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Global Use of HL7 Standards Driving Better Interoperability

Recap of HL7 Europe WGM 2024
and FHIR Marathon

Interoperability Project to
Improve Healthcare Services in
One of the Largest Insurance
Companies in Colombia

CMS Encourages Use of HL7 Da Vinci
Project's FHIR API Implementation
Guide to Comply with Rule

PLUS:

Year-end Recaps from
Vulcan and FAST

First Gravitate-Health
Hackathon Generates Solutions

INSIDE: HL7 NAMES FOUR AS
2023 VOLUNTEERS OF THE YEAR



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In This Issue

Update from Headquarters.....	2
HL7 Standards Published Since October 2023.....	5
Recap of HL7 Europe WGM 2024 and FHIR Marathon.....	6
HL7 Names Four Volunteers of the Year for 2023.....	12
News from the HL7 Project Management Office.....	14
Interoperability Project Brings Better Healthcare.....	16
HL7 Benefactor Members.....	20
Newly Certified HL7 Specialists.....	21
First Gravitate-Health Hackathon Generates Solutions.....	22
Vulcan Project 2023 in Review.....	25
New Interoperability Rule.....	26
FAST End-of-Year Recap.....	30
HL7 Welcomes New Members.....	32
Affiliate Contacts.....	34
2024 HL7 Staff.....	35
2024 HL7 Board of Directors.....	36
2024 HL7 FHIR ACCELERATOR™.....	37
Programs.....	37
Upcoming HL7 Meetings.....	38

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Reflecting on the Past and Looking to the Future

Update from Headquarters

It is February and the new year is already in full swing. If you are like me, you are anxious to think about what the new year will bring. But before we do that, let's take a moment to reflect on the past year and celebrate the many accomplishments we achieved.

Major 2023 Accomplishments

2023 was a year of significant achievements. A few of the most notable include:

- Published FHIR R5 on March 31
- Published 35+ FHIR Implementation Guides
- Hired Daniel Bach, HL7's Community Manager, to monitor and improve the health of the HL7 contributor community
- Launched the HL7 Education Partner Program and welcomed AEGIS, fire.ly and National Taipei University in Taiwan as our first partners
- Produced our first ever FHIR Cyber Security Event
- Produced our first ever FHIR in the Clouds Event
- Produced our first ever Synthetic Data Event
- Produced our first WGM+ event combining regular WGM content with engaging speakers from government, the FHIR Accelerators and industry
- Launched Single Sign on between Salesforce, HL7.org and our Atlassian products (Jira/Confluence)
- Welcomed three new HL7 Affiliates
- Visited and contributed to events in a number of countries (mostly by our Deputy Chief Standards Implementation office, Diego Kaminker)
- HL7 FHIR approved as a Digital Square Content Global Good
- The Vulcan and CodeX Accelerators became collaborators with The White House Office of Science and Technology Policy (OSTP) on the Advancing Clinical Trials Readiness Initiative
- The Gravity Project was named a key stakeholder in The White House's *The U.S. Playbook to Address Social Determinants of Health*
- Renewed collaboration with global entities including WHO, ISO and JIC



By Karen Van Hentenryck, Executive Administrative Director, HL7 International

September Connectathon and Working Group Meeting (WGM)

The September Connectathon and the WGM convened in Phoenix, Arizona September 9-15, 2023. The Connectathon attracted 337 attendees from around the world, who participated in a total of 42 tracks. As with all Connectathons, reports from the September 2023 event are available online.

The WGM attracted a total of 564 attendees, 466 of which were from the US and ninety-eight from other countries around the world. Fifty work groups convened throughout the week, and reports from each work group should be available on their Confluence page.

One of the highlights of the September event was the Plenary meeting on Monday morning on AI and its application to our organization's work and the healthcare industry. Peter Lee, Corporate Vice President, Research & Incubations, Microsoft, kicked off the morning with a fascinating overview of AI, highlighting the potential benefits and challenges of this technology. Dr. John Halamka, President of the Mayo Clinic Platform, spoke about the work of the Coalition for Health AI (CHAI), a community of academic health systems, organizations and expert AI data science practitioners who have come together to harmonize standards and reporting for Health AI and to educate end-users on how to evaluate these technologies to drive their adoption. A panel of government experts, including Colonel Thomas Cantilina, MD, from the Department of Defense; Jose Galvez, MD, from the FDA; and Steve Posnack from the ONC, then spoke about the application of AI in public health. Michael Pencina, PhD, from the Duke University School of Medicine, concluded the Plenary with a presentation about the application of responsible AI governance at Duke and beyond.

During the week, we also announced the results of the Board, TSC and co-chair elections, the new class of HL7 Fellows, and the results of the co-chair elections. These announcements and awards are always a highlight of the September WGM as they recognize the work of a small cadre of exceptional leaders and volunteers in our organization. Results of the elections, Fellows and Volunteers of the year can be found in the post Sept WGM press release.



Continued from page 3

Update from Headquarters

Mark McDougall's Retirement

As many of you know, Mark McDougall, HL7's Executive Director for 32 years, retired at the end of 2023. Saying goodbye after so many years is difficult but knowing Mark, he will enjoy his retirement just as much as he enjoyed his years at HL7! The staff honored Mark at its annual holiday party in December, and we will invite Mark back to the May WGM to give him a proper send-off. We hope that you will join us in Dallas to honor Mark's many years and accomplishments at HL7, and to wish him well in his retirement. Stay tuned for more details.

LOOKING TO THE FUTURE

As we move into 2024, HL7 continues to be guided by the five main principles of the HL7 International 3-Year Plan:

- **Focus** – Advance the global adoption of HL7 FHIR, while maintaining other HL7 standards currently in use
- **Agility** – Optimize HL7 processes and make HL7 more approachable and simpler to be engaged with
- **Global Relevance** – Ensure all our products and services have global relevance and reach a global market
- **Community** – Expand HL7 reach beyond our traditional communities to include implementers and consumers
- **Sustainability** – Diversify and expand our funding sources to increase long-term sustainability of the organization

Exploring opportunities in AI in a major 2024 initiative. The Board has engaged an AI consultant, Dr. David Bray, to lead a board-appointed taskforce to help us understand how to leverage this innovative technology to enhance our work.

At HQ, we remain committed to optimizing operations. Some of our 2024 projects to achieve that goal include:

- Optimizing our use of the Fonteva Association Management System (AMS). Now that the system is launched, our focus is shifting to using this amazing tool to provide information critical to decision making, and to improve service to and interaction with the community.
- Expanding our educational offerings and global reach by partnering with highly qualified organizations who can help us educate a worldwide audience, and by offering several sessions in different languages.
- Connecting with new communities, particularly younger audiences, which is crucial to the sustainability of the organization, by exploring new social media platforms and developing relationships with academic institutions.
- Proving new member onboarding. Fact: HL7 can be hard if you go it alone. We are working to find ways to help new members navigate and integrate into the organization and find their comfortable place and people, where they can engage and contribute effectively.
- Updating our technology, including replacing our ListManager Email, updating our web presence, and reducing downtime of the website and Atlassian products.
- Enabling affiliates to use our ballot system to conduct affiliate specific ballots. This is particularly important for new affiliates who may have limited resources but want to actively ballot IGs in their territory.

In closing, I extend our appreciation to our members and the larger HL7 community for their dedication and contributions in 2023. Together, let's make 2024 a year of continued growth and collaboration to positively impact healthcare worldwide. ■

HL7 Standards Published Since October 2023

October 2023

STU Publication of HL7 FHIR® Implementation Guide: Data Exchange for Quality Measures, Edition 1STU4 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Human Services Directory, Release 1 – US Realm

STU Update Publication of HL7 CDA® R2 Implementation Guide: NHSN Healthcare Associated Infection (HAI) Reports, Release 4,STU 2.1 – US Realm

STU Update Publication of HL7 FHIR® Implementation Guide: Vital Records Common FHIR Profile Library R1.1

STU Update Publication of HL7 FHIR® Implementation Guide: Vital Records Birth and Fetal Death Reporting, Release 1.1

STU Update Publication of Vital Records Death Reporting FHIR Implementation Guide,STU2.2 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Coverage Requirements Discovery, Edition 2 – US Realm

STU Publication of HL7 FHIR Implementation Guide: minimal Common Oncology Data Elements (mCODE) Release 1STU 3 – US Realm

November 2023

STU Publication of HL7 FHIR® Implementation Guide: Documentation Templates and Rules, Edition 2 – US Realm

STU Update Publication of HL7 CDA R2 Implementation Guide: Personal Advance Care Plan (PACP), Edition 1STU 3.1 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Protocols for Clinical Registry Extraction and Data Submission (CREDS), Release 1 – US Realm

Informative Publication of HL7 Informative Document: Patient Contributed Data, Edition 1

STU Update Publication of HL7 FHIR® Implementation Guide: Medicolegal Death Investigation (MDI), Release 1.1 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Prior-Authorization Support (PAS), Edition 2 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Cancer Electronic Pathology Reporting, Release 1 – US Realm

STU Publication of HL7 FHIR Implementation Guide: Electronic Medicinal Product Information, Release 1

Unballoted STU Update Publication of HL7 FHIR® Implementation Guide: SDOH Clinical Care, Release 2.1 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: CodeX™ Radiation Therapy, Release 1- US Realm

December 2023

STU Publication of Health Level Seven Arden Syntax for Medical Logic Systems, Edition 3.0

STU Publication of HL7 FHIR® Implementation Guide: Integrating the Healthcare Enterprise (IHE) Structured Data Capture/ electronic Cancer Protocols on FHIR, Release 1- US Realm

January 2024

Informative Publication of HL7 FHIR® Implementation Guide: Record Lifecycle Events (RLE), Edition 1

STU Update Publication of HL7 FHIR® Implementation Guide: Patient Cost Transparency, Release 1 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: PACIO Personal Functioning and Engagement, Release 1 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Payer Data Exchange (PDex), Release 2 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Member Attribution List, Edition 2- US Realm

STU Publication of HL7 FHIR® Implementation Guide: PACIO Advance Directive Interoperability, Edition 1 – US Realm

March 2024

STU Update Publication of HL7 CDA® R2 Implementation Guide: NHSN Healthcare Associated Infection (HAI) Reports, Release 4, STU 2.2 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: C-CDA on FHIR, STU 1.2.0 – US Realm

STU Update Publication of HL7 CDA® R2 Implementation Guide: National Healthcare Safety Network (NHSN) Healthcare Associated Infection (HAI) Reports for Long Term Care Facilities (HAI-LTCF-CDA), Release 1, STU 1.2 – US Realm

STU Publication of HL7 CDS Hooks: Hook Library, Edition 1

Athens, Greece / January 14-19, 2024

Recap of HL7 Europe WGM 2024 and FHIR Marathon

The first HL7 Europe Working Group Meeting (WGM) was in Athens, Greece on January 14-19, 2024, and was hosted by HL7 Hellas (Greece) in the Athens Digital Health Week (ADHW) with IDIKA and NEHA, the digital health organizations of Greece and Cyprus. The HL7 Europe WGM was an opportunity to discuss digital health interoperability and standards and launch new initiatives. It was a success, and we look forward to the next one in 2025.



By Catherine Chronaki, Secretary General, HL7 Europe



Image 2: Participants of the European Affiliate Council and HL7 Europe Board Meeting in Athens

Almost 14 years after establishing HL7 Europe, the European office of HL7 International, the first HL7 Europe WGM and FHIR Marathon was hosted by HL7 Hellas, the Greek HL7 Affiliate in Athens, as part of the Athens Digital Health Week. By all accounts, a remarkable conference was organized with more than 650 participants from 24 countries. It included 135 speakers in 25 sessions, 11 workshops and 32 tutorials, with more than 11 research projects engaged in digital health with a total budget of more than €100 million. They sent a clear message that Europe can weigh in on interoperability standards, as the European Health Data Space (EHDS) sets the framework for the data economy, with safe use of artificial intelligence.

There were plenaries on standards collaboration, the European Health Data Space, and Artificial Intelligence in Health Standards. In addition, there was an in-person HL7 FHIR Marathon connected to the virtual HL7 FHIR Connectathon on January 16-18, 2024. The tracks addressed topics of interest to Europe and globally, including the following: International and European Patient Summary, International Patient Access, the HL7 Europe Laboratory Report Implementation Guide, the Gravitare-Health Vulcan Electronic Medical Product Implementation Guide, as well as the European Cancer Mission track, where European funded projects working on digital tools for cancer met to

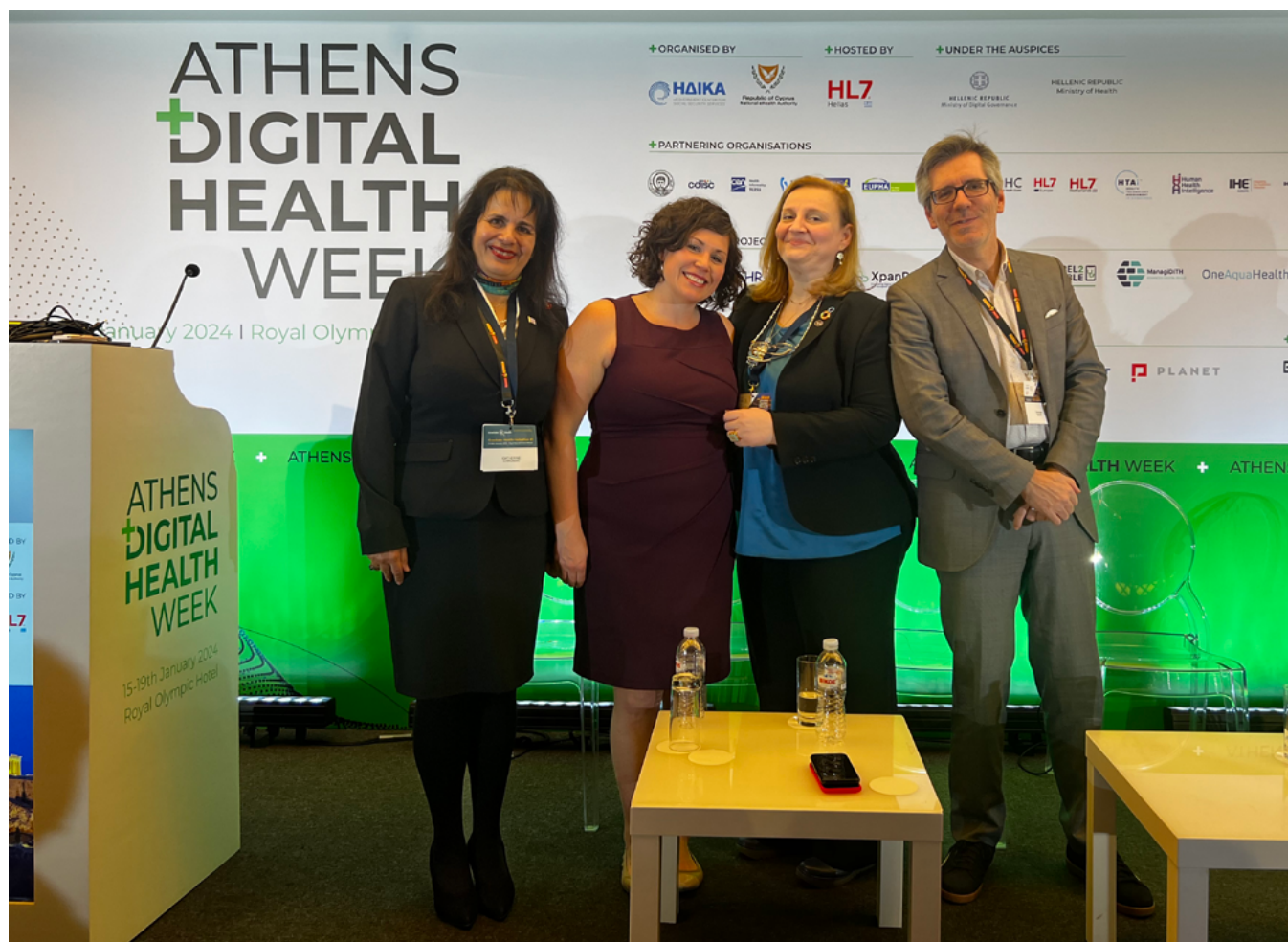
advance interoperability, perhaps taking the first steps towards a European HL7 FHIR Accelerator.

Athens Digital Health Week

The ADHW kick started on Sunday January 14, with the Joint Initiative Council (JIC) for Global Health Informatics Standardization meeting where HL7 Chief Standards Development Officer, Daniel Vreeman, DPT, was elected its chair for the next two years. The JIC is composed of thirteen global health standards bodies. OpenEHR is the most recent organization to apply for membership. On Monday, representatives of 19 of 22 HL7 European affiliates (Austria, Germany, Greece, Italy, Netherlands, Spain, Portugal, Denmark, Belgium, France, Switzerland, Norway, Finland, Sweden, Poland, Czech Republic, Slovenia, UK, Croatia) met as part of the European Strategic Advisory Board (ESAB). The enthusiastic petitioners of HL7 Estonia also joined the session as observers. Their attendance was made possible in part by the generous grant from the HL7 International Council. The ESAB voted to change its name to European Affiliate Council, a request that was approved by the Board of HL7 Europe that met later the same day. In this joint meeting with the board of HL7 Europe, the work program for HL7 Europe was discussed, emphasizing the need for broad collaboration not only with HL7 affiliates but also across standards organizations.

Continued from page 6

Recap of HL7 Europe WGM 2024 and FHIR Marathon



The ADHW opened with a short welcome by Niki Tsouma, CEO of IDIKA and Christos Schizas, President of NeHA. It was followed by the plenary session, which included the of coordination of the joint action xt-EHR, and Dan Vreeman, DPT, from HL7, and Ian Green from SNOMED, who addressed interoperability standards for digital health at the age of HL7 FHIR. A panel chaired by Robert Stegwee, chair CEN/TC251 and member of the board of HL7 Europe, reflected on the keynote speeches. The international movement of patients makes it necessary to collect and exchange data. The pandemic caused a great deal of change. The need arose for reliable data and dissemination of experience directly and globally. Two million European citizens move across borders in the European Union 27 member states, creating a need for cross-border health services. An electronic

health record (EHR) that can be used across borders is a first step towards a global patient EHR. This was highlighted in the speech by Ian Green, Customer Relations Lead, Europe & Global Clinical Engagement Manager, SNOMED International, who discussed interoperable health with strict standards and specifications to ensure privacy, security, and accessibility.

A common thread in the presentations from prominent speakers Robert Stegwee, Chair, CEN/TC251 Health Informatics; Herco Cooman, International Digital Health Coordinator, Ministry of Health, Welfare and Sport of The Netherlands; W. Ed Hammond, PhD, Emeritus Chair, HL7 International; Petra Hoogendoorn, Lead Expert CEN-ISO/TS 82304-2 & Coordinator Horizon Europe Project Label2Enable; Andreas Klingler, Vendor Co-Chair, IHE Europe; Marjorie Rallins,

Executive Director, Health Data Standards, LOINC; is that the pandemic has highlighted the interoperability of health systems as a paramount need, and therefore, the creation and implementation of global standards for digital health services leads to improved services and equity of access.

Following a high power FemmeTech breakfast on Tuesday where 14 women reflected on their insights on digital health technology for women, the FHIR Marathon kicked off. It was an amazing event, a true FHIR Marathon with an extended timeline, as participants stayed up late to catch up with the virtual HL7 FHIR Connectathon in the Eastern US time zone. The FHIR Connectathon report includes insights from Europe reflecting policy developments at myHealth@EU and the EHDS. Participants also received the limited collection HL7 FHIR Marathon t-shirt.

EuroVulcan 2

EuroVulcan 2, the second European meeting of the Vulcan Accelerator, which aims to connect healthcare with clinical research through the HL7 FHIR standard, was held on January 18, bringing together standards organizations with regulators, academics, and policy makers. The topic of the meeting was the development of regulatory policies and flexible implementation of the HL7 FHIR standard in Europe and internationally. Approximately 25 speakers from Europe and the Americas participated and the discussions held will influence strategic priorities for Vulcan and the clinical research and secondary data use community.

The session “Artificial Intelligence (AI) in Health Standards” on the role that AI will play in digital health standards gave an insight into the future of the health sector. The session was moderated by Catherine Chronaki, HL7 Europe’s Secretary General and Scientific Coordinator of xShare, and was addressed online by Charles Jaffe, MD, PhD, CEO, HL7 International. Julia Skapik, MD, HL7 International’s Board Chair, discussed the high expectations everyone has of AI, but also the skepticism and conservatism surrounding its use. She further analyzed the next steps needed to apply AI to the development of standards, tests and reference models by HL7. Elena Petelos,



FHIR Marathon runners received a commemorative t-shirt.

Researcher, Chair, Real-World Evidence and Artificial Intelligence IG, HTAi & President, Global Health initiative, EUPHA, spoke about the regulatory challenges in the application of artificial intelligence (AI) in healthcare internationally. She commented on the rapid increase in ethical abuse of AI and the key points for developing solutions. Alain Labrique, Director, Department of Digital Health & Innovation, WHO, highlighted the need for accessibility to AI tools and spoke about the role of WHO in advocating for safety in AI implementation. Ricardo Baptista Leite, CEO, HEALTHAI, reported on the global market sizes of AI in healthcare services. There are more than 3,000 start-ups and emerging companies, and the number of published patents for AI doubled every year from 2015 to 2021. He also highlighted the need for processes to ensure that the AI development landscape is not anarchic. Henrique Martins, Associate Professor, ISCTE & Coordinator of XpandDH, spoke on health diplomacy and the Global Electronic Health Record, and underlined the need for a “Global Digital Health Treaty”, which would establish global rules for telemedicine, for the coding of medicines and devices and their use, and for detailed reporting and information sharing on cross-border health threats.

Continued from page 9

Recap of HL7 Europe WGM 2024 and FHIR Marathon

The xShare project, led by HL7 Europe and MedCom, officially launched its consortium of 41 partners on January 17, highlighting its strong emphasis on synergies starting with the XpanDH project and Xt-EHR initiative. Following a celebration highlighting three decades of European Funded projects, more than 60 members of the xShare consortium met on working sessions to advance the vision of the “Yellow Button”—intended to give patients access to their data in the European Patient Summary—business use cases, industry involvement and the EHRxF Standards Hub. One of the strengths of

this project is that the six key standardization bodies (HL7 Europe, CEN TC251, IHE Europe, IEEE, CDISC, SNOMED) are participating as well as leading industry actors, who will actively help bring the “Yellow Button” to market and make it a reality.

XpanDH ‘Expanding Digital Health through a pan-European EHRxF-based Ecosystem’ with a mission to empower individuals and organizations in adopting digital health solutions, organized workshops, including the X-Bundle Retreat jointly with xShare and the XpanDH Readiness Model Workshop. These sessions



fostered collaboration, aligned strategies, and raised awareness about the European Electronic Health Record Exchange Format (EEHRxF).

A highlight was XpanDH's participation at the joint launch event of the xShare project, a significant milestone demonstrating real-world experiments with early adopters of EEHRxF. XpanDH's presence at the ADHW underscored its dedication to fostering interoperability and innovation in digital health.

A glimpse into the future was given with the Gravitate-Health Hackathon, an innovation and

technology competition for personalized digital information for patients on their medication, organized by the European project Gravitate-Health (see article on page 22).

The closing ceremony of the ADHW, awarded prizes to the winners of the GravitateHealth Hackathon and recognized professor Dimitris Koutsouris, founding chair of HL7 Hellas. The ADHW, hosting the HL7 WGM2024 and FHIR Marathon, has been a truly unforgettable event, and the HL7 community in Europe is already discussing the next steps! ■



FOR MORE INFORMATION

- HL7 Europe WGM2024: <https://HL7.eu/wgm2024/>
- Athens Digital Health Week: <https://www.athensdigitalhealth.eu/>
- HL7 Europe on LinkedIn: <https://www.linkedin.com/company/HL7-europe/>



Congratulations to the 2023 Recipients

HL7 Names Four Volunteers of the Year for 2023

The 2023 recipients of the W. Edward Hammond, Ph.D. Volunteer of the Year Awards were announced during HL7's annual business meeting at the 37th Annual Plenary and Working Group Meeting in Phoenix.

Established in 1997, the award is named after Dr. Ed Hammond, one of HL7's most active volunteers and a founding member as well as past board chair. The award recognizes individuals who have made significant contributions to HL7's success. The 2023 recipients include:

- *Robert Hausam, MD, FHL7*, Consultant and Owner, Hausam Consulting LLC
- *Mark Janczewski, MD, MPH, FAAFP, FAMIA*, President and Chief Executive Officer, Medical Networks, LLC
- *Robert McClure, MD, FHL7*, President, MD Partners, Inc.
- *Lisa Nelson*, Senior Vice President, Enterprise Integrations, ADVault, Inc.

About the Volunteers:

Robert Hausam, M.D., FHL7, has been an active member of HL7 for 22 years and has served as the co-chair of both the Terminology Infrastructure and Orders and Observations Work Groups. He is a primary leader of the International Patient Summary (IPS) project and is a principal editor for the IPS HL7 Fast Health Interoperability Resources (FHIR®) and Clinical Document Architecture (CDA®) implementation guides (IGs).

Over the years, Dr. Hausam has worked extensively with the HL7 Version 2 and CDA standards and is now active in the FHIR community where he serves as a co-editor for the HL7 FHIR specification and several FHIR IGs. He also assists in the maintenance of the terminology services for the HL7 FHIR specification and IG build environment. Dr. Hausam has volunteered as the IPS and Terminology Services Track Lead at numerous FHIR connectathons, and regularly offers his terminological and clinical expertise as a physician to the FHIR community on the Zulip chat site. In addition, he serves as HL7's representative on the SNOMED on FHIR Group and as one of the HL7 representatives to ISO TC215.

Mark Janczewski, M.D., M.P.H., FAAFP, FAMIA, joined HL7 in 2009 and has served as a co-chair for the Electronic Health Records (EHR) work group since 2013. He has been a long-standing and consistent champion for health IT and standards development to improve interoperability of health IT systems from a variety of aspects, particularly from the view of the clinician.

Dr. Janczewski's interests are in the areas of health IT system adoption and implementation, functional requirements development, workflow and decision modeling, HL7 FHIR implementation, metrics and analytics, and artificial intelligence (AI). He is one of the co-authors of the EHR-S Functional Model Release 2, the Personal Health Record System (PHR-S) FM R.2, Data Elements for Emergency Department Systems (DEEDS), and has participated in the development of and/or co-authored several functional profile standards. In addition, Dr. Janczewski is currently facilitating the AI Focus Team's Project 11 on AI Data Lifecycle, the first-ever AI-based standards development effort in HL7.

Robert McClure, M.D., FHL7, has been active in HL7 for over two decades. He has played an integral role in establishing and participating in the Terminology Services Management Group, serving as liaison to the TSC and enabling many projects in 2022-2023. McClure regularly contributes improvements to the HL7 FHIR publication of HL7 Terminology (THO) and the Unified Terminology Governance (UTG) process for terminology maintenance, ensuring that the policies and tooling surrounding its maintenance supports implementer needs and timelines. As a long-time Terminology Infrastructure Work Group co-chair, he has significantly contributed to HL7 specifications and terminology guidance including "Characteristics of a Value Set Definition" and the gender harmony specifications. In addition, McClure is also the terminology representative on the HL7 US Realm Steering Committee and serves as terminology facilitator for the Structured Documents, Clinical Quality Information, and Clinical Decision Support Work Groups.

McClure's current efforts include leadership of the Gender Harmony Cross-Paradigm Implementation Guide, along with the individual product family IG updates to reflect the gender harmony model. This work will directly make it possible for health care organizations to provide more efficient and accurate gender-affirming care.

Lisa Nelson has been a member of HL7 for 12 years and is an active member of the Structured Documents and Patient Care Work Groups. She has served as a co-chair of the CDA Management Group for the past six years where she has acted as a product manager, documenting the portfolio of the products and creating a process to maintain the information. In addition, Nelson is the author of multiple HL7 CDA implementation guides.

Nelson is passionate about improving patient experience, engaging patients and empowering patients and caregivers. She has focused on advance care planning (ACP) documents, serving as a lead editor on both the CDA and HL7 implementation guides for personal ACP document healthcare data content standards.

Finally, she has also provided valuable testing of the EHR FHIR servers and contributions to FHIR representing the small app vendor perspective.





A Review of Several ONC Grant-Funded Projects

News from the HL7 Project Management Office

ONC Grant Funded Projects

The ONC extended the current cooperative agreement for continued maturation of the HL7 C-CDA and FHIR standards, and with that, awarded HL7 an additional \$1.5 million for fiscal year 2024 to work on the following goals and their respective efforts:

Goal 1: Facilitate ongoing development and publication of HL7 standards for the benefit of the general public by the following:

- Develop an implementation plan including objectives, strategies, and approaches
- Monitor and identify interoperability needs and priorities
- Facilitate standards development and balloting cycles with an emphasis on the following:
 - Bulk FHIR Updates
 - International Patient Summary (IPS)
 - SMART Health Links
 - Reference implementation software for HL7 specifications
 - C-CDA authoring and web-publication tooling
 - At Home Test Results implementation guide
 - FHIR Release 6 (R6)

Goal 2: Enhance the underlying HL7 tools and infrastructure necessary to support effective implementation and use HL7 standards as follows:

- Enhance registry.fhir.org based on user feedback and HL7-ONC prioritization
- Maintain and enhance Unified Terminology Governance (UTG) and terminology services for standards development
- Produce and publish the 2024 C-CDA Value Set Release Package
- Enhance FHIR build and implementation guide (IG) publishing infrastructure

Goal 3: Empower the HL7 standards development community with the following:

- Convene two C-CDA Implementation-a-Thon (IAT) events

In addition to the above, work progressed on two additional COVID related ONC grant-funded opportunities for HL7:

A four-year \$2M (FY2021-2024) cooperative agreement titled “HL7 Public Health Standards and Solutions for Future Pandemics”. Projects under this endeavor include the following:

- Advance the use of HL7 Bulk Data Access API and other relevant standards-based API technologies to improve surveillance capacity

for future pandemics and other public health emergencies by assessing available open-source natural language processing (NLP) tools which unlock high-value information contained in the text of clinical notes

- Update, ballot and publish the PDMP HL7 FHIR Implementation Guide
- Update, ballot and publish the electronic Long-Term Services and Supports (eLTSS) implementation guide
- Review existing HL7 Provenance standards and artifacts; provide recommendations of “Authorship” in provenance records and supporting “Full Provenance”
- Progress the work to define a CDA template and an Implementation Guide (IG) for eyecare professionals needing to share information (Complete)
- Plan, prepare, facilitate and provide a two-day virtual FHIR Security Event (Completed in 2023; hoping to provide another in 2024)
- Provide HL7 FHIR Technical support to the Helios FHIR Accelerator (Complete)
- Testing of the Gravity SDOH Clinical Care FHIR Implementation Guide (Complete)
- Gravity SDOH Clinical Care FHIR Implementation Guide Standard for Trial Use 2 Publication (Complete)
- Gravity Pilots Affinity Group Support (Complete)
- Analyze and document which HL7 Version 2 messaging standards or FHIR IGs, resources and profiles can be used to support submission of test results from at-home COVID testing applications to state and federal government agencies (Complete)
- Support development, advancement, and harmonization of Social Determinants of Health (SDOH) standards by analyzing the current

state and emerging activities of SDOH related data (Complete)

- Expanding the clinical domains supported by HL7 standards by balloting the COVID-19 FHIR Profile Library implementation guide (Complete)
- Improve the privacy and security of health information by examining the current landscape of relevant security, privacy, and public health standards (Complete)
- Advance HL7 Public Health Standards by developing and publishing a Physician Orders for Life-Sustaining Treatment (POLST) CDA implementation guide (Complete)

The five-year (FY 2021-2025) \$3.5M contract “COVID-19 support for Accelerating Standards Development for the US Realm”; projects under this effort include the following:

- Ballot, reconcile and publish updates to HL7’s US Core Implementation Guide
- Financial support for the US Realm Steering Committee (USRSC) Project Manager, Senior Advisor, Content Administrator and Dashboard Developer
- Fund Helios, the HL7 FHIR Accelerator for Public Health
- Update, ballot and publish the Consolidated CDA (C-CDA) specification using Trifolia-on-FHIR, FHIR StructureDefinitions, and the FHIR Implementation Guide tooling stack

Progress for all the above ONC work can be found on HL7’s Confluence page at:

<https://confluence.hl7.org/display/PMO/ONC+Grant+Project+Page>.

HL7 appreciates ONC’s continued support of C-CDA and FHIR since 2016. ■



By Dave Hamill, Director, HL7 Project Management Office

Progress for all of the above ONC work can be found on HL7’s Confluence page at: <https://confluence.hl7.org/display/PMO/ONC+Grant+Project+Page>

HL7 appreciates ONC’s continued support of C-CDA and FHIR for 2022 and beyond.



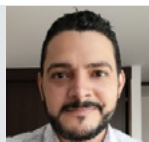
Improving Healthcare Services in One of the Largest Insurance Companies in Colombia

Interoperability Project Brings Better Healthcare

Successful case in healthcare interoperability to improve healthcare services in one of the main insurance companies in Colombia, from the implementation of an interoperability solution based on the HL7 FHIR standard (Google Healthcare API) to analytical models and the use of artificial intelligence.

SURA, an organization with 80 years of history in Colombia, has emphasized in its last decade in transforming its model in health services to be a company at the forefront in managing trends and risks that generate wellbeing for people and competitiveness for companies.

This permanent interest in transformation has involved components in digital health, where management models in individual and population health, disease prevention and continuity of care have been enhanced by making use of technological pillars such as interoperability, to



By Carlos David Arango Castaño, Head of Relevant, a Digital Platform by SURA and Google Cloud; and Dr. Juan Fernando Zapata Cardenas, MD, MSC, Telehealth, Leader of Health Interoperability

facilitate the exchange of information between the information systems that support the provision of internal health services of SURA and the network of external health provider organizations, a component that added to other initiatives in which the organization has been advancing, allows impacting more than 10 million patients (about three times the population of Uruguay or twice the population of Costa Rica) in the Colombian territory.

SURA has been utilizing electronic healthcare records (EHRs) for several years now. However, among the opportunities for improvement, the need to resolve existing information gaps is evident. This information flows where users are attended to in services or in healthcare organizations with information systems outside the company's network, affecting the continuity of care and the patient's experience.

In this way, the project was conceived with an interoperability component that would go beyond the development of interfaces to a strategic vision with an operational impact that would involve data governance, the relevance of organizational processes and an interoperability architecture in accordance with current paradigms where, in addition to the exchange of information, the availability and reuse of data would be facilitated. Thus, achieving a more comprehensive vision of the patient in their health processes and an improvement in the timeliness of health personnel to support clinical, administrative, and operational decision making.

Project History

In seeking to address this need, SURA tested various technologies over the course of the previous 7 years, including an early implementation of HL7 FHIR DSTU2 (2016), without fully achieving the fundamental purpose of real-time data interoperability across its delivery network, under an optimal and cost-efficient model.

In 2022, SURA explores Google Cloud health services and in December of the same year takes the decision to design the architecture of health interoperability in the Google Cloud, using

Healthcare API as the main service to support the interoperability of electronic healthcare records adopting the HL7 FHIR R4 standard.

The implementation began in February 2023, with the support of the consulting firm Zentricx, starting with the development of an implementation guide that includes 51 FHIR resource profiles, taking as a reference the Colombian CORE specification suggested by the HL7 affiliate in the country.

The purpose is to enable the exchange of information between the multiple points of care in the company's own health network and health care provider and external organizations. And, in the future, to connect with the platform deployed by the Colombian government for the exchange of a type of FHIR document called Registro Digital de Atención – RDA (Digital Attention Record), a Colombian implementation guide for FHIR profiles, based on the FHIR IG International Patient Summary - IPS.

The first release to early production in August of the same year.

Developments continued until the first connections were made with the information systems of health care institutions in October. Final implementations during 2023 also included a comprehensive patient clinical information visualization tool, based on the HL7 FHIR standard, and production release in December.

With this, the goal of improving the visualization of historical information on patients' clinical care, whose data comes from both the company's own software applications and from the software of the network of external provider organizations, was achieved. This provides a tool for health professionals to have a timely understanding and optimal contextualization of the health condition of the patients they serve and to make clinical decisions based on data with a comprehensive vision, impacting the quality of care, offering an experience in less time and greater satisfaction.

To achieve the above, SURA implemented a strategy based on the needs of patients and health care organizations, whose materialization is achieved through technology.

Continued from page 17

Interoperability Project Brings Better Healthcare

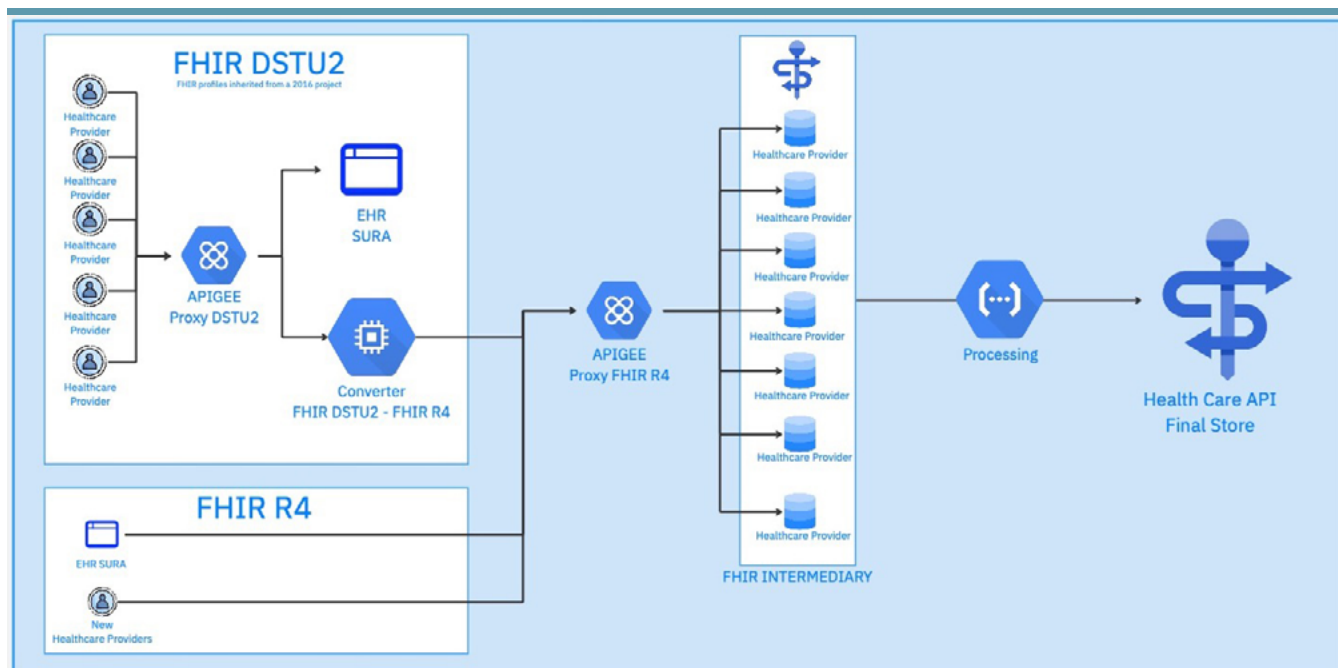


Figure 1: SURA FHIR R4 and FHIR DSTU2 connection diagram with healthcare provider network. Source: SURA.

Features and advantages of the digital ecosystem

The following advantages of using Healthcare API and the Google Cloud ecosystem in this project are highlighted:

- Compatibility and backward compatibility with the standard:** Healthcare API offers a complete capability statement with respect to the HL7 FHIR R4 specification, facilitating the implementation of interoperability solutions according to the specific needs of the organization.
- Cybersecurity:** Due to the sensitivity of healthcare data, information security in this type of project is a relevant aspect. Healthcare API allows to shield interoperability processes with privacy and security policies supported by Google.
- Scalability:** Healthcare API is designed to handle large volumes of information; this ensures agile scaling through Cloud Spanner as a large-scale storage engine.
- Access to advanced services in Digital Healthcare:** Google offers advanced healthcare services through artificial intelligence that can be leveraged in its ecosystem. Some of these services are image analysis of diagnostic aids, natural language processing for electronic healthcare records, and clinical decision support tools.
- Applicability of analytical models and artificial intelligence:** Integrations in the Google Cloud ecosystem with Big Query and Vertex to enhance the analytical and artificial intelligence strategies to be implemented in the use cases.
- Native APIs:** Healthcare API allows a native handling of APIs, which speeds up development times, focusing the team on the specific functionality of the application.

Taking Google Cloud and HL7 best practices as a reference, SURA performs the implementation under the high-level model seen at the top of the page.

Benefits

With the implementation of the interoperability service, SURA aims to find benefits in health processes, some of them are:

- Early detection of chronic and oncological diseases.
- Reduction of hospital costs.
- Relevance in sending diagnostic aids.
- Reduction in the duplication of medication prescriptions.
- Updating of efficient and automated processes.

Key aspects of success

Finally, as key aspects in the experience that SURA has had in the last 12 months in the implementation and production of interoperability in healthcare, the following are highlighted:

- **Standards and interoperability solutions:** The solution was based on the adoption of standards and interoperability solutions as a basis for the evolution and development of clinical services based on a strategy of data processing, analytical models, and artificial intelligence models for medical care.
- **Use of healthcare digital ecosystem:** Leveraged the digital ecosystem in the Google Cloud and Healthcare API to accelerate developments and achieve early wins in a timeline of less than 12 months.
- **Collaboration:** Joint work was carried out with the HL7 affiliate in Colombia to contribute to the development of the CORE implementation guide for HL7 FHIR resources for the country.
- **Implementation support:** A joint work was carried out with the consulting company Zentricx, an expert partner in Google Cloud health solutions, which allowed shortening the learning and implementation time curves.
- **Design and development of software applications based on HL7 FHIR:** Clinical software applications were designed based on the use of HL7 FHIR resources to deliver information to health professionals and optimize health care encounters, designing processes focused on better patient experiences.
- **Continuous improvement:** Once the health interoperability platform was implemented as a service, the process continues with the updating of processes and interfaces of medical systems for the use and fulfillment of performance indicators, thus maintaining the permanent evolution of the solution. ■

HL7 Benefactor Members



Newly Certified HL7 Specialists

Congratulations to the following people who recently passed an HL7 Certification Exam!

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News from Gravitate Health with Interoperability and the HL7 FHIR Standard at the Center

First Gravitate-Health Hackathon Generates Solutions

The Gravitate-Health mission is to equip and empower citizens with digital information tools that make them confident, active, and responsive in their patient journey, specifically encouraging safe use of medicines for better health outcomes and quality of life. The first Gravitate-Health Hackathon was a hybrid event organized on January 17-19, 2024 within the Athens Digital Health week, co-located with EuroVulcan 2, and the first HL7 Europe WGM and FHIR Marathon.



By Lina Nikolopoulou, Managing Director MINDVIEW, Entrepreneur, Biologist, Dissemination Communication Lead for Gravitate-Health

In 2021, the CARIN Alliance began work on the CARIN Digital. We are now in the ePI (electronic product information) era, where the paper leaflet is finally getting a digital form opening new possibilities. Within the framework of the Gravitare-Health project, one of the most prominent objectives is to provide patients with the information they need about their medications. This includes an initiative to equip and empower citizens with digital information tools, fostering confidence, active participation, and responsiveness throughout their patient journey. This is pursued through the development of a federated open-source platform of services (FOSPS), with the ePI (electronic product information), interoperability, and the HL7 FHIR® standard at the center. This information also needs to be adapted to the context and preferences of the end-user to achieve effective and optimal understanding.

The **First Gravitare-Health Hackathon** relates to this discourse. How can you personalize information about medicine and make it relevant to you? The specific Hackathon challenges were related to the identification of “rules to personalize patient information” and “designing aligned medicine information visualizations for patients.” It was organized as a hybrid event from January 17-19, 2024, within Athens Digital Health Week and successfully concluded with the participation of 150 individuals, both in Athens and remotely. It was a collaborative effort, and some noteworthy solutions emerged. The Hackathon provided an opportunity to showcase the federated open-source platform and services of Gravitare-Health, FOSPS, still in development, and invited participants to test its usability, build on it, and contribute to its improvement. We are happy to report that we successfully achieved that goal!

Speakers skillfully navigated participants through challenges that fueled creativity. Challenge 1 saw the birth of modules, adding dynamic explanations to ePI content in the HL7 FHIR® format. Then, the pulse-quickening Challenge 2 gave rise to the ‘G-lens,’ a personalized touch to medication



information. The hackathon not only uncovered ingenious solutions but also unveiled the promise of a dynamic community shaping the future of healthcare information.

The first place prize was awarded to the joint team of Gnomon—and the University of Thessaly. They successfully utilized the G-lens®, the Gravitare-Health focusing mechanism, to enhance a commercial product, eHealth Pass. The second place prize was awarded to the team from CERTH/ITI, a research institute in Greece, and the third place prize was given to the Code-Creators team from Brazil. Visit <https://hackathon1.gravitarehealth.eu> for more information,

The teams coming from different parts of the globe, from South America (Brazil) and North America (USA) to Asia (India) and many European countries, utilized different approaches and technologies to address the challenges including traditional and Generative AI, AI combined with Web System and Mobile Application, integrated NLP environment, etc. (see picture)

The Hackathon also aimed to obtain constructive feedback to advance the Gravitare-Health’s FOSPS. Several teams that submitted their solutions provided valuable insights. However,



Continued from page 23

First Gravitare-Health Hackathon Generates Solutions

the most significant achievement of all has been the engagement of experts and innovators with Gravitare-Health work.

In open-to-all sessions, Anne Moen, Giovanna Ferrari, Catherine Chronaki, Joao Almeida, Alejandro Medrano, Riccardo Leoni and other members of the project showcased the vision and goals of Gravitare-Health. Discussing its focusing mechanism, they also shared the overall progress of Gravitare-Health and its contribution to international standards. Making medicines information personalized, more accessible and relevant—in a safe, trusted way—assists adherence to treatment. The Gravitare-Health Hackathon and the HL7 FHIR Connectathon, coexisted in the same hall, immersing themselves in up-close mentoring sessions led by high-profile experts in the realms of interoperability, standards, and ePis.

The Hackathon served the aim of the project to stimulate public-private partnerships to create market-specific applications which can accommodate specific needs of national or local ecosystems as well as build commercial solutions to serve specific disease areas and add value to the platform.

Gravitare-Health, as part of the HL7 FHIR Accelerator, Vulcan, has developed an HL7 FHIR implementation Guide for electronic medical product information that is used by the European Medicines Agency and is aligned with developments in Global IDMP Working Group (GIDWG) and the UNICOM project.

Resources for More Information

www.gravitare-health.eu

<https://www.linkedin.com/company/gravitatehealth/>

Vulcan ePI project:

<https://confluence.hl7.org/pages/viewpage.action?pageId=79515543>

HL7 FHIR ePI IG:

<https://build.fhir.org/ig/HL7/emedicinal-product-info/>

The Gravitare Health is a public – private partnership with 41 members from Europe and the US, co-led by University of Oslo (coordinator) and Pfizer (industry lead), funded by the Innovative Medicines Initiative (IMI) – a joint undertaking of the European Commission, the European Federation of Pharmaceutical Industries and Associations (EFPIA), IMI2 Associated Partners.

Gravitare-Health has received funding from the Innovative Medicines Initiative 2 Joint Undertaking (JU) under grant agreement No 945334. The JU receives support from the European Union's Horizon 2020 research and innovation programme, the European Federation of Pharmaceutical Industries and Associations [EFPIA], and Datapharm Limited. The total budget is 19.4M€ for a project duration of 60 months. ■

Vulcan Project 2023 in Review

As we welcome 2024, Vulcan celebrates 2023, a year of remarkable achievements. Our community thrived, welcoming new members and witnessing impactful contributions in various projects:

- Three published implementation guides, and one balloted
- Successful EuroVulcan conference in March 2023, with EuroVulcan 2 completed in January 2024
- Member representation at several external industry events, including representation in Asia at the JAMI conference, and at DevDays 2023 (watch two of our project leads discuss the impact of their IGs: [video 1](#) and [video 2](#))
- Response to several Requests for Information (RFI) opportunities, expanding the exposure of Vulcan to new audiences
- Membership growth, welcoming the following organizations in 2023:
 - Carelane
 - Droice Labs
 - European Institute for Innovation through Health Data (i-HD)
 - PatientLink
 - University of North Carolina at Chapel Hill
 - National Institute for Health and Care Research (NIHR)
 - National Institutes of Health National Cancer Institute (NCI)
 - Memorial Sloan Kettering Cancer Center
 - Interoperability Institute

In addition, in 2023, Vulcan became a hub for transformative industry projects and collaborations, elevating our reputation to new heights (visit [Vulcan Collaborations page](#)).

Timing is everything, and 2023 was Vulcan's right time. The heightened visibility and success of the year lay the foundation for an exciting 2024. We find ourselves at the opportune moment to deliver even greater value. The momentum gained positions us strategically to face new challenges, explore innovative avenues, and continue making a meaningful impact.

To our Leadership Team, Steering Committee, the Project Management Office, the Operations Committee, and the Advisory Council, we send a heartfelt thank you for leading us with precision and dedication. Your efforts have been the guiding force that kept us in tune and on track.

As we celebrate the achievements of 2023, let us also extend our gratitude to each member who has played a role, big or small, in making Vulcan the success it is today.

Together, as a united Vulcan community, we have the right people, in the right place, at the right time to shape a future filled with promise. ■





One More Reason to Implement HL7 FHIR Transactions

New Interoperability Rule

CMS strongly encourages payers to use HL7 Da Vinci Project’s FHIR API Implementation Guides to comply with the rule



The effort to pave the way toward widespread use of Health Level Seven’s Fast Healthcare Interoperability Resources (FHIR®) standard for data exchange got a big boost with the recent release of the *Interoperability and Prior Authorization Final Rule*.

The rule (CMS-0057), which the Centers for Medicare and Medicaid Services released on January 17th, requires Medicare Advantage plans and certain other payers to implement and maintain certain FHIR application program interfaces (APIs) to improve the electronic exchange of healthcare data as well as to streamline the prior authorization process. CMS strongly encourages payers to use HL7 Da Vinci Project’s FHIR API Implementation Guides to comply with the rule.

But payers and healthcare organizations don’t need to wait until the new rule’s 2026 and 2027 deadlines to get started on reaping the benefits of using FHIR, stresses Michael Westover, Vice President of Payer Data partnerships and Informatics at *Providence*, a West Coast health system.



By Howard Anderson, HL7 Da Vinci Project Writer

Last year, Providence worked with Premera Blue Cross to use the FHIR Clinical Data Exchange (CDex) IG to streamline the process of providing supplemental clinical data needed for quality measures under risk-based contracts. In one case, using this streamlined method to provide data for a Medicaid contract enabled Providence to earn \$2 million in additional reimbursement, Westover explained.

“We should not wait around to have some FHIR and interoperability [mandates] foisted upon us,” he said at the Jan. 24 Da Vinci Community Roundtable. “There are very good business reasons to use FHIR...right now, outside of having a mandate thrust upon us...Everyone benefits all the way down the line.”

Improving Efficiency

Compliance with the new rule can play an important role in cutting administrative waste tied to relying on cumbersome transactions that don't leverage standards.

Alex Mugge, Chief Health Informatics Officer and Director, Office of Burden Reduction and Health Informatics/Health Informatics and Interoperability Group, at Centers for Medicare & Medicaid Services, who was a featured speaker at the roundtable, told attendees: “We truly believe that the rule will help facilitate a more streamlined process to save time for providers so they can put their time back into patient care.”

Commenting on the rule, Jocelyn Keegan, Program Manager, HL7 Da Vinci Project, and Payer/Practice Lead, Point-of-Care Partners, points out: “CMS's support and now proposed adoption of Da Vinci implementation guides in CMS-0057 is a strong recognition of the importance and power of public-private partnerships required to build the tools needed to modernize U.S. healthcare.”

Providence and other organizations have already demonstrated the benefits of using FHIR IGs, Keegan stresses.

“Working across the Da Vinci community, I get to see and hear first-hand the positive impact of moving to real-time interaction on complex workflows, like reducing, removing or automating prior authorization,” Keegan says. “The now final rule will allow providers and payers to get started improving access to the right information, at the right time, to the right user to improve patients' care.”

Meanwhile, the Da Vinci Project is continuing to make progress on developing and refining FHIR implementation guides designed to help achieve better information sharing.

“This work requires commitment and collaboration from all participants putting the patient at the center, and it is a significant milestone to have such a large swath of the HL7 FHIR Accelerators' [IG developers'] outputs elevated to and supporting landmark regulation,” says Kirk Anderson, Da Vinci Steering Committee Chair and Chief Technology Officer at Cambia Health Solutions. “The work is critical to the continued modernization of health care. The number of organizations implementing FHIR ahead of regulatory requirements demonstrates our collective readiness to advance.”



What the Rule Requires

The new rule requires Medicare Advantage plans, state Medicaid and Children's Health Insurance Program (CHIP) Fee-for-Service programs, Medicaid managed care plans, CHIP managed care entities and Qualified Health Plan issuers on the Federally Facilitated Exchanges to implement FHIR APIs for specified transactions.

It requires these payers to develop APIs for prior authorization, patient and provider access to data as well as payer-to-payer data exchange, which occurs when a patient changes insurers. These API policies will improve patient, provider and payer access to interoperable data and reduce the burden of prior authorization processes, CMS says.

Continued from page 27

The Work of the HL7 Da Vinci Project

Last year, Da Vinci made substantial progress in its ongoing effort to develop implementation guides for a long list of FHIR-based transactions.

Read more on our blog:

[HL7 Da Vinci Project Use Case Progress Aids Market Readiness](#)

At the December Da Vinci Community Roundtable, Hans Buitendijk, Da Vinci Project Steering Committee Vice Chair, noted key achievements.

“We have a number of organizations across the spectrum that have adopted one or more of our [FHIR implementation] capabilities. That’s fantastic in the short number of years that this initiative started to look at what is necessary to make it happen,” Buitendijk said.

“We currently have about eight publishing updates that have been accomplished and quite a few ballot processes that are in flight and being planned for, and there is a good amount of commitment to making this happen. So, we really need to be proud of what we have achieved to date, and particularly in the last year.”

Here are 2023 highlights of IG development work:

Prior Authorization/Burden Reduction

The goal of the burden reduction IGs is to reduce the effort for prior authorization and leverage available clinical content from electronic health records. The three components of this effort are:

1. **Coverage Requirements Discovery (CRD):** This focuses on the exchange of coverage plan requirements from payers to providers at the time of treatment decisions to answer questions, such as: Is this service covered by the plan? Is prior authorization required? The STU2 version, with improved clarity and functionality, was published Oct. 20, 2023.
2. **Documentation Templates and Rules (DTR):** This builds on CRD to specify how payer documentation rules can be executed in a provider context to ensure that documentation

requirements are clear and met. It reduces manual data entry by automatically extracting necessary data from electronic health records. Version STU2 was published Nov. 7, 2023. This guide describes automating the process of assembling clinical documentation to support a prior authorization request for a specific payer.

3. **Prior Authorization Support (PAS):** This defines FHIR-based services to enable the provider, at the point of service, to request prior authorization and receive immediate authorization from the payer. Version STU2 was published Nov. 21, 2023.

Clinical Data Exchange (CDex)

CDex is a utility tool that can be used across Da Vinci use cases. For example, it can be used for requesting and sending documentation to support claim submission and prior authorization as well as for supporting clinical data requests by payers, or other interested parties from providers. Version STU2 was published last March. Recent additions include a FHIR approach for requesting attachments for claims and prior authorizations.

Member Attribution (ATR) List

The Member Attribution List (ATR) Implementation Guide describes how to give trading partners the ability to exchange and validate patient/member lists to help support a variety of business needs.

The Standard for Trial Use 2 (STU2) version was balloted in January 2023 and published in January 2024. The most recent update now supports reconciliation of patient lists to add and remove members, and the attribution list profile was generalized so it could support multiple use cases that require patient lists.

Notifications

The STU1 version of the Notifications Implementation Guide was published in October 2020, and an update is planned for the first quarter of 2024 based on feedback from early adopters.

It describes a method for the communication of relevant notifications to support the real-time exchange of information that impacts patient care and value-based or risk-based services. Developers are continuing to assess whether to align this guide with the Direct Trust Event Notifications Implementation Guide to support compliance with the CMS Admission, Discharge and Transfer (ADT) Conditions of Participation.

Data Exchange for Quality Measures (DEQM) and Gaps in Care (GIC)

The DEQM IG describes how to enable the exchange of data needed to close open gaps in care identified by a payer to meet their quality reporting criteria. The guide defines automated data collections to eliminate the need for manual processing.

Version STU4, published last October, added a “guided response resource” to help providers identify what is needed to close an open gap. STU5 is slated to go to ballot in the second quarter of 2024.

Risk Adjustment

The Risk Adjustment Implementation Guide enables standard exchange of risk adjustment coding gaps, documentation and submission status of chronic conditions between payers and providers. It can be used for Medicare Advantage workflows.

STU1 was published in June 2022, and STU2 was balloted last May. Active ballot reconciliation is ongoing. Publication of STU2 is anticipated for the first quarter of 2024.

Value-Based Performance Reporting (VBPR)

Now in development, the VBPR IG will provide standardization of payer/provider performance reporting for quality and risk contracts. Version STU1 supports a payer sending a provider a VBPR in a standardized format. A later version will standardize a provider returning data to a payer on how they are performing.

STU1 was balloted last September, and ballot reconciliation is continuing in anticipation of publishing STU1 in the first quarter of this year.

Payer Data Exchange (PDex)

PDex enables a health plan to share key clinical data and patient history with a patient-used application and with other payers.

STU2 was released for ballot in May 2022, and ballot reconciliation is continuing, with publication planned soon.

Patient Cost Transparency (PCT)

PCT defines a mechanism for providers to request and receive cost information from a payer regarding a service or item, resulting in an Advanced Explanation of Benefits (AEOB) that includes a good faith estimate, which will help inform a clinician and patient cost conversation. The goal is to provide the data in near real-time to allow effective decision making by the patient in consultation with the ‘ordering’ provider. Version STU1 was published last March.

Get Involved

All these IGs are useful tools to help organizations move toward compliance with the new regulation. Those interested in learning more about each use case or helping to shape IGs can attend meetings of the Accelerator groups. Also, HL7 FHIR Connectathons offer the opportunity to test-drive FHIR-based transactions and compare notes with others working on implementation.

New to the work of the HL7 Da Vinci Project? Sign Up for Da Vinci News and learn how to get involved: <https://confluence.hl7.org/display/DVP/Da+Vinci+Welcome>

The HL7 Da Vinci Project’s Implementation Guide Dashboard is a one-stop shop for information: <https://confluence.hl7.org/display/DVP/Da+Vinci+Implementation+Guide+Dashboard>

To submit questions to CMS about the new rule, send an email to the CMS Health Informatics and Interoperability Group (HIIG) at:

CMSInteroperability@cms.hhs.gov





Embracing Progress and Forging Ahead

FAST End-of-Year Recap

The FHIR at Scale Taskforce (FAST) concluded 2023 by celebrating milestones in innovation and collaboration, unveiling a series of noteworthy achievements in the realm of healthcare technology in our end of year report. This brief article provides highlights, but you can find the full report [here](#).



Published and Balloted Implementation Guides

FAST spearheaded the release of crucial Implementation Guides (IGs) enhancing interoperability and simplifying healthcare processes. Notably, the Interoperable Digital Identity and Patient Matching IG STU 1, published in March 2023, marked a pivotal step in leveraging industry considerations for robust identity matching services.

Additionally, the National Healthcare Directory IG, balloted in September 2023, aims to streamline identifying endpoints across multiple locations, ensuring accuracy and updates. This IG was referenced in the HTI-1 rule as an option for Certified API Developers to publish endpoints using its FHIR profiles for Organization and Endpoint.

Testing and Implementations

FAST's active engagement in Connectathons, focused on Security, Identity, and National Directory, demonstrated commitment to rigorous testing and implementation. With the release of TEFCA Facilitated FHIR coming in Q1 of 2024, the development of HL7 FAST/ UDAP Security workflows will be required with its adoption resulting in rapid traction with implementers.

Another notable collaboration was with the CARIN Alliance for the Digital Identity Proof of Concept (POC) which showcased aspects of the FAST Security and Identity IGs to scale an open-source framework for federating trusted Identity Assurance Level 2 (IAL2) certified credentials across healthcare organizations (for more details, see the [final report](#)).

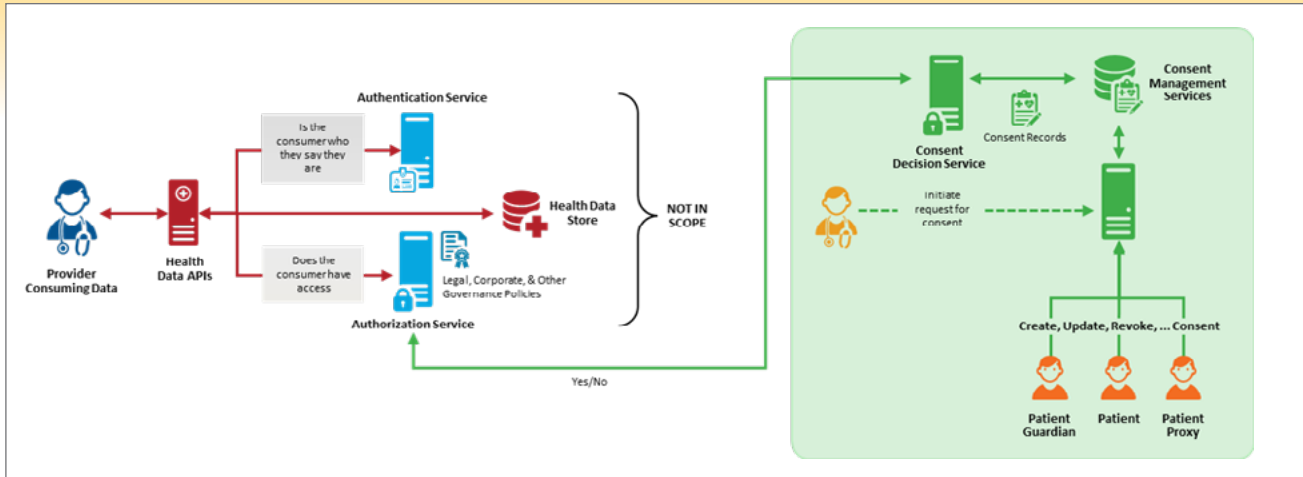
Discovery Work

FAST completed a discovery project in June 2023 that reviewed existing industry consent initiatives, determined what work has been done and where gaps exist, and identified the areas that are well-suited for FAST to address at scale.

The conclusion was the recognition that consent management is the principal component in a consent ecosystem and at the core of a scalable consent architecture.

While existing specifications cover basic operations, such as FHIR Core and IHE IT Infrastructure's Privacy Consent on FHIR (PCF) FHIR IG, there is a notable need for more implementation guidance and standardized specifications.

By the FAST Project Management Team



This encompasses defining interactions in the “consent ceremony” between patients and the consent management system.

For comprehensive details, explore the [FAST Consent Discovery Report-Out](#).

Anticipating further project developments throughout 2024, we hope you will join us on this journey. Please reach out to David Pyke via fast@hl7.org to find out how you can get involved.

Industry Engagement

FAST’s active participation in industry events, [podcasts](#), and collaborative presentations at HL7 WGMs and HIMSS23 helped spread awareness and insights into its progress. FAST was even featured on [HIMSS TV](#). Additionally, engagement with various accelerators and key events highlighted FAST’s commitment to sharing knowledge and learnings with the broader community. You can find past presentations on the [archived 2022-2023 calendar](#) and monitor the [current FAST calendar](#) for details of upcoming conference participation.

Community Milestones

The transition to an HL7 FHIR Accelerator in 2022 led to substantial growth in 2023, with enhanced leadership, strategic partnerships, and expanded membership, enriching FAST’s expertise and reach.

Get Involved in FAST’s Vision for the Future

As FAST looks ahead to 2024, a stronger focus on education, adoption, and collaboration emerges. There are several opportunities for engagement:

- **Participate:** Engage in FAST Connectathons, community calls, and other public events like the FAST Forum launching in early 2024.
- **Contribute:** Share feedback and experiences through surveys to shape FAST’s future initiatives.
- **Lead:** Explore leadership opportunities as a FAST member and in various FAST projects and IGs.
- **Collaborate:** Seek partnerships with FAST to drive healthcare interoperability forward.



Looking Forward to a Collaborative Future

As 2024 begins, FAST asks that we unite in our collective commitment as an industry to drive healthcare technology forward through building a strong FHIR infrastructure. With industry support and engagement with the FAST community, FAST can pave the way for a robust FHIR infrastructure, advocate for scalable solutions, and foster substantial progress in healthcare interoperability. Together, let us harness this momentum, shaping a future where innovation thrives, and healthcare evolves towards greater efficiency, accessibility, and seamless collaboration for the benefit of all.

For more detailed information on FAST’s accomplishments and initiatives for 2024, visit the [FAST confluence page](#). Join us in this transformative endeavor! ■

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TRAINING

COURSE	FORMAT	STARTS	ENDS
Clinical Quality Language	Live Online Class	March 19, 2024	March 21, 2024
Hands-On HL7 FHIR Data Modeling & Profiling (HL7 Education Partner Class)	Live Online Class	March 25, 2024	March 27, 2024
Introduction to HL7 FHIR (Hindi)	Live Online Class	March 26, 2024	March 27, 2024
HL7 FHIR Fundamentals	Online Self-Paced	March 28, 2024	April 25, 2024
HL7 FHIR Terminology	Live Online Class	April 23, 2024	April 25, 2024
HL7 V2 to FHIR Mapping	Online Self-Paced	May 2, 2024	June 6, 2024
Introduction to HL7 FHIR (French)	Live Online Class	May 7, 2024	May 8, 2024
HL7 Fundamentals	Online Self-Paced	May 23, 2024	August 15, 2024
HL7 FHIR Intermediate	Online Self-Paced	May 30, 2024	July 11, 2024
HL7 FHIR Exam Prep	Online Self-Paced	June 13, 2024	July 11, 2024
SMART on FHIR & CDS Hooks	Live Online Class	June 18, 2024	June 20, 2024
HL7 FHIR Fundamentals	Online Self-Paced	July 11, 2024	August 8, 2024
HL7 FHIR in the Clouds	Live Online Class	July 30, 2024	August 1, 2024
HL7 FHIR by Trial	Live Online Class	August 13, 2024	August 14, 2024
Referrals and Orders: How to Ask for Stuff in HL7 FHIR	Live Online Class	August 28, 2024	August 29, 2024
HL7 V2 to FHIR Mapping	Online Self-Paced	September 5, 2024	October 10, 2024
HL7 Fundamentals	Online Self-Paced	September 5, 2024	November 28, 2024
How to Exchange Data Between EHRs	Live Online Class	September 10, 2024	September 11, 2024

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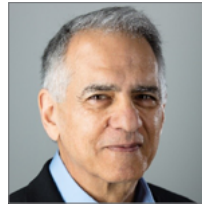
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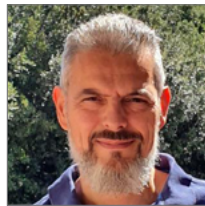
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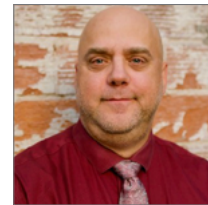


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Orlando, Florida



May 18 - 24, 2024
May 2024 Working Group Meeting and HL7 FHIR Connectathon

Dallas, Texas



June 10-13, 2024
HL7 FHIR DevDays
<https://www.devdays.com/>

Minneapolis Minnesota



July 16-18, 2024
CMS HL7 FHIR Connectathon

Virtual Event



August 7-8, 2024
HL7 Consolidated Clinical Document Architecture (C-CDA) Implementation-A-Thon (IAT)

Virtual Event



January 2025
January 2025 Working Group Meeting

Virtual Event

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