



ORGANIZATION

Magyar Máltai Szeretetszolgálat is one of Hungary's largest charitable healthcare and social care organizations, delivering integrated, patient-centered services across more than 350 institutions.

CHALLENGE

Patient information was distributed across disconnected clinical systems with no unified patient view, limiting care coordination and clinical visibility while making referrals, research, and analytics difficult and time-consuming. For patients in underserved regions, this also reduced telemedicine's ability to provide timely, coordinated access to care.

Building the Foundation for Future-Proof Healthcare

From Fragmented Data to a Connected View of Patient Care, Advanced Analytics, and AI with InterSystems

When patients move between primary care, specialist services, and laboratory settings, healthcare professionals need access to complete and accurate information to make informed decisions. This is especially important in underserved regions, where access to physicians, laboratories, and pharmacies may be limited.

Magyar Máltai Szeretetszolgálat's telemedicine program supports communities where primary care is unavailable or difficult to access. However, patient information was fragmented across separate clinical systems, leaving clinicians without a complete view of the patient journey, making referrals difficult to track, and creating lengthy data-preparation processes for researchers. With no shared patient identity or common data standard, information had to be reconciled manually—a slow, error-prone process that could not support routine clinical, operational, or research needs.

Recognizing the need for a more connected approach to healthcare information management, Magyar Máltai Szeretetszolgálat partnered with their implementation partner Spicy Analytics to build a unified patient record spanning primary care, specialist, and laboratory services.

SOLUTION

Together with their implementation partner Spicy Analytics, Magyar Máltai Szeretetszolgálat implemented a unified FHIR®-based healthcare data platform powered by InterSystems IRIS for Health®, connecting primary care, laboratory, and specialist systems into a single interoperable core environment.

RESULT

A unified longitudinal patient record provides clinicians and researchers with trusted, connected healthcare information, improving care coordination today while creating the data foundation for analytics, research, and future AI innovation.



Building a Standards-Based Foundation for Connected Care

Implementing their interoperability strategy, Magyar Máltai Szeretetszolgálat selected InterSystems IRIS for Health® as the foundation of a unified healthcare data platform. The solution's native support for HL7® FHIR® R4, combined with its built-in interoperability capabilities, enabled the organization to rapidly establish a standards-based architecture for connecting healthcare information across care settings.

Rather than building and maintaining multiple custom integrations, the organization implemented a centralized FHIR repository capable of consolidating information from different clinical systems into a single trusted source of healthcare data.

InterSystems IRIS for Health® serves as both the interoperability engine and the unified healthcare data repository, supporting data ingestion, standardization, synchronization, and secure access through modern APIs.

The resulting architecture supports and provides the following important components:

- Interoperability across clinical systems — new data from either system flows into the unified store automatically as it is recorded
- Automated patient and practitioner matching
- End-to-end traceability and governance
- Standardized access to healthcare information through modern APIs
- A scalable foundation for future digital health initiatives

“This project demonstrates that even complex, siloed, and heterogeneous clinical systems can be successfully connected to deliver measurable value today. By bringing previously isolated systems together through open standards, we created a foundation that supports both clinical operations and future innovation.”

Bence Horváth, CEO, Spicy Analytics

“Creating a unified patient record has transformed how we access and use healthcare information. Our clinicians now have a more complete view of patient care, while researchers can work with trusted, standardized data that was previously difficult to access.”

Ferenc Nagy, Professional Lead for Healthcare, Magyar Máltai Szeretetszolgálat

From Fragmented Records to a Longitudinal Patient View

The interoperability solution consolidated approximately 2.77 million source records from 50 separate database tables into a unified healthcare data environment containing more than 1.1 million standardized FHIR resources across more than 20 resource types.

Today, clinicians can access information that was previously scattered across multiple systems through a single query, providing a more complete view of each patient’s healthcare journey.

The solution delivered*:

- More than 11,800 unified patient recordings
- Over 3,100 patients matched across both systems via TAJ number
- More than 800,000 laboratory observations integrated into the platform
- 477 deduplicated unique practitioner resources
- 32 linked healthcare institutions
- More than 1,700 referrals traced across care settings

Creating the Data Foundation for Analytics and AI

While the initial objective was to provide clinicians with a connected view of patient information, the interoperability platform delivers value far beyond day-to-day clinical operations. By bringing together previously disconnected healthcare data into a unified, standards-based environment, Magyar Máltai Szeretetszolgálat has established a strategic foundation for advanced analytics, research, and AI-enabled healthcare innovation.

Artificial intelligence is only as effective as the quality of the data it is built upon. Fragmented, inconsistent, and unstructured information limits the ability to generate reliable insights, develop predictive models, or support clinical decision-making. The unified FHIR®-based healthcare data platform addresses these challenges by creating a trusted, longitudinal patient record built on standardized, interoperable healthcare data.

Researchers and analysts can now work with a single, consistent data model rather than manually reconciling information from multiple independent systems. Data preparation that previously required weeks — or even months of querying, matching, and validating records across disparate databases can now be completed in a matter of hours. This enables clinical and operational teams to spend less time preparing data and more time generating insights that improve patient care and organizational performance.

Because the platform is based on internationally recognized HL7® FHIR® standards, new clinical systems and data sources can be integrated quickly without disrupting existing operations. As the organization’s digital ecosystem grows, new information becomes immediately available through the same trusted interoperability framework.

* Figures represent a snapshot at the time of publication and may change as the platform evolves

“High-quality healthcare starts with high-quality data. By leveraging the native HL7® FHIR® capabilities of InterSystems IRIS for Health®, Magyar Máltai Szeretetszolgálat has transformed fragmented healthcare data into a connected, standards-based resource that supports care delivery today while creating the foundation for research, advanced analytics, and future AI initiatives.”

*Erion Dasho, Clinical adviser,
InterSystems*

The platform provides a scalable foundation for:

- Population health management
- Clinical outcomes analysis
- Predictive risk modelling
- Healthcare research programs
- AI-enabled clinical insights
- Future integration of additional healthcare systems and data sources

With more than one million standardized FHIR resources already available, Magyar Máltai Szeretetszolgálat has transformed fragmented healthcare information into a strategic organizational asset—one that supports today’s clinical and operational needs while enabling the next generation of data-driven healthcare innovation.

A Long-Term Strategy for Connected Healthcare

For Magyar Máltai Szeretetszolgálat, this interoperability platform represents more than a successful systems integration. By creating a unified patient record based on open healthcare standards, the organization has established a scalable interoperability platform that can evolve as new systems, services, and data sources are introduced.

Today, the platform provides clinicians and researchers with trusted, connected healthcare information. Looking ahead, it creates the foundation for advanced analytics, AI, population health management, and future digital health services — all while enabling new capabilities to be introduced without disrupting existing operations.

With InterSystems IRIS for Health® at its core, Magyar Máltai Szeretetszolgálat has transformed fragmented healthcare data into a strategic asset that supports better care today but also enables continuous innovation for the future of connected healthcare.

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