

START-UP NATION CENTRAL:
FINDER INSIGHTS SERIES
DIGITAL HEALTH REPORT 2016



**START-UP
NATION
CENTRAL**



EXECUTIVE SUMMARY

The Israeli Digital Health sector grew significantly in 2016, both in terms of funding and in terms of new participants in the industry. The number of companies in the sector has risen substantially in recent years, reaching almost 400 companies. The sum of investments in 2016 was \$183M—far exceeding investments in the previous year (\$144M). Seed rounds, whose average was \$1.6M, nearly twice that of the previous year (\$900k), accounted for most of the deal volume. The number of A-round deals has almost doubled in 2016, with nine deals compared to five deals in 2015.*

The Digital Health sector worldwide is rapidly transforming passive patients into active healthcare consumers. The most highly funded subsectors in the industry were patient/consumer-oriented, receiving \$4.6B out of \$8.1B total funding in 2016.¹ A wide array of technologies such as wearables, mobile applications, and big-data analytics combine to enable end-users to take an active part in managing their own health.² Wearable products provide constant tracking and gathering of the user's key biometric data. The information collected is analyzed using big-data and behavioral analytics to provide actionable health-improving insights. These technologies can improve clinical outcomes, especially when applied to health conditions that are influenced by patient behavior, such as chronic diseases. Realizing this potential,

many Digital Health companies focus their efforts on developing health solutions that empower consumers, treating them as active participants in managing their own health.

The Israeli Digital Health sector is participating in the global trend of patient empowerment, with Personal Health Tools becoming the largest subsector in recent years. **Israeli companies have become highly focused on the end-user**, with 65% of companies following a B2C or B2B2C business model. The boundaries between subsectors begin to blur as technologies converge to form patient-oriented products. **Health Analytics, the most highly funded subsector in Israel in the last two years,**³ is at the core of these types of products. Analytics and big data translate vast amounts of information into actionable and valuable diagnostic and treatment solutions. Since many of the technologies developed are software-based and cater directly to customers, they could potentially become widespread, easily accessed and used anywhere by anyone. These technologies have sprung from Israel's unique capabilities in information, communication, mobile, and cyber technologies, together with more than 25 years of expertise in implementing health IT, electronic medical records, and business analytics. Tapping into this potential offers Israel the opportunity to become a truly influential player in the global Digital Health arena.

*All data regarding the Israeli ecosystem is based entirely on Start-Up Nation Finder™.

INVESTMENTS

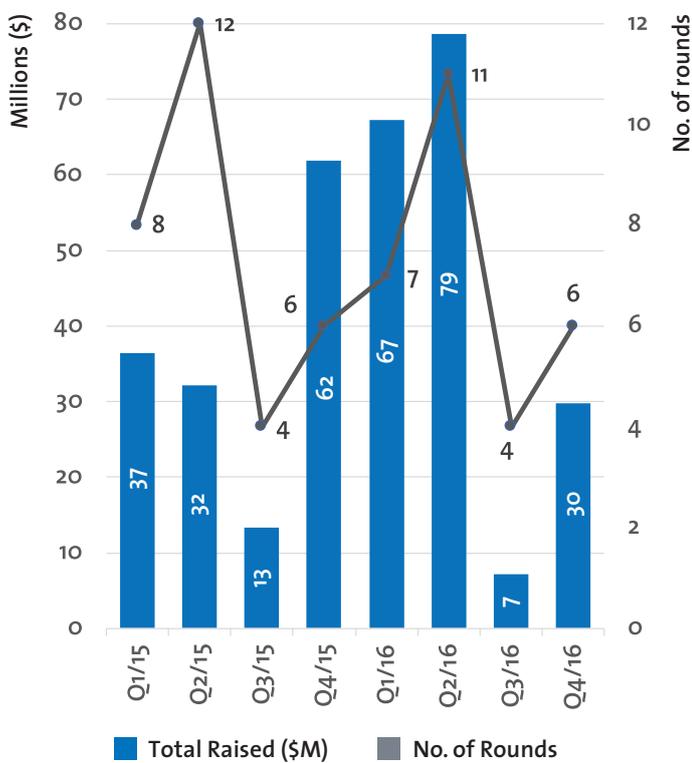
The sum of investments in 2016 was \$183M—far exceeding investments in 2015 (\$144M). This increase can be attributed to the several large deals in 2016, raised by MedCPU (\$35M), EarlySense (\$25M), Simplee (\$20M), HealthWatch (\$20M), LifeBEAM (\$20M), and Zebra Medical Vision (\$12M).

The average seed round in 2016 was \$1.6M, almost doubling the average of 2015 (\$900k). This considerable difference is due in part to an exceptionally large seed investment of \$6.6M, raised by Nanit in June. The average C+ round was also considerably higher in 2016 (\$26.6M) compared to 2015 (\$17.6M).

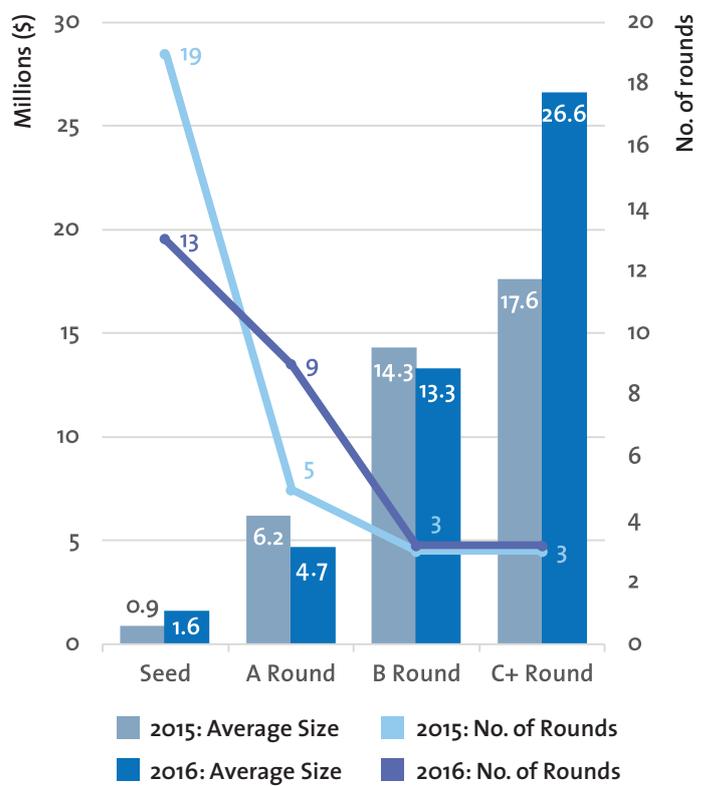
This can be attributed to the three particularly large investments mentioned above (MedCPU, EarlySense, and Simplee). Although the average A round has decreased in size from \$6.2M in 2015 to \$4.7M in 2016, the number of A rounds has almost doubled, jumping from five deals (16% of deals) in 2015 to nine (32% of deals).

Despite the increase in A-round deals, seed investments still represent most of the deal volume, while later-stage deals are markedly scarce. This indicates that the Israeli sector may have plenty of later-stage investment opportunities.

Total Investments 2015–2016

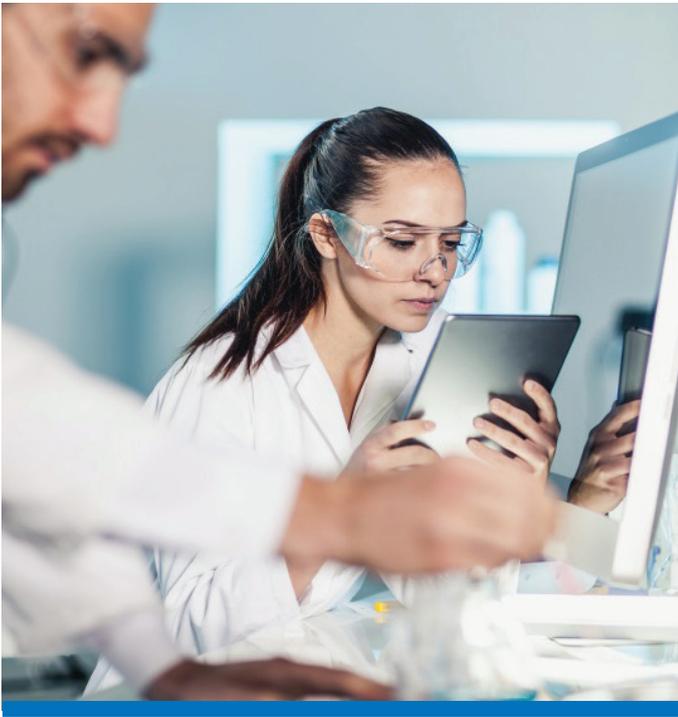


Average Amount Invested



M&As

M&A activity in the USA in 2016 was 9% higher than 2015, with \$6.8B in 136 recorded deals.⁴ The Israeli Digital Health sector produced no mergers or acquisitions in 2016.



ISRAELI DIGITAL HEALTH SUBSECTORS

Based on analysis of the Digital Health sector in the Start-Up Nation Finder™ database,⁶ Start-Up Nation Central has identified five subsectors that characterize the Israeli Digital Health sector:



Health Analytics

Companies that collect and analyze data to solve medical problems for businesses and consumers. If the analytics are delivered exclusively to consumers, the company is classified under Personal Health Tools.



Telemedicine

Companies whose main activity is to connect doctors with patients remotely, simulating medical appointments. This can be done with many tools such as medical devices, wearables, and mobile applications. This includes companies that passively collect information from patients via remote monitoring.



Clinical Workflow

Companies that enable hospitals, clinics, labs, and other healthcare stakeholders to work more efficiently. This could be done using EHR, decision support, payment platforms, software that helps manage workflow, automation, etc.



Wearables & Sensors

Companies whose main products are wearables or sensors. The wearable or sensor is used by the end-user and may provide monitoring, tracking, and even insights, but the main product is the hardware itself.



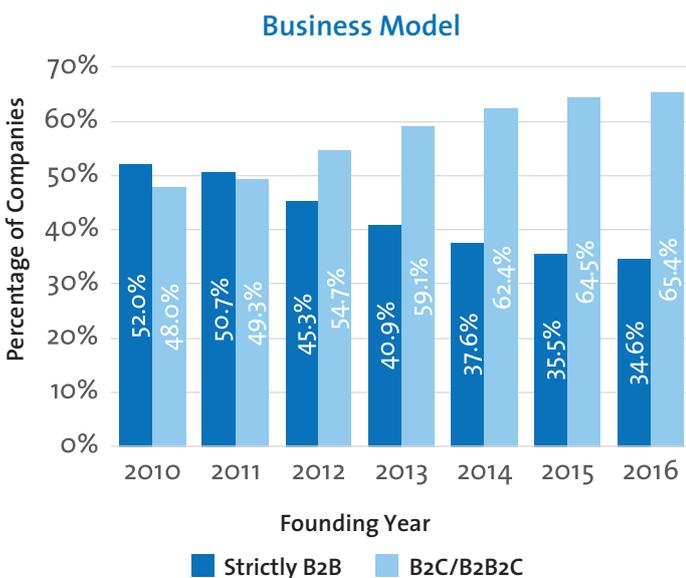
Personal Health Tools

Companies that provide end-users with software-based tools to track, manage, and even treat their own health conditions. These products may use data collected from hardware such as wearables or sensors, or provide a telehealth service, all designed to empower users to take charge of their own health.

BUSINESS MODEL

There is a global shift towards a user-centric business model⁵ that can also be observed in Israel. In 2010, strictly-B2B companies were more prevalent than B2C/B2B2C companies. In the following years, however, the number of B2C/B2B2C companies has increased significantly, far outnumbering strictly-B2B companies.

EarlySense is a noteworthy example of this change. Established initially as strictly B2B, the company recently signed an agreement with Samsung to develop a consumer-oriented product. The company is therefore no longer restricted to healthcare institutions, but can target consumers directly, tapping into the vast home-care market.



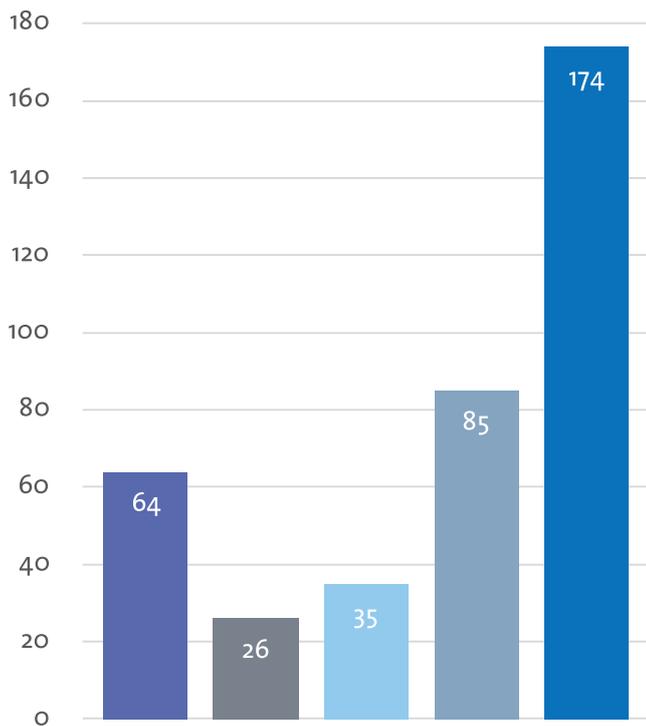
NUMBER OF ACTIVE COMPANIES PER SUBSECTOR

The number of companies in the Israeli Digital Health sector has risen substantially in recent years, reaching 384 companies in 2016. The Personal Health Tools subsector has skyrocketed, becoming the most prominent subsector, with 174 companies (45% of the sector). With 85 companies, Health Analytics is the second largest subsector. Clinical Workflow, which had the greatest presence in 2010, has exhibited the slowest growth rate. Most Clinical Workflow companies that are active today were established before 2010.

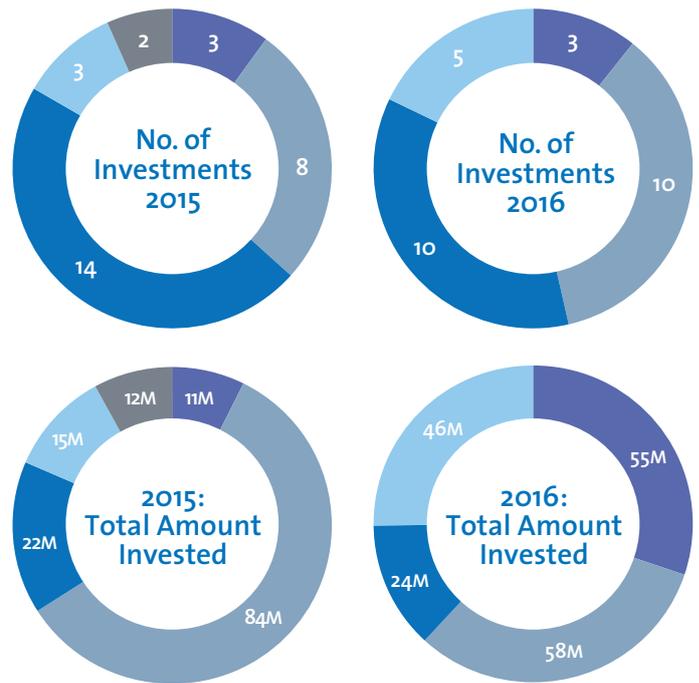
INVESTMENTS PER SUBSECTOR

Personal Health Tools and Health Analytics accounted for over 70% of deal volume in 2015 and 2016. Health Analytics received the most funding, both in 2015 (\$84M—59% of total investments), and in 2016 (\$58M—32% of total investments). Clinical Workflow received considerable funding in 2016: \$55M (30% of total investments). This is a significant improvement from 2015, when the subsector received the least funding: \$11M (7% of total investments). This increase is due almost entirely to two late-stage investments raised by MedCPU (\$35M) and by Simplee (\$20M). Besides these exceptionally large deals, Clinical Workflow has attracted very little deal volume in the last two years (three deals in 2015, three in 2016).⁷ The Wearables & Sensors subsector also received considerable funding in 2016: \$46M (25% of total investments). This is due to two particularly large funding rounds raised by HealthWatch (\$20M) and LifeBEAM (\$16M). Both companies develop wearables that are designed to interface with the many products developed by Personal Health Tools companies.

Active Companies in 2016



Investments per Subsectors

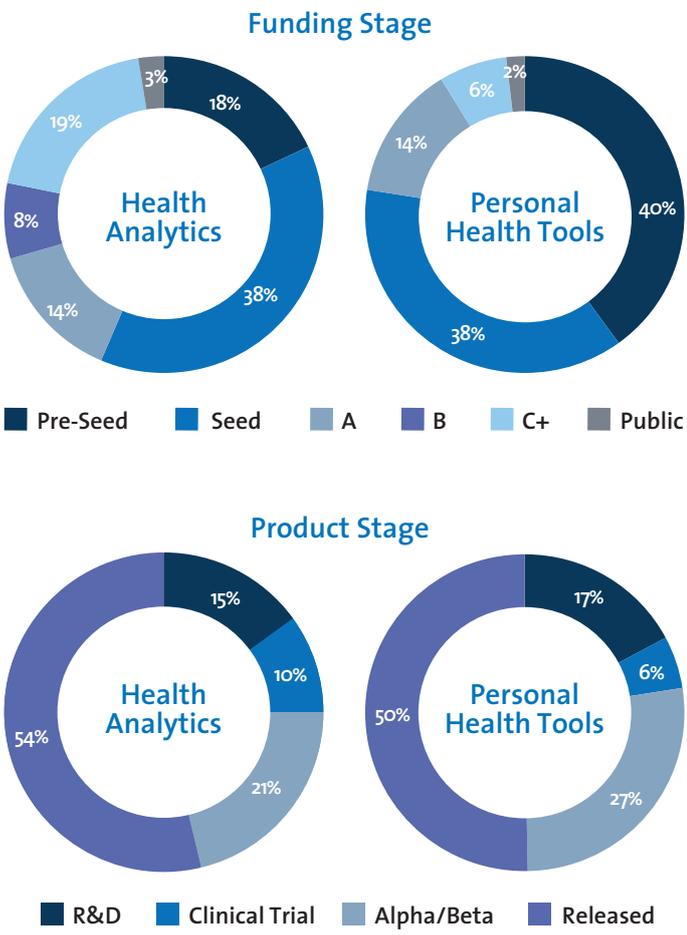
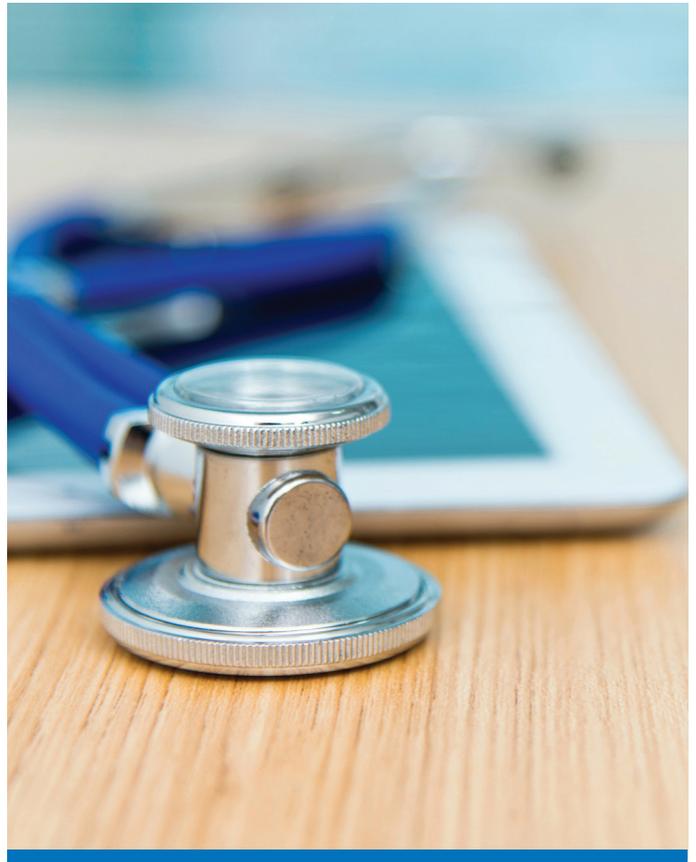


■ Clinical Workflow
 ■ Health Analytics
 ■ Personal Health Tools
 ■ Wearables & Sensors
 ■ Telemedicine

PRODUCT AND FUNDING STAGE

Health Analytics and Personal Health Tools companies tend to require less funding to reach advanced stages of product functionality. Although 78% of Personal Health Tools companies are in early stages of funding (40% pre-seed, 38% seed), the products of almost 80% of companies in this subsector are fully developed (50%) or in alpha/beta stages (27%). Similarly, 54% of Health Analytics companies have fully-developed products, although most companies are in early stages of funding (18% pre-seed, 38% seed). As would be expected, software products are less dependent upon initial funding. In contrast, Telemedicine and Clinical Workflow are more mature and traditional subsectors. Both are comprised of many established companies with released products.

The relationship between product and funding stage points to the direction in which the Israeli sector is heading. The fastest-growing subsectors (Personal Health Tools and Health Analytics) are those with the greatest gap between product stage and the funding it requires. In recent years, the Personal Health Tools subsector has, with very little funding, produced an abundance of functional products. Health Analytics has followed suit, albeit at a slower pace and with more funding. This asymmetry points to a challenge that the Israeli Digital Health sector is currently facing. Even when they are fully developed, for products to reach the healthcare market they must overcome complex barriers such as validation and pilots, demonstrating clinical value and cost saving, integrating with enterprise systems, complying with regulations, and adapting to other markets. These challenges require additional support and funding.



TRENDS

As the Israeli sector concentrates on patient empowerment, the borders between subsectors begin to blur, converging under Personal Health Tools. Wearables, sensors, big-data analytics, and telemedicine platforms integrate to form powerful B2C/ B2B2C healthcare products. The data collected from hardware such as wearables and sensors is being leveraged more and more by the rapidly-growing market of Health Analytics and Personal Health Tools software. In Telemedicine, the traditional linking of doctors and patients is becoming just one telehealth facet of the healthcare product. The user is not only tracked and monitored passively, but receives real-time feedback, turning him/her into an active participant in the process. In sum, the various subsectors are becoming more interconnected, centering around individuals and empowering them.

While the four subsectors grow closer, adapting to trends and different markets at a fast pace, Clinical Workflow has remained relatively stable and traditional. Although Israel's Clinical Workflow expertise and data practices are among the most advanced in the world, the subsector has grown at a relatively slow pace in recent years. A possible reason for this is that Clinical Workflow products are tailored to specific healthcare institutions. Since the structure of these institutions differs greatly across markets, Israeli Clinical Workflow companies must adapt their product to every market they wish to penetrate. This makes it very costly to scale and gain global traction, putting these companies at a serious disadvantage relative to companies operating in local markets. As opposed to Clinical Workflow products that operate within specific healthcare institutions, Personal Health Tools products are person-oriented, and are thus comparably easy to adopt and to use anywhere, by anyone.

NEW IN THE INDUSTRY

The Israeli Digital Health sector has expanded in scale and scope in recent years. New accelerators and incubators were formed, conferences and hackathons were held, and investor funds were established.

Below are some recent additions to the Digital Health community:

MindUp—founded in March 2016, Haifa's Digital Health Incubator is a venture of Medtronic, IBM, Pitango Venture Capital, Impact First Investments, and Rambam Medical Center. MindUP holds an OCS tender for operating a Medical Technology Incubator. The incubator focuses its investments in the areas of big data, predictive analytics, telemedicine, cloud computing, wearables/sensors, advanced point-of-care diagnostics, personalized medicine, hospital IT systems, and technologies that improve the quality and efficiency of healthcare delivery.

DigitalHealth.il Conference—Israel's annual Digital Health conference. The conference features leading technologies and serves as the focal point for entrepreneurs, senior healthcare corporate executives, and investors from Israel and abroad. The conference, whose theme was "Beyond Tech," took place on 7 December, and focused on the importance and challenges of clinical evidence, the behavioral revolution, big data, and the impact of digital health on emerging markets

The Israeli Ministry of Health set out in 2016 to integrate innovative technologies from the Digital Health ecosystem into public health. The ministry launched three challenge tenders. The first tender is aimed at increasing the efficiency of hospital and emergency care, the second is a tender for tackling obesity, and the third is aimed at reducing medical errors. These tenders mark a substantial change in the Ministry of Health's relationship with Israeli innovation. By revising the tenders' conditions, the ministry has made it much easier for start-ups to take part in governmental initiatives.

eHealth Ventures—founded in 2014, eHealth Ventures is a consortium of world-class healthcare organizations and investors looking to fund and grow promising early-stage Israeli Digital Health companies. eHealth Ventures partners with Cleveland Clinic Innovations and Maccabi Health Care, one of the largest healthcare providers in Israel. Its network of partners spans North America, Europe, and Asia. In 2016, eHealth Ventures was selected by the Office of the Chief Scientist to establish the first Digital Health incubator, and is currently launching an accelerator together with Hadassah Hospital.

Elevator VC Fund—an Israeli VC that established a fund in 2016 for early-stage Digital Health companies. The Elevator Fund acts as a full strategic, operational, and financial partner. By partnering with leading American corporations, the fund will spur its portfolio companies to achieve validation, deployment, and distribution.

OurCrowd Qure—OurCrowd, an Israel-based equity crowdfunding platform, announced in November the launching of OurCrowd Qure. The fund will invest in early-stage Digital Health companies, focusing on seed and A round. With the collaboration of Johns Hopkins University, the fund aims to provide validation of company value, fast-track market access, and help link start-ups to the American healthcare system.

Samsung Runway—in 2015, Samsung founded Samsung Runway, an accelerator situated in Samsung's Electronics R&D center in Israel. The accelerator is focused on early-stage companies in the fields of mHealth, big data, wearable devices, and IoT, among others. The start-ups that join the six-month program receive a \$50,000 grant, a work site, and business mentoring.



START-UP NATION CENTRAL AND DIGITAL HEALTH

Digital Health is one of Start-Up Nation Central's focus sectors. Start-Up Nation Central collaborates with a variety of players to facilitate the creation of a critical mass of activity in the sector. It includes supporting the community, organizing meetups and educational seminars, disseminating useful information about needs and best practices, as well as connecting healthcare systems, investors, and NGOs operating in the healthcare space with Israel-based technology and start-ups. Throughout 2015–2016, Start-Up Nation Central hosted a significant number of hospitals, HMOs, insurance companies, pharmaceutical companies, and governmental institutions. In hosting delegations, we increasingly witness a strong interest in the Digital Health sector from corporates outside the healthcare market. We perceive a growing interest in B2C healthcare products, especially those that focus on behavior-related issues, such as patient adherence. With most of the investments in seed rounds, it would seem the Israeli sector abounds with opportunities for A-round investments and above.

ABOUT START-UP NATION CENTRAL

Start-Up Nation Central is a not-for-profit, completely neutral and non-conflicted organization that promotes Israeli innovation. Start-Up Nation Central connects companies and countries to the people and technologies in Israel that can solve their most pressing challenges. We are the authoritative source on, and the GPS to, the Israeli innovation community. We provide international clients with their first tangible point of connection to the Israeli innovation ecosystem by designing highly customized engagements for government and business leaders, acquainting them directly with the innovation they need. We also created the largest and most up-to-date free platform for data and connectivity to more than 5,000 Israeli companies, as well as investors, and multinational corporations operating in Israel.

AUTHORS

Ayelet Beazley, Analyst, Life Sciences Sector Lead
Sharon Shapira, Digital Health Sector Manager

CONTACT

For more information on the companies cited in this report and the Israeli Digital Health sector in general, please visit finder.startupnationcentral.org.

Questions and comments should be directed to Shmuel Rausnitz (shmuel.rausnitz@sncentral.org).

APPENDIX: METHODOLOGY

Figures regarding the Israeli ecosystem are based entirely on Start-Up Nation Finder™; a free online platform that maps innovative Israeli companies. Start-Up Nation Central defines “innovative Israeli company” as an entity founded in Israel. Companies that have moved overseas are excluded from the platform, unless they maintain a substantial presence in Israel, which includes R&D. The platform does not include service providers. As for investments, this report includes only seed-round and above, and does not include investment rounds of undisclosed amount or investment type.

ENDNOTES

- 1 The most highly funded subsectors were Patient/Consumer Experience, Wellness, and Personalized Health/Quantified-self. “[2016: The Health Moonshot Movement](#),” Startup Health (January 2017).
- 2 Big Data/Analytics and Wearables/Biosensing were among the most highly funded Digital Health technologies in the USA, raising \$341M and \$312M, respectively. Halle Tecco, “[2016 Year End Funding Report: A Reality Check for Digital Health](#),” Rock Health (January 2017).
- 3 Health Analytics is especially prominent in Israel compared to the global industry where Big Data/Analytics came in sixth place, receiving \$562M in 54 deals (Startup Health 2017).
- 4 M&A figures according to Rock Health 2017; investment figures according to Startup Health 2017.
- 5 Ashlee Adams and Mitchell Mom, “[Digital Health Funding 2016: Midyear Review](#),” Rock Health (2016).
- 6 <http://finder.startupnationcentral.org>
- 7 While Clinical Workflow received few funding rounds in Israel, the subsector attracted many deals globally, raising a total of \$593M in 2016 (Startup Health 2017).



***START-UP
NATION
CENTRAL***



WWW.STARTUPNATIONCENTRAL.ORG