



■ THE FUTURE OF HEALTH

Wikistrat's COVID-19: The Day After Series
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WIKISTRAT'S COVID-19 WEBINAR SERIES

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BACKGROUND

The coronavirus pandemic has tested global health systems to the maximum, exposing the unpreparedness of many across the globe. What lessons can healthcare systems learn in order to make their systems more robust and responsive to global crises like this, and how will the future of health look in a post-COVID-19 world. We explore these questions in an interview with Oranit Ido, a health-tech innovation expert.



Oranit Ido

Oranit Ido is Founder and Chief Executive of Xfusion, Israel's Cross-Industry Collaboration Conference. A problem-solver and rainmaker for health-tech innovators.

KEY INSIGHTS

Increase in cross-vertical and industrial cooperation is a growing trend. Companies have proven their flexibility during the COVID-19 era by quickly and effectively switching their production focus to medical equipment that is in short supply. Setting aside competition has provided opportunities for businesses to cooperate and innovate, creating a culture of technology sharing which has solved cross-industry issues.

The health world will have to re-design and re-organize its structural care focus. Certain groups in the population, as well as an expected baby boom in the upcoming months, will require an adequate structural and organizational effort from hospitals to balance the pressure.

Prevailing technologies. Major technologies that seem to be accelerating development and that have already made significant leaps are video call services, robotics, artificial intelligence, and wearable equipment. Remote medical services have proven to be a robust method of assisting healthcare professionals in providing care to those who are not in critical condition during the coronavirus outbreak. We may begin to see such equipment as a more permanent fixture in healthcare.

Big Data as a predicting device: The scale of the coronavirus outbreak has highlighted the need for forecasting mechanisms to predict where, when, and how future outbreaks may occur. The use of big data in order to map, and then predict, future pandemics will form a key part in future preparation and pandemic planning.

INTERVIEW

Which general economic trends will form and dominate the world of health as a result of the coronavirus?

A general trend that I think will occupy a considerable place in the world of business and health will be based on changing the business core in new directions. Examples of this can be seen [when], following the lack of ventilators, car companies and a company that creates vacuum cleaners began to then produce ventilators. Hotels were converted into hospitalization facilities for patients showing mild symptoms. Another trend that is starting to receive more attention is cross-vertical and industrial cooperation; for a challenge of a specific industry, sometimes a solution [can be] found in an industry from a completely different vertical. In addition, the link and cooperation between academia and industry are strengthening also.

In the field of health, the principles trends that I foresee are:

Populations on the edge:

- » Elderly population: Chronic diseases and illnesses that aren't related to coronavirus may be worsened because of neglect and a lack of chronic disease surveillance, the worry of the failure to receive required treatment, and above all, difficulty in mobility.
- » Baby boom: It's known that in periods of pressure, such as war, there is an increase in the number of babies afterward, so the number of women currently in early pregnancy may find themselves at an advanced stage of pregnancy and give birth to a "second wave" of the coronavirus. Good preparation of delivery rooms and pregnancy follow-ups outside the hospital environment may reduce the spread of the disease among this population, as well as considering home care (home birth).
- » Low socioeconomic status: There is an inverse link between the rate of corona-related illness and low socioeconomic status. The high rate of infection in this population stems from a number of factors – overcrowding, less accessibility to health services, lack of awareness, neglect and lesser hygiene, and so on. One must try to find a solution for this population to lower the rate of infection.

The hospital environment. The following trends can be seen:

- » Decrease in emergency room referrals and hospitalizations not accompanied by symptoms of the coronavirus – a decrease in the total number of hospital beds.

- » Decrease in hospital-acquired infections – maintaining hospital protection and disinfection lowers the number of patients that are infected with illnesses that can be found primarily in hospitals.
- » Decrease in elective surgery – patients will think twice before undergoing elective surgery and will prefer to postpone what isn't urgent or life-threatening.
- » Significant increase in telemedicine services, diagnostics, remote patient monitoring, and treatment via technologies and centers for remote medical services.

Wide-scale use of big data:

- » Rise in the development of algorithms for data analysis, and for the needs of forecasting and predicting epidemic outbreaks in the future, developing the ability to diagnose early, fast, and accurately.
- » Sorting and mapping of existing medicines and their combinations for the treatment of epidemics, etc.

Rise in the use of technology that will enable remote medical services.

Which medical technologies will play a more important role as a result of the coronavirus pandemic, and why?

Remote medical services have gained tremendous momentum during the coronavirus for two main reasons that might be slightly contradictory to one another:

- » Firstly, to address the population that is staying at home. Those in the population that suffer from chronic illnesses as well as the healthy population who sometimes need occasional medical services (mild flu, child illnesses, etc.).
- » Maintaining medical staff while providing care and supervision to coronavirus patients that are hospitalized in intensive care units for the coronavirus.

The major technologies that seems to be accelerating development and that have already made significant leaps are:

- » Video call services – Enable communications between the carer and patient.
- » Robotics – Help with home care for the elderly population, help with the treatment of infectious diseases during hospitalization, ease the burden on medical staff.
- » Artificial intelligence – The use of big data in order to predict outbreaks and areas of infections, to identify tailored personal medicinal treatments for patients, to foresee worsening and personal deterioration of patients and regional deterioration (geographic location).
- » Wearable equipment – Comprehensive use of sensors for monitoring and tracking patients with terminal illnesses, on one hand, identification of disease outbreaks and geographic mapping on the other.

Are there any medical fields where we have seen progress and cooperation accelerating precedentially as it wasn't before (or the opposite, convergence and separation), as a result of the spread of COVID-19 in the world? How will this affect the world of medicine?

In the first question, I opened with the issue of cooperation and core business changes as a result of the situation. Another phenomenon/trend we can see is "Coopetition"- collaboration + competitors, an activity between competitors to finding a solution. Here's an example of a cooperation between two pharmaceutical companies:

"We announced on 14 April that GSK has joined forces with Sanofi, bringing together two of the world's largest vaccines companies in an unprecedented collaboration to fight COVID-19."

Also on the topic of competition-based collaboration, the company Medtronic published the technical solution file to make ventilators because of the lack of this sort of equipment.

In Israel, there was a great initiative by military personnel from special units who joined together to develop a ventilator. Within a few lonely days without sleep, based on a hackathon process, [they] succeeded in developing a ventilator based on AmboVent. The team has published the code and design and created work teams in more than 20 countries for the continued development and local production of ventilators.



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