

A Challenge-Centric approach to Maximizing Healthcare Opportunities

Fostering digital health innovation via actual needs and not perceived solutions can lead to significant improvements in integrating technological solutions, even from sources outside of traditional healthcare – insights from the field.

Israel is uniquely positioned to be an integral source of progress and innovation in the global adoption of digital health. In addition to the data, financing components, and governmental support for digital health initiatives, Israel has a distinct culture that supports development, and an immediate global outlook toward promoting solutions. Israel benefits from a highly technical and skilled workforce, and leads the world in the relevant technological drivers behind digital health, including artificial intelligence, computer vision, sensors, big data, and more. Together, this has pulled numerous seasoned entrepreneurs into the health space, and has allowed Israel to become a global hub for digital health innovation.

But even with all the factors working in favor of Israeli digital health startups and technologies, integration and expansion of digital health solutions is still tricky. Israeli startups are frequently insulated from the complexities of healthcare systems. The reality is that healthcare is extremely complex, and each region has its own unique set of workflows, processes, regulation, and economic motivations between the various stakeholders in healthcare.

This results in a constant loop of technologies looking for investments, and investors looking for technologies, without pausing to understand what is truly driving the decision-making behavior or healthcare stakeholders. We believe a different approach should be taken, driven by real challenges to healthcare, and not perceived solutions.

Health systems are overwhelmed with challenges, from seemingly mundane issues like congestion in parking facilities, to complex clinical challenges like predicting patient deterioration across departments. In fact, any health organization executive in Israel can point to dozens of challenges in a heartbeat. During 2018 alone, HealthIL (formerly BeWell.il) together with 26 Israeli health organizations, were able to identify 474 challenges and counting.

A Challenge-Centric approach to innovation

By approaching healthcare innovation from the perspective of the challenges, it is possible to understand unmet needs from the full perspective of the organization, including management, nursing, clinicians, administration, and IT. It is then possible to understand constraints and common opportunities based on the interaction of all the relevant stakeholders within the system.

For example, nowadays a medium-sized medical center is facing the challenge of managing resistant bacteria within the hospital. This is a common challenge in practically every hospital around the world, and was recently cited as a growing concern in Israel by the Ministry of Health. A solution-centric approach may see this challenge and immediately think of improving test turnaround time – and indeed this is an important component. Currently this medical center can test for bacteria like *Clostridioides difficile* (also known as C. diff) in 1-3 days, which may be improved upon.

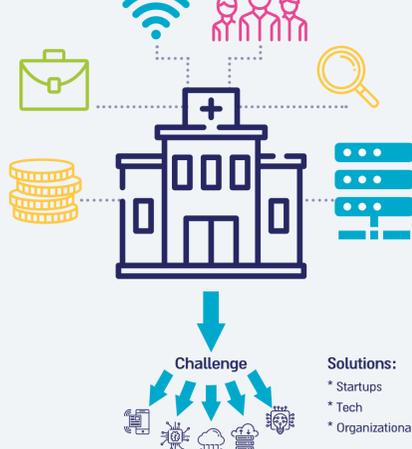
A challenge-centric approach would look at this in a different matter altogether, breaking the big challenge to smaller challenges, where test turnaround is just one part of a much larger picture. Managing resistant bacteria in a hospital can actually begin with population health to better assess and predict which patients are at higher risk of being potential carriers before even entering the facility. There could also be the pattern recognition and mapping of carriers within the facility, once they are being detected, to avoid massive bacteria transferal. There are operational considerations regarding isolation and behavior monitoring of the carrier, but also of caregivers and staff who are in contact with the patient. And yes, there is the issue of test turnaround as well.

A solution-centric approach would look at the Medical Center and see one path. A challenge-centric approach would see numerous opportunities for innovation, and would give startups a more holistic understand of what a "product" looks like that can be effectively piloted and integrated in that medical center, or any of the hundreds of medical centers around the globe who are also struggle with managing resistant bacteria.

Solution-Centric Approach



Challenge-Centric Approach



Benefits of challenge-centric vs. solution-centric approach:

by approaching healthcare innovation from the perspective of the challenges, it is possible to understand unmet needs from the full perspective of the organization.

Not all challenges require a digital health solution. Sometimes the best possible solution to a defined challenge is organizational, like ensuring staff consistently in maintaining proper hygiene practices. In addition, sometimes a startup from outside the scope of health can offer the best solution. For example, mapping the movement of carriers within the facility opens the door to a wide range of interesting innovative startups who offer various solutions for indoor navigation, from p2p networks to sensors, beacon tech, and even solutions using the earth's natural magnetic field.

Challenges are universal as well, and are shared by health organizations around the world. Almost every challenge identified by HealthIL is common to at least two more health organizations, and not only in Israel. Challenges relating to optimization, supply chain, logistics, retail, and even HR are just as common and impactful as challenges that have a clinical/medical aspect.

For example, 'no-shows' for appointments and tests are a constant sticking point for Israeli HMOs. But they are also a major issue in for the British National Health Service (NHS). When no-shows' are frequent, there is no effective way to predict the patients flow to the clinic, which results in wasted resources. It is estimated that over £1B is lost annually in England due to 'no-shows'. There is a need for a predictive, data-driven tool with real-time capabilities to address this challenge. The reason driving 'no-shows' in Israel could be vastly different than in England, and a startup will have to do their own research to understand why and might not have the same solution to each health service, but the opportunity is clear, and large, and not necessarily limited only to digital health.

Considerations for healthcare stakeholders

Understanding actual needs and challenges is the ideal path toward successful integration of digital health solutions, both in Israel and abroad, but is not always an easy task. Below are a few suggestions and tips for the relevant stakeholders:

Israeli Digital Health companies – focus your energy in two important directions. Firstly, technological competency is not enough to gain traction, and you should constantly be mindful of addition factors that will increase the probability of your adoption and subsequent success. Secondly, and equally as important, dedicate time and effort to deeply understand the actual needs and challenges of all the various stakeholders in healthcare, and not the perceived needs. Payers, providers, pharmaceuticals, patients, and services providers frequently overlap, but the economic motivations that underlie their behavior is frequently misaligned, as well as their technological limitations.

Health Organizations – you are a central piece of the puzzle as you are on the front line facing the actual needs and challenges of healthcare. Finding innovative solutions requires building a process to actively and frequently define and prioritize challenges, and promoting yourselves to solutions providers. But remember two important things: First, make sure to involve many different actors from within the organization – a nurse will have a radically different perspective than a CFO. Meshing between bottom-up and top-down needs is an essential key factor for implementation down the road. Secondly, try many solutions and don't be afraid of quick failures – try and try again.

Investors – the traditional venture capital investing model is critical to the startup ecosystem, but there are other alternative models that may be worthwhile to explore. Many challenges do not necessarily fall into traditional investing models, resulting in potentially missed financial opportunities.

Entrepreneurs seeking for an idea – explore and understand actual needs before spending time, effort, and resources building cutting-edge technologies. Many tools and sources are available to help you get a sense of what is needed and why, such as the [HealthIL's Health Organizations Challenges Website](#). Don't be scared to talk directly to the health organizations and ask them.

Established tech players – if you already have a deployed product in non-health sectors, there are many opportunities to adapt your solution to the healthcare market. The healthcare market has great potential and tremendous impact, and you are invited to take part in the digital health revolution, just start with a need.

Israel truly is a unique location for innovation, and with a challenge-driven approach it is possible for all players in healthcare ecosystem to benefit from Israeli innovation.

What do you think about our challenge-centric approach? Any comment or questions?

Join our [Community](#) or write to us:

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[This article is part of 'Israel's Life Sciences Industry IATI Report 2019'](#)

About HealthIL

HealthIL (formerly known as BeWell.il) is a non-for-profit digital health innovation ecosystem, a joint venture of the Israel Innovation Institute (NGO), Israel's Ministry of Economy and the Ministry of Social Equality (Digital Israel). HealthIL's mission is to enhance the development of groundbreaking solutions for healthcare challenges; initiate trial and error processes that lead to innovative solutions for end-users – including physicians, administrators, nurses, and patients; and promote implementation channels and integrate practical know-how;

With ongoing projects with more than 25 Israeli health organizations, 470 challenges identified only in the past year and 500 technological companies as part of HealthIL community, HealthIL is the prominent integrator between healthcare challenge and tech transformation in Israel.