Getting the job done with the HL7 Volunteer Community

PLUS:
VULCAN Connectathon
DaVinci Takes on Prior Authorization and Exchanging Data for Value-Based Care
Number of Use Cases Increasing in CodeX

INSIDE: HL7 NAMES THREE AS 2022 VOLUNTEERS OF THE YEAR
CANGIOI | MACUMBER | MCDANIELS
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Highlights from Baltimore

Update from Headquarters

After three years of producing virtual working group meetings, we were thrilled to see so many friends and colleagues at our September FHIR Connectathon, Plenary, and Working Group Meeting in Baltimore. It was wonderful to get the HL7 community back together in person again. Highlights of our recent activities are as follows.

36th Annual Plenary & Working Group Meeting

The 36th Annual Plenary, WGM and FHIR Connectathon were held at the Renaissance Harbor Place Hotel in Baltimore, Maryland. The plenary and WGM attracted 582 attendees while the FHIR connectathon attracted 312 participants.

The plenary meeting featured several exceptional presentations starting with three keynote presentations and concluding with a panel presentation. The theme of the meeting was: A Global Healthcare Ecosystem to Meet the Needs of the Next Pandemic.

The outstanding keynote presentations were provided by:

Keynote 1
Rockefeller Foundation
Sam Scarpino, PhD
Vice President, Pathogen Surveillance, Pandemic Prevention Institute

Keynote 2
Research in Public Health
Christopher Chute, MD, PhD, DrPH, MPH
Bloomberg Distinguished Professor of Health Informatics, Professor of Medicine and Chief Research Information Officer, Johns Hopkins University

Keynote 3
Pan American Health Organization (PAHO)
Marcelo D’Agostino
Senior Advisor, Information Systems and Digital Health, Department of Evidence and Intelligence for Action in Health, Pan American Health Organization/WHO Washington, DC

Following the keynote presentations, Ron Parker, Chair of HL7 Canada, and Co-Chair of HL7 International Council, moderated a panel focused on Preparing for the Next Pandemic. The panelists included:

Peter Jordan
Chair, HL7 New Zealand; Affiliate Director, HL7 International Board of Directors

Steven Waynee Macharia
President-Elect, Health Informatics in Africa (HELINA)

Marc Hsu
Chair, HL7 Taiwan

By Mark McDougall, HL7 International Executive Director
Meeting Sponsors
We are pleased to recognize these companies that sponsored key components of our 36th annual Plenary and Working Group Meeting:

**iNTERFACEWARE**—Bronze Sponsor
**REDOX**—Supporting Sponsor
**WEDI**—Collaborating Sponsor

We are also pleased to recognize and thank our sponsor of the September FHIR Connectathon:

**Office of the National Coordinator for Health Information Technology**—Event Sponsor

The additional sponsorship support provided by these organizations contributes heavily to HL7’s meeting budget and is very appreciated.

Benefactors and Supporters
We are thrilled to continue to attract impressive numbers of HL7 benefactors and gold members, who are listed on page 29. Their support of HL7 is very much needed and sincerely appreciated. Representatives from these organizations are pictured on page 7. A special thank you is extended to those firms that represent our 2022 HL7 benefactors and gold members.

Organizational Member Firms
Please see pages 29-31, for a list of HL7’s organizational member firms. We sincerely appreciate their ongoing support of HL7 via their organizational membership dues.
Scenes from the September 2022 WGM in Baltimore, Maryland
Board Election Results

During HL7’s annual business meeting, the results of the recent Board elections were announced for the HL7 Board of Director positions listed below. Julia Skapik, MD, will serve as the Vice Chair of the Board for calendar year 2023 and then will serve a two-year term as the Chair of the HL7 Board of Directors for 2024 and 2025. The other new Board members will serve two-year terms from January 2023 through December 2024. The recent HL7 Board election results are as follows:

**Chair-Elect of the Board:**
*Julia Skapik, MD*
Chief Medical Information Officer, National Association of Community Health Centers

**Secretary of the Board:**
*Virginia Lorenzi, FHL7*
Senior Technical Architect, HIT Standards, New York-Presbyterian Hospital

**Director:**
*Lenel James, FHL7*
Business Lead, Health Information Exchange and Innovation, Blue Cross Blue Shield Association

**Director:**
*Ken Rubin*
Senior Advisor, Standards and Interoperability, CIDMO, U.S. Department of Veterans Affairs

**Affiliate Director:**
*Ron Parker*
Chair, HL7 Canada; Giorgio Cangioli, PhD, Vice Chair, HL7 Italy; Technical Lead, HL7 Europe; and Line Saele, Chair, HL7 Norway; Enterprise Architect, Norwegian Institute of Public Health

Catherine Chronaki will also serve on the HL7 Board as a Director for 2023, filling the second-year vacancy of Julia Skapik's Director seat on the Board.

**Director:**
*Catherine Chronaki*
Secretary General, HL7 Europe and President, European Federation for Medical Informatics

We are pleased to congratulate these individuals for their commitment and valued service to HL7 as members of the HL7 Board of Directors.

**HL7 Technical Steering Committee Elections**

Those elected to the HL7 technical steering committee for the 2023-2024 term:

**TSC Affiliate Representative:**
*Christof Gessner*
Member, HL7 Germany

**TSC Implementer Representative:**
*James Agnew*
Chief Technology Officer, Smile Digital Health

**Work Group Representative:**
*Brian Pech, MD*
Consultant, Kaiser Permanente

**Work Group Representative:**
*Juliet Rubini*
Senior Advisor, Healthcare Standards, ICF

**HL7 International Council Co-Chairs Elections**

Two members were elected as the co-chairs of the HL7 International Council for the 2023-2024 term:

**HL7 International Council Co-Chair:**
*Line Saele*
Chair, HL7 Norway; Enterprise Architect, Norwegian Institute of Public Health

**HL7 International Council Co-Chair:**
*Fernando Campos, FHL7*
Chair, HL7 Argentina; Software Engineering Area Chief, Health Informatics Department, Hospital Italiano de Buenos Aires
Continued from page 5

**Update from Headquarters**

**HL7 Fellows Class of 2022**

The John Quinn HL7 Fellowship Award was presented to nine individuals during HL7’s 36th Annual Plenary and Working Group Meeting. The award recognizes HL7 members with at least 15 years of active membership as well as outstanding service, commitment, and contributions to HL7. This year, the award name was officially changed in memory of HL7 founding member John Quinn, who served as the organization’s second board chair, the long-time chair of the Technical Steering Committee and the first chief technology officer.

*Davera Gabriel*
Senior Research Terminologist, Johns Hopkins University School of Medicine

*Rick Geimer*
Chief Innovation Officer, Lantana Consulting Group

*Laura Heermann Langford, Ph.D., R.N.*
Nursing Informatics, Graphite Health Inc.; Chief Operating Officer, Logica

*Jay Lyle*
Health Systems Standards Specialist, JP Systems

*Alexander Mense*
Head of Faculty, Computer Science, University of Applied Sciences Technikum Wien

*Ulrike (Riki) Merrick, M.P.H.*
Lead Specialist in Informatics Terminology, Association of Public Health Laboratories (APHL), and Public Health information Specialist, Vernetzt

*Stefan Sabutsch*
Chair, HL7 Austria; Team Leader, Standards and Usability, ELGA GmbH

*Philip Scott, Ph.D.*
Board Member, HL7 UK; Program Director, University of Wales Trinity Saint David

*Andrew Truscott*
Board Chair, HL7 International; Global Health Technology Lead, Accenture

**Volunteers of the Year**

We were pleased to recognize three incredible volunteers for their dedicated service to HL7. This year marks the 25th year that we have recognized such individuals via the W. Ed Hammond, PhD HL7 Volunteer of the Year Awards. 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 serving as HL7 Board Chair for three terms. The recipients of the 2022 HL7 Volunteer of the Year Awards included:

*Giorgio Cangioli, PhD*
Vice Chair, HL7 Italy; Technical Lead, HL7 Europe

*Carol Macumber*
Executive Vice President, Clinical Architecture

*Mary Kay McDaniel*
Independent Healthcare Data Standards Consultant

We are honored to recognize Giorgio, Carol and Mary Kay as exceptionally dedicated individuals who have made significant contributions on many fronts, including in specific HL7 work groups and throughout the larger HL7 global organization. Their efforts and contributions are sincerely appreciated, and this recognition is well-deserved. Please see the article on pages 8 and 9 to read more about the impressive contributions that these dedicated volunteers have made to HL7.

**In Closing**

The global pandemic has certainly changed our lives. Hopefully we are all taking more time to treasure our moments with those we love. Best wishes to enjoying more laughter, along with giving more thanks and hugs.

[Signature]
HL7 announced the 2022 recipients of the W. Edward Hammond, Ph.D. Volunteer of the Year Awards during its annual business meeting at the 36th Annual Plenary and Working Group Meeting in Baltimore, MD on September 21, 2022. 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 2022 recipients include:

- **Giorgio Cangioli, Ph.D.**, Vice Chair, HL7 Italy; Technical Lead, HL7 Europe
- **Carol Macumber**, Executive Vice President, Clinical Architecture
- **Mary Kay McDaniel**, Independent Health Care Data Standards Consultant

Carol Macumber, Dr. Ed Hammond, and Giorgio Cangioli celebrate the Volunteers of the Year for 2022 awards.
About the Volunteers:

Giorgio Cangioli has been an active member of HL7 Italy for sixteen years and has worked as a consultant since 1999 for non-profit organizations and governmental agencies. He provides coaching and learning services about modelling, methodologies, and standards applied to the health and social care. Cangioli currently serves as the technical lead for HL7 Europe and as the vice chair of the HL7 Italy affiliate. As Technical lead for HL7 Europe he has contributed to set up the HL7 Europe Technical Coordination Team (TNT) and developed the Hospitals on FHIR initiative, enabling hospitals to be ready to share data and join the European Health Data Space. He has also participated in the European eHealth Digital Infrastructure and has been a driver of change for digital health interoperability in Europe. In addition, Cangioli has been involved in several European, national, and regional digital health initiatives. He has led the Clinical and Semantic Experts Group in the European Patient Smart Open Services (epSOS) initiative as well as several eHealth EU projects. Cangioli is a co-author and co-leader of the International Patient Summary (IPS) and a co-leader of the FAIRnness for FHIR project at HL7 International. Finally, he has served several additional leadership roles including the following: International Affiliate Representative to the HL7 Technical Steering Committee (2012; 2014-2015, 2019-2023); international stakeholder to the HL7 CDA Management Group; member of the Affiliate Due Diligence Committee (ADDC) and of the Re-envisioning HL7 Affiliates task group.

Carol Macumber has participated in HL7 for nearly twenty years and has been a member for the past decade. She is the executive vice president at Clinical Architecture where she is directly responsible for leading and evolving the professional services team. Macumber brings over 20 years of experience spanning across project management, enterprise software development and maintenance, and consulting. Her experience includes deploying terminology authoring tools at Canada Health Infoway, Canada’s National Release Center for SNOMED CT, and Terminology Asset Management and capacity building for the Philippine Department of Health. She currently serves as a co-chair for both the HL7 Vocabulary Work Group and Terminology Services Management Group. Macumber led efforts via the HL7 Terminology Authority to establish policies and processes to ensure the appropriate use of external code and identifier systems across HL7 products. She also headed the TSC task force to establish the long awaited and needed policy and process for validating and requesting external code and identifier system identifiers. In addition, she has acted as a leader of the Gender Harmony Project over the past three years, successfully gathering a diverse global community of people from within and outside of HL7 to create a model to address sex and gender health equity for the LGBTQA+ population, as well as provide clarity for, and solving the issues related to, sex and gender data related data. The team includes patient advocates, and representatives from EHR vendors, professional societies, payers, health IT consultants, Regenstrief, Australia, multiple US government agencies, researchers, health systems, standards organizations and HL7 work groups.

Mary Kay McDaniel has been a member of HL7 for sixteen years. She is currently an independent health care data standards consultant and previously served for 10 years as the principal and senior advisor for health data standards at Cognosante. worked tirelessly to move administrative standards forward toward greater interoperability. McDaniel has provided expertise, knowledge, and skills for several Medicaid Programs projects, including large IT system implementations. She also has extensive experience providing business analysis, benefit configuration, and EDI management and system implementation support for a large Medicaid managed care plan. McDaniel is a long-time co-chair of the HL7 Financial Management Work Group. She has been integral in bridging X12 and HL7 standards for HL7 FHIR Accelerators such as the Da Vinci Project and CARIN Alliance due to her keen understanding of health financial business and major US federal health programs including Medicare, Medicaid, State Exchanges, and VHA as well as state Medicaid programs. McDaniel has led the mapping of X12 and HL7’s Fast Healthcare Interoperability Resources (FHIR) as well as modeling entirely new transactions such as the FHIR Price Cost Transparency Implementation Guide for advanced explanation of benefits (EOBs).
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<th>Publication Type</th>
<th>Description</th>
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<tr>
<td>Errata publication of C-CDA</td>
<td>(HL7 CDA® R2 Implementation Guide: Consolidated CDA Templates for Clinical</td>
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<td>Notes — US Realm)</td>
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<td>STU Publication of HL7 FHIR®</td>
<td>Implementation Guide: Security for Registration, Authentication, and</td>
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<td>Authorization, Release 1- US Realm</td>
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<tr>
<td>STU Publication of HL7 FHIR®</td>
<td>Implementation Guide: FHIR for FAIR, Release 1</td>
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<tr>
<td>STU Publication of HL7 FHIR®</td>
<td>Implementation Guide: Medicolegal Death Investigation (MDI), Release 1</td>
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<td>HL7 Version 3 Standard: Representation of the Health Quality Measure Format</td>
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<td>STU Publication of HL7 Version</td>
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<td>STU Update Publication of HL7</td>
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<td>Consumer-Directed Payer Exchange</td>
<td>(CARIN IG for Blue Button®), Release 1 STU2</td>
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Newly Certified HL7 Specialists

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

SEPTEMBER 2022
- Kelsey Hales
- Stefan Csomor
- Ruhidas Sarkar
- Tom Richter

OCTOBER 2022
- Amadou Tall
- John Fernandes
- Vidhi Agarwal
- Sayam Krishna Yadav
- Samuel Arabome
- Moataz Aamer
- Prashanth Koval
- Gaurav Pradhan
- Wylem Bars

NOVEMBER 2022
- Thanaphop Na Nakhonphanom
- Teerapat Saengthongpital
- Shakira Irfaan
- Natdanai Thaipipat

Achieve Industry-recognized expertise with HL7 V2, CDA® and FHIR® Certification

Did the challenges of the past two years keep you from meeting your professional development goals?

Increase your career opportunities and stand out from the crowd by becoming HL7 certified! With online instruction from the fundamentals to deep dives to exam prep, HL7 will help you gain the knowledge needed for certification.

“Even if you are already working with CDA or FHIR, certification will help you learn a ton of stuff that you didn’t know.”

– Sarah Gaunt, Senior Information Analyst / Health Informatician, Lantana Consulting Group

Learn more! Go to:
https://www.hl7.org/certification/index.cfm
HL7 News

News from the HL7 Project Management Office

Fonteva: The New Meetings and Membership Software System

On November 1, HL7 implemented Fonteva, a leading association management and membership software solution powered by Salesforce.

We thank everyone for their patience as staff and users learned to navigate the new system. Account and membership information were migrated to the new platform; however, historical event and education training registrations were not.

If you encounter any issues or have questions, feel free to email HelpDesk@HL7.org.

ONC Grant Funded Projects Update

While September 2022 ended a five-year Cooperative Agreement with Office of the National Coordinator for Health IT (ONC) which awarded $1.36 million to HL7 each year for continued maturation of the Consolidated Clinical Document Architecture (C-CDA) and Fast Healthcare Integrated Resources (FHIR) standards, we’re happy to announce that a new five-year Cooperative Agreement was awarded to HL7 beginning in September 2023. For fiscal year 2023, this new agreement once again awards HL7 $1.36 million to work on the following three 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
- Identify and address areas for optimizing participation from the HL7 community
- International Patient Summary (IPS) specification development
- Monitor and identify interoperability needs and priorities
- Develop best practice guides
- Develop example (open) data sets for HL7 specifications
- Promote use and dissemination of test cases
- Promote and support development and deployment of reference implementation software for HL7 specifications
- Enhance C-CDA authoring and web-publication tooling
- Enhance FHIR specification for Release 5 (R5) ballot and publication

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

- Integration of additional HL7 community apps via single sign on
- Enhance registry.fhir.org based on user feedback and HL7-ONC prioritization
- Curating C-CDA and FHIR ecosystem terminology
- Produce and publish the 2023 C-CDA Value Set Release Package
- Enhance FHIR build and IG publishing infrastructure
- Enhance FHIR Bulk Data Tool Suite and support Connectathon testing

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

- Convene C-CDA Implementation-a-Thon (IAT) events
- Convene virtual event on open data for HL7 standards
- Implementation Guide (IG) Author Toolkit and Program
- Develop best practice methodology to advance continuous FHIR testing

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

A four-year $2 million 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

• Testing of the Gravity SDOH Clinical Care GHIR Implementation Guide

• Gravity SDOH Clinical Care FHIR Implementation Guide Standard for Trial Use 2 Publication

• Gravity Pilots Affinity Group Support

• Analyze and document which HL7 Version 2 (V2) 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 $3.5 million 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

The objectives of this federal contract are:

• Assist the ONC in gathering, organizing, monitoring, and managing work products associated with HL7 standards development and implementation activities for the US Realm

• Assist the ONC in developing, maintaining, and enforcing governance of US Realm standards and implementation specifications

• Assist the ONC in engaging the US standards development community to increase awareness of US Realm guidelines and identify strategic priorities for US Realm standards development and implementation activities

• Lead the development of new versions of the US Core Implementation Guide and C-CDA standard (including the C-CDA Companion Guide)

• Implement relevant aspects of the governance plan and strategic roadmap to manage and oversee standards development and implementation activities in the US Realm

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 since 2016.
Connectathon 31 Implementer Experiences with Vulcan

After five virtual events Vulcan had four connectathon tracks at the in-person September event and for many of the attendees it was a great experience. The pictures capture a little of the intensity of discussion and development that went on as the tracks worked to develop their ideas.

Electronic Product Information

The connectathon was a great opportunity for our project team to collaborate in person. Together, we were able to develop a proposed method for tracking interactions (e.g., drug-drug) using drug product labelling, the International Patient Summary, and eHealth apps.

Craig Anderson, Pfizer

Phenotypic Data

Vulcan has introduced industry leaders and vendors to HL7 and is engaging new academic medical centers who may be potential implementers. It is also one of the first national or international initiatives to bring the industry, academic and government agencies together to address research interoperability on a large scale.

Anita Walden - Oregon Health & Science University

Schedule of Activities

The in-person Connectathon allowed us to socialize our work, leverage others’ examples (CQI and CCDA on FHIR) and progress the Vulcan Schedule of Activities work. The other groups provided “discharge summaries” we posted on a research subject and then retrieved as an “unscheduled event.”

Rebecca Baker, CDISC
Real World Data

Being able to connect with the Vulcan RWD team in person made it possible for us to build out implementations of our IG in real time. The energy in the room, from everyone working together, meant that we were able to make rapid progress with synthetic data creation and IG implementation work - allowing us to really dig into the details of how FHIR resources in an EHR can be used for clinical research objectives.

Peter Butterfill, Parexel
In recent weeks, several significant developments have emerged in the effort to automate the cumbersome prior authorization process. After a lengthy delay, the Centers for Medicare and Medicaid Services recently submitted the Interoperability and Prior Authorization proposed rule to the Office of Management and Budget for clearance, the last step before a proposal is released for comment and ultimate finalization.

Meanwhile, HL7's Da Vinci Project is continuing work on three “burden reduction” implementation guides (IGs) that can be adopted to support using the FHIR open-source standard API to automate various steps involved in the prior authorization process. Although they’re still in development, the guides are available for immediate testing.

Of these IGs, the Coverage Requirements Discovery guide is the farthest along, with the ballot reconciliation process for reviewing comments received on the specification nearly complete and publication likely early next year, explains Vanessa Candelora, Da Vinci Project Manager.

Separately, Da Vinci recently began working with the community to test and align on best practices for how to use Clinical Quality Language, or CQL, to automatically populate electronic questionnaires for payers’ documentation requirements, another step toward helping to automate prior authorizations.

Regulation Pending

The proposed rule was received by OMB on October 13, but it’s uncertain how long it will take the office to clear the proposal for publication. Read the full announcement: https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202204&RIN=0938-AU87.

Using current methods, the process of requesting and receiving pre-authorizations for treatment from payers is often slow and cumbersome, with requests submitted by fax or through payers' portals, where re-keying information is necessary. The rule is designed to relieve the burden of this process by improving transparency into when prior authorization is needed, what the requested documentation is, and applying automation, including to extract data at rest between trusted entities.

CMS has granted an exception to the requirement that the ANSI X12 278 standard be used for prior authorization request and response. As a result, CMS-approved Da Vinci payers and their trading partners that sign a trading partner agreement and agree to specific information reporting terms can use FHIR transactions, rather than ANSI X12 278, during a test period.

Implementation Guides

To prepare to automate the prior authorization process, organizations should review the three Da Vinci IGs, test them and provide real-world feedback, Candelora stresses. In addition to ongoing tests of the guides, the January “HL7 FHIR Connectathon” offered the opportunity to “test drive” all three guides at an in-person meeting.

In addition to providers and payers, more electronic health records vendors should get involved in testing to ensure they can support the needs of providers to streamline prior authorization workflow in support of coming regulation, Candelora adds. Epic Systems Corp. already is a participant, she notes.
Implementation Guides

Here’s a summary of the three burden reduction implementation guides now in development:

**The Coverage Requirements Discovery** (CRD) guide enables the exchange of coverage plan requirements from payers to providers at the time of treatment decisions. The goal is to increase transparency about coverage details to determine, for example, whether prior authorization is required, or whether lab tests or other predecessor steps are needed.

In recent weeks, specifications have been added for clarity. Ballot reconciliation for the Standard for Trial Use, or STU, is nearly complete.

Link to CRD Confluence Page: [https://confluence.hl7.org/pages/viewpage.action?pageId=21857602](https://confluence.hl7.org/pages/viewpage.action?pageId=21857602)

**The Documentation Templates and Rules** (DTR) guide builds on CRD to specify how payer rules can be executed in a provider context to ensure that documentation requirements are met. This could help reduce manual data entry, such as for electronic questionnaires for payers, by extracting data to pre-populate responses.

DTR STU 2 offers specifications added for clarity and to improve the functionality offered to implementers. New specs also help to better manage user workflow. Ballot reconciliation will continue for some time, Candelora says.

“We’ve tried to improve the user workflow functionality, allowing the saving of sessions, so you can complete a request later without starting over,” Dave DeGandi, Da Vinci Burden Reduction Co-Lead, said at the October 26 Community Roundtable. Here’s a link to a recording of that event: [https://confluence.hl7.org/display/DVP/Da+Vinci+Video+Presentations](https://confluence.hl7.org/display/DVP/Da+Vinci+Video+Presentations)

Here’s a link to the DTR Confluence Page: [https://confluence.hl7.org/pages/viewpage.action?pageId=21857604](https://confluence.hl7.org/pages/viewpage.action?pageId=21857604)

**The Prior Authorization Support** (PAS) guide defines FHIR-based services to enable providers, at the point of service, to request authorization—including all necessary clinical information to support the request—and receive immediate authorization from the payer.

This year, some organizations have implemented the entire “burden reduction” workflow by implementing the three user guides, DeGandi says.

Like the DTR, ballot reconciliation for PAS is ongoing. In the meantime, DeGandi says, “any help that we can give implementers, we are happy to do that.”

Here’s a link to the PAS Confluence Page: [https://confluence.hl7.org/pages/viewpage.action?pageId=42993876](https://confluence.hl7.org/pages/viewpage.action?pageId=42993876)

DeGandi encourages organizations to get involved in meetings that are held weekly on all three IG projects.

**Major Test in Progress**

In the meantime, two organizations have launched an ambitious test of FHIR-based pre-authorization.

Regence, the parent company of health plans in four Northwestern states, and MultiCare Connected Care, an independent accountable care organization, are testing the use of FHIR to submit pre-authorization requests directly from EHRs at the point of care in an effort to enable faster determinations, reduce administrative burden and costs, and support better patient outcomes.

“Embedding pre-authorization in our native EHR system is a game changer,” says Anna Taylor, an Associate Vice President at MultiCare Connected Care. “Not only will we ease the administrative complexity of healthcare, but the ability to receive transparent and actionable data at the point of service accelerates care delivery and increases adherence.”

For more information on this project, please see the press release: [https://news.regence.com/releases/regence-partners-with-multicare-to-deliver-pre-authorization-innovation](https://news.regence.com/releases/regence-partners-with-multicare-to-deliver-pre-authorization-innovation)
Now is the time for providers and payers to get involved in developing this use case

Da Vinci’s Latest HL7 FHIR Use Case Will Be a Boon to Value-Based Performance Reporting

As healthcare providers and payers strive to move away from fee-for-service to value-based care over the past decade, the main obstacle has continually been interoperability. And that poses a problem, because care is more consumer-friendly, more cost-effective and of greater value, when patient data is accessible.

The bottom line for value-based care is the need for performance data to be shared effortlessly between payers and providers. Right now, much of that data exchange is manual and difficult.

Da Vinci’s latest HL7 Fast Healthcare Interoperability Resources (FHIR®) use case—the Value-Based Performance Reporting (VBPR) use case—provides guidance on how to exchange data for value-based care purposes.

The VBPR use case began as an idea earlier this year, suggested by providers, and immediately gained support. It was funded in March and work on it evolved rapidly. Now it is ready for public input.

Da Vinci held its first public call on the use case October 3, 2022, and is beginning to work on “defining and refining the scope of this use case,” according to Teresa Younkin, Project Co-Lead for the VBPR use case, HL7 Da Vinci Project PMO and Senior Consultant at Point-of-Care Partners. This use case is important because Da Vinci wanted to do something around value-based care initiatives, especially “because this is really where healthcare is starting to move to,” she said at Da Vinci’s September virtual Community Round Table.

“We want to move away from each payer sending reports using proprietary formats,” Younkin said. Other goals include unifying naming conventions across pairs; moving to a machine readable format; and creating a consistent report format so that providers can ingest the data. Those working on the VBPR use case also hope to reduce the need for patient portals, and they want to make sure that data can be automatically entered from the reports into internal databases.

Vincent Powell, Project Co-Lead at Providence, which has 150 value-based contracts, said value-based care, at its foundation, is a partnership between payers and providers to care for a contracted population and to share in the financial risk of that population. Health systems like Providence are able to effectively manage patient populations around the Triple Aim through sharing data with payers, he said.

One of the biggest challenges with value-based contracts is that the reporting process is very manual, with a lot of variability, Powell said. And that can cause some errors in processing the data. “It’s quite a big lift to take these reports that come in and ingest them,” he said. “And so, that’s one
reason why we’re very much looking forward to this new implementation guide, which will help us exchange [the data] over FHIR.”

Semira Singh, Director of Population Health Informatics at Providence, said success with value-based care requires a collaborative effort between payers, providers, and third-party intermediaries. One of the most important components of that process is establishing a contract, followed by determining what type of data is going to be exchanged between the participants. “And, we also have to ask ourselves, what kind of data is needed to highlight areas for improvement?”

According to Heather Kennedy, Principal Interoperability Architect at Humana, value-based care reporting could also be used for other reporting initiatives.

Jocelyn Keegan, Project Manager for Da Vinci and Senior Consultant for Point-of-Care Partners, said this use case will be key in filling the gap for the need in real-time or near real-time reporting during the contract performance period. “Most of the data that’s flowing is either monthly or weekly, or PDF-based, and isn’t very actionable for either side to go and do something with it,” she said. “And what we find is we see folks—I would say the more advanced players in value-based care—are decomposing a lot of that content, or they’re coming up with custom file formats to share that data in more real time. And that if people really want to be able to scale their value-based care contracts, they need the right tools to be able to do this.”

Now is the time to get involved

Da Vinci is encouraging anyone interested in participating with the development of the use case to check for information on Confluence and get involved.

According to Younkin, the value-based care ecosystem boils down to value-based performance. “It’s a very complicated workflow, and we really need input from everybody from the community to come in to help us make this the best that it can be.”

According to Alix Goss, Vice President and Senior Consultant at Imprado, developing a use case takes a village. “And we have different kinds of people in villages,” she said. That’s why Da Vinci is encouraging broad participation going forward working on this use case.

“I think, in general, coming from a large provider organization, we have resources that smaller provider groups do not,” Singh said. “So, I would love for us to be able to hear back from smaller provider groups to give us a more realistic outlook on the kind of resources that would be required to be able to develop something like this.”

“Everyone is welcome,” Singh said. “The more the merrier.” She noted that it will be good for different organizations to share, specifically, what their pain points are. Those that don’t have an automatic process to retrieve data—looking at the portal all the time and waiting for emails—will benefit from this use case, and their input is needed.

“I would encourage you, especially on the payer side, and probably on the provider side of the house as well, to bring us your performance reporting experts, especially the data subject matter experts,” Kennedy said. “We definitely need the people who understand the nuances of performance reporting, from any size organization.”

Goss said the public work on the VBPR use case will begin with some business-oriented discussions “to figure out how to get the tech to meet the needs of what people are really experiencing.” Jump in early and help, because “It’s little hard to jump into the middle of a use case that’s already humming.” This is the perfect opportunity, right now, to get in on the ground floor of this use case, she said.

Keegan said Da Vinci would ideally like to see people get involved who have the day-to-day jobs of managing contract performance periods—from the payer, provider and vendor sides. “Come and join us right now as this use case goes public,” she said.
The CodeX community experienced significant growth and realized great progress in 2022. CodeX work leverages the minimal Common Oncology Data Elements (mCODE) and other HL7 Fast Healthcare Interoperability Resources (FHIR®) implementation guides in 11 use cases addressing needs in oncology, cardiovascular health, and genomics. CodeX membership grew by more than 40% in 2022 and is representative of clinicians, researchers, payers, information systems, electronic health records, data standards organizations, and more. CodeX use case teams achieved success with numerous milestones and 2023 promises to be an exciting year.

Recent Accomplishments

CodeX use cases advance from discovery and into execution stages with specific areas of focus. A primary objective of CodeX for use cases in the execution stage build up to execution of pilots sharing real patient data, in real-world health settings, and with real patients, providers and others in the workflow. We proudly highlight a few use case accomplishments in a variety of stages.

Radiation Therapy Treatment Data (RTTD) Use Case

The RTTD use case (https://confluence.hl7.org/display/COD/RadiationTherapyTreatmentData+for+Cancer) team is working to develop, test, and deploy open data standards to enable interoperable, multi-purpose exchange of radiation therapy treatment summary data to improve care coordination. The ability to generate retrievable treatment summaries that can be shared and displayed across multiple systems aspires to improve data accuracy and patient outcomes while reducing clinician burden by reducing manual data entry. Now in the execution stage, the use case team developed the CodeX Radiation Therapy Implementation Guide (RT IG), planned for publication in Spring 2022. The IG leverages mCODE’s Radiotherapy Course Summary Profile and the Radiotherapy Volume Profile to support generating and transmitting treatment summaries during the course of therapy. Pilot plans are underway, leveraging the FHIR-enabled test version of ARIA, Varian’s oncology information system. CodeX members representing healthcare systems are preparing for the next phases of piloting. To learn more about pilot opportunities email CodeX@hl7.org or Anthony DiDonato (Addidonato@mitre.org).

Quality Measures for Cancer Use Case

CodeX launched the Quality Measures for Cancer use case in fall 2022. Oncology quality measures are decades-old tools used to evaluate care delivery. In recent years, quality measures became important components in value-based care programs. Authoring and evaluating quality measures are often constrained by disparate, unstructured data and a lack of digitized collection processes. These constraints result in less robust, and often process-focused quality measures, that require manual data abstraction.

The Quality Measures for Cancer use case team intends to author and evaluate oncology-related quality measures using the FHIR data model and mCODE profile extensions and data elements. Authoring measures will yield processes for setting up the necessary data elements in discrete data fields. Testing will evaluate the accuracy of measure results. The Quality Measures for Cancer team intends to work with the HL7 Clinical Quality Information (CQI) Work Group to stay informed of and leverage existing work in this space.

As a result of the Quality Measures for Cancer use case effort, the team intends to demonstrate the value of developing meaningful quality measures for use in clinical care and value-based care programs. To learn more and to join the use case, contact CodeX@hl7.org or Anthony DiDonato (Addidonato@mitre.org).
**GenomeX: Genomics Operations & Genomics Data Exchange Use Cases**

CodeX formally launched two new domains in 2022: GenomeX and CardX. There are two GenomeX use cases underway addressing the complexities related to timely access of accurate genomics testing information. Both use cases aim to leverage, as well as inform updates to, the HL7 Clinical Genomics Work Group's Genomics Reporting Implementation Guide: [http://hl7.org/fhir/uv/genomics-reporting/STU2/](http://hl7.org/fhir/uv/genomics-reporting/STU2/).

The Genomics Operations use case ([https://confluence.hl7.org/display/COD/GenomeX+-+Genomics+Operations](https://confluence.hl7.org/display/COD/GenomeX+-+Genomics+Operations)) team proposes to present a uniform interface to implement FHIR operations to normalize genomics data, minimizing inconsistencies in genomic variant representation. FHIR genomics operations would reduce barriers to use of genomic data in decision support processes, e.g., clinical trial matching, identifying treatment options that optimize precision medicine. Importantly, FHIR genomics operations have the ability to provide longitudinal insights into care options as the science and treatment options for genomic variants continues to evolve. To learn more and to join the use case, contact CodeX@hl7.org or Mallory Carellas (mcarellas@mitre.org).

The Genomics Data Exchange use case ([https://confluence.hl7.org/display/COD/GenomeX+-+Genomics+Data+Exchange](https://confluence.hl7.org/display/COD/GenomeX+-+Genomics+Data+Exchange)) will leverage the HL7 FHIR Genomic Reporting Implementation Guide to design and build scalable FHIR genomics interfaces to enable data sharing between electronic health records (EHR), laboratories, genomic repositories, and other interested stakeholders. This effort will standardize genomic data exchange, improving data accuracy and making data available to inform treatment decisions, accelerate clinical research, and support the development of clinical decision-support tools. The team will identify initial types of genomic reporting to incorporate into scenario-based profiles for pilot. To learn more and to join the use case, contact CodeX@hl7.org or Mallory Carellas (mcarellas@mitre.org).

**CardX Hypertension Management**

The CardX Hypertension Management use case ([https://confluence.hl7.org/display/COD/CardX+-+Hypertension+Management](https://confluence.hl7.org/display/COD/CardX+-+Hypertension+Management)) team seeks to increase data liquidity for blood pressure measurement to support awareness of, and adherence to, clinical practice guidelines. While at home, providers often recommend that patients use a blood pressure monitoring device and report results according to defined parameters. Providers capture and document similar data during patient assessments in the clinic setting. Appropriate patient intervention requires monitoring and awareness of changes in a patient’s condition. A variety of human and technical factors become barriers to prompt intervention. The use case team will leverage existing data standards to create FHIR resources and open APIs to enable interoperable, scalable, accessible hypertension measurement and reporting across care sites. The work will entail separate FHIR-based data exchanges to connect home monitoring devices, patient data managers, the EHR, and the provider. To learn more and to join the use case, contact CodeX@hl7.org or Melissa Christian (melchristian@unmc.edu).

**CodeX Launches New Website**

In November 2022, CodeX launched https://codex.hl7.org to create a presence in the broader community. The website presents the CodeX story and ongoing work to patients and non-healthcare individuals in a meaningful way.

**CodeX Growth & Leadership Changes**

The growth in CodeX is something to celebrate! As noted earlier, membership grew by more than 40% in 2022. The number of use cases increased by 30%. The clinical focus grew from oncology to also include cardiovascular health and genomics. The growth in CodeX scope and size were factors leading to the Steering Committee's decision to expand from 2 seats to 7. Expanding the Steering Committee continues to ensure a reflection of the CodeX Community and continued diversity of...
thought in planning for the future of CodeX. New Steering Committee members began their term on January 1, 2023, and include:

- **Adam Dicker, MD, PhD, FASTRO, FASC**, affiliated with the American Society for Radiation Oncology
- **Chuck Mayo, PhD**, affiliated with the American Association of Physicists in Medicine
- **Sorena Nadaf, MS, MMI**, affiliated with the Alliance for Clinical Trials in Oncology
- **Heather Tremble**, affiliated with Evernorth
- **Wanmei Ou, PhD**, affiliated with Ontada

The new Steering Committee members join Steering Committee members Chuck Jaffe, MD, PhD, CEO of HL7 and Su Chen, MD, Steering Committee Chair and CodeX Clinical Director & Program Manager.

Dr. Chen served as the CodeX Clinical Director until December 2022. In January, Dr. Chen assumed the role of CodeX Program Manager, succeeding Steve Bratt, PhD. Dr. Chen is an emergency medicine physician, computer scientist, and health information systems leader who joined MITRE in 2021. She has extensive experience directing informatics in varied health settings and is committed to CodeX’s vision of advancing health interoperability with the belief that leveraging open-source standards can help drive the next wave of digital innovation to the fore.

After more than five years in MITRE leadership, Dr. Bratt assumed a consultative role with MITRE. Among his many accomplishments at MITRE and across his career, is the launch and growth of CodeX. His leadership of CodeX convened a diverse community to work together to accelerate data modeling, addressing real-world challenges leading to improved patient care. Dr. Bratt served as Chair of the CodeX Steering Committee from its inception until December 2022. He was key to the development and publication of mCODE. Dr. Chen reflected, “Steve’s leadership has been instrumental to leading CodeX to where we are today. It’s Steve’s belief in the power of community in driving healthcare innovation that has led to building the vibrant CodeX community and consequently the growing footprint that mCODE and its extensions have in real world pilots and implementations.” On behalf of the CodeX community, we appreciate the dedication and tireless contributions Dr. Bratt has made to CodeX and celebrate his impact in health care data interoperability.

CodeX also experienced a change in leadership in the Deputy Program Manager (DPM) role. Kim Ball served as DPM since October 2021, working with stakeholders to build and activate the growing CodeX community. Ms. Ball was instrumental in establishing operations, onboarding staff and members, supporting use cases, all contributing to significant program growth and success. Michele Galioto, DNP, RN, CNS, assumed the DPM role in September 2022. Dr. Galioto has over 25 years of oncology nursing, program management, and member organization leadership experience.

Dr. Liz Canzone also joined the CodeX program management team recently, as CodeX Director of Operations. Dr. Canzone also hails from MITRE, and has a wealth of project management expertise, having supported strategic and tactical tasks related to a National Patient Safety Partnership; the safe use of health information technology; and most recently COVID-19 vaccines, therapeutics, and diagnostics.

**Continued from page 19**
2022 was a banner year for the FHIR at Scale Taskforce (FAST). First, in early 2022, FAST officially became an HL7 FHIR Accelerator as it continued the work it started as an Office of the National Coordinator for Health IT (ONC)-convened initiative to build infrastructure that enables more scalable HL7 Fast Healthcare Interoperability Resources (FHIR) solutions.

FAST Founding (https://confluence.hl7.org/display/FAST/FAST+Members) joined together and held elections for the FAST Steering Committee, solidifying the FAST governance structure.

FAST enjoyed its first major milestone in October of 2022 as the first two FAST Implementation Guides (IGs) were officially published:


FAST also continued work on three CMS-supported guides describing the technical architecture considerations related to a national healthcare directory. These guides address challenges including the exchange, query, and attestation and verification of data elements required for a centralized, validated directory system. The following implementation guides (IGs), along with other FAST IGs in development, were tested together at various Connectathons throughout the year. Learn more about the National Directory IGs below:


The National Directory IGs were balloted in September 2022 and the Identity IG was balloted in May 2022; all are still undergoing reconciliation.

FAST will be participating in the January HL7 FHIR Connectathon. If you’d like more information in the FAST Tracks, you can find it here: https://confluence.hl7.org/display/FHIR/2023+-+01+Connectathon+32.

Another important milestone, CMS released an RFI (Request for Information) to collect feedback on the best approach to developing the type of national directory described in the FAST IGs. FAST led a cross-accelerator team to develop a collaborative response to this RFI which can be found here: https://confluence.hl7.org/display/FAST/FAST+Comment+Letters.

FAST also issued a member statement in response to the draft TEFCA (Trusted Exchange Framework and Common Agreement) Facilitated FHIR IG to advocate for alignment of TEFCA with FAST work tenants and work from the rest of the FHIR community. The response can be found here: https://confluence.hl7.org/display/FAST/FAST+Comment+Letters.

The future of FAST work is bright, and we look forward to a stellar 2023 as we work on new projects prioritized with the feedback of our FHIR Accelerator colleagues and FAST members. Be on the lookout for new areas where you can join FAST for public meetings or to provide feedback on IGs in ballot by checking out the FAST Projects page here. Because FAST is focused on infrastructure, having broad stakeholder representation and feedback is essential.

Do you have ideas for future use cases FAST should consider taking on? We want to hear from you! Submit your use case idea on the use case submission page on the FAST Confluence site at https://confluence.hl7.org/display/FAST/FAST+Use+Case+Submission+Form. Not every use case submitted will be taken on but the input is incredibly valuable in identifying emerging needs or giving a +1 vote to projects already under consideration.

To learn more about the FAST FHIR Accelerator and how to participate, please visit the HL7 FAST webpage at http://www.hl7.org/fast/.

By the FAST Management Team
In August 2022, Civitas Networks for Health, HL7 International, and the Gravity Project announced a letter of intent to establish a partnership that will leverage their synergies and strengths to chart a sustainable path forward as the Gravity Project evolves. In October 2022, Civitas announced it was awarded a $1M grant from Robert Wood Johnson Foundation (RWJF) to further the implementation and dissemination of Gravity Project Social Determinants of Health (SDOH) standards for Public Health, Health Systems, and Community Organizations. In November 2022, MITRE, under FFRDC contract with CMS, began providing technical leadership and support to the Gravity Project terminology, technical, and pilots workstreams to optimize the effectiveness and efficiencies of the federal government’s investment in the Gravity Project through the promotion of standardized SDOH data within federal programs.

Project Accomplishments

Over 2,500 stakeholders across the healthcare, health IT, community-based, federal and state agency, payer, academic, and consumer advocacy sectors are signed up as members of the Gravity Project. See the full list here: https://confluence.hl7.org/pages/viewpage.action?pageId=46892669#JointheGravityProject-GravityProjectMembershipList.

Most recent and key project accomplishments to date include:

Gravity SDOH Data Elements

The Gravity Project has successfully completed terminology build for 17 social risk domains (https://confluence.hl7.org/display/GRAV/Social+Risk+Data+Elements+And+Status) working hand-in-hand with leading coding stewards at Regenstrief, SNOMED-CT® International, ICD-10® Coordination & Maintenance Committee (CM), and the American Medical Association (AMA). Multiple ICD-10-CM codes from Gravity’s

**HL7 SDOH Clinical Care FHIR Implementation Guide STU2 Publication**

The HL7 SDOH Clinical Care FHIR IG ([http://build.fhir.org/ig/HL7/fhir-sdoh-clinicalcare/](http://build.fhir.org/ig/HL7/fhir-sdoh-clinicalcare/)) was balloted as an STU2 in January 2022 and tested at the January/May 2022 HL7 FHIR Connectathons and the July 2022 CMS FHIR Connectathon. The STU2 IG was issued for HL7 publication in November 2022.

**Pilots Affinity Group**

The Gravity Project Pilots Affinity Group ([https://confluence.hl7.org/display/GRAV(Gravity+Project+Pilots+Affinity+Group+Home)](https://confluence.hl7.org/display/GRAV(Gravity+Project+Pilots+Affinity+Group+Home)) was launched in September 2022 as a peer-to-peer learning forum for real-world testing of Gravity terminology and technical standards. Pilot sites are invited to demonstrate the use of social care coded terminologies (e.g., LOINC®, SNOMED-CT, ICD-10) and/or the HL7 SDOH Clinical Care FHIR Implementation Guide (SDOH CC IG) ([http://hl7.org/fhir/us/sdoh-clinicalcare/](http://hl7.org/fhir/us/sdoh-clinicalcare/)), share implementation lessons learned with other pilot participants, seek/find partnerships for testing, and gain real-world experience.

**Interoperability Standards Advisory (ISA) Updates**


**What’s on the Horizon This Year and Next?**

The Gravity Project will begin work on new domains that align with Healthy People 2030 ([https://health.gov/healthypeople/objectives-and-data/browse-objectives](https://health.gov/healthypeople/objectives-and-data/browse-objectives)) objectives and health equity priorities. In 2023, we will address the digital access and digital literacy domain through support of Kaiser Permanente and matched funding. Next, our goal will be to address domains already identified as priorities by our governance committees, including neighborhood safety, food access, minority strain, and measures of discrimination and bias. We are looking for a wide range of community engagement for content submission and domain subject matter experts. If you are interested in learning more about the pilots, please email: gravityproject@emiadvisors.net.
The Helios FHIR Accelerator™ for Public Health is a multi-sector alliance working together to tackle long-standing challenges and explore new opportunities to enhance public health data sharing.

The accelerator aims to align with the widespread standardization and transformation that is happening around digital health data today to promote more flexible and effective data exchange with healthcare, the public and other sectors beyond public health.

Helios continues to explore three priority areas, focusing on our core principles of desirability, feasibility and compatibility. With a solid foundation of existing HL7 Fast Healthcare Interoperability Resources (FHIR®) specifications and community input, we are rapidly moving into the testing and piloting phase in several of our priority areas.

By the Helios Program Management Team
Making Data in Public Health Systems Accessible in Bulk

Led by John Stamm (Epic), Leslie Lenert (Medical University of South Carolina) and Mary Beth Kurilo (American Immunization Registry Association), this priority area is exploring ways to enable authorized users of Immunization Information Systems (IIS) data—such as healthcare partners, private sector payers, state Medicaid programs, and schools—to access complete, accurate, and timely immunization history information on their patient and member populations in a consistent way across immunization programs using modern standards (Bulk Data FHIR APIs). By Spring 2023, Helios members will develop, test, and deliver initial guidance to support real-world implementation of Bulk Data FHIR APIs within the IIS community.

The January 2023 HL7 FHIR Connectathon featured a track focused on the use of the Bulk Data Access FHIR Implementation Guide (https://hl7.org/fhir/uv/bulkdata/index.html) defined group level export operation to access immunization history data held by IIS. Core data included patient and immunization resources, but bonus points were awarded for systems able to exchange supporting data such as Provider, Organization, RelatedPerson and ImmunizationRecommendation FHIR resources. Future Connectathon activities will incorporate functionality to create and maintain flexible patient lists reflecting appropriate populations for individual authorized users.

Deliver Aggregate Information to Public Health

Spearheaded by Hans Buitendijk (Oracle Health) and Ravi Kafle (Washington Department of Health), this priority area aims to identify standardized and scalable ways of providing high-quality, timely, and on-demand summary data (e.g., bed count, supply inventory, and other sentinel indicator measures) in ways that lessen the strain on both healthcare and public health. By Spring 2023, Helios members will a) identify gaps in and make enhancements to existing FHIR standards (specifically the SANER and DEQM implementation guides) for generating measures and measure reports and b) pilot the use of these enhanced standards for a prioritized set of sentinel indicators.

This priority area were also featured at the January 2023 HL7 FHIR Connectathon where pilot partners tested the creation and exchange of MeasureReport FHIR resources for key situational awareness indicators using either FHIR-native or CSV-to-FHIR approaches. Future testing efforts will also encompass the creation and consumption of Measure resources to specify the data payload of the sentinel indicators.

Align and Optimize Public Health Data Sharing

Under the leadership of Michelle Barber (Oregon Health Authority), Steve Hill (Oracle Health), and Gillian Haney (Council of State and Tribal Epidemiologists), this priority area is working to demonstrate how specific FHIR-based paradigms can help meet high-priority public health needs efficiently and effectively, while also returning valuable and actionable information to care providers.

By Spring 2023, Helios members will develop a decision framework (set of questions) that will help:

- Public health practitioners to lay out their specific data needs
- Technology solution providers to communicate and demonstrate optimal, FHIR-based approaches for meeting these needs, and
- Both parties to unpack major considerations (policy, technical, etc.) and evaluate fit

Future testing efforts may include testing building blocks related to authorization for accessing data, patient identification and linking records between systems, auditing access, data provenance, and impact of cross-jurisdictional query.

Helios is currently recruiting organizations to actively participate in our Connectathon and piloting efforts for 2023. If you are ready, willing, and able to help drive forward public health interoperability in these areas, please reach out to us at helios@hl7.org to get involved!
2023 Technical Steering Committee Members

EX-OFFICIO
Charles Jaffe MD, PhD
Health Level Seven International
cjaffe@HL7.org
Andrew Truscott, FHL7
Accenture
andrew.j.truscott@accenture.com

CHIEF STANDARDS DEVELOPMENT OFFICER
Daniel Vreeman, DPT
Health Level Seven International
dan@HL7.org

CDA MANAGEMENT GROUP REPRESENTATIVE
Linda Michaelsen, FHL7
Optum
linda.michaelsen@optum.com

FHIR MANAGEMENT GROUP REPRESENTATIVE
Josh Mandel, MD
SMART Health IT
jmandel@gmail.com

IMPLEMENTER REPRESENTATIVE
Rick Geimer, FHL7
Lantana Consulting Group
rick.geimer@lantanagroup.com
James Agnew
Smile Digital Health
jamesagnew@gmail.com

INTERNATIONAL AFFILIATE REPRESENTATIVE
Giorgio Cangioli, PhD
HL7 Italy
giorgio.cangioli@gmail.com
Christof Gessner
HL7 Germany
christof.gessner@gematik.de

TSC CHAIR
Jean Duteau, FHL7
Duteau Design Inc
jean@duteaudesign.com

TSC VICE-CHAIR
Austin Kreisler, FHL7
Leidos, Inc.
austin.j.kreisler@leidos.com

US REALM REPRESENTATIVE
Chris Shawn
U.S. Department of Veterans Affairs
christopher.shawn2@va.gov

V2 MANAGEMENT GROUP REPRESENTATIVE
Amit Popat
Epic
amit@epic.com

WORKING GROUP REPRESENTATIVE
Gora Datta, FHL7
CAL2CAL Corporation
gora@cal2cal.com
Ulrike Merrick, FHL7
Vernetzt, LLC
rikimerrick@gmail.com
Brian Pech, FHL7
Kaiser Permanente
brian.pech@kp.org
Juliet Rubini, MSN, MSIS
ICF
juliet.rubini@icf.com
AbdulMalik Shakir
Hi3 Solutions
abdulmalik.shakir@hi3solutions.com

TSMG REP TO TSC
Robert McClure, MD
MD Partners, Inc.
rmclure@mdpartners.com

ADHOC MEMBER
David Pyke
PointClickCare
pyked@pointclickcare.com

HL7 Welcomes New Members

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<th>Reed Technology and Information Services Inc.</th>
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Organizational Members

BENEFACTORS

Accenture
Alscipts
Amazon Web Services, Inc.
American Medical Association
AmeriHealth Caritas
Apple Inc.
Centers for Disease Control and Prevention/CDC
Cerner Corporation
CVS Health
Duke Clinical & Translational Science Institute
Edifecs, Inc.
Epic
European Medicines Agency
Federal Electronic Health Record Modernization Office
Food and Drug Administration
Google
Graphite Health Inc
Independence Blue Cross
Intermountain Healthcare
InterSystems
Kaiser Permanente
MAK-SYSTEM Group Limited
MuleSoft
Office of the National Coordinator for Health IT
Onyx Technology LLC
Optum
Partners HealthCare System, Inc.
Pfizer
Philips Healthcare
Quest Diagnostics, Incorporated
Ready Computing Inc.
U.S. Department of Veterans Affairs
UnitedHealthcare

GOLD

Academy of Nutrition & Dietetics
ACS Solutions
ADVault, Inc.
Aetna
Alphora
Altarum
American College of Physicians
American Heart Association
Analog Informatics Corporation
ASSYST, Inc.
Asymmetrik, a Blue Halo Company
Audacious Inquiry
Avality, LLC
Azuba Corporation
Blue Cross Blue Shield Association
BlueCross BlueShield of Alabama
Brooklyn Data Co.
CAL2CAL Corporation
Carradora Health, Inc.
CITRIOM LLC
Cohere Health
Computable Publishing LLC
Computrition, Inc.
Connecticut Department of Public Health
CORMAC Corp
Council of State and Territorial Epidemiologists
CU Anschutz Medical Campus
DasLab GmbH
Datavant
Drummond Group
DxText Design Inc
EBSCO Health
eHealth Initiative
EMI Advisors LLC
etherFAX, LLC
Evernorth
EyeMD EMR Healthcare Systems, Inc.
Flexpa
Health Care
Service Corporation
Health Intersections Pty Ltd
Henry M. Jackson Foundation
HHS/Office of Inspector General
ICF
ICHOM
Innoverac Inc.
Inovalon Inc.
Intelligent Medical Objects (IMO)
INTERFACEWARE, Inc.
Isoprame Corporation
Johnson & Johnson
Kailo Medical
Karkinos Healthcare
Private Limited
Labware, Inc.
Massachusetts Health Data Consortium
MaxMD
Medallies, Inc
MedCom
Michigan Health Information Network
Microsoft Corporation
Milliman IntelliScript
MY Synergy Ltd.
National Association of Community Health Centers
National Association of Dental Plans
NeuralFrame
NICTIZ
NIH/Department of Clinical Research Informatics
Northwestern Medicine
Novilus
Optimoz, Inc.
OtisHealth
P.G.M.D. Consulting S.r.l.
Particle Health
PenRad
PROMTIME
Public Health Informatics Institute
Redox
Regenstrief Institute, Inc.
Registry Clearinghouse
Reliv
Rhoads Systems Inc.
Rochester RHIO
RTI International
Samvit Solutions
Security Identification Systems Corporation
Security Risk Solutions, Inc. (SRS)
SenecaGlobal
Seoul Medical Informatics Intelligence Lab Inc.
SMART Health IT
St. Jude Children’s Research Hospital
Starwest Tech
System Soft Technologies
Tata America
International Corp (TAIC)
The Sequoia Project
Thenoz Médica S.A. de C.V.
Therap Services LLC
UC Davis School of Medicine
UCSF Center for Digital Health Innovation
Univ of TX Health Science Center San Antonio
University of Arkansas
Medical Sciences
USAGing
UW Medicine Information Technology Services
Vermont Oxford Network
VICO Open Modeling
Vynyl
WSO2
Zocdoc, Inc.

CONSULTANTS

Accenture
ACS Solutions
AEGIS.net, Inc.
Alphora
Altarum
Amazon Web Services, Inc.
ASSYST, Inc.
BookZurman
Brooklyn Data Co.
Calian Digital Solutions Ltd.
Carradora Health, Inc.
CITRIOM LLC
Computable Publishing LLC
Curandi
Drummond Group
Duteau Design Inc.
DynaVet Solutions, LLC
Eliimu Informatics Inc.
EMI Advisors LLC
EnableCare LLC
EPAM
GigaTECH LLC
Health eData Inc.
Health Intersections Pty Ltd
Healthcare Integrations, LLC
Hi3 Solutions
HLN Consulting, LLC
ICF
iINTERFACEWARE, Inc.
J Michael Consulting, LLC
Lantana Consulting Group
Mathematica Policy Research
Oddball, Inc.
Outbourn Ltd.
P.G.M.D. Consulting S.r.l.
Point-of-Care Partners
Professional Laboratory Management, Inc.
Rhoads Systems Inc.
Rochester RHIO
Samvit Solutions
SavantSolutions4HIT, LLC
Security Risk Solutions, Inc. (SRS)
Stedi
SynergyReactor LLC
System Soft Technologies
Telligent
Thenoz Médica S.A. de C.V.
Vernetz, LLC
VICO Open Modeling
Vitamin Software Inc.
WaveOne Associates Inc.
Wi4 Corporation

GENERAL INTEREST

Academy of Nutrition & Dietetics
Administration for Children and Families
Agence eSante Luxembourg
Alabama Department of Public Health
Alliance for Cell Therapy Now
Alliance Health
American Academy of Neurology
American Clinical Laboratory Association
American College of Physicians
American Dental Association
Organizational Members (continued)

American Heart Association
American Immunization Registry Association (AIRA)
American Medical Association
American Society of Clinical Oncology
Anveer Health
Baylor College of Medicine
Blue Cross Blue Shield Association
CA Department of Public Health
California Department of Health Care Services
CAQH
CDISC
Centers for Disease Control and Prevention/CDC
Centers for Medicare & Medicaid Services
Centre for Development of Health Services
Contra Costa County Health Services
Council of State and Territorial Epidemiologists
CU Anschutz Medical Campus
DGS, Commonwealth of Virginia
DirectTrust
Duke Clinical & Translational Science Institute
eHealth Initiative
European Medicines Agency
Federal Electronic Health Record Modernization Office
Florida Department of Health
Food and Drug Administration
Georgia Department of Public Health
Government of the Northwest Territories
Graphite Health Inc
HAS (Haute Autorité de Sante)
Health and Welfare Information Systems Centre
Health Sciences South Carolina
Henry M. Jackson Foundation
HHS/Office of Inspector General
HSE - Health Service Executive
I3L @ GaTech
ICCBBA, Inc.
ICH
ICHOM
Idaho Bureau of Vital Records and Health Statistics
Indian Health Service
IPRO
Japan Pharmaceutical Manufacturers Association
Massachusetts Health Data Consortium
MedCom
Michigan Health Information Network
Minnesota Department of Health
NAACCR
National Association of Community Health Centers
National Association of Dental Plans
National Cancer Institute
National Council for Prescription Drug Programs
National Institute of Standards and Technology
National Library of Medicine
NC Division of Public Health
NCQA
Nebraska Dept of Health and Human Services
Nebraska Health Information Initiative (NeHII)
New York State Office of Mental Health
NHS Digital
NICTIZ
NIH/Department of Clinical Research Informatics
NJ Division of Developmental Disabilities
NJDOH
NYS DOH, Office of Quality and Patient Safety
Object Management Group (OMG)
Office of the National Coordinator for Health IT
OR.NET
Oregon Health and Science University
Oregon Public Health Division
PA Health and Human Services Delivery Center
Pharmaceuticals & Medical Devices Agency
Public Health Informatics Institute
Radiological Society of North America
RTI International
SLI Compliance
SMART Health IT
Social Security Administration
State of New Hampshire
SYNCRONYX
Tennessee Department of Health
The Joint Commission
The Sequoia Project
U.S. Department of Veterans Affairs
UC Davis School of Medicine
UC Irvine Health Sciences
UCSF Center for Digital Health Innovation
United Network for Organ Sharing
United Physicians
Univ of TX Health Science Center San Antonio
University of AL at Birmingham
University of Arkansas Medical Sciences
University of Minnesota
University of Texas Medical Branch at Galveston
USAging
UW Medicine Information Technology Services
Vermont Oxford Network
Virginia Department of Corrections
Virginia Department of Health
Westat
Wisconsin Department of Health Services
WNY HEALTHeLINK
WorldVistA
WV Department of Health and Human Resources

PAYERS

Aetna
AmeriHealth Caritas
Anthem, Inc.
Arkansas Blue Cross Blue Shield
Blue Cross Blue Shield of South Carolina
BlueCross BlueShield of Alabama
BlueCross BlueShield of Tennessee
Cambia Health Solutions
Clover Health
Evernorth
GuideWell
Health Care Service Corporation
Healthspring
Humana Inc
Independence Blue Cross
Magellan Health
SCAN Health Plan
UnitedHealthcare
WPS Health Solutions

PHARMACY

Johnson & Johnson
Merck & Co. Inc.
Parexel International
Pfizer

PROVIDERS

1Life, Inc.
Afdidea Spain
Albany Medical Center
Allendale County Hospital
ARUP Laboratories, Inc.
Babylon Health
Benedictine Health System
Best Option Healthcare PR
Blessing Hospital
Boston Medical Center
Cedars-Sinai Medical Center
Central Illinois Radiological Associates
Children’s Mercy Hospitals and Clinics
CLM Center for Life Management
Curai Health
CVS Health
Diagnostic Laboratory Services
HCA IT&S
Intermountain Healthcare
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</tbody>
</table>
| Addgene | SanoBiologics Biosc...
HL7 Work Group Co-Chairs

AR DEN SYNTAX
Peter Haug, MD
Intermountain Healthcare
peter.haug@mail.org

Robert Jenders, MD, MS, FHL7
Charles Drew University/UCLA
jenders@ucla.edu

B IOMEDICAL RESEARCH AND REGULATION
Jean Duteau
Duteau Design Inc
jean@duteaudesign.com

Maryam Garza
University of Arkansas Medical Sciences
mygarza@uams.edu

Smita Hastak
Samvit Solutions
shastak@samvit-solutions.com

CLINICAL DECISION SUPPORT
Robert Jenders, MD, MS, FHL7
Charles Drew University/UCLA
jenders@ucla.edu

Kensaku Kawamoto, MD, PhD
University of Utah Health Care
kensaku.kawamoto@utah.edu

Bryn Rhodes
Alphora
bryn@alphora.com

Howard Strasberg, MD, MS
Wolters Kluwer Health
howard.strasberg@wolterskluwer.com

Isaac Vetter
Epic
isaac@epic.com

CLINICAL GENOMIC S
Sri kar Chamala PhD
Univ. of Southern California / Children’s Hospital LA
srikarchamala@gmail.com

Robert Freimuth, PhD
Mayo Clinic
freimuth.robert@mayo.edu

James Jones
SMART Health IT
james.jones@chip.org

Kevin Power
Children’s Mercy Hospitals and Clinics
kmpower@cmh.edu

May Terry BSEE, RN
The MITRE Corporation
MayT@mitre.org

Patrick Werner
HL7 Germany
pa.f.werner@gmail.com

CLINICAL INFORMATION MODELING INITIATIVE
Kurt Allen (Interim)
PenRad
KurtA@Gjoll.com

Richard Esmond
Graphite Health Inc.
richard.esmond@gmail.com

Stanley Huff, MD, FHL7
Graphite Health Inc.
stan.huff@graphitehealth.io

Claude Nanjo
University of Utah Health Care
cnанjo@gmail.com

CLINICAL INTEROPERABILITY COUNCIL
Bruce Bray
University of Utah Health
bruce.bray@hsc.utah.edu

Laura Heermann
Graphite Health Inc
laura.heermann@graphitehealth.io

Russell Leftwich, MD
InterSystems
russell.leftwich@intersystems.com

James McClay, MD
NextGen BMI,
University of Missouri
jmcclay@ummc.edu

James Tcheng, MD
Duke University Health System
james.tcheng@duke.edu

CLINICAL QUALITY INFORMATION
Paul Denning
The MITRE Corporation
pauld@mitre.org

Yan Heras
Optimum eHealth LLC
yanheras@gmail.com

Stan Rankins, MIS, MSIT
Telligen
srankins@telligen.com

Juliet Rubini, MSN, MSIS
Mathematica Policy Research
julietkrubini@gmail.com

Anne Marie Smith BSN, MSHA
NCQA
smith@ncqa.org

COMMUNITY-BASED CARE AND PRIVACY
Johnathan Coleman
Security Risk Solutions, Inc. (SRS)
jc@securityrs.com

Mohammad Jafari (INTERIM)
U.S. Department of Veterans Affairs
jafarim@gmail.com

David Pyke
Audacious Inquiry
dpyke@ainq.com

Greg White BA, MA, MS
Security Risk Solutions, Inc. (SRS)
gw@securityrs.com

CONFORMANCE
Nathan Bunker
American Immunization Registry Association
nbunker@immregistries.org

Frank Oemig, PhD, FHL7
Cerner Corporation
frank.oemig@cerner.com

Ioana Singureanu, MSCs, FHL7
US Dept. of Veterans Affairs
ioana.singureanu@va.gov

Robert Snellick, FHL7
National Institute of Standards & Technology
robert.snellick@nist.gov

CROSS-GROUP PROJECTS
Jean Duteau
Duteau Design Inc
jean@duteaudesign.com

Floyd Eisenberg, MD
i Parsimony LLC
FEisenberg@iParsimony.com

DEVICES
Todd Cooper
OR.NET
todd@ORNET.org

Chris Courville
Epic
courvil@epic.com

John Garguilo
National Institute of Standards and Technology
john.garguilo@nist.gov

Martin Hurrell, PhD
martinhurrell@gmail.com

John Rhoads, PhD
Rhoads Systems Inc.
johnrhoads@johnrhoads.net

Martin Rosner (INTERIM)
Philips Healthcare
martin.rosner@philips.com

ELECTRONIC HEALTH RECORDS
Michael Brody, DPM
Registry Clearinghouse
mbrody@registryclearinghouse.net

Gary Dickinson, FHL7
EHR Standards Consulting
gary.dickinson@ehr-standards.com

Stephen Hufnagel, PhD
Registry Clearinghouse
shufnagel@registryclearinghouse.net

Mark Janczewski, MD, MPH
Medical Networks, LLC
mark.janczewski@gmail.com

John Ritter, FHL7
johnritter1@verizon.net

Michael Van der Zel BSc
HL7 Netherlands
m.van.der.zel@umcg.nl

Feliciano Yu, Jr., MD, MS
University of Arkansas Medical Sciences
fbyu@uams.edu
HL7 Work Group Co-Chairs (continued)

EMERGENCY CARE
Dominik Brammen
HL7 Germany
dominik.brammen@aktin.org

Laura Heermann
Langford, RN, PhD
Graphite Health Inc
laura.heermann@graphitehealth.io

James McClay, MD
NextGen BMI,
University of Missouri
jmclay@ummc.edu

FHIR INFRASTRUCTURE WORK GROUP
Rick Geimer
Lantana Consulting Group
rick.geimer@lantanaconsultinggroup.com

Grahame Grieve, FHL7
Health Intersections Pty Ltd
grahame@healthintersections.com.au

Josh Mandel, MD
SMART Health IT
jmandel@gmail.com

Lloyd McKenzie, FHL7
HL7 Canada / Accenture
lloyd@lmckenzie.com

Ron Shapiro (Interim)
Qvera
ron@qvera.com

FINANCIAL MANAGEMENT
Jeff Brown
The MITRE Corporation
jeffbrown@mitre.org

Chris Cioffi
Elevance Health
chris.cioffi@carelon.com

Paul Knapp
Knapp Consulting Inc.
pknapp@pknapp.com

Celine Lefebvre, JD
American Medical Association
celine.lefebvre@ama-assn.org

Mary Kay McDaniel
mk_mcdaniel_hi7@outlook.com

Andy Stechishin
HL7 Canada
andy.stechishin@gmail.com

INFRASTRUCTURE AND MESSAGING
Anthony Julian, FHL7
Mayo Clinic
ajulian@mayo.edu

Nick Radov
UnitedHealthcare
nradov@ugh.com

Isaac Vetter (INTERIM)
Epic
isaac@epic.com

INTERNATIONAL COUNCIL
Fernando Campos
HL7 Argentina
fernando.campos@hospitalitaliano.org.ar

Ron Parker
HL7 Canada
ron@parkerdhc.com

Line Saele, MSc
HL7 Norway / Norwegian Institute of Public Health
lineandreassen.saele@fhi.no

LEARNING HEALTH SYSTEMS
Bruce Bray, MD
University of Utah Health
bruce.bray@hsc.utah.edu

Russell Leftwich, MD
InterSystems
russell.leftwich@intersystems.com

Maria Michaels (INTERIM)
Centers for Disease Control and Prevention/CDC
maria.michaels@cdc.gov

MOBILE HEALTH
Nathan Botts, PhD, MSIS
Westat
nathanbotts@westat.com

Gora Datta, MS, BE, FHL7
CAL2CAL Corporation
gora@cal2cal.com

Matthew Graham
Mayo Clinic
mgraham@mayo.edu

Frank Ploeg
HL7 Netherlands
r.f.ploeg@umcg.nl

ORDERS AND OBSERVATIONS
Hans Buitendijk, MSc, FHL7
Cerner Corporation
hans.buitendijk@cerner.com

Lorraine Constable
HL7 Canada
lorraine@constable.ca

Jose Costa Teixeira
HL7 Belgium
jose.a.teixeira@gmail.com

Robert Hausam, MD, FHL7
mhausam@gmail.com

Ralf Herzog
Roche Diagnostics International Ltd.
ralf.herzog@roche.com

Ulrike Merrick
Vernetzt, LLC
rikimerrick@gmail.com

John David Nolen, MD, PhD
Children’s Mercy Hospitals and Clinics
jdinolen@gmail.com

Marti Velezis
Food and Drug Administration
Marti.velezis@sonrisaconsulting.com

PATIENT ADMINISTRATION
Alexander de Leon
Kaiser Permanente
alexander.deleon@kp.org

Brian Postlethwaite, BaSc
Microsoft Corporation
brian.postlethwaite@microsoft.com

Line Saele MSc
HL7 Norway / Norwegian Institute of Public Health
lineandreassen.saele@fhi.no

Cooper Thompson
Epic
coopert@epic.com

PATIENT CARE
Stephen Chu
Australian Digital Health Agency
chuscmi88@gmail.com

Laura Heermann
Langford, RN, PhD
Graphite Health Inc
laura.heermann@graphitehealth.io
HL7 Work Group Co-Chairs (continued)

PATIENT CARE (CONTINUED)
Emma Jones
Allscripts
emma.jones@allscripts.com

Jay Lyle
U.S. Department of Veterans Affairs
jaylyle@gmail.com

Michelle Miller
Optum
michelle.m.miller@optum.com

Michael Padula, MD, MBI
Children’s Hospital of Philadelphia
padula@chop.edu

Michael Tan
Nictiz
Michael.Tan@outlook.com

PHARMACY
Jose Costa Teixeira
HL7 Belgium
jose.a.teixeira@gmail.com

Jean Duteau
Duteau Design Inc
jean@duteaudesign.com

John Hatem, MS, MBA, FHL7
John.hatem@hotmail.com

Melva Peters
Jenaker Consulting
melva@jenakerconsulting.com

Scott Robertson, FHL7
Kaiser Permanente
scott.m.robertson@kp.org

PUBLIC HEALTH
Erin Holt, MPH
Tennessee Department of Health
erin.holt@tn.gov

Ravi Kafle
Washington State Department of Health
ravi.kafle@doh.wa.gov

Craig Newman
Altarum
craig.newman@altarum.org

Laura Rappleye
Altarum
laura.rappleye@altarum.org

Danny Wise
Allscripts
danny.wise@allscripts.com

SECURITY
Kathleen Connor, MPA, FHL7
The MITRE Corporation
Kathleen_connor@comcast.net

Alexander Mense
HL7 Austria
alexander.mense@hl7.at

John Moehrke
By Light Professional IT Services LLC
johnmoehrke@gmail.com

Chris Shaw
U.S. Department of Veterans Affairs
christopher.shawn2@va.gov

Patricia Williams, PhD, MSc
HL7 Australia
patricia.williams@flinders.edu.au

SERVICES ORIENTED ARCHITECTURE
Jerry Goodnough
Cognitive Medical Systems
jgoodnough@cognitivemedicine.com

Stefano Lotti
HL7 Italy
Phone: +39 06-42160685
slotti@invitalia.it

Vincent McCauley, MBBS, PhD
McCauley Software
vinccm@bigpond.com

STRUCTURED DOCUMENTS
Gay Dolin, MSN RN
Namaste Informatics
gdolin@namasteinformatics.com

Benjamin Flessner
Redox
benjamin@redoxengine.com

Austin Kreisler, FHL7
Leidos, Inc.
austin.j.kreisler@leidos.com

Sean Mclvenna
Lantana Consulting Group
sean.mclvenna@lantanagroup.com

Russell Ott
Deloitte Consulting LLP
rott@deloitte.com

Matt Szczechankiewicz
Epic
mszczechepa@epic.com

VOCABULARY
Jessica Bota
Apelon, Inc.
jbota@apelon.com

Carmela Couderc
Office of the National Coordinator
for Health IT
carmela.couderc@hhs.gov

Reuben Daniels
HL7 Australia / Saludax
reuben@saludax.com

Robert Hausam, MD, FHL7
rrhausam@gmail.com

Caroline Macumber
Clinical Architecture LLC
carol.macumber@clinicalarchitecture.com

Robert McClure, MD, FHL7
MD Partners, Inc.
rmmcure@mdpartners.com

34
HL7 Work Group Facilitators

**BIOMEDICAL RESEARCH AND REGULATION**

D. Mead Walker, FHL7
Modeling and Methodology
Mead Walker Consulting
+1 610-518-6259
dmead@comcast.net

Julie James, FHL7
Vocabulary
Blue Wave Informatics
julie:james@bluewaveinformatics.co.uk

**CLINICAL DECISION SUPPORT**

Craig Parker, MD, MS, FHL7
Modeling and Methodology
Parexel International
craig.parker@parexel.com

Robert McClure, MD, FHL7
Vocabulary
MD Partners, Inc.
mccrelude@mdpartners.com

**CLINICAL GENOMICS**

Amnon Shabo, PhD, FHL7
Modeling and Methodology
Philips Healthcare
amnon.shvo@gmail.com

Grant Wood, FHL7
Publishing
Intermountain Healthcare
grant.wood@infinitehealthcare.com

Joel Schneider
Vocabulary
National Marrow Donor Program
jschneider@nmdp.org

**CLINICAL INFORMATION MODELING INITIATIVE**

Susan Matney, PhD, RN, FHL7
Vocabulary
susana.matney@gmail.com

**CLINICAL INTEROPERABILITY COUNCIL**

AbdulMalik Shakir, FHL7
Modeling and Methodology
Hi3 Solutions
abdulmalik.shakir@hi3solutions.com

Amy Nordo, MMCi, BSN
Publishing
Pfizer
amy.nordo@pfizer.com

Sarah Ryan
Vocabulary
saryan2034@gmail.com

**COMMUNITY-BASED CARE AND PRIVACY**

Ioana Singureanu, MSCs, FHL7
Modeling and Methodology;
Publishing
US Dept. of Veterans Affairs
ioana.singureanu@va.gov

Kathleen Connor, MPA, FHL7
Vocabulary
The MITRE Corporation
kathleen_connor@comcast.net

**DEVICES**

Ioana Singureanu, MSCs, FHL7
Modeling and Methodology
BookZurman
ioana.singureanu@bookzurman.com

Todd Cooper, BA
Vocabulary
OR.NET
todd@or.net

Christof Gessner
Vocabulary
HL7 Germany
christof.gessner@gematik.de

**ELECTRONIC HEALTH RECORDS**

Corey Spears
Modeling and Methodology
The MITRE Corporation
cspears@mitre.org

John Ritter, FHL7
Publishing
johnritter1@verizon.net

**EMERGENCY CARE**

Kevin Coonan, MD
Modeling and Methodology
kevin.coonan@gmail.com

**FINANCIAL MANAGEMENT**

Kathleen Connor, MPA, FHL7
Modeling and Methodology;
Vocabulary
The MITRE Corporation
kathleen_connor@comcast.net

Beat Heggli, FHL7
Modeling and Methodology;
Publishing
HL7 Switzerland
beat.legg@netcetera.com

Mary Kay McDaniel
Publishing;
Vocabulary
mk_mcdaniel_hi7@outlook.com

**IMAGING INTEGRATION**

Elliot Silver, M.Sc.
Vocabulary
HL7 Canada
elliot@argentinfo.com

**INFRASTRUCTURE AND MESSAGING**

Grahame Grieve, FHL7
Modeling and Methodology
Health Intersections Pty Ltd.
grahame@healthintersections.com.au

Anthony Julian, FHL7
Publishing
Mayo Clinic
ajulian@mayo.edu

Sandra Stuart, FHL7
Vocabulary
Kaiser Permanente
sandra.stuart@kp.org

**MODELING & METHODOLOGY**

AbdulMalik Shakir, FHL7
Modeling and Methodology
Hi3 Solutions
abdulmalik.shakir@hi3solutions.com

William Ted Klein, FHL7
Vocabulary
ted@tklein.com

**ORDERS AND OBSERVATIONS**

Patrick Loyd, FHL7
Modeling and Methodology
patrick.e.loyd@gmail.com

Lorraine Constable
Publishing
HL7 Canada
lorraine@constable.ca

Robert Hausam, MD, FHL7
Vocabulary
The MITRE Corporation
rhhausam@gmail.com

**PATIENT ADMINISTRATION**

Alexander Henket
Modeling and Methodology;
Publishing
Nictiz
henket@nictiz.nl

Wendy Huang
Vocabulary
wendyyhuang@gmail.com

**PATIENT CARE**

Jean Duteau
Modeling and Methodology
Duteau Design Inc.
+1 307-883-9739
ted@tklein.com

Susan Matney, PhD, RN, FHL7
Vocabulary
susana.matney@gmail.com

**PHARMACY**

Jean Duteau
Modeling and Methodology
Duteau Design Inc.
jean@duteaudiend.com

Scott Robertson, FHL7
Publishing
Kaiser Permanente
scott.m.robertson@kp.org

Julie James, FHL7
Vocabulary
Blue Wave Informatics
julie.james@bluewaveinformatics.co.uk

**PUBLIC HEALTH**

Joginder Madra
Modeling and Methodology
Madra Consulting Inc.
h7@madraconsulting.com

Jean Duteau
Publishing
Duteau Design Inc.
jean@duteaudiend.com

Sunanda McGarvey, BS
Vocabulary
Northrop Grumman Technology Services
sunanda.mcgarvey@ngc.com

**SECURITY**

Kathleen Connor, MPA, FHL7
Vocabulary
The MITRE Corporation
kathleen_connor@comcast.net

**STRUCTURED DOCUMENTS**

Austin Kreisler, FHL7
Modeling and Methodology
Leidos, Inc.
austin.j.kreisler@leidos.com

Sheila Abner, PhD
Vocabulary
Centers for Disease Control and Prevention/CDC
sha8@cdc.gov

**VOCABULARY**

William Ted Klein, FHL7
Modeling and Methodology
Duteau Design Inc.
jean@duteaudiend.com
<table>
<thead>
<tr>
<th>Country</th>
<th>Contact Name</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Fernando Campos, FHL7</td>
<td><a href="mailto:fernando.campos@hospitalitaliano.org.ar">fernando.campos@hospitalitaliano.org.ar</a></td>
</tr>
<tr>
<td>Australia</td>
<td>Isobel Frean MS, PhD</td>
<td><a href="mailto:chair@HL7.org.au">chair@HL7.org.au</a></td>
</tr>
<tr>
<td>Austria</td>
<td>Stefan Sabutsch</td>
<td><a href="mailto:stefan.sabutsch@HL7.at">stefan.sabutsch@HL7.at</a></td>
</tr>
<tr>
<td>Belgium</td>
<td>Jose Costa Teixeira</td>
<td><a href="mailto:jose.a.teixeira@gmail.com">jose.a.teixeira@gmail.com</a></td>
</tr>
<tr>
<td>Brazil</td>
<td>Guilherme Zwicker Rocha, MD</td>
<td><a href="mailto:guilherme.zwicker@gmail.com">guilherme.zwicker@gmail.com</a></td>
</tr>
<tr>
<td>Canada</td>
<td>Ron Parker</td>
<td><a href="mailto:ron@parkerdhc.com">ron@parkerdhc.com</a></td>
</tr>
<tr>
<td>Chile</td>
<td>César Galindo, Msc</td>
<td><a href="mailto:chair@HL7Chile.cl">chair@HL7Chile.cl</a></td>
</tr>
<tr>
<td>China</td>
<td>Haiyi Liu</td>
<td><a href="mailto:liuhaiyi@mail.tsinghua.edu.cn">liuhaiyi@mail.tsinghua.edu.cn</a></td>
</tr>
<tr>
<td>Colombia</td>
<td>Mario Cortes</td>
<td><a href="mailto:mario.cortes@HL7co.org">mario.cortes@HL7co.org</a></td>
</tr>
<tr>
<td>Croatia</td>
<td>Miroslav Koncar</td>
<td><a href="mailto:chair@HL7.hr">chair@HL7.hr</a></td>
</tr>
<tr>
<td>Denmark</td>
<td>Jens Villadsen, MSc</td>
<td><a href="mailto:jenskristianvilladsen@gmail.com">jenskristianvilladsen@gmail.com</a></td>
</tr>
<tr>
<td>Finland</td>
<td>Jari Porrasmaa</td>
<td><a href="mailto:jari.porrasmaa@ksshp.fi">jari.porrasmaa@ksshp.fi</a></td>
</tr>
<tr>
<td>France</td>
<td>Nicolas Riss, PharmD</td>
<td><a href="mailto:Nicholas.riss22@gmail.com">Nicholas.riss22@gmail.com</a></td>
</tr>
<tr>
<td>Germany</td>
<td>Mathias Aschhoff</td>
<td><a href="mailto:aschhoff@cmais.de">aschhoff@cmais.de</a></td>
</tr>
<tr>
<td>Greece</td>
<td>Alexander Berler</td>
<td><a href="mailto:a.berger@gnomon.com.gr">a.berger@gnomon.com.gr</a></td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Pascal TSE BSc, MA</td>
<td><a href="mailto:pascaltse@hl7.org.hk">pascaltse@hl7.org.hk</a></td>
</tr>
<tr>
<td>Italy</td>
<td>Stefano Lotti</td>
<td><a href="mailto:slotti@invitalia.it">slotti@invitalia.it</a></td>
</tr>
<tr>
<td>Japan</td>
<td>Michio Kimura, MD, PhD</td>
<td><a href="mailto:kimura@mi.hama-med.ac.jp">kimura@mi.hama-med.ac.jp</a></td>
</tr>
<tr>
<td>Korea</td>
<td>Byoung-Kee Yi, PhD</td>
<td><a href="mailto:byoungkeyyi@gmail.com">byoungkeyyi@gmail.com</a></td>
</tr>
<tr>
<td>Mexico</td>
<td>Victor Medina</td>
<td><a href="mailto:chair@HL7mx.org">chair@HL7mx.org</a></td>
</tr>
<tr>
<td>Netherlands</td>
<td>Rob Mulders</td>
<td><a href="mailto:rob@fire.ly">rob@fire.ly</a></td>
</tr>
<tr>
<td>New Zealand</td>
<td>John Carter</td>
<td><a href="mailto:john.s.carter@gmail.com">john.s.carter@gmail.com</a></td>
</tr>
<tr>
<td>Norway</td>
<td>Line Sæle, MSc</td>
<td><a href="mailto:lineandreassen.saele@fhi.no">lineandreassen.saele@fhi.no</a></td>
</tr>
<tr>
<td>Philippines</td>
<td>Raymond Francis Sarmiento MD</td>
<td><a href="mailto:sarmiento2008@gmail.com">sarmiento2008@gmail.com</a></td>
</tr>
<tr>
<td>Poland</td>
<td>Roman Radomski, MD, MBA</td>
<td><a href="mailto:radomski@iehr.eu">radomski@iehr.eu</a></td>
</tr>
<tr>
<td>Portugal</td>
<td>Antonio Martins</td>
<td><a href="mailto:antonio.martins@HL7.pt">antonio.martins@HL7.pt</a></td>
</tr>
</tbody>
</table>
2023 HL7 Staff

CHIEF EXECUTIVE OFFICER

Charles Jaffe, MD, PhD
cjaffe@HL7.org

CHIEF STANDARDS DEVELOPMENT OFFICER

Daniel Vreeman
dan@HL7.org

CHIEF STANDARDS IMPLEMENTATION OFFICER

Viet Nguyen, MD
viet@HL7.org

DEPUTY STANDARDS IMPLEMENTATION OFFICER

Diego Kaminker
diego@HL7.org

EXECUTIVE DIRECTOR

Mark McDougall
+1 734-677-7777 x103
markmod@HL7.org

ASSOCIATE EXECUTIVE DIRECTOR

Karen Van Hentenryck
+1 313-550-2073
karenvan@HL7.org

DIRECTOR OF EDUCATION

Sadhana Alangar, PhD
+1 734-677-7777 x116
sadhana@HL7.org

DIRECTOR OF MEETINGS

Mary Ann Boyle
+1 734-677-7777 x141
maryann@HL7.org

FHIR PRODUCT DIRECTOR

Grahame Grieve
grahame@HL7.org

DIRECTOR OF MARKETING

Patricia Guerra
+1-773-516-0943
patricia@HL7.org

DIRECTOR, PROJECT MANAGEMENT OFFICE

Dave Hamill
+1 734-677-7777 x142
dhamill@HL7.org

DIRECTOR OF MEMBERSHIP & ADMINISTRATIVE SERVICES

Linda Jenkins
+1 734-677-7777 x170
linda@HL7.org

DIRECTOR OF TECHNICAL PUBLICATIONS

Lynn Laakso, MPA
+1 906-361-5966
lynn@HL7.org

DESIGN DIRECTOR

Laura Mitter
+1 740-963-9839
laura@HL7.org

SENIOR APPLICATIONS MANAGER

Joshua Procious
+1 231-220-3129
joshua@HL7.org

SENIOR SOFTWARE DEVELOPER

Chad Neale
chad@HL7.org

DIRECTOR OF COMMUNICATIONS

Andrea Ribick
+1 734-726-0289
andrea@HL7.org

ACCOUNTING MANAGER

Theresa Schenk, CPA
+1 734-677-7777 x106
theresa@HL7.org

DIRECTOR OF TECHNICAL SERVICES & WEBMASTER

Eric Schmitt
eric@HL7.org

EDUCATION MARKETING MANAGER

Melinda Stewart
+1 810-522-8070
melinda@HL7.org

SYSTEM ADMINISTRATOR

Jon Williams
+1 734-677-7777
jon@HL7.org

HL7 PROJECT MANAGER

Anne Wizauer
+1 734-677-7777 x112
anne@HL7.org
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Andrew.j.truscott@accenture.com

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Giorgio Cangioli, PhD
HL7 Italy
giorgio.cangioli@gmail.com

Peter Jordan
HL7 New Zealand
pk.jordan@xtra.co.nz

Ron Parker
HL7 Canada
ron@parkerhc.com

Line Saele
HL7 Norway
lineandreassen.saele@fhi.no

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HL7 Europe
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Lenel James
Blue Cross Blue Shield Association
lenel.james@bcbsa.com

John Loonsk, MD
CMIO/VP, JHU/Aphl
Hi3 Solutions
john.loonsk@jhu.edu

Ken Rubin
U.S. Department of Veterans Affairs
dennis.rubin@va.gov

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Emory University
judywawira@emory.edu

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Alliance for Cell Therapy Now
jmarchibroda@allianceforcelltherapynew.org

Jean Duteau
Dutec Design Inc
jean@dutecdesign.com

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Charles Jaffe, MD, PhD
HL7 CEO
cjaffe@hl7.org

Daniel Freeman, DPT
HL7 Chief Standards Development Officer
df@hl7.org

Viet Nguyen, MD
HL7 Chief Standards Implementation Officer
viet@hl7.org

Diego Kaminker
HL7 Deputy Chief Standards Implementation Officer
diego@hl7.org

Mark McDougall
HL7 Executive Director
markmc@hl7.org
## COURSE

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## Upcoming HL7 Meetings

For the latest information on all HL7 events please visit [www.HL7.org/events](http://www.HL7.org/events)

- **April 17-21, 2023**
  - HIMSS23
  - Chicago, Illinois

- **May 6-12, 2023**
  - May 2023 Working Group Meeting and FHIR Connectathon
  - New Orleans, Louisiana