

Report "GIHF-AI Conference 2022"

Healthcare of the Future

On November 28-29, 2022, the German Israeli Health Forum for Artificial Intelligence (GIHF-AI) held its first annual conference. At the invitation of the Israeli Ministry of Health, the conference took place in Tel Aviv as part of HealthIL Week. It kicked off with a conference reception at the Carlton Hotel Tel Aviv with Minister of Health Nitzan Horowitz on the evening of November 28, followed by a day-long conference with keynotes, workshops, and a panel discussion at the Tel Aviv Sourasky Medical Center

(Ichilov) on November 29. Finally, on November 30, the conference participants attended the HealthIL Week Main Event together at EXPO Tel Aviv, giving them- after the theoretical exchange of the previous day- a practical insight into the Israeli digital health ecosystem. The following is a summary of the recommendations for action derived from the results. The following text summarizes the presentations of the conference, the video recording of which can be found on the ELNET YouTube channel.¹

FACTS, FIGURES, DATA ON THE GIHF-AI CONFERENCE 2022



- ▶ Two-day conference (Nov. 28-29, 2022) with live stream
- ▶ Approximately 200 participants (online/offline).
- ▶ 3 breakout sessions followed by panel discussion
- ▶ Attended HealthIL Main Event with 1,750 participants, 25 delegations and country representatives, 310 startups, and 13 spotlight sessions
- ▶ Featuring Nitzan Horowitz (Minister of Health Israel), Dr. Asher Salmon (Director International Relations Department, Israel Ministry of Health), Esti Shelly (Director Digital Health, Israel Ministry of Health), Dr. Susanne Ozegowski (Director General for Digitalization and Innovation, Federal Ministry of Health Germany), and Thomas Renner (Head of Subdepartment Digitalization and Innovation, Federal Ministry of Health Germany).
- ▶ Keynote on the EHDS and the EU AI ACT by Dr. Yiannos Tolia (Legal Advisor AI and AI Liability in Healthcare & EHDS Team, EU Commission DG SANTE).
- ▶ Presentations by Prof. Dr. Sylvia Thun (Director Core Unit eHealth and Interoperability (CEI), Charité Berlin), Prof. Dr. Ronni Gamzu (CEO, Tel Aviv Sourasky Medical Center), Prof. Dr. Ran Balicer (CIO, Clalit Health Services).

Recommendations for Action

Interoperability and standardization

The standardization and interoperability of health data must be driven forward at full speed so that data can be made usable for research and, in particular, AI development. It is recommended to **introduce internationally common data standards such as FHIR, SNOMED CT and LOINC** to enable transnational science collaborations.

Opt-out based EHR

Digitization in healthcare requires central orchestration, especially with regard to data use. This includes not only the nationwide introduction of data standards, but also regulations such as the use of the EHR (ePA). A **nationwide introduction of an opt-out-based EHR (ePA)** that covers all relevant health data is indispensable.

Incentivization of data linkage

Policymakers must create concrete incentives for increased data exchange in the healthcare sector. This includes, above all, **breaking down existing data silos** in order to make data linkable. One way of incentivizing this would be, for example, to link the **awarding of subsidies to criteria such as the reusability of data** and to finance the **development of a data infrastructure**.

Investment in data infrastructure

Research and development in the area of data use and AI in particular require **more budget for investments in the data infrastructure**, as this is the basis for any research project. At the same time, **greater exchange should be sought between research institutions, healthcare providers, patient advocacy groups, payers and industry**. Instead of competition, the focus should increasingly be on collaboration.

Trust through regulation

In particular, it is important to gain the trust of physicians and patients in digitization and AI development. This requires a **clear legal framework** based on the regulatory ordinances of the European Commission. Any laws must be constantly monitored, evaluated, and adapted to the current circumstances. **Transparency and ethical guidelines for data exchange** also ensure greater trust and acceptance.

Digital literacy in healthcare

Digital health and AI must be given a higher priority in healthcare institutions and among healthcare providers and must be increasingly **included in the curriculum of medical students**. In hospitals, this can be achieved by **appointing data experts and CTOs**, and by establishing interdisciplinary innovation hubs that connect researchers, healthcare providers, and industry. The knowledge gained should be passed on immediately to the next generation of medical professionals.

Close cooperation in the field of digital health between Germany and Israel

In his welcome address at the conference reception on November 28, Israeli Health Minister Nitzan Horowitz emphasized the importance of the German Israeli Health Forum for Artificial Intelligence (GIHF-AI) for collaboration between Germany and Israel in the field of digital health and praised the good cooperation over the past year. Also Dr. Asher Salmon, Head of International Relations at the Israeli Ministry of Health, demonstrated how important international liaisons such as GIHF-AI are in the field of health in his welcoming speech on the conference day. Furthermore, he announced the opening of a Digital Health Center with the World Health Organization (WHO) in 2023/2024 for experts from all over the world in Israel. This will also be important for German Israeli cooperation.²

Future Hospital: Inside Tel Aviv Sourasky Medical Center

Prof. Dr. Ronni Gamzu, CEO of the Tel Aviv Sourasky Medical Center, emphasized how important it is to break down barriers that prevent the introduction of technological innovations in his presentation on the topic of smart hospitals. In particular, it is crucial to gain the trust of physicians for implementation, according to him. At the same time, hospitals need to invest in data experts. Among the limiting factors, he pointed to the excessive hierarchies in everyday hospital life, the lack of budgets for research and development, and regulatory hurdles. Professor Gamzu cited Israel's high emergence of disruptive technologies, the startup nation culture, the impact of the Corona pandemic, competition between healthcare providers (HMOs in Israel) and industry, and the Israeli Ministry of Health's support for innovations conducive to the development of smart hospitals, among other factors. As a next step, he said, it is important to create a culture for new ideas, to see research and development as independent entities, to initiate collaborations between academia and industry, and to pursue a strategy of open data use. Innovation hubs, incubators, and accelerators, as well as participation in private equity funds, would

help bring applications to the healthcare market.³

Challenges in Developing and Deploying AI in Healthcare – EC Legislative Responses

Dr. Yiannos Toliás (Legal Advisor AI and AI Liability in Healthcare & EHDS Team, EU Commission DG SANTE) welcomed the initiative to link Europe and Israel in the field of AI use in healthcare, as this would lead to a wealth of healthcare data that is important in the field of AI development. Among the priority issues in the area of AI regulation in healthcare, he cited the interaction between physicians with AI, as well as resentments regarding the safety of AI use and a lack of trust in the new technology. The European Commission has launched several regulations and proposals over the past four years to provide a comprehensive legal framework to advance AI use and regulate secondary uses of health data. These regulations also govern what data can be used for product development and are therefore important not only for researchers but also for industry. Namely:

- ▶ the EU AI Act
- ▶ the proposal for a regulation on the European Health Data Space (EHDS)
- ▶ the adapted Liability rules on products and AI and Liability rules for AI
- ▶ the European Medical Devices Regulation (MDR)

An example of the interaction between the EU AI Act and the EHDS is the transfer of data by data owners, such as hospitals, to the relevant competent authority for health data. The EHDS provides for each member state to have such a focal point to coordinate the sharing of health data for secondary use. Certificates such as the Data Quality Utility Label (DQUL) of the EHDS are also intended to ensure data quality.⁴

Digital Health and AI: Two countries, two perspectives, one goal

Esti Shelly, Director Digital Health at the Israeli Ministry of Health, emphasized that the government alone cannot drive the change in healthcare, but

needs the collaboration of physicians. To do so, she said, they need a broad set of tools to use health data. At the same time, privacy and data security regulation is needed to avoid losing the public's trust. In the case of regulations on data availability, it is important to bear in mind that, on the one hand, restrictions can hinder innovation, but on the other hand, liberalism can lead to a loss of trust, and a viable middle ground must be found that considers the needs of all stakeholders. In addition, she said, the legislation must also be seen in an international context, since Israel also acts as a beta location for many countries for testing algorithms. With regard to interoperability and standardization, she emphasized that specifications should apply across borders.⁵

Dr. Susanne Ozegowski, Director General for Digitalization and Innovation at the Federal Ministry of Health Germany, emphasized that the digitization strategy for the healthcare sector is primarily concerned with disseminating the Electronic Health Record (ePA) to at least 80 percent of the population, including medication and laboratory data. Prioritization here would have to be on medication and laboratory data in particular. To achieve this, the opt-out would need to apply to primary and secondary health data. In theory, the data should automatically go to the Health Data Hub (FDZ) unless the patient opts out. Dr. Susanne Ozegowski also emphasized the importance of interoperability, but at the same time stressed that this would take time, since industry also played a key role. In addition, in her view, it is not only the standardization of data that is important, but also the standardization of regulation.⁶

Transforming Care through Data Driven Innovation: Cross-countries Perspective

According to Prof. Dr. Ran Balicer, CTO at Clalit Health Services, the main reasons for the low use of AI in healthcare so far are not a lack of budget, interoperability problems or data protection, but

the conservatism of healthcare providers. However, to redress the imbalance between supply and demand, innovations need to be introduced proactively. Using Clalit's AI-based predictive model C-Pi – Clalit Proactive-Preventive interventions platform, as an example, he showed that it is already possible to provide physicians with AI-based decision support. During the corona pandemic, high-risk patients were identified by C-Pi using patient data from clinical and administrative records, and preventive work was done. As a result, hospital admissions due to COVID were reduced by 43 percent. In addition to increased patient safety, this also led to financial as well as personnel relief.⁷

Outlook for 2023: Introduction to upcoming GIHF-AI Study

Prof. Dr. Sylvia Thun, Director Core Unit eHealth and Interoperability (CEI) at Charité Berlin, presented the upcoming GIHF-AI study. The study is being conducted by EPatient Analytics and is a collaboration between Charité - Universitätsmedizin Berlin and Clalit Health Services, under the direction of Prof. Dr. Ran Balicer. It will compare Germany and Israel on the topic of trust in the use of health data. The results of the study will provide decision-makers in both countries with a barometer of public sentiment that can be used to derive policy recommendations. In preparation for the study, Sylvia Thun presented the results of the current EPatient Survey, Germany's largest eHealth survey, with the aim of providing stakeholders with valuable information. According to the survey, the population has more confidence in the use of ePAs than politicians. 65 percent of the population would support the efficient use of health data for research, and 78 percent of the population would welcome the work of the health data hub. At the same time, health data literacy, or the competence to handle health data, is very low at 12 percent. Based on this, the GIHF-AI study will give an important picture of the population's opinion regarding health data use.⁸

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