World Health Organization
REGIONAL OFFICE FOR Europe

country vignette

ISRAEL

ADVANCING INTEROPERABILITY AND DATA SHARING IN THE HEALTH SYSTEM

World Health
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BACKGROUND

In recent decades, Israel has invested significant time and effort in advancing its national digital health infrastructure. All main health organizations in Israel have sophisticated information systems that are being used both at the individual care level and for decision-making. In 2014, the Ministry of Health introduced a national data exchange programme for sharing clinical patient data and linking hospitals and health maintenance organizations for caregiving purposes.

Despite these advances, Israel still faces considerable data flow challenges that impair the quality of care, as most of the existing data systems are closed and based on varying coding mechanisms and standards. Furthermore, an increasing number of data producers and consumers have emerged to enrich the ecosystem. In Israel, as in many other countries, health data has become increasingly decentralized and fragmented.

The COVID-19 pandemic further emphasized the importance of digital data collection and strong

health information systems, including the ability to easily employ and integrate new technologies into the health system to facilitate diagnosis, reorganize care delivery models, strengthen surge capacity, and inform individuals on measures for prevention and treatment. For example, at the onset of the pandemic in Israel, telemedicine solutions were implemented quickly for treating COVID-19 patients in isolation and sparing chronically ill patients from needing to come in for treatment.

THE TECHNOLOGY

In January 2021, Israel launched a project aiming to implement Health Level 7 (HL7 ®) Fast Healthcare Interoperability Resources (FHIR) V4 standards across its health system to improve interoperability and the exchange of information in health care. Standardization and interoperability enable the synchronization of systems and sharing of data across different organizations, such as laboratories carrying out COVID-19 tests, clinics, hospitals and primary care facilities.

The first FHIR projects were launched in March 2021 by Israel's FHIR community, an open community creating and implementing a localized version of the FHIR standard in Israel. The projects are a collaborative effort to design ways to implement FHIR in specific use cases.

The Ministry of Health is one of the founding members of Israel's FHIR community, which consists of experts in information technology, medicine and business from across Israel's health ecosystem (health organizations, electronic health record vendors, the health technology industry, academia, and governmental and nongovernmental organizations). The community is managed by 8400 The Health Network, its mission being to drive Israeli's HealthTech ecosystem as a growth engine.

IMPACT

The efforts to advance interoperability and data sharing in Israel are expected to improve data flow across the health system and enable the collection of accurate and timely data to better understand and manage emergency contexts and allow for a more holistic assessment of the pandemic.

This ongoing project will also bring value to Israel's health system through the issuance of new digital services, such as digital prescriptions, automatic approval of reimbursement for ambulatory treatments, and digitalized patient–caregiver communication and home monitoring. Israel's FHIR community and the Ministry of Health will continue their efforts to widen the scope and impact of FHIR across the health system.

MORE INFORMATION

Israel's FHIR community co-creating the infrastructure for the future of healthcare:
https://en.fhir-il-community.org/

KEY LEARNING

- **The COVID-19 pandemic emphasized the importance of digital data collection and strong health information systems, and the ability to easily integrate new technologies into the health system.**

- **Common data standards and open interfaces are necessary to achieve interoperable systems and true standardization.**

- **In Israel, FHIR is implemented through pragmatic use cases. Learning is shared, making it easy to expand and duplicate good practices across the digital health ecosystem.**

- **It can be difficult to attract investment in long-term data infrastructure as policy-makers want to see short-term results. As such, when approaching such a project it is important to focus on initial cases whose short-term value is also apparent – such as improving continuity of care and enabling innovation.**

- **When developing national and regional data systems in health, it is imperative that compatibility and flexibility are taken into account in addition to costs. Interoperability should be at the forefront of solution design and when making choices on terminologies and architecture. Building compatible infrastructure is valuable for routine as well as emergency needs.**