOTAL MARKET OPPORTUNITY
\$11–\$71M

CAGR



THIS INCLUDES

Mood-sensing apps, self-organization tools,
personal enrichment apps

EXAMPLES IN THE MARKET



DID YOU KNOW?



**Almost half of women age
75 and above live alone.**

—The Administration on Aging



SOLUTION COMMUNITY NETWORKING

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

None



TOTAL MARKET OPPORTUNITY

\$548-\$785M

CAGR



THIS INCLUDES

Social networks, digital meetup bulletins, neighborhood apps

EXAMPLES IN THE MARKET



DID YOU KNOW?

**More than 50 percent
of people age 65-plus
are using Facebook.**

—2014 Pew Research Center survey



SOLUTION LIFE COMPANION

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

\$13-\$84M



TOTAL MARKET OPPORTUNITY

\$13-\$84M

CAGR



THIS INCLUDES

Digital companion services, online support
groups for care recipients

EXAMPLES IN THE MARKET



DID YOU KNOW?



*Mature and boomer generations have
become more comfortable with social
media and social network services,
including online dating services.*

“GENERALISTS” FOCUS ON CAREGIVERS AND CARE RECIPIENTS

A company doesn't have to be a specialist in caregiving to offer solutions for social inclusion.

With HomeTeam, launched in 2015, Panasonic entered the caregiving market with a service that connects friends and family members across distances and generations. A free membership enables unlimited video chat. Like

many such services for social inclusion, the revenue model is subscription-based; an \$8.99 premium membership delivers unlimited access to an online library of books and games.

GiveGab, another example, operates primarily as a fundraising tool. However, the platform also has a feature through which

users can find volunteering opportunities based on skill and interest, making it well suited for a senior conducting a specialized search. Once a volunteer is signed up, he or she can share opportunities with friends, connect with others through online games, track their volunteering impact, and receive email reminders.

EASE OF USE CAN HELP ENTRANTS STAND OUT

While apps dominate the sharing experience, solutions also are emerging that prioritize a simple look and intuitive use. One example is Teamup, a cloud-based calendar system for managing and sharing events. Events are shared via web links in emails—no user login or account required—and the base service is free.



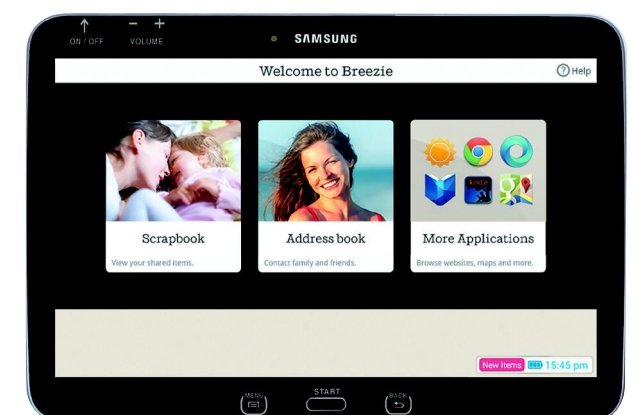
THREE EXAMPLES OF HOW TECHNOLOGY IS MAKING SHARING EASIER



NUCLEUS LIFE
SMART INTERCOM



MOBILE
APPS



BREEZIE
TABLET

CAREGIVER QUALITY OF LIFE



“It truly takes a toll on a single caregiver to NEVER be given ‘time off’ from the 24 hours of care each day.”

The job of a caregiver is neither easy nor short-lived. On average, people spend \$19,525 and two to six years of their lives in this role, according to the National Alliance on Caregiving.

Often the struggle to maintain balance is a silent one. The National Alliance for Caregiving found 50 percent of working caregivers to be reluctant to tell their supervisor about their caregiving responsibilities. And often important questions go unanswered. When I need a break or have an emergency at work, who can fill in for me? How do other caregivers handle challenges like mine?

Finding answers isn’t easy. Social support networks especially for caregivers can be hard to find. Respite care services vary in quality and accountability. Meanwhile, employer wellness programs may not address caregiving-related stress and issues.

Yet the marketplace is moving swiftly to address these needs. An aging population of care recipients is driving demand for backup caregiver services (and driving up the average cost of these services as well). More and more caregivers are joining caregiving communities, generating the advertising revenue that makes such communities viable. And employer investment is rising in work-life balance programs.

MARKET REVENUE FORECASTS 2016–2020

Total market revenue includes out-of-pocket spending from both care recipients and caregivers, as well as reimbursements from private and public insurers and business-to-business spending.

CAREGIVER OUT-OF-POCKET SPENDING



\$13.7B

TOTAL CAREGIVER SUPPORT MARKET



\$17.2B

KEY TAKEAWAYS

- Expect caregivers to spend out of pocket to get backup care and stay healthy.
- Yet caregivers will increasingly seek social support from services funded by third-party revenue models.
- Employer-funded services related to financial/job security are expected to increase, joining existing solutions by large, established players.



SOLUTION

RESPIRE AND BACKUP CARE

OPPORTUNITY 2016-2020



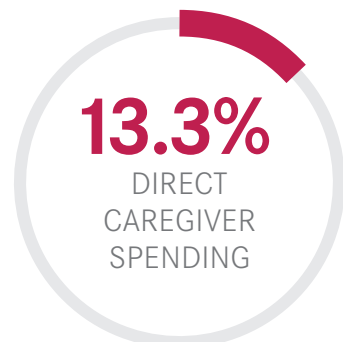
DIRECT CAREGIVER PORTION

\$1.4–\$2.3B

TOTAL MARKET OPPORTUNITY

\$1.4–\$2.3B

CAGR



THIS INCLUDES

Respite care such as home companion services,
adult daycare services, proxy caregivers

EXAMPLES IN THE MARKET



DID YOU KNOW?

13.3%
TOTAL
MARKET

Despite the need for
support, 85% of family
caregivers receive no
respite services at all.

–Caregiving in the U.S.
2015 Report



SOLUTION

SOCIAL SUPPORT

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

None

TOTAL MARKET OPPORTUNITY

\$22–\$156M

CAGR



THIS INCLUDES

Caregiver support groups, social networks,
knowledge-sharing platforms

EXAMPLES IN THE MARKET



DID YOU KNOW?

62.1%
TOTAL
MARKET



*Four in ten caregivers consider
their caregiving situations to be
highly stressful.*

–Caregiving in the U.S. 2015 Report



SOLUTION HEALTH AND WELLNESS

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

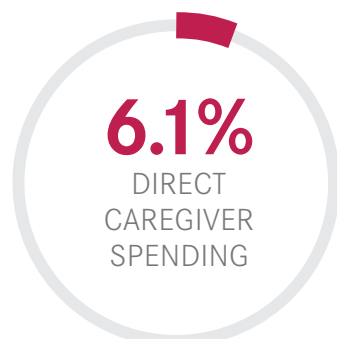
\$730-\$913M



TOTAL MARKET OPPORTUNITY

\$1.1-\$1.7B

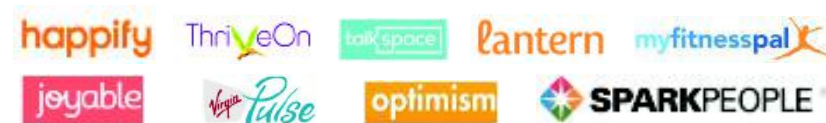
CAGR



THIS INCLUDES

Wellness programs, DIY tools

EXAMPLES IN THE MARKET



DID YOU KNOW?

Caregivers often tend to overlook their own well-being and they have a higher-than-normal incidence of getting sick.



SOLUTION FINANCIAL/JOB SECURITY

OPPORTUNITY 2016-2020



DIRECT CAREGIVER PORTION

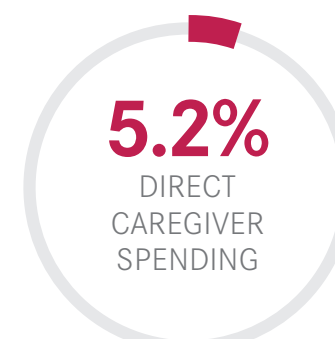
\$63-\$77M



TOTAL MARKET OPPORTUNITY

\$155-\$200M

CAGR



THIS INCLUDES

Personal budgeting/financial planning, work-life balance programs

EXAMPLES IN THE MARKET



DID YOU KNOW?



One in seven of the sandwich generation caregivers are providing financial support for both their children and their aging parents.

—2013 Pew Research Report

EASING THE QUEST FOR RELIEF

Having a backup plan in case of work or family events or just the need for a break is a caregiver essential—and a formidable challenge. Even as more caregivers find themselves juggling unpaid care with rising work demands and children, infrastructure growth hasn't kept up. For instance, there was no growth in the number of adult day care centers between 2006-2012. Finding these centers and other options in the fragmented respite/proxy

care marketplace can be a complex and inconvenient process.

Companies old and new are stepping in to fill these needs. Room2Care, founded in 2014, connects caregivers in South Florida through vetted members of the community with an extra room and extra time. And LifeCare, a 30-year-old work-life rebalance service for employers, has a Backup Care Connection service that helps employees secure and pay for temporary senior care.

Relief can take the form of understanding, a listening ear, and advice



as well. Marketed through care providers and insurers throughout the United States, Big White Wall lets caregivers anonymously share their challenges and concerns with peers and trained professionals who can provide support as needed.

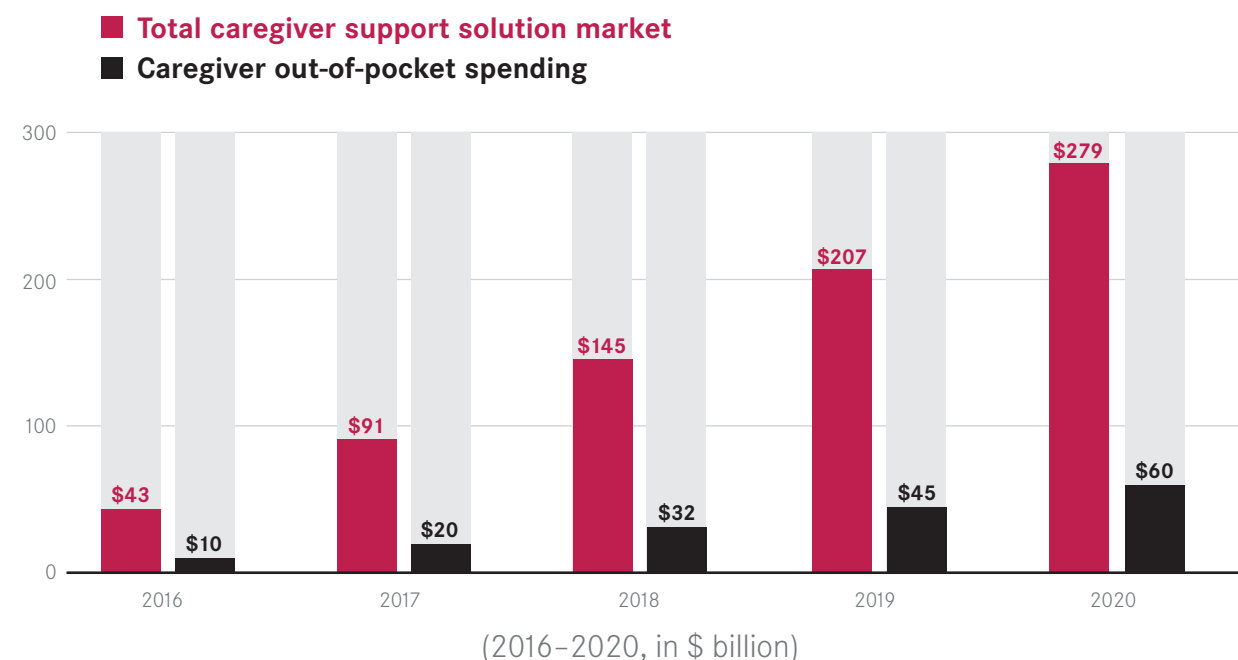
INVISIBLE NO MORE

As caregiving increasingly touches all generations—Baby Boomers and Gen Xers caring for parents, more and more Millennials getting to know their grandparents—

the business world is taking notice. Of the companies surveyed in a 2014 Family and Work Institute study, three out of four provide either paid or unpaid leave. In a 2015 survey by CareerArc, 53 percent are

planning to invest more in work-life balance programs to improve workers' quality of life. Financial services companies also are addressing caregivers' needs for low-cost, personalized help with financial planning.

CUMULATIVE MARKET REVENUE OPPORTUNITY OVER NEXT FIVE YEARS



EMPLOYER INVESTMENT IN WORK-LIFE BALANCE

53% of employers plan to invest more in their work-life balance programs in 2015, according to the “2015 Workplace Flexibility Study” sponsored by workplacetrend.com and CareerArc.



CAREGIVING

INNOVATION

FRONTIERS

JANUARY 2016



DOWNLOAD THE FREE 2016 REPORT

You can download a free copy of the full report from <http://goo.gl/jaUyhH>

Other Caregiving and Healthy Living Insights can be found at <http://www.aarp.org/cif>



AARP is a nonprofit, nonpartisan organization, with a membership of more than 37 million, that helps people turn their goals and dreams into real possibilities, strengthens communities and fights for the issues that matter most to families such as healthcare, employment security and retirement planning.

AARP's vision is to catalyze innovation and entrepreneurship in the marketplace around breakthrough products, experiences, and business models for health technologies benefiting the 50+.

At AARP we are collaborating with the industry in the following areas:

- **MARKET AWARENESS:** Raising awareness of the market opportunity, needs, and wants of the 50+
- **MARKET DEVELOPMENT:** Influencing ecosystem development for consumer-centric health tech for the 50+
- **INNOVATION SHOWCASE:** Creating platforms for showcasing innovative technologies
- **MEMBER INVOLVEMENT:** Engaging AARP members in providing early feedback on emerging trends and innovation