



MEDICATION MANAGEMENT

SMART AGING

NEW CARE DELIVERY

CARE GUIDANCE

SAFE LIVING

PHYSICAL FITNESS

DIET & NUTRITION

SOCIAL ENGAGEMENT

BEHAVIORAL HEALTH

2016 HEALTH INNOVATION FRONTIERS

DID YOU KNOW?

Expanding opportunities and transformative digital innovations are expected to generate \$34 billion in new revenue from 2015–2020.

SO, WHAT'S YOUR 50+ STRATEGY?

2016 is the year the Longevity Economy spreads its wings.

Market disruptions are happening at an astonishing pace. Picture sensors and algorithms working together in well-timed engagement as just one example. It's a future that consumers 50+ are demanding—so much so, in fact, that revenues are steadily shifting away from traditional players.

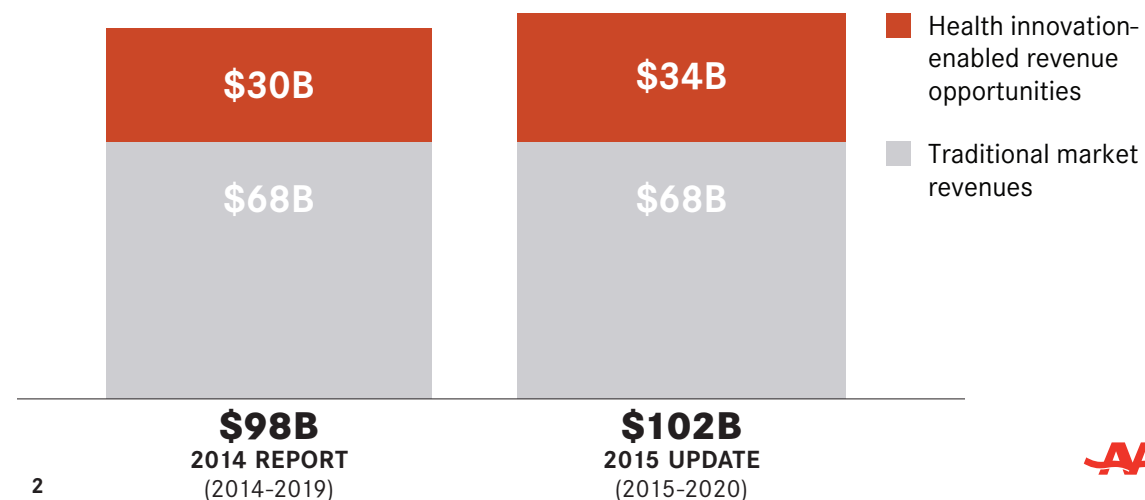
So what's the forecast for 2016? Expect an increase in innovation-fueled solutions, and an ongoing transformation of care, through 2020.

CONSUMER ADOPTION TAKES HOLD

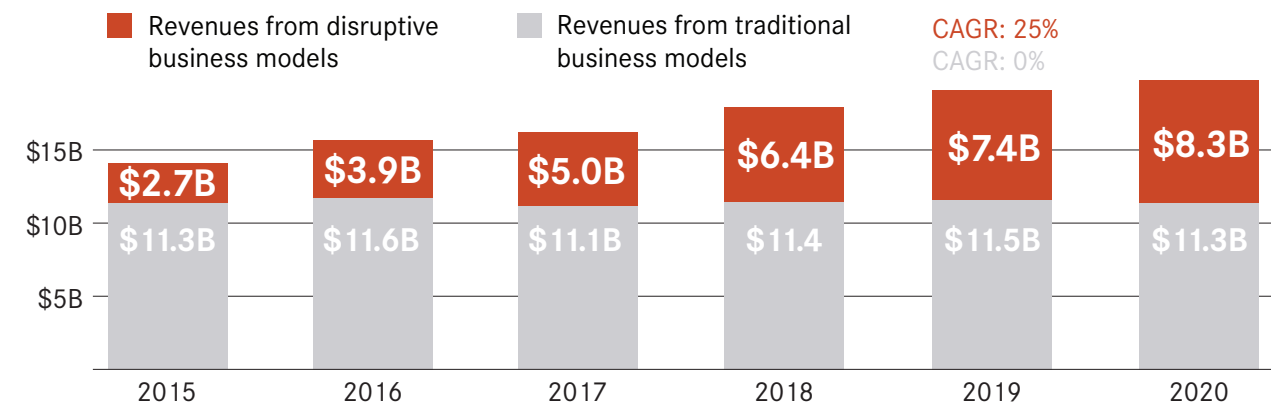
Using new technologies, solutions, and platforms to save money, improve health, and take control of schedules and lives is becoming a way of life for consumers 50+. And providers are listening, leveraging these innovations to deepen their engagement with this market.

As health systems and individuals increase their adoption, businesses and investors stand to benefit. The revenue potential is bigger than previously imagined—\$4 billion more in cumulative revenues than AARP forecast in 2014 for the 2014-2019 time period.

REVISED UPDATES SHOW BIGGER GROWTH IN INNOVATION REVENUES



STEADY GROWTH IN INNOVATION-ENABLED REVENUES



SPENDING SHIFTS TO INNOVATION

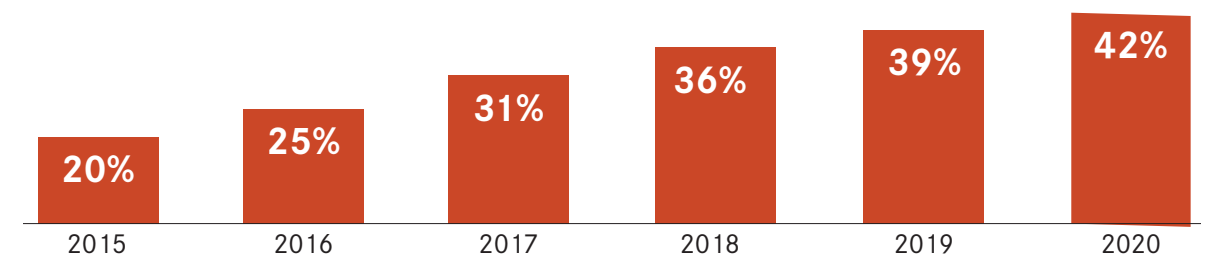
A gradual but significant switch is happening with consumers 50+: a move from products and services that are analog, offline, and face-to-face to those that are digital and connected. AARP forecasts that innovation-driven revenues, which comprised 20 percent of total spending in 2015, will account for 42 percent of spending in 2020.

DISRUPTION WILL POWER GROWTH

With a favorable regulatory environment in many areas, the emergence of powerful new collaborations and platforms, and

consumers' increasing eagerness for new technologies and service models, health innovation has become a fertile ground for entrepreneurs. And successful investment stories like Fitbit and TelaDoc are anticipated to catalyze even more commitment from entrepreneurs, their customers, and partners. As a result, innovation-enabled revenue streams are forecast to overtake revenue streams from traditional products and services, with a 25% CAGR for innovation-driven revenues versus flat growth for conventional consumer health products and services.

INNOVATION-POWERED REVENUES FORECAST TO DOUBLE



YOUR FIELD GUIDE: TRENDS TO WATCH



SMART SENSORS AND CONNECTED DEVICES, as smart algorithms and multi-sensor designs provide lower cost cool gadgets with native intelligence and actionable insights



MOMENTUM IN ON-DEMAND CARE, as innovators bring underutilized resources and care experiences to consumers on their terms, via the most efficient means of delivery



THE SPREAD OF PLATFORM-AS-A-BUSINESS, giving companies the ability to execute their strategies with flexibility, agility, and versatility

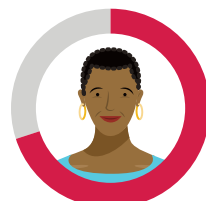


REIMBURSEMENT AS A REVENUE MODEL, powered by payers, in areas where care can be delivered more conveniently without a sacrifice in quality

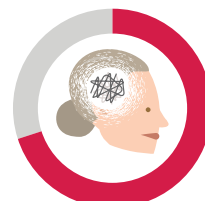
DISRUPTION DRIVES GROWTH: INNOVATION-ENABLED REVENUES AS PERCENTAGE OF TOTAL REVENUES



80%
MEDICATION
MANAGEMENT



70%
SOCIAL
ENGAGEMENT



70%
BEHAVIORAL
HEALTH



50%
CARE
GUIDANCE



50%
SAFE
LIVING

HEALTH INNOVATION 2016: WHAT'S IN, WHAT'S OUT



OLD NEWS

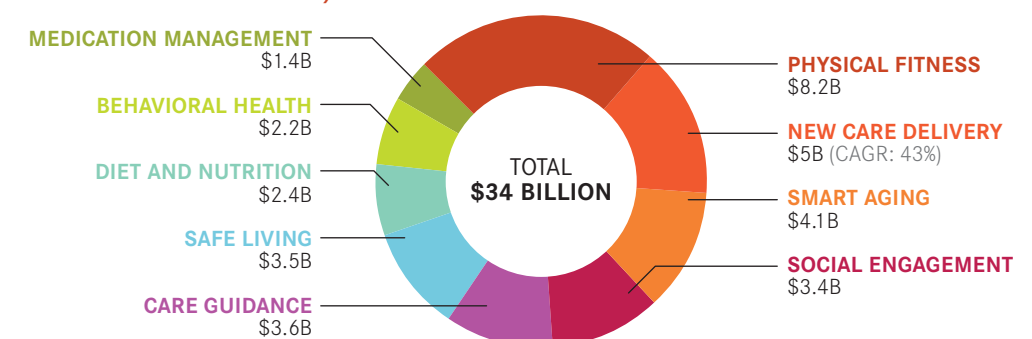
- Chronic disease treatment ❌
- Siloed products ❌
- Paying for care navigation and medication management out of pocket ❌
- Uncoordinated care ❌
- Traditional medical alerts ❌
- Recording fitness activities ❌
- Free diet/nutrition apps ❌
- Ad-funded behavioral health solutions ❌



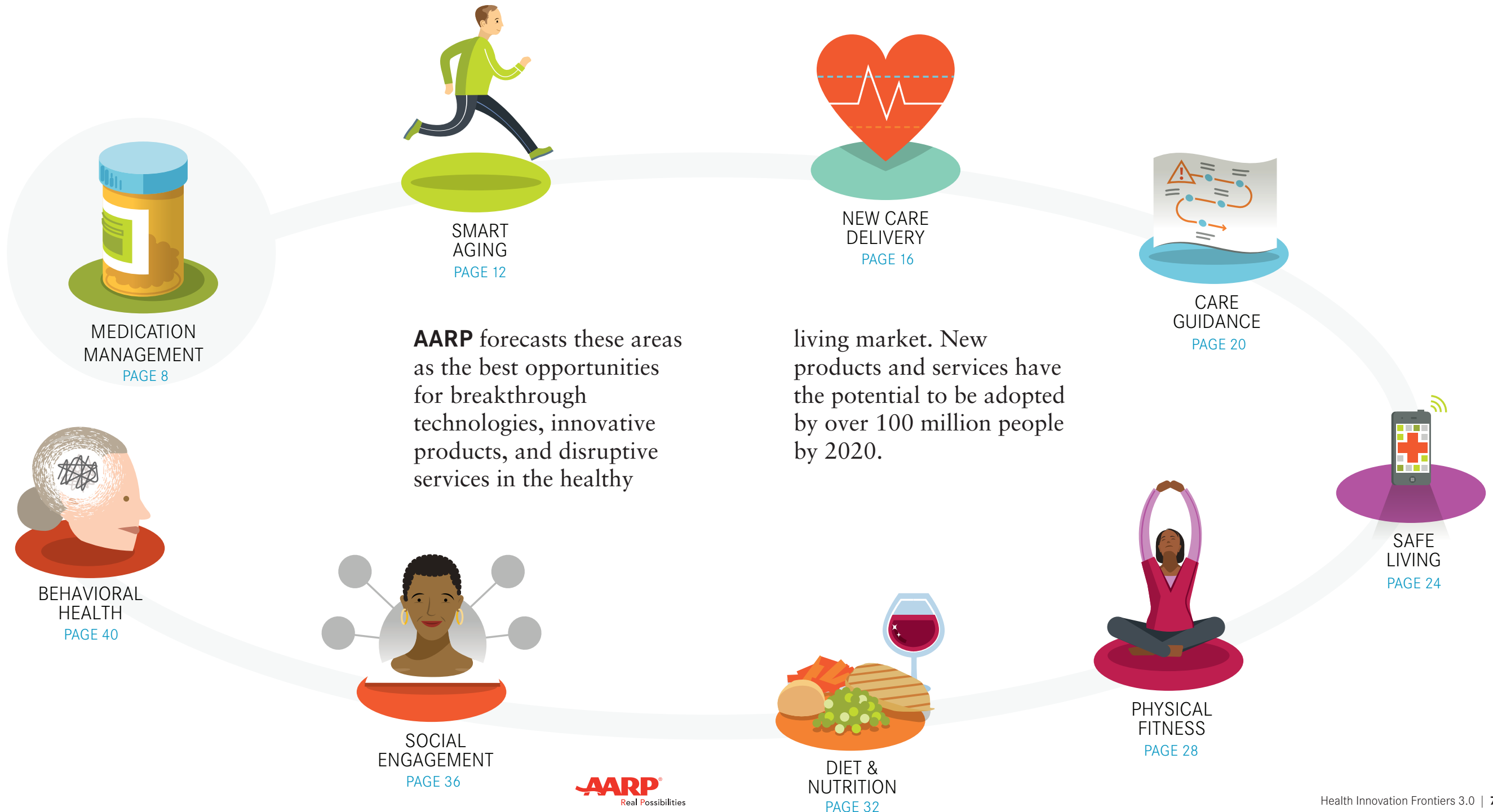
NEW FRONTIERS

- ✅ Preventative care and health promotion
- ✅ Integrated platforms
- ✅ Reimbursed services for care guidance and medication management
- ✅ Personalized, connected care
- ✅ All-purpose safety monitoring
- ✅ Living a healthy lifestyle
- ✅ "Freemium" diet/nutrition services
- ✅ Fee-funded behavioral health solutions

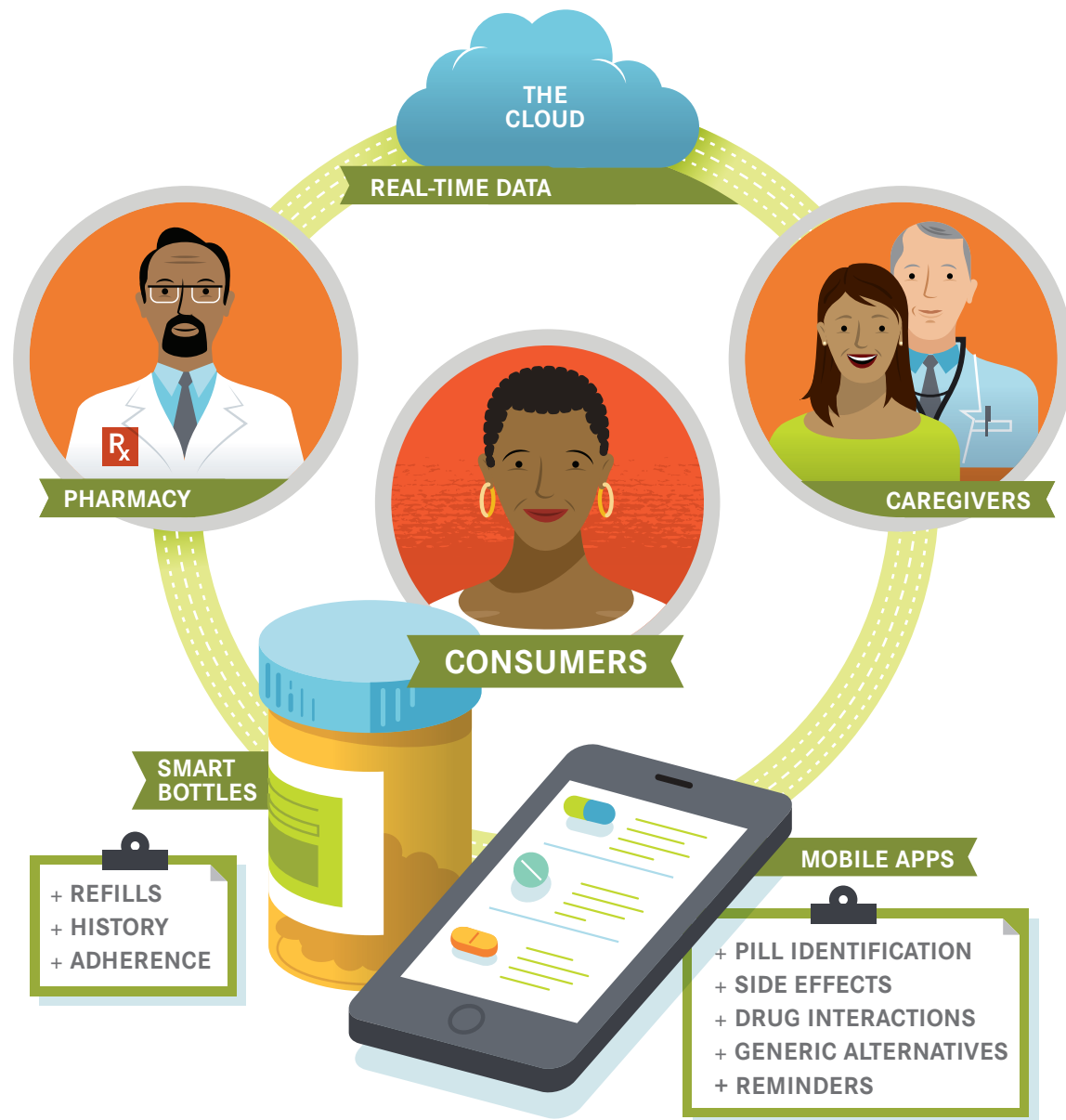
BIGGEST MARKET OPPORTUNITIES: CUMULATIVE REVENUES, 2015-2020



NINE AREAS OF OPPORTUNITY:



MEDICATION MANAGEMENT



DID YOU KNOW?

Only 5%–10% of the more than 55 million consumers in the market for medication management solutions are willing to pay for these solutions. –Eyeforpharma

Apps for medication reminders and refills, monitored pillboxes and dispensers, digital programs for medication adherence and support—a variety of innovations have emerged to help consumers 50+ take and track their medications and get trusted information.

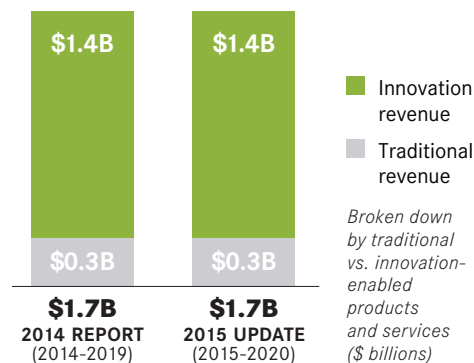
The interest is there. According to the National Community Pharmacists Association, medication non-adherence adds around \$290 billion each year to overall U.S. health spending, and 70 percent of respondents in an Eyeforpharma survey said they believe these technologies can improve drug adherence. The market is there as well: Current revenues for medication therapy management alone total \$500 million per year.

Yet as reimbursed solutions emerge and consumers resist footing the bill, the question becomes: Who pays?



FORECASTS

LIMITED DEMAND FOR PAID SERVICES



Even as education and rewards programs encourage medication management, apps drive adherence, and hardware costs remain low, revenue potential is limited. Consumers, especially those with the most complex conditions, are reimbursed for these services through the health system and are reluctant to pay out of pocket.



THE NEED

MOVING BEYOND AD HOC FIXES



50+ CONSUMERS

- Are managing moderate health problems with a light medication schedule
- Are managing severe chronic conditions with a complex medication schedule



TRADITIONAL APPROACHES

- Daily/weekly pillboxes, Post-It reminders, and other fixes
- Medication therapy management



PAIN POINTS

- Inconvenient
- Ineffective, with low compliance
- No records for verification
- High reliance on call centers
- High costs with minimal benefits



TRENDS

PHARMACIES AND PSYCHOLOGY

Spurred by clinical and financial incentives and an expanding reimbursement environment, drug makers and pharmacies are paying increased attention to medication adherence.

Pharmacies are ramping up customer loyalty programs to improve adherence and accelerating

ACO partnerships with health systems to create adherence-focused pharmacy management services.

Concurrently, innovators are paying attention to the human side of compliance, using health psychology to leverage users' beliefs and perceptions toward better adherence.



97% of drug makers believe medication adherence significantly impacts patient outcomes. – Eyeforpharma



INNOVATION HIGHLIGHTS

IMMEDIATE, EMPATHETIC, FAMILIAR

Innovations from reminders to real-time recorders of action are bringing a timely, simplified, personal touch to medication management.



The **AiCure** app, which raised \$12.25 million in Series A financing in January 2016, uses facial recognition software and real-time data communications to track medication consumption.

TangramCare both automates medication reminders and makes them personal, delivering

empathetic advice and education through customized text messages.

Meanwhile, medication reminders are being built into products that are familiar and easy to use. The **Droplet** app lets users program customized messages then confirm actions, like taking a pill, with the push of a button. Another product, **Reminder Rosie**, delivers its alert messages and reminders through an alarm clock-like interface.



KEY SOLUTION SEGMENTS

AREAS OF OPPORTUNITY

MEDICATION COMPLIANCE SERVICES

Solutions that encourage and reward medication compliance



MEDICATION TRACKING DEVICES

Reminders and pill-tracking via smart packaging and medication devices



MEDICATION REMINDER SOLUTIONS

Apps or solutions that remind/alert users of medication times and dosages



MEDICATION EDUCATION

Apps and portals where consumers can look up and learn about pharmaceuticals



SMART AGING

50s



60s



70s



80s



DID YOU KNOW?

Two thirds of consumers age 60–69 find it very easy to live independently. This figure drops to 43% among those 70 and older.
–National Council on Aging, June 2015

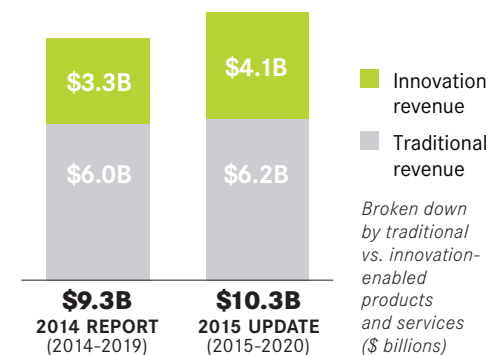
Consumers 50+ are increasingly seeking knowledge and advice on active aging, as well as help mitigating the side effects and assistance with living comfortably at home. For many people age 70 and older, it's a necessity: Nearly 1 in 5 have difficulty living independently.

Products are emerging to address these needs: digital hearing aids with personal settings, wearable sensors for the “quantified self,” brain training apps and services, and on-demand marketplaces for finding assistance with daily tasks. The market is booming, but success is not a given. Cognitive training, for instance, is believed to have potential, yet opinions are mixed as to how much such “brain games” can reduce or reverse cognitive decline.



FORECASTS

GROWING INTEREST, SHIFTING MODELS



As interest builds among consumers 50+ for smart aging solutions, new product categories are emerging, such as hydration management, UV protection, posture correction, and pain management. And the revenue model is shifting from subscription services to product sales.



THE NEED

EFFECTIVE, ECONOMICAL SOLUTIONS



50+ CONSUMERS

- Are struggling with poor eyesight or hearing loss
- Have declining cognitive capabilities
- Want to mitigate the impact of aging
- Need aging support tools to live independently



TRADITIONAL APPROACHES

- Corrective lens or cataract surgery
- Prescription hearing aids or personal sound amplifiers
- Cognitive behavioral therapy
- Adaptations through home improvement programs
- Family support
- Information from various sources gained by word of mouth or self-learning



PAIN POINTS

- Risk
- Misinformation
- Expensive, with high opportunity costs
- Unappealing designs and limited choices
- Ineffective, without measurable outcomes
- Time-consuming



TRENDS

HARDWARE GETS SMART, MARKETS BLOOM



Two trends from the overall technology world are crossing over into health innovation for consumers 50+: smart hardware and on-demand apps and services for daily tasks.

Smart wearables like the **Emotiv** neuroheadset combine wearable sensors with EEG data

recording and analysis to improve brain health. Other innovations like the **8Cups** smart water bottle empower familiar products with 21st century powers—in this case, guidance on optimizing water intake.

On-demand services for cleaning, delivery, repair, and daily

tasks have proliferated. Grocery delivery service **Instacart**, with its \$2 billion valuation, is one example of a success story in this space. Yet as competition grows, first-mover advantage erodes, and entrants face scalability challenges, the failure rate for new innovations is expected to climb.



INNOVATION HIGHLIGHTS

SENSORS FOR MENTAL ACUITY & PAIN RELIEF

New products are helping consumers 50+ stay sharp and comfortable as they age. To support better brain health, wearable headsets like **Muse** use finely calibrated sensors on the forehead and behind the ears to measure brain activity,

much like a heart rate monitor does a user's heartbeat.

Wearable sensors, like those used by **Quell**, are also emerging for the treatment of chronic pain. **CEFALY**, for example, eases migraines through electrical nerve stimulation.



KEY SOLUTION SEGMENTS

AREAS OF OPPORTUNITY

COGNITIVE AND BRAIN HEALTH

Applications and services that help improve brain function and mitigate memory loss



HEARING AND VISION HEALTH

Products and services that improve hearing and vision



PREVENTIVE AGING CARE

Products and services that detect the early signs and symptoms of aging

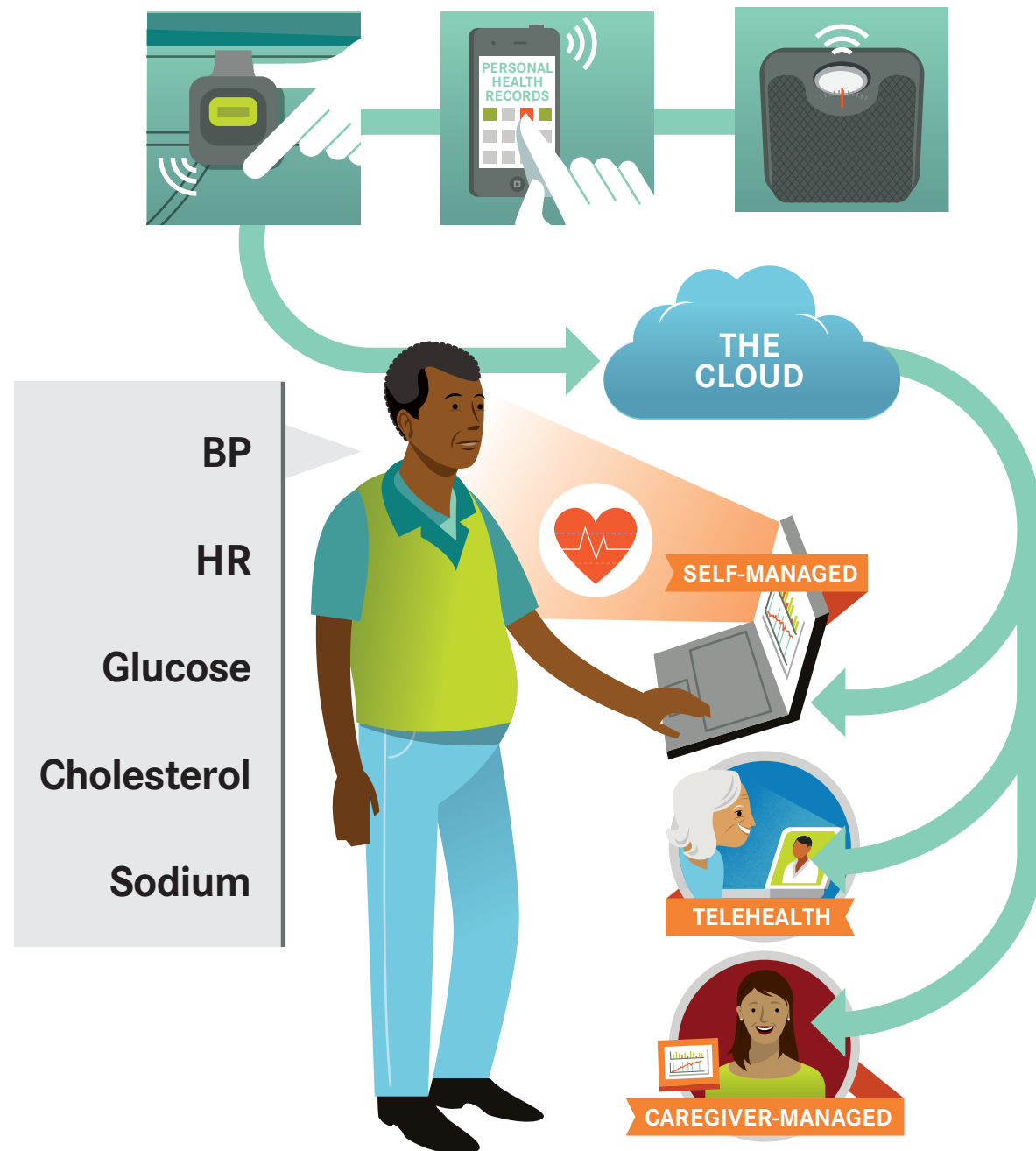


EVERYDAY CARE SUPPORT TOOLS/SERVICES

Products that alleviate daily inconveniences caused by aging



NEW CARE DELIVERY



DID YOU KNOW?

Virtual care pioneer Teladoc announced record annual revenue and visits (78% and 93% increase respectively) in 2015 over the previous year.

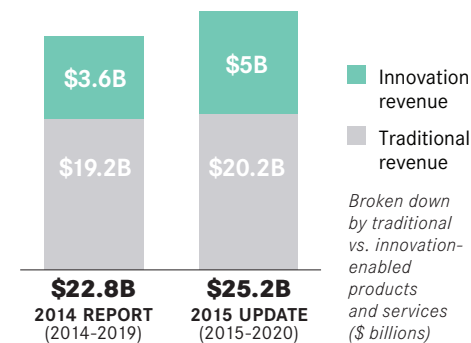
From telehealth and remote health monitoring to marketplaces for in-home care, solutions are proliferating to help 50+ consumers track their health conditions and receive care on demand at home.

Big data analytics are driving innovation in virtual care and personalized health management. Business models are being disrupted as well. More and more, insurance-funded solutions are being delivered via providers, pharmacies, and partnerships.



FORECASTS

PAYERS & PROVIDERS PICK UP THE BILL



Consumer usage in this market is growing. Yet the gradual expansion of insurance coverage, plus the shift from third-party to provider-dominated services, means that less of this usage will involve out-of-pocket spending.



CONSUMER USAGE



OUT-OF-POCKET SPENDING



THE NEED

CONSISTENT, CONVENIENT CARE



50+ CONSUMERS

- Are managing common illnesses or age-related problems
- Are managing moderate to severe chronic conditions



TRADITIONAL APPROACHES

- Visits to a primary care doctor, local clinic, or specialist
- Paid home care services
- Regular phone check-ins from a designated nurse



PAIN POINTS

- Inconvenient
- Care is uncoordinated, with lapses between visits
- Expensive for providers



TRENDS

DATA INTEGRATION RAMPS UP

Efforts to reduce costs and improve quality and outcomes in a market shifting from fee-based services to value-based care face unprecedented opportunities and challenges. As consumers demand tighter coordination and

Data warehousing and analytics firm Health Catalyst raised \$70 million in March 2015 and is looking ahead to an IPO.

collaboration among fragmented care delivery teams, significant investment is required in data aggregation, integration, and analytics.

On the provider side, data integration platforms are replacing personal health records as a way to harness patient information for clinical research or patient engagement. These platforms cost-effectively and securely aggregate consumer care

data from a growing trove of sensors and apps and give providers a common place to collect, process, and access medical device data and consumer biometrics.

Companies are seizing opportunity in this area. One example, **Vivametrica**, focuses on wearables. **Validic**, which received \$12.5 million in 2015 from investors including Kaiser Permanente, focuses on mHealth apps and devices.



✓ Providers and retail pharmacies are partnering up in this area. Both Walgreens and CVS, for example, now view telehealth services as complementary to their retail clinic operations.



INNOVATION HIGHLIGHTS

ON-DEMAND & VIRTUAL CARE

Timely house calls, appointments with hard-to-book specialists—consumers want convenience, and the marketplace is swiftly responding with solutions that deliver on-demand care via apps, real-time video, asymmetrical communications, photo sharing,

and more. Apps like **Heal** and **Circle Medical Technologies** let consumers select care providers or schedule a house visit by app for services either covered by an insurer or paid out of pocket. Virtual care services like **Spruce**, which lets a user message directly

with a care provider, are bringing improved access and convenience to areas such as check-in and follow-up, non-urgent illnesses, and specialist visits. **Maven**, a digital clinic for women, enables video appointments and appointments with highly vetted specialists.



KEY SOLUTION SEGMENTS

AREAS OF OPPORTUNITY

TELEHEALTH

Services and solutions for virtual health visits



HEALTH MONITORING

Products that remotely monitor vital signs for health management



CARE DATA INTEGRATION AND ANALYTICS

Applications and services that support vital sign monitoring



SENSORS AND DEVICES

Sensors and health kits for health monitoring or in-home diagnostics

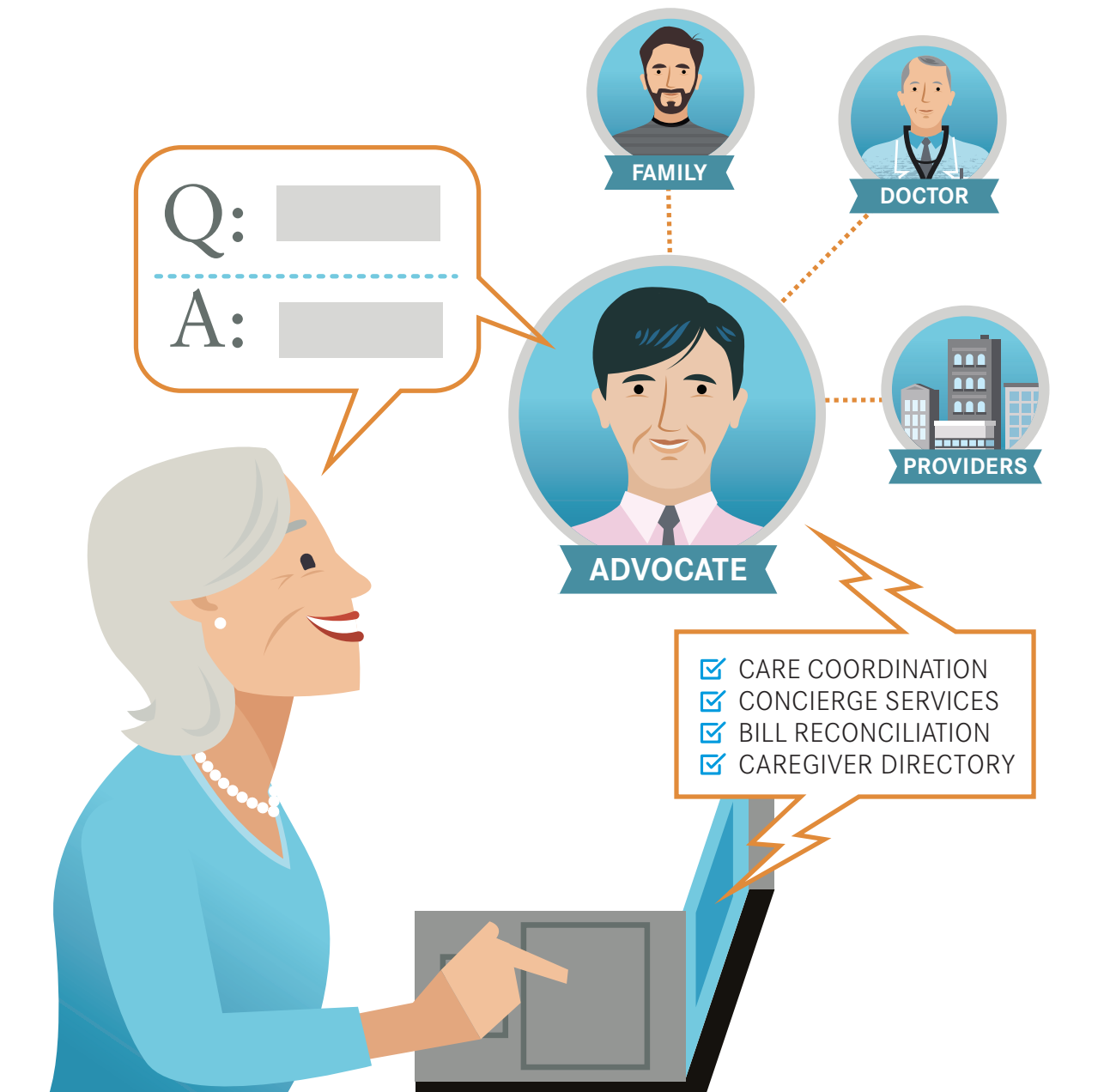


IN-HOME CARE MARKETPLACE

Services and solutions for hiring home aid and service providers



CARE GUIDANCE



DID YOU KNOW?

You can find care providers rated from one star to five at www.medicare.gov/homehealthcompare/search.html.

How can I find and choose the best care provider? Is there a simpler way to manage benefits?

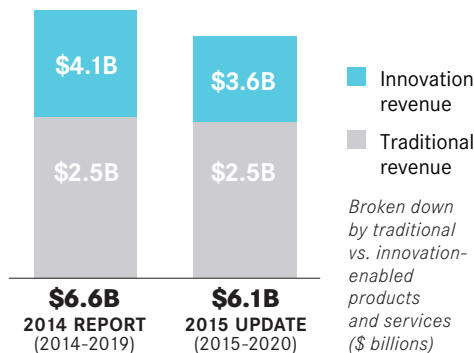
Apps, “smart concierge” services, and other solutions are emerging to help 50+ consumers and caregivers coordinate, manage, and plan non-clinical aspects of the care experience. The need is there for finding trusted answers quickly, as is interest in scheduling and multi-task services.

What’s lacking are opportunities for businesses to grow via consumer spending. Consumers already are getting many tools and services for free by care providers and insurers.



FORECASTS

GROWTH—JUST NOT CONSUMER SPENDING



As the number of consumers using health exchanges has grown, so has the need for guidance. Yet providers and insurers are increasingly footing the bill for these care management tools, dampening revenue opportunities funded by out-of-pocket spending.



THE NEED

FINDING TRUSTED ANSWERS, QUICKLY



50+ CONSUMERS

- Seek guidance for themselves and their caregivers



TRADITIONAL APPROACHES

- Information from many sources, often segmented by specific topic
- “Yellow page” directories



PAIN POINTS

- Overwhelming data, time-consuming searches
- Complex navigation across multiple sources
- Outdated information, undisclosed conflicts of interest



TRENDS

RICHER DATA, REAL CONVENIENCE

Caregivers and people 50+ are accustomed to online, crowd-sourced consumer reviews in other parts of their lives. As they become more actively involved in health care decisions, siloed, incomplete data sources no longer meet their needs.

Government agencies have been stepping up to fill the gap. The Centers for Medicare and Medicaid Services (CMS) now publishes patient quality ratings

for care providers. CMS is also proposing an update to quality and safety requirements for the 15,000+ nursing homes and skilled nursing facilities across the United States.

Providers and businesses, often through partnerships, are putting trusted information in one place to ease the journey. Solutions here include marketplaces of care providers, online portals for managing benefits and



spending, and digital tools for care planning and coordination.



INNOVATION HIGHLIGHTS

SCHEDULING & STREAMLINING

Appointment booking can be a pain point for all parties in health care. Online medical scheduling by ZocDoc and provider marketplaces like BetterDoctor streamline the process for consumers and caregivers, and apps like Everseat are helping providers fill unused appointment slots.

Benefits management services like Maxwell Health and “smart concierge” services like Zest Health are meeting the need to consolidate details and services.

For consumers, the delivery of multiple services (such as appointment scheduling, personalized guidance, data from self-help tools, and shopping guides) from one source means convenience.

For the businesses delivering such a solution, such integration increases service “stickiness” and user loyalty.



KEY SOLUTION SEGMENTS

AREAS OF OPPORTUNITY

CARE CONCIERGE AND COORDINATION

Assistance with managing care activities and getting expert help



CARE PLANNING TOOLS

Preparation for future care and estate planning



PROVIDER AND FACILITY REVIEW AND BOOKING

Services that review and compare care providers, facilities, drug costs, and insurance plans



BENEFITS/SPENDING MANAGEMENT

Services for tracking spending and managing health records, medical claims, and billing



CAREGIVER DIRECTORY

Care provider listings and referrals



SAFE LIVING



DID YOU KNOW?

In the area of home modifications for seniors, California has legislated “aging in place” as a way to help consumers 50+ stay in their homes with less injury.

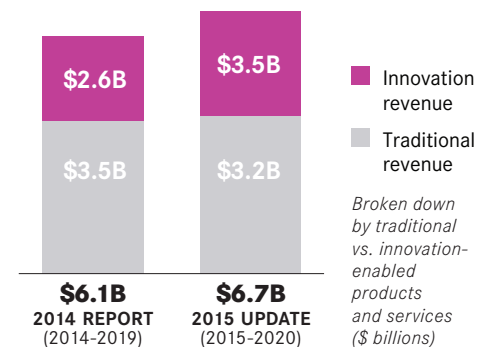
How can aging consumers live safely at home in a way that preserves their sense of independence and delivers peace of mind for their family members and caregivers?

Emergency response is just the beginning. Innovators in “smart home” living and Internet of Things (IoT) devices are beginning to address aging-in-place safety challenges. Solutions include location-tracking “wearables” that alert to accidents in and outside of the home, sensors and apps that use activity data to predict accidents, and smart home platforms that integrate data to make safety monitoring convenient and easy.

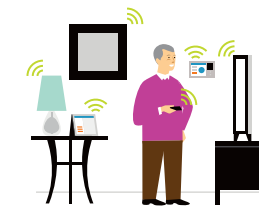


FORECASTS

INNOVATION DRIVES GROWTH



As consumer interest grows in high-tech living and “smart home” IoT technologies like innovative sensors emerge, traditional solutions such as medical alerts are being replaced by new product categories. Volume increases are expected to offset pricing pressures, resulting in net/net revenue gains.



THE NEED

PROACTIVE, DISCREET SOLUTIONS



50+ CONSUMERS

- Are accident-prone or have cognitive impairments
- Require ongoing attention for home security, personal safety, and living comfort



TRADITIONAL APPROACHES

- Personal emergency response systems and services, such as the Government Silver Alert public notification system
- Constant oversight and involvement by family members



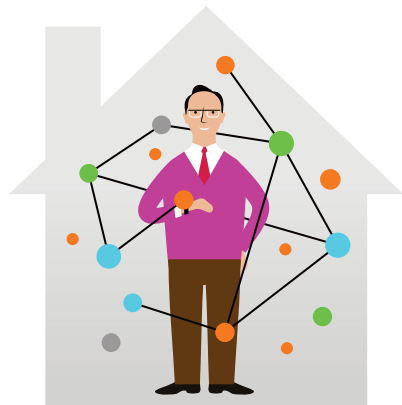
PAIN POINTS

- Current solutions (such as a visible and recognizable alert bracelet) can be inconvenient, embarrassing to the user, and reactive rather than preventative
- 50+ consumers are bound to the home, as are caregivers and family members



TRENDS

SMART HOMES & WEARABLES



“Smart home” and wearables players are recognizing the 50+ marketplace and ways smart home sensor data can complement independent living. Their efforts are supported by a favorable business environment. Regulators are encouraging smart home designs to address aging-in-place needs. Meanwhile, other companies

are discovering the advantages wearables can bring to safe living solutions. These devices are always on and sensors can be integrated with home environment systems, which makes location tracking easier. They are typically small and available in appealing designs, like the watches and “smart jewelry” offered by **CUFF** and **Guardian Angel**.

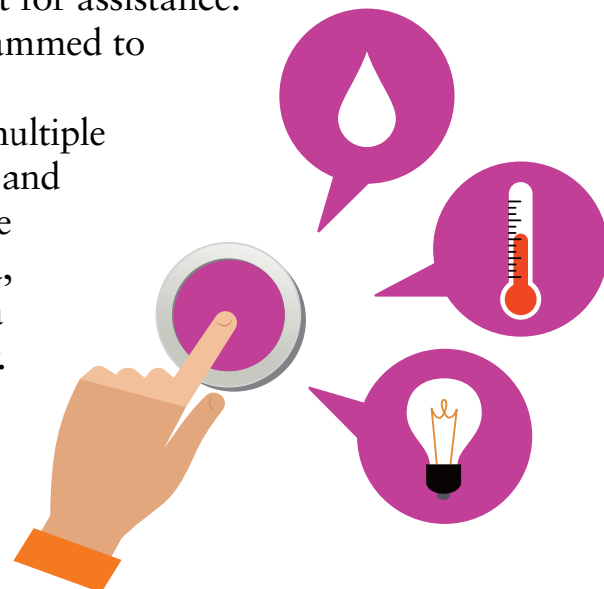


INNOVATION HIGHLIGHTS

SIMPLIFYING SAFETY SERVICES

Entrepreneurs are powering up simple, familiar hardware designs with smart algorithms. With **bt.tn**, the push of a button triggers an action, like a request for assistance. With **nuimo**, one interface can be programmed to control a variety of household devices.

They’re also streamlining the work of multiple devices to enhance home safety, comfort, and even sleep quality. **Canary** monitors home conditions via a “smart home” IP camera, microphone, and sensors that collect data on temperature, humidity, and air quality. Products by **CubeSensors** measure temperature, humidity, air quality, noise, pressure, and light.



KEY SOLUTION SEGMENTS

AREAS OF OPPORTUNITY

SAFE LIVING MONITORING SOLUTIONS AND SERVICES

Tracking home activity patterns via sensor networks



EMERGENCY DETECTION AND RESPONSE

Monitoring sensors and devices and solutions and services that auto-detect emergencies and deliver automatic or user-initiated alerts



LOCATION TRACKING APPS AND SERVICES

Products and solutions that monitor a user's location



PHYSICAL FITNESS



DID YOU KNOW?

The American Heart Association recommends at least 30 minutes of moderate-intensity aerobic activity at least 5 days a week to maintain overall cardiovascular health for adults?

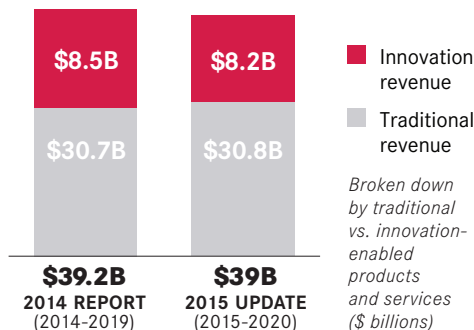
How big is disruption in the fitness technology market? In 2015, innovator FitBit posted over \$1.5 billion in revenue, a \$4 billion market valuation, a 50-percent gross margin, and more than 10 million active users. In contrast, traditional player Weight Watchers reported revenues under \$1 billion after double-digit declines, only 2.5 million users, and stock that lost 75 percent of its value.

Spurred by health system incentives and a desire for better health and well-being, the 50+ market is joining the move to smart tracking devices, virtual training apps, and wearable devices that work everywhere. Improved, results-focused technology and lower price tags are expected to propel growth.



FORECASTS

STEADY ADOPTION & GROWTH



Higher-priced innovations, such as smart watches with built-in fitness features, helped this market grow. Yet AARP's analysts deemed 2014 assumptions for future adoption as "too rosy." In the revised forecast, demand is expected to increase for products that track progress as these technologies penetrate the 50+ market.



THE NEED

STAY ON TRACK, EASILY & ECONOMICALLY



50+ CONSUMERS

- Exercising for personal well-being
- Managing health issues



TRADITIONAL APPROACHES

- Home gyms
- Fitness clubs
- Personal trainers
- Meal plan-based weight loss programs



PAIN POINTS

- Expensive
- Inconvenient
- Few ways to track progress



TRENDS

PARTNERSHIPS & INCENTIVES FOR THE 50+



Just as people are flocking to digital solutions for diet and nutrition (90 million people use calorie counter app **MyFitnessPal**, for instance) usage is booming in apps for personal training. **Endomondo** reports 20 million users, **MapMyFitness** 25 million, and **Runtastic** 70 million. The winners in the field are getting purchased by large consumer brands—an appealing exit strategy.



This activity is moving to the 50+ marketplace. Well-being and wellness provider Healthways offers its **SilverSneakers** program to Medicare beneficiaries. Among participants, 32 percent reported better physical health and 28 percent better emotional health over the course of a year.

Endomondo reports 20 million users, MapMyFitness 25 million, and Runtastic 70 million

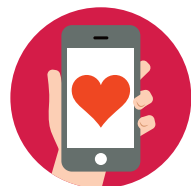


Private insurers are getting more proactive with discounts and reimbursements. **Walkadoo**, a Healthways program promoted by Blue Cross Blue Shield plans such as HighMark and AvMed, gives participants a **FitLinxx Pebble** digital pedometer as a benefit of membership.



INNOVATION HIGHLIGHTS

PRICES DROP, SERVICES IMPROVE



Prices are dropping for fitness bands with quality data tracking software—even to less than \$25. Low-cost solutions by companies like **Xiaomi**, the world's fourth-largest maker of smartphones, and startup **Pivotal Living** are expected to dramatically drive mainstream adoption of this technology.



At the same time, digital fitness solutions are becoming more sophisticated. Companies like **Fit3D** and **Styku** are using 3D scanner technology and data visualization software to help users see physical changes and monitor progress. And wearable innovators like **lifeBEAM** and **Athos** are embedding sensors into gear such as helmets, hats, visors, and athletic clothing.



The marketplace is moving from tracking activity and processes to measuring results. Solutions by companies like **Skulpt** and **Samsung** are measuring metrics such as body fat at individual muscle areas, and products like the **Under Armour HealthBox** are integrating data from sleep, exercise, nutrition, and more into a single dashboard.



KEY SOLUTION SEGMENTS

AREAS OF OPPORTUNITY

FITNESS DEVICES/ TECHNOLOGY

Products that record fitness data and measure progress



FITNESS/WEIGHT LOSS PROGRAMS

Apps and solutions targeted to consumers directly or through third parties that teach fitness or track progress



FITNESS APPS

Consumer-targeted apps that track fitness progress

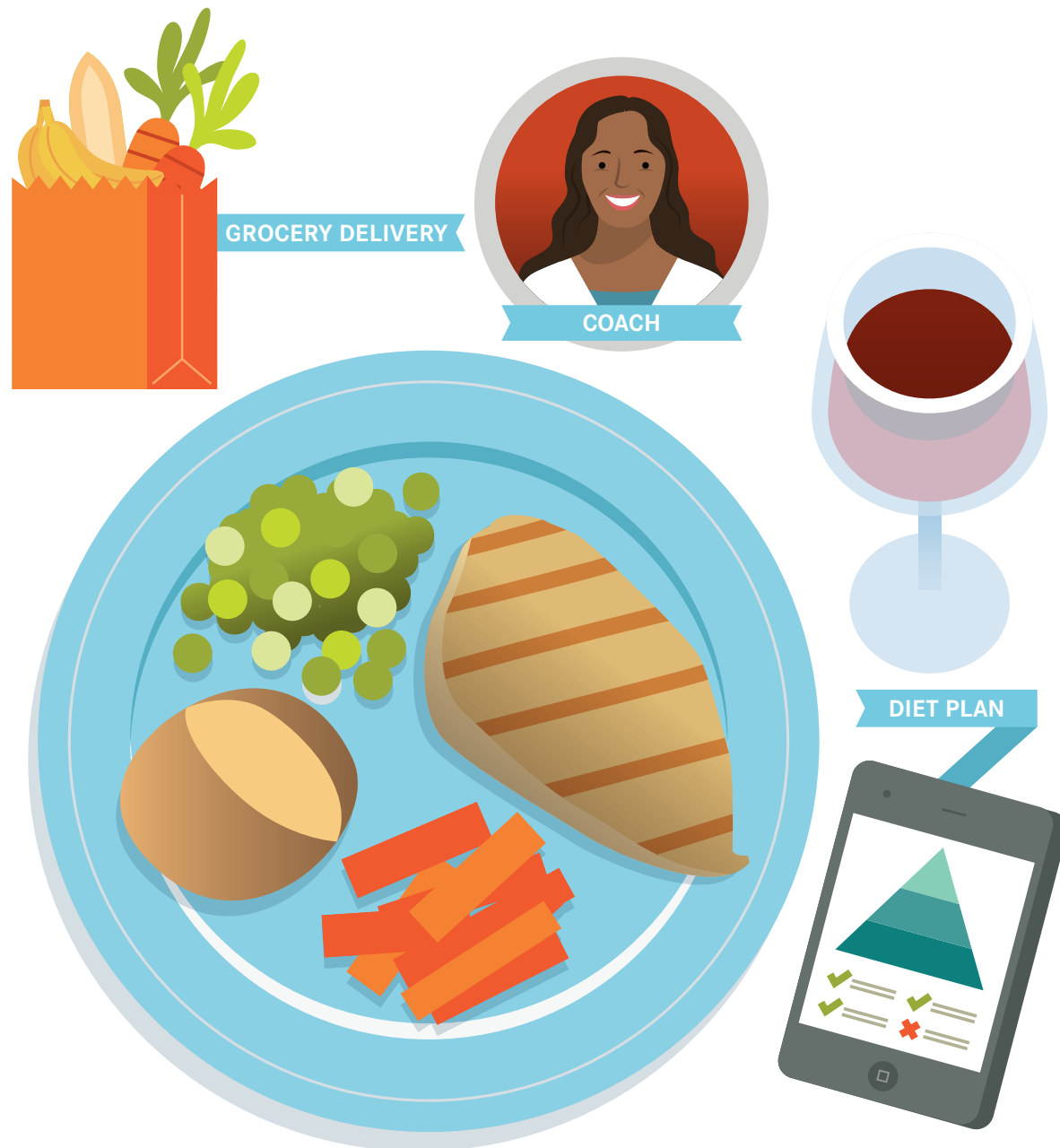


FITNESS DATA AGGREGATORS

Solutions and platforms that support the integration and analysis of fitness data



DIET & NUTRITION



DID YOU KNOW?

The diet and nutrition category received slightly over \$850 million venture funding in 2015, up from \$600 million in 2014. —TechCrunch

To maintain their well-being and manage their health, consumers 50+ are watching what they eat—and using innovative technologies to help them do so.

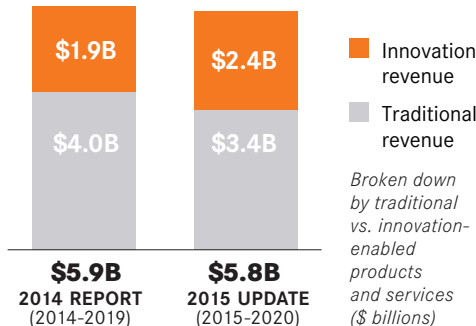
Funding and consumer interest are booming in areas like food delivery services. Employers, insurers, and care providers are investing in preventative care. And consumers increasingly are adopting subscription and premium services.

First, consumers wanted to learn what to cook and eat. Now the focus is on how, with innovations emerging in connected “smart cooking” devices, digital recipes, nutrition tracking tools, wellness coaching, and more.

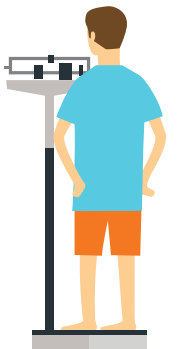


FORECASTS

A SHIFT TO INNOVATIVE SOLUTIONS



Subscription-based diet and nutrition apps leveraging fitness device APIs are offering more effective programs for weight loss. As a result, usage is booming, and more users of free apps are converting to premium services. Meanwhile rising interest in preventative care by employers and health systems is spurring more aggressive assumptions for device and solution adoption.



THE NEED

STAYING HEALTHY, SAVING TIME & MONEY



50+ CONSUMERS

- Seek a healthy diet for personal well-being
- Need to maintain a certain diet for health reasons



TRADITIONAL APPROACHES

- Books, magazines, and videos for healthy recipes
- Dietitian counseling for meal plans and delivery



PAIN POINTS

- Expensive services, such as meal plans and dietitian consulting
- Time-consuming tasks, such as recipe preparation and grocery shopping



TRENDS

GROWTH IN COOKING, COACHING, & COMFORT

Consumers are growing more comfortable ordering food online via services such as **Amazon Fresh** and **Kroger**, and investors are finding their interest piqued by success stories such as the 2014 IPO of **GrubHub** and 2015 funding for **BlueApron** (\$135 million), **Instacart** (\$220 million), and **Plated** (\$35 million).

In this flourishing market, new entrants are differentiating themselves through delivering pre-cut and pre-measured meal ingredients, fully cooked meals, and specialized meals for customers such as cancer patients. And other innovations are emerging to help 50+ consumers eat and cook more

healthily: grocery shopping apps, digital recipe and nutrition tracking tools, smart cooking solutions, and digital diet coaching.



IN A NIELSEN SURVEY, 17% OF RESPONDENTS AGE 50-64 AND 9% OF THOSE 65+ SAID THEY ORDER GROCERIES ONLINE FOR HOME DELIVERY—AND 48% AND 35% RESPECTIVELY SAID THEY ARE WILLING TO DO SO.

—THE FUTURE OF GROCERY REPORT, APRIL 2015



✓ Growth in wellness apps and corporate wellness programs is driving the demand for wellness coaches—but watch out for evolving regulations and licensing requirements.

✓ Dietetics, which focuses on diet and nutrition, is currently regulated in 21 states. These generally broad regulations contain exemptions for non-licensed practitioners. Enforcement is selective and inconsistent. Health coaching addresses services beyond diet.

✓ The Academy of Nutrition and Dietetics is lobbying for more restrictive licensing requirements (“scope of service laws”) at the state level. The International Association for Health Coaches opposes such regulation, arguing that certification from reputable industry organizations is sufficient.



INNOVATION HIGHLIGHTS

SMART DEVICES FOR HEALTHIER HABITS



As part of the overall IoT trend, companies are developing connected devices and kitchen appliances to track ingredients and improve cooking processes. Major innovations are happening

in connected weight scales, cutting boards, food jars, grills, ovens, frying pans, and blenders. Other devices and software are evolving to measure and deliver feedback on eating habits.



KEY SOLUTION SEGMENTS

AREAS OF OPPORTUNITY

MEAL PLANS AND GROCERY DELIVERY

Services that deliver prepared meals or fresh groceries



DIET AND NUTRITION MANAGEMENT

Digital or personal coaching to advise consumers about diet and nutrition



HEALTHY EATING TRACKING TOOLS

Devices and solutions, usually self-guided, that help consumers track and manage diet and nutrition



CONTENT AND EDUCATION

Diet and nutrition information for consumers and business partners



SMART COOKING SOLUTIONS

Products and software that help consumers shop for and cook healthy meals



SOCIAL ENGAGEMENT



DID YOU KNOW?

Today, 35% of people 65 years and older report using social media, up from 11% in 2010 and just 2% in 2005. —Pew Research Center

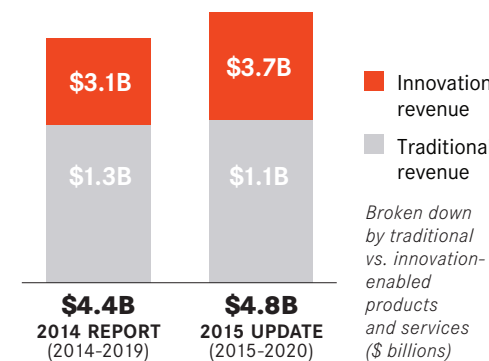
Through online support groups, community meetups, and digital companion tools, consumers 50+ are increasingly using devices, software, and services to stay connected and reduce social isolation that can come from aging or health issues.

Growth is being seen in ride-sharing apps and services, solutions that mobilize networks of people and resources, and solutions that simplify the digital experience.



FORECASTS

ADOPTION DRIVES OPPORTUNITY



As digitally savvy 50+ consumers grow in number, these consumers are expected to quickly adopt social engagement portals, apps, and other solutions. Increased traffic may drive advertising revenues and drop ad rates.



THE NEED

REMAINING IN TOUCH & INDEPENDENT



50+ CONSUMERS

- Want to stay socially active and connected
- Seek to reduce lifestyle- or disease-related stress and isolation
- Need flexible, affordable transportation options for routine or health-related tasks



TRADITIONAL APPROACH

- Community activities
- Social networking sites
- Frequent visits by family members
- Public transit, taxi services, or rides from family or caregivers for transportation



PAIN POINTS

- Inconvenient
- Time-consuming
- Onerous digital-skills requirements



TRENDS

TARGETED OFFERINGS, TRANSPORT SUPPORT

As consumers 50+ become more technologically savvy, the social engagement world is paying attention. General-audience social media platforms, app companies, and service providers are exploring ways to target their offerings and differentiate themselves in areas like transportation.

In New York City, **Lyft** has partnered with National Medtrans Network to provide non-emergency medical transportation, such as a ride to a checkup or home from the ER. In Maryland and Washington, DC, **Uber** is giving MedStar patients another transportation option for medical appointments.



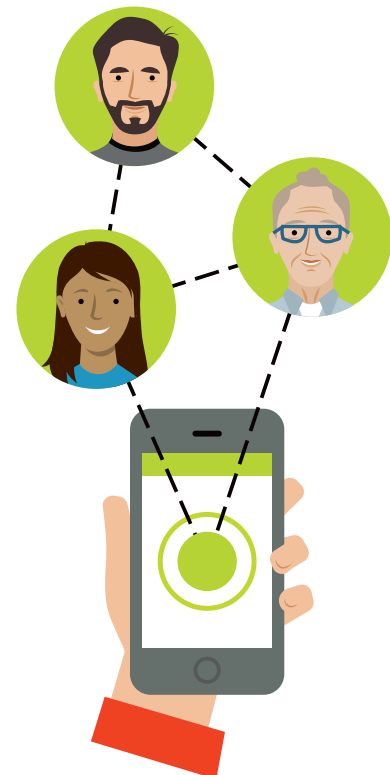
26 million older Americans depend on others for their mobility.

—Community Transportation Association of America



INNOVATION HIGHLIGHTS

STRENGTH IN NUMBERS, STREAMLINING



New apps are tapping into digital networks of volunteers and assistants for support and social engagement. **BeMyEyes** uses a camera phone to help the blind solicit help from volunteers for needs like reading street signs. **7 Cups of Tea** lets users share their concerns with active listeners free of charge.

Other services are helping consumers 50+ adapt to the digital world. **Breezie** delivers less tech-savvy users a personalized digital experience complete with photo sharing, video chat, reminders, and more. Family Ribbon's **EasyFamily AppSuite** gives users seven apps in one, including Skype, email, Facebook, photo albums, and medication reminders.



KEY SOLUTION SEGMENTS

AREAS OF OPPORTUNITY

ONLINE PATIENT COMMUNITIES AND PEER-TO-PEER SUPPORT

For people with similar health conditions to share experiences and find support/counseling



SOCIAL INCLUSION SOLUTIONS

Apps and services that keep consumers in touch with their family members, friends, and community



MOBILITY ASSISTANCE

Apps or services that help consumers easily find transportation options for social engagement activities



BEHAVIORAL HEALTH



DID YOU KNOW?

Only 38% of adults with diagnosable mental health issues receive the treatment they need.
—U.S. Department of Health and Human Services

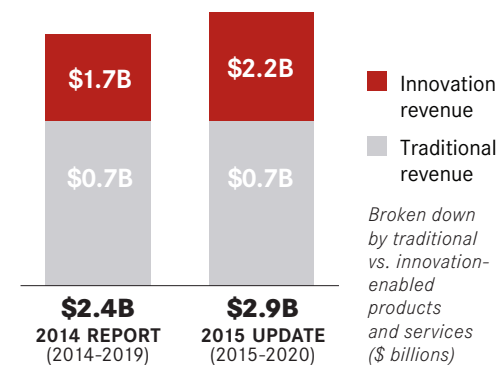
Through their providers and on their own, consumers 50+ are using digital solutions for help with issues such as depression and substance abuse.

As reimbursements, particularly by the federal government, grow for behavioral health services, innovations in this area are emerging. These range from self-help apps and online support groups to digital counseling and coaching and even “social robots” for companionship.

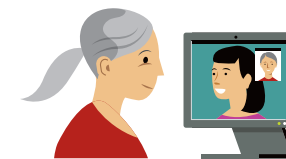


FORECASTS

USAGE SURGES, BUSINESS MODELS SHIFT



Adoption of digital tools and online services for behavioral health has increased significantly, and more extensive outreach by providers and insurers for preventative care has expanded the user base. Watch for a more affordable, fee-based approach to replace ad-driven business models.



THE NEED

EFFECTIVE, ECONOMICAL SOLUTIONS



50+ CONSUMERS

- Suffer from mental health issues
- Seek to address health-damaging behaviors related to substance abuse and depression



TRADITIONAL APPROACH

- In-person counseling or group therapy
- Subject-specific programs
- Meditation
- Medication



PAIN POINTS

- Expensive
- Inconvenient, in part due to a shortage of mental health professionals
- Frequent relapses



TRENDS

GROWTH IN TELEHEALTH, QUESTIONS FOR WEARABLES

Due to a shortage of mental health specialists, a growing need for their services, and a world that's increasingly connected, telehealth is one subsection of the mental health market that's growing rapidly.

Acquisitions are helping healthcare companies and telehealth service providers

add virtual mental health counseling and therapy to their services. Examples include MDLive's acquisition of **Breakthrough Behavioral**, TelaDoc's purchase of **BetterHelp**, and Genoa's purchase of **1DocWay**.

Other behavioral health solutions are under scrutiny.

Emiliana Simon-Thomas, science director of the Greater Good Science Center at the University of California Berkeley, has raised questions about the safety of the **Thync** headset, which uses neurosignaling to induce shifts in energy and calm states for the management of stress.

—Insight, the alumni magazine of The Chicago School of Professional Psychology

Nearly 80 million Americans live in a “mental health professional shortage area.”



✓ In April 2015, the federal government extended regulations that made mental health benefits “on par” with other medical and surgery benefits of Medicaid, the nation's largest payer of mental health services.

✓ “These regulations will lead to increased coverage of—and therefore spending on—behavioral health services for Medicaid beneficiaries in managed care or other capitated care models,” according to Matt Salo, executive director of the National Association of State Medicaid Directors.

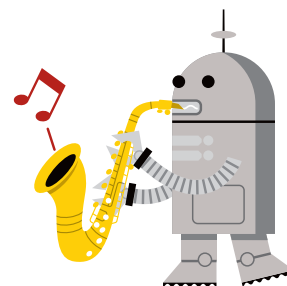


INNOVATION HIGHLIGHTS

SUPPORT THROUGH SENSORS AND ROBOTICS

Companies are leveraging sensors to help users detect stress levels and mood swings and address emotional health issues. **Spire**, which clips to a user's clothing, measures breathing patterns for insight into changes in emotion. GoodLux Technology's **SunSprite** uses exposure to sunlight to

analyze mood changes. Other innovators, like **Personal Robots Group** of the MIT Media Lab, are developing home robots for support and companionship. Robots by Boston startup **Jibo** read books, emails, and voice mail messages aloud as well as play music, take photos, turn on the lights, and guard the house.



KEY SOLUTION SEGMENTS

AREAS OF OPPORTUNITY

STRESS/EMOTION MANAGEMENT AND THERAPY

Services, usually from a professional, that advise consumers on stress management and mental health



BEHAVIORAL MODIFICATION AND SELF HELP

Tools, usually developed by a professional, that deliver stress management guidance and psychological therapy



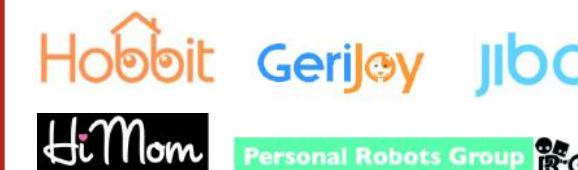
SUPPORT GROUPS AND COMMUNITIES

Online networks where consumers can connect with those with similar experiences and find support



COMPANIONSHIP

Products and services that offer emotional support and help consumers overcome fear of seclusion





is a 37 million-member-strong nonprofit, nonpartisan organization that helps people turn their goals and dreams into real possibilities. We strengthen communities and fight for the issues that matter most to families, including healthcare, employment security, and retirement planning.



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