FROST & SULLIVAN

# Healthcare Market Updates

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# Wearables

# Cardiogram Expands Insurance Program for Wearable Technology Users – February 1, 2019 (1/2)

**Applicable Product Categories:** Wearables

| | | | |
|---|---|---|---|
| **Technologies** | Wearable (devices + Apps) | **Therapeutic Areas** | Chronic Condition and Lifestyle Management |
| **Applications** | Quantified Self, Self-Health Management | **Geographic Focus** | US |
| **Segment Focus** | Clinical/Consumer Grade | **Topics (News type)** | Partnership/ Business Model Innovation |
| **Companies** | Cardiogram, Amica Life Insurance Company and RGAX | **Others** | Apple Watch, Garmin, and WearOS by Google |

**ANALYST TAKE:**

**Synopsis:** Health app developer, Cardiogram, has agreed to expand its partnership with Amica Life Insurance Company and RGAX affiliate Greenhouse Life Insurance Company. They will offer Accidental Death (AD) insurance coverage to wearable technology users in additional states, and by doing so more than double the number of users who will have access to this exclusive offer.

**Industry Need**

- The health insurance policies available today are aged and often fail to meet the personalized needs of individuals. As a result, the global health insurance market growth has been declining from 9% during 2014–2015 to 6–7% in subsequent years. Integration of digital health solutions, such as wearables and health apps, is rejuvenating the health insurance market toward data-driven incentive-based health policies that promise to provide a personalized experience for policy holders and reduce the cost from potential claims. More than 60% of the insurance customers expressed interest in having their insurers offer healthcare services that go beyond standard insurance products.

# Cardiogram Expands Insurance Program for Wearable Technology Users – February 1, 2019 (2/2)

**Value Proposition:**

- The program, launched in August 2018, offers qualified Apple Watch, WearOS by Google, or Garmin wearers the opportunity to obtain supplementary AD coverage at no cost for the first year. Those same qualified Cardiogram users will also have the option to purchase additional AD insurance coverage via a fully-digital, instant-issue application in as little as three minutes.
- Recently, Cardiogram also launched new features called 'Family Mode' and 'Share with Doctor' as part of a additional Cardiogram premium service. Family Mode lets anybody with an iPhone or Android remotely monitor a loved one's wearable data, including heart rate, step counts, sleeping patterns, workouts, diagnostic tests, habits, and more. Share with Doctor lets patients request a PDF printout of their past Cardiogram data to bring to their next physician appointment.
- As part of this agreement, owners of compatible wearables—including Apple Watch, Garmin, and WearOS by Google will be offered $1,000 of accidental death coverage at no cost, with the option to upgrade to paid policies, in eligible states. For wearable owners aged 55-and-above, Cardiogram Family Mode allows loved ones to remotely monitor their health or for them to share their wearable data with doctor.
- Frost & Sullivan finds Cardiogram's strategy of offering a marketplace to link wearable users to their insurance program a progressive move to meaningfully promote the application of wearables generated data to manage chronic conditions like sleep apnea, hypertension, atrial fibrillation or diabetes.
- Frost & Sullivan research suggests that lifestyle and health data-driven interactive health insurance plans will continue to gain popularity globally, as they enable insurance companies to personalize premiums by stratifying health risk and reward programs.
- This would open up business opportunities for wearables OEMs, mobile apps, and health data aggregators to collaborate with progressive private insurance participants and employer health programs to promote consumer-centric insurance programs that incentivize individuals for adhering to healthy habits/lifestyle.
- **Target End-User:** Private Insurance, Employer Health Program

WEBLINK: https://bit.ly/2Rz5CA6

# Apple, Aetna collaborating on new Watch-driven wellness rewards program– January 29, 2019 (1/2)

**Applicable Product Categories:** Wearables

| | | | |
|---|---|---|---|
| **Technologies** | Wearable (devices + Apps) | **Therapeutic Areas** | Chronic Condition and Lifestyle Management |
| **Applications** | Quantified Self, Self-Health Management | **Geographic Focus** | US |
| **Segment Focus** | Clinical/Consumer Grade | **Topics (News type)** | Partnership/ Business Model Innovation |
| **Companies** | Apple and Aetna | **Others** | NA |

**ANALYST TAKE:**

**Synopsis:** Aetna is teaming up with Apple to release a new mobile health (mHealth) app called ‘Attain’, which is designed to personalize digital health regimens for beneficiaries, who could receive incentives for hitting wellness goals. The Attain program will combine members' health record data with activity tracking to offer personalized goals, with rewards that include the Apple Watch itself.

**Value Proposition**

- The health insurance policies available today are aged and often fail to meet the personalized needs of individuals. Similarly, commoditization of health wearables with ever increasing competition demands wearable OEMs to explore new revenue streams beyond the usual health and wellness space. However, the emerging concept of leveraging wearable and mHealth applications to innovate next-gen digital insurance policies often called as interactive models are gaining significant popularity as they promise average healthcare consumers a personalized experience, and help reduce costs from potential claims. Additionally, the marriage of wearables with insurance programs helps payers to quantify policy holders’ health goals and keep them motivated for leading a healthy life with engaging reward schemes.

# Apple, Aetna collaborating on new Watch-driven wellness rewards program– January 29, 2019 (2/2)

**Value Proposition:**

- This morning Aetna (**which was recently acquired by CVS**) and Apple announced a new wellness program that will leverage health data, a custom app and the Apple Watch. Called Attain by Aetna, the voluntary program will deliver personalized health goals, recommendations and rewards based on members' daily activity.
- The 'Attain' application is anticipated to be available in Apple app store this spring and for Aetna members with an Apple Watch and an iPhone 5S or a newer model. The project marries mHealth, wearables and claims data to build what Aetna hopes will be a full view of participants' health — and how to improve it. The idea is that real-world and claims information can combine to help create a personalized digital health experience that members will adopt.
- As per the company, the Attain application will also take into account patient medical histories to tailor wellness goals to participants, tracks their activity data and suggests they take healthy steps. For instance, Attain's website shows screenshots recommending users build a bedtime plan or receive a flu shot. The app might also advise users to refill drug prescriptions or visit a primary care physician.
- Apple and Aetna previously worked together on an Apple Watch-based program that the companies said resulted in positive health effects for 90 percent of users. And the first iteration of Attain doesn't look to be the last, thanks in part to Apple's machine-learning and analytical capabilities.

- Frost & Sullivan finds the marriage between Apple Watch and iPhone applications with Aetna's insurance in-line with ongoing industry trends to create a differential value proposition for both the companies users/members. The real differential offering is the user reward program - unlike free fitness trackers, 'Attain' app will provide a range of rewards, with credits to Amazon, Best Buy, Target and other merchants depicted in screenshots. Aetna members who don't have an Apple Watch may even obtain one through Attain. (And yes, the app also deals in CVS Health credits.)

- **Target End-User:** Aetna members (in future other Private Insurance, Employer Health Program, Digital Coaching and wellness centers).

WEBLINK: https://bit.ly/2UpnkIb

# Apple, J&J partner on multi-year study of Apple Watch's health features– January 27, 2019 (1/2)

**Applicable Product Categories:** Wearables

| | | | |
|---|---|---|---|
| **Technologies** | Wearable (devices + Apps) | **Therapeutic Areas** | Cardiovascular diseases management (atrial fibrillation) |
| **Applications** | Remote Patient Monitoring | **Geographic Focus** | US/Global |
| **Segment Focus** | Clinical/Consumer Grade | **Topics (News type)** | Partnership/ Business Model Innovation |
| **Companies** | Apple and J&J | **Others** | NA |

**ANALYST TAKE:**

**Synopsis:** Johnson & Johnson and Apple have teamed up to conduct a multiyear study starting this year to assess the efficacy of the Apple Watch, along with J&J's heart health monitoring app, in detecting irregular heart rhythms.

**Value Proposition**

- Based on industry estimates, cardiovascular diseases (CVD) claim more lives than all forms of cancer combined, and the global cost of managing CVD & Stroke is more than $320 Billion annually. Among all the deaths caused by CVD, about two-thirds of them happen in out-of-hospital settings. As per a Mayo Clinic study (2015), digital health interventions among early-stage CVD population can reduce 40% relative risk and 7.5% absolute risk reduction in CVD events, hospitalizations, and deaths. Wearables in the form of continuous cardiac health monitoring devices and accurate predicting tools can empower patients with seamless integration of remote monitoring solutions into daily life for early diagnosis and health promotion.

# Apple, J&J partner on multi-year study of Apple Watch's health features– January 27, 2019 (2/2)

**Value Proposition:**

- The collaboration centres on seeing if the Apple Watch's heart rate monitoring ECG functions can be used for earlier detection of atrial fibrillation (AFib), a heart condition that causes an irregular and often abnormally fast heart rate. As per Paul Stoffels, Johnson & Johnson's executive vice president and chief scientific officer, "The goal is to identify early on [atrial fibrillation] and prevent stroke by combining the physical know-how from Apple and what we have from the medical and scientific know-how."
- A multi-year research programme will be launched later this year in the US and will focus on individuals aged 65 or older. Specifically, the primary goals of the research are to measure whether or not the smartwatch's irregular rhythm notifications and a medication adherence app designed by J&J for the smartwatch might have an impact on the health outcomes of older adults.
- Frost & Sullivan views the strategic partnership between J&J and Apple (pharma + tech giants) as a timely move to prove their mettle in the emerging digital therapeutics space. This research collaboration would offer both companies an opportunity to explore opportunities beyond their drug and device play to ensure future revenue streams in the much anticipated outcome-based reimbursement arena.

- **Target End-User:** Pharma companies, Clinical Research Organizations

WEBLINK: https://bit.ly/2W3LCJb

# Mobile Phones/ mHealth

# Livongo moves into behavioral health with acquisition of Denver-based myStrength – January 30, 2019 (1/2)

**Applicable Product Categories:** Mobile Phones

| | | | |
|---|---|---|---|
| **Technologies** | mHealth App; Digital Platform | **Therapeutic Areas** | Chronic Condition Management |
| **Applications** | Behavioral Health | **Geographic Focus** | US |
| **Segment Focus** | Clinical Grade | **Topics (News type)** | M&A/ Vendor Provider Partnerships |
| **Companies** | Livongo Health; myStrength Inc. | **Others** | - |

**ANALYST TAKE:**

**Synopsis:** Chronic disease management company Livongo Health has made a major play in behavioral health as it paid somewhere north of $10 million to acquire myStrength to bolster the offerings on its chronic care platform.

**Industry Need:**

- Chronic condition management platform providers, such as Livongo, getting into behavioral health is being seen as a natural progression by the companies due to the inherent correlation between behavioral conditions such as depression and anxiety and that of chronic conditions such as diabetes and hypertension.
- As per certain stats, roughly 15-20% of the 135 million chronic condition patients in the US suffer from one or more behavioral health issues, thereby mandating management of such underlying causes to enhance outcomes on conditions such as diabetes and hypertension.

# Livongo moves into behavioral health with acquisition of Denver-based myStrength – January 30, 2019 (2/2)

**Value Proposition:**

- As per the announcement, the acquisition will enable Livongo to better address the overall health of the chronic patient by better managing behavioral health aspects including stress, anxiety, depression, sleep disorders, chronic pain, substance use disorder, opioid addiction and recovery, in addition to Livongo's Applied Health Signals chronic condition management solution.
- myStrength, whose behavioral health solution uses evidence-based interventions including cognitive behavioral therapy, acceptance and commitment therapy, positive psychology, mindfulness, and motivational interviewing to help individuals resolve clinical conditions, build resiliency, manage stress, improve mood, sleep better, or simply find daily inspiration, currently partners with over 130 health plans and health systems in the US including Medicaid funded community healthcare organizations across 32 states.
- Frost & Sullivan research finds that Livongo, which began with diabetes, has been effectively expanding into natural adjacencies and comorbidities such as hypertension and weight management and now into behavioral health through meaningful, synergistic acquisitions. In line with this, the company acquired Retrofit in April 2018 and, now with this acquisition, the company can boast of an adequately integrated care platform capable of taking on a holistic approach towards managing chronic conditions. Overall the approach is in line with the broader industry trend of digital platform providers expanding into behavioral health, as evident from Omada's announcement last month to license Lantern's mental health software as well as SOC Telemed's (formerly Specialists on Call) acquisition of behavioral health telemedicine company JSA Health in order to add mental health services to its acute telemedicine platform.
- **Target End-User:** Chronic condition patients, care givers

WEBLINK: https://bit.ly/2GftS8f

# Interoperable artificial pancreas system reliably controls blood glucose levels in pilot trial – January 28, 2019

**Applicable Product Categories:** Mobile Phones

| | | | |
|---|---|---|---|
| **Technologies** | mHealth App; Artificial Intelligence | **Therapeutic Areas** | Diabetes |
| **Applications** | App-based, device agnostic artificial pancreas system | **Geographic Focus** | Global |
| **Segment Focus** | Clinical Grade | **Topics (News type)** | Care Delivery Innovation |
| **Companies** | interoperable Artificial Pancreas System (iAPS) App | **Others** | Dexcom, Tandem, Insulet Corp |

**ANALYST TAKE:**

- **Synopsis:** As per a recent paper published in Diabetes Technology & Therapeutics, the iAPS app, run on an unlocked smartphone, has been described as a device-agnostic smartphone app that can interface with CGMs, insulin pump devices and dosing algorithms from various manufacturers as significantly effective in keeping users above a low blood sugar reading of 70 mg/dL and overcome frequent intentional device connectivity interruptions.
- Frost & Sullivan believes that owing to the system's increased potential to improve outcomes and standard of living, coupled with its capability to function with any CGM system and insulin pumps, enhances the solution's efficacy as a convenient closed-loop artificial pancreas system, which can enhance adoption among users across the globe. Owing to the system's interoperability, it poses a significant challenge to any existing and future proprietary artificial pancreas systems by industry players like Medtronic, Diabeloop, etc. as it reduces the exclusivity of such a proprietary system, thereby reducing ROI potential.

WEBLINK: https://bit.ly/2DHdkEq

# One Drop Glucose Monitor Gains Personal Diabetes Assistant and Health Records Integration – January 31, 2019

**Applicable Product Categories:** Mobile Phones

| | | | |
|---|---|---|---|
| **Technologies** | mHealth App; Artificial Intelligence, Personal Health Records | **Therapeutic Areas** | Diabetes |
| **Applications** | Diabetes assistant platform integration with Apple Health records | **Geographic Focus** | Global |
| **Segment Focus** | Clinical Grade | **Topics (News type)** | Partnerships |
| **Companies** | One Drop; Apple | **Others** | - |

**ANALYST TAKE:**

- **Synopsis:** Diabetes self-management platform provider One Drop, announced integration with Apple Health Records due to which patients using the platform services such as One Drop Experts, will be able to share their EHR and medication history with One Drop coaches through the Health Records feature.
- The development also coincides with the launch of One Drop's new Personal Diabetes Assistant. With this new system, users will be able to enter their recurring diabetes health management tasks into the platform. Then the system will automate a personalized daily schedule based on the user's needs.
- Frost & Sullivan research finds that One Drop is not the only digital diabetes management platform integrating with Apple Health Records feature, with Ascensia Diabetes Care's Contour Diabetes app announcing similar integration in November 2018. The company's partnership and integration with Apple Health Records is in line with the general industry sentiment that being able to view the data in the Apple Health Kit enhances the value of the data in terms of a more holistic view of the patient's state of diabetes management.

WEBLINK: https://bit.ly/2MQB649

# Smart Home Devices & Appliances

# The invisible warning signs that predict your future health – January 17, 2019

**Applicable Product Categories:** Smart Home Devices

| | | | |
|---|---|---|---|
| **Technologies** | Computer Vision, AI | **Therapeutic Areas** | Elderly care |
| **Applications** | Aging-in-Place | **Geographic Focus** | US / Global |
| **Segment Focus** | Consumer Grade | **Topics (News type)** | Technology Innovation |
| **Companies** | MIT | **Others** | - |

**ANALYST TAKE:**

- MIT's Dina Katabi has designed a device that transmits low-power wireless signals through a house. These electromagnetic waves reflect off a patient's body. Every time we move, we change the electromagnetic field around us. Katabi's device senses these minute reflections and tracks them, using machine learning to **follow a patient's movements through walls**. Deploying a device in a patient's home allows their **sleep patterns**, mobility and **gait to be continuously monitored**. It can pick up on their **breathing rates** – even with multiple people in a room – and detect if **someone has a fall**. It can monitor their heartbeats and **even provide information about their emotional state**.

- Frost & Sullivan acknowledges this approach as the one that can enable continuous remote monitoring of patients or the elderly in their homes, without intrusion of privacy, and also allow, using AI, to detect symptoms of illness before obvious symptoms manifest. Early diagnosis will therefore allow for quicker treatment and better outcomes at lower costs.

WEBLINK: https://bbc.in/2RBLJwY

# GreatCall and CNA Partner to Bring Predictive Technology and Services to Policyholders Who Want to Stay Independent and In Their Homes Longer – January 24, 2019

**Applicable Product Categories:** Smart Home Devices

| | | | |
|---|---|---|---|
| **Technologies** | AI, Sensors | **Therapeutic Areas** | Elderly care |
| **Applications** | Aging-in-Place | **Geographic Focus** | US / Global |
| **Segment Focus** | Consumer Grade | **Topics (News type)** | Technology Innovation, Business Model Innovation |
| **Companies** | GreatCall, CNA | **Others** | - |

**ANALYST TAKE:**

- "GreatCall, a leader in connected health for active aging and a wholly owned subsidiary of Best Buy, today announced a partnership with long-term care insurer CNA, one of the largest U.S. commercial property and casualty insurance companies, to provide CNA policyholders with its in-home passive remote monitoring solution, Lively Home, and its Lively Mobile medical alert device. Lively Home uses passive sensors to measure daily activities like eating, sleeping and movement. It gathers information to identify patterns, then uses GreatCall's predictive analytics to highlight any anomalies that could indicate a change in policyholder's health. GreatCall's Care Team is trained to monitor behavior data, identify trends, and escalate the issue to the policyholder's designated contact, potentially allowing for earlier and overall less expensive health intervention."

- Frost & Sullivan believes that iInsurance companies are now beginning to understand the value that smart home solutions can bring for managing risks with their elderly members. A somewhat simlar example is that of ConnectedLife in Singapore.

WEBLINK: https://bit.ly/2BdfsSO

# Other Interesting Articles

*When available, other interesting articles will be covered here in short.*

| News Title | Link | Remarks |
|---|---|---|
| Project Alias Prevents Smart Homes from Eavesdropping | https://bit.ly/2sY719k | Project Alias is a device that can be placed on top of any voice-connected smart home in order to prevent it from listening to users' conversations. Alias' speakers feed constant soft noise into the smart home that prevents it from recognizing its wake-word. Instead, users will create a customized wake-word for the Alias, which will stop the noise and active the digital assistant normally. |
| A Digitally Caring Environment: The Internet of Things in Hospitals | https://bit.ly/2D1KKw3 | An interesting future view, in line with out views for the future of healthcare in smart homes – "In the future, we can imagine that a smartwatch used at home will send back vital signs to a GP's tablet about a patient, toilets with microchips similar to the MC10 biostamps will monitor urine – so you won't need to bring your urine sample to the doctor anymore -; sensors will log movement patterns, bathroom sensors will follow patterns of water usage, or digital mirrors will measure basic vital signs. Or, we could imagine Dina Katabi's connected device put into practice: it already allows monitoring patients' sleep patterns, mobility, and gait. It can pick up on their breathing rates or detect if someone has a fall. It can monitor their heartbeats and even provide information about their emotional state. What if all that information could be sent back to the hospital for control in the future?" |

# Other Interesting Articles (continued)

*When available, other interesting articles will be covered here in short.*

| News Title | Link | Remarks |
|---|---|---|
| Amazon's latest move shows it's serious about the smart home | https://bit.ly/2HJebsh | Having gained a seat on the Zigbee alliance, Amazon is now backing the zigbee technology over other communication protocols, and is also keen on the smart home's future. |
| War of the AIs: Who is leading the assistant race? | https://bit.ly/2RvqIPU | A good comparison of the two leading smart speakers – Google Home and Amazon Alexa. |
| China to offer some subsidies on cars, smart home appliances to lift weak demand | https://bit.ly/2GdJ2eg | As China grows at it's lowest in 30 years, the government is looking at subsidizing costs of cars and smart home appliances. With a commitment of speeding up commercial use of 5G in 2019, together, China will become a great market for smart home tech this year. |
| Bluetooth 5.1's Presence Detection Could Be the Future of Smarthome | https://bit.ly/2Sil1cj | While detecting a person's presence in the home is a current challenge, this could be a solution. However, it would require the person to wear a bluetooth tags (or smartphones) at all times for detection. |