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Better Customer Experiences with **PATIENT COST TRANSPARENCY**

PLUS:

Codex Advances Oncology
Data Sharing

DaVinci Project Honors
Community Champions

Vulcan Phenotypic Data Project

ANSI Changes that
Affect Balloting

FAST Establishes
Steering Committee

INSIDE: HL7 APPOINTS
TWO NEW BOARD MEMBERS



GUPTA



GICHOYA

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HL7 News

is the official publication of

Health Level Seven International

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We are Excited to Get the HL7 Band Back Together

Update from Headquarters

We are thoroughly excited to get our HL7 family back together this September for our first in-person working group meeting in the United States since September 2019. It's hard to believe that three years have already flown by since our last in-person WGM. The pandemic clearly required everyone to change how we do things.

In fact, we were pleased to hear from several individuals that HL7 produced the best virtual meetings in our industry. I salute Mary Ann Boyle, our HL7 marketing team and HL7 technical staff for their exceptional effort in producing many events virtually and utilizing various approaches for ensuring the WGMs were productive and engaging.



September FHIR Connectathon, Plenary & WGM

We look forward to seeing many of you at the Renaissance Baltimore Harborplace Hotel. The **September events will all be in-person only** and HL7 will not accommodate remote participation.

The theme for the 36th Annual Plenary meeting is *A Global Healthcare Ecosystem to Meet the Needs of the Next Pandemic*. It will also include a presentation on the new three-year business plan. The schedule of in-person activities in September are:

- FHIR Connectathon will occur in-person only September 17-18
- 36th Annual Plenary and Working Group Meeting will convene in-person only September 19-23

The Renaissance Baltimore Harborplace Hotel is located in a wonderful area for HL7 colleagues to explore and enjoy. Please join us for a long overdue opportunity to reconnect with our HL7 family.

May Working Group Meeting & FHIR Connectathon

The May WGM was once again produced virtually. Based upon the feedback from our attendees, we are pleased to report that our approach to producing virtual events has continued to provide an experience that is productive and rewarding. Specifically, there were 520 participants in the May FHIR connectathon and 422 in the May WGM. The virtual activities continued to conduct business as usual and advanced the development of our HL7 standards.

A thousand kudos are extended to our work group co-chairs for continuing to manage the HL7 workload with our army of dedicated volunteers. We are also grateful to Computable Publishing for their Gold Sponsorship of the May WGM.

FHIR DevDays

HL7 International and Firely organized HL7 FHIR DevDays 2022, held June 6-9 as a hybrid event. The format included the in-person component taking place at the Global Health Innovation Center in Cleveland, Ohio, a satellite location in Berlin, Germany and others joining virtually from around the world making it possible for the global FHIR community to convene.

The event attracted almost 600 attendees with 244 in-person and 322 virtually, all aiming to learn about FHIR, refine their expertise and connect with the FHIR community. The three pillars for DevDays are education, sharing ideas and networking. The pillars were demonstrated through a program that featured over 120 educational sessions, more than 100 expert speakers, impactful keynote addresses and invaluable networking opportunities. Experts from around the world participated to instruct, guide and discuss how best to implement the HL7 FHIR standard.

For more insight on the event, please review a five minute video with quotes from participants and event highlights at:

<https://vimeo.com/721208054>

We are pleased to recognize our event sponsors that helped make DevDays possible:

Platinum Sponsors Gold Sponsors Silver Sponsor Bronze Sponsor

- Google Cloud
- Microsoft
- Innovaccer
- InterSystems
- Smile CDR
- Redox
- Lyniate

Continued on page 4



HL7 FHIR Fundamentals Course

**Next edition begins
October 27, 2022!**

October 27-November 24, 2022

- An introductory online course on HL7 FHIR - no experience necessary!
- Four week course includes new module each week
- Guided real-world exercises with instructor assistance and feedback
- Interactive online community with students and instructors

<http://HL7.me/FHIRfun>



By Mark McDougall,
HL7 International Executive Director

Continued from page 4

Update from Headquarters

July FHIR Connectathon for CMS

HL7 produced another virtual FHIR Connectathon for the Centers for Medicare & Medicaid Services (CMS) July 19-21, 2022. The event focused on:

- Educating interested parties at CMS and within the health IT community about HL7 FHIR, FHIR implementation guides (IGs) developed by the Da Vinci Project and the CARIN Alliance and their real-world uses.
- Supporting impacted stakeholders as they comply with the CMS and ONC interoperability rules.
- Engaging providers, payers, and partners to join the growing collaborative FHIR community and directly access associated free and open resources.

Over 1440 registered attendees participated in 13 different tracks organized by subject. CMS has expressed their appreciation for HL7 once again producing a successful FHIR connectathon. Many thanks to Sandy Vance for her role in supporting the management of the FHIR connectathon. For detailed information on the CMS Connectathon, see <https://blog.hl7.org/july-connectathon-brings-implementers-together-plan-now-for-the-september-connectathon>



Mark Your Calendars

In addition to our September events in Baltimore described above, please be sure to add to your calendar the dates and locations of our other upcoming in-person HL7 events:

- January 2023 events near Las Vegas at the Hilton Lake Las Vegas Resort in Henderson, Nevada:
 - *FHIR Connectathon* will occur January 14-15, 2023
 - *January 2023 WGM* will convene January 16-20, 2023
- May 2023 events in New Orleans, Louisiana:
 - *FHIR connectathon* will occur May 6-7, 2023
 - *May 2023 WGM* will occur May 8-12, 2023

We look forward to seeing many of you at these HL7 events. For more details on these events, please visit www.HL7.org/events.

Benefactors and Supporters

We are pleased to recognize HL7's 2022 benefactors and gold members who are listed on page 29. Their support of HL7 is very much needed and sincerely appreciated. We are pleased to recognize our benefactors in all of our HL7 newsletters, on the HL7 website, in all of our HL7 press releases, and at all of our HL7 Working Group Meetings.

Organizational Member Firms

As listed on pages 29-31 HL7 is very proud to recognize the organizations who are HL7 organizational member companies. We sincerely appreciate their ongoing support of HL7 via their organizational membership dues.

Best wishes to you and your loved ones for staying healthy and finding time to enjoy plenty of hugs and laughter.

Google's Aashima Gupta and Emory's Judy Wawira Gichoya, M.D., join the HL7 board of directors

HL7 International Appoints Two New Members to the Board of Directors

HL7 recently appointed two new members to the board of directors to serve a two-year term: Aashima Gupta, director, global healthcare solutions, Google Cloud; Judy Wawira Gichoya, M.D., M.S., assistant professor, radiology and imaging sciences, Emory University School of Medicine.

“These leaders represent a critical cross section of global stakeholders who are committed to advancing health through information technology. We are delighted to welcome them to the HL7 board of directors,” said Charles Jaffe, M.D., Ph.D., CEO of HL7. “Their strategic expertise and diverse experience will contribute greatly to HL7’s goal of improving the quality of care and reducing costs by overcoming the barriers to interoperability.”

About the Appointed Board Members

Aashima Gupta serves as the global leader of healthcare provider solutions at Google Cloud. In this role, she sets the direction for transformative health care solutions. She is focused on the dynamic intersection of industry imperatives, technology, and interoperability efforts that enable new models for care and improved patient experiences. By incorporating strategic technology elements of artificial intelligence and cloud technologies into the care regimen, Gupta believes that patient care and experiences can be substantially improved. Formerly, Gupta led digital health incubations at Kaiser Permanente and helped launch the Care Connectivity Consortium that worked together to build a health information exchange between health systems. She was also responsible for driving innovation in digital technologies, including a project centered around remote monitoring of diabetic people. Aashima serves on the board of



Aashima Gupta

directors for IntelyCare and board of advisors for HIMSS NA, and GRAIL. She was recently recognized as one of the Most Influential Women in Healthcare IT by HIMSS and as one of the Top 100 Women in Fem Tech and Health Tech by the WomenTech C-Level Network. Aashima received her Bachelor of Science in Computer Science and Master of Science in Computer Applications from Delhi University, India.

Judy Wawira Gichoya, M.D., M.S., serves as an assistant professor in the department of radiology and imaging sciences at Emory University School of Medicine where she is a multidisciplinary researcher, trained as both an informatician and interventional radiologist.



Judy Wawira Gichoya, M.D., M.S.

In addition, she is also a NIH Data Scholar at the Fogarty International Center, where she helps with the Open Data Science Platform (OSDP) component of the DSI Africa Initiative to “Harness Data Science for Health in Africa.” Her research focusses on curating diverse datasets for AI and validating AI models in real world settings which led to her recognition as the 2021 Most Influential Radiology Researcher by the radiology community website AuntMinnie.com. Dr. Gichoya has more than a decade in open-source projects working as a developer, implementor and evaluator of various standards and systems used in low resource settings. She has contributed to supporting the imaging informatics community by developing the SIIM dataset used for the annual datathon, as well as providing multiple tools to work with DICOM standard for imaging workflows. She has also participated in previous IHE connectathon events. Dr. Gichoya serves on the board of SIIM (Society of Imaging Informatics in Medicine), the American College of Radiology AI advisory board and holds committee positions in multiple radiology societies. ■

HL7 Internal Projects and ONC Grant-Funded Projects

HL7 Policy Update



During the DC summer months, Congress has been relatively quiet on healthcare issues, but federal executive agencies and regulators are busy. One important highlight is the National Committee on Vital and Health Statistics (NCVHS) Subcommittee on Standards June 9, 2022, listening session on Standardization of Information for Burden Reduction and Post-Pandemic America Convergence 2.0. HL7 representatives, including our CEO Dr. Charles Jaffe, testified.

During the hearing and in our follow-up letter, HL7 supported all five considerations below that were examined by the NCVHS *Subcommittee on Standards on June 9, including:*

- **Consideration 1:** Update relevant HIPAA policies to allow for the adoption and use of more than one standard per business function.
- **Consideration 2:** Enable HIPAA covered entities to support multiple versions of adopted standards for business functions.
- **Consideration 3:** Revise the standards exception process for HIPAA covered entities who submit an application with the required justification and business case to automatically authorize them without waiting for review.
- **Consideration 4:** Identify options for improved integration of health information standards, including base standards plus implementation guides, more broadly than at present, and fostering relevant collaboration across HHS Agencies and Offices.
- **Consideration 5:** Develop and publish a guidance framework with recommended definitions, metrics, templates, and pilot test procedures. The specific areas of work include such methods for reporting on standards readiness, standards costs, results of real-world testing and metrics essential for evaluation of standards.

Some key highlights of issues HL7 emphasized are:

HL7 FHIR As an Alternate Standard to Existing Mandated HIPAA Transaction Standards

HL7 urges NCVHS to formally recognize HL7 Fast Healthcare Interoperability Resources (FHIR®) as an alternate standard to existing mandated HIPAA transaction standards, furthering the nation's journey of intersecting of clinical and administrative frameworks and related interoperability objectives. While the information requirements of healthcare data are extremely complex, the HL7 FHIR standard aids in removing many of the barriers to health care data exchange.

Public-Private Sector Partnerships

Ongoing meaningful collaboration between the public and private sectors is essential in the interoperability journey and in particular, is improved through more input from industry stakeholders and continued collaboration among Standards Setting Organizations (SSOs).

Cooperation Across Government

HL7 enthusiastically supports identifying options for improved integration of health information standards, including legacy technologies augmented

by implementation guides, more broadly than those presently available. Furthermore, HL7 encourages strategic collaboration across U.S. Department of Health and Human Services (HHS) agencies and offices, including state, local, tribal & territorial governments.

Value Proposition and Incentive Alignment

HL7 recommends additional federal incentives, funding and support for testing, implementation and maturing of standards in this area. All ecosystem participants must be considered, and should benefit areas identified as HIPAA administrative, financial, and clinical frameworks that increasingly intersect.

Standards Exceptions Process: HIPAA Covered Entities

HL7 strongly supports revising the standards exception process for HIPAA covered entities who submit an “application” with the required justification and business case to automatically authorize them without waiting for review.

Standards Transition Policy

HL7 recommends adequate, additional policy be in place for more agile standards transitions involved in HIPAA administrative transactions and explicit detail about guardrails and sunsets that are a part of this process to ensure efficiency and transparency. A focus on investing, advancing and aligning both federal frameworks and tools is critical, as underscored by the *FHIR Roadmap for Trusted Exchange Framework and Common Agreement (TEFCA) Exchange*. HL7 believes that it is critical to accelerate investment in technical tooling and education, in order to extend existing efforts to coordinate and align regulatory and sub-regulatory methods to advance health IT frameworks.

Increased Standards Testing

HL7 agrees with the need for increased standards testing that was mentioned by multiple speakers at the listening session. HL7 supports and can facilitate more Connectathons and standards pilot testing with adequate assistance.

SOGI, SDOH and Public Health Issues

Greater insight is needed on Sexual Orientation and Gender Identification (SOGI), Social Determinants of Health (SDOH) and public health issues in this space. Moreover, federal, state and local policy should be better aligned. HL7 emphasized in its July 2021 letter to the NCVHS Subcommittee on Standards that, “development and adoption of common data standards is foundational to identifying inequities, identifying potential interventions, coordinating interventions across agencies, measuring progress, and conducting research and evaluation. Requiring that health systems collect standardized data elements indicative of social determinants of health, and report these data, are key to improving the ability to share data that helps our society address inequities.”

The June 9 listening session agenda and materials can be accessed at: <https://ncvhs.hhs.gov/meetings/standards-subcommittee-meeting-3/>

The NCVHS Subcommittee on Standards July 28 recommendation letter on these issues can be found at: <https://ncvhs.hhs.gov/wp-content/uploads/2022/08/Recommendation-Letter-Modernize-Adoption-of-HIPAA-Transaction-Standards-508.pdf>

As a next step, the NCVHS Subcommittee on Standards is expected to hold a follow-up listening session this fall. We will keep you updated.

Key 2022 HL7 Policy Responses: Current

HL7 is currently compiling responses for:

- **NIH Request for Information (RFI) on Acquiring Electronic Health Record Data from Health Information Networks and Health Information Exchanges for the All of Us Research Program** <https://grants.nih.gov/grants/guide/notice-files/NOT-PM-22-004.html>
- **USCDI v4** https://www.healthit.gov/sites/default/files/page/2022-07/Standards_Bulletin_2022-2.pdf
- **Interoperability Standards Advisory (ISA) 2023 Reference Edition** <https://www.healthit.gov/isa/>
<https://www.healthit.gov/isa/ONDEC> ■



By Ticia Gerber, HL7 Senior Policy Advisor, tgerber@hl7.org
Please contact with questions or for more information on these policy updates.

Important Notice

ANSI Changes that Affect Balloting

Recent changes to ANSI's Essential Requirements eliminate Associations as an interest type for balloting (this does not affect membership). Beginning with the September 2022 ballot cycle, if your organization falls under the Government/Professional Associations/Universities membership category, it will display as General Interest type for purposes of balloting.

ANSI also changed the requirements such that Consultants and Association voters must identify the interest type they are representing for a particular client, consensus group, or constituency. This change was made because many consultants and non-profit organizations are paid or otherwise represent another interest type and ANSI is of the opinion that those votes should be counted under the interest type they actually represent. For example, a consultant may be hired by a provider to participate in a particular consensus group, and their vote should be counted under the provider interest type. Likewise, a non-profit association may represent EHR vendors, and votes cast by that non-profit should be counted under the vendor interest type.

To accommodate these changes to the ANSI Essential Requirements, all Consultant and General Interest voting members will need to choose which interest type they are representing for each consensus group they join. These voters may be representing themselves and can still choose Consultant, Government/Non-Profit, or General Interest for any given consensus group.

Consultant and General Interest voters will see a screen similar to the one at the top of the next column when they join ballot pools:

Consultant and General Interest voters will use the pull-down menu next to the title of each consensus group they are joining to select the interest type they will be representing. An interest type must

be selected for each consensus group. The ballot desktop will not allow these members to register



for a consensus group unless an interest type is selected. Additionally, the interest type cannot be changed after ballot signup.

Voting members who are not Consultants or General Interest will not see this option. Instead, you will see a screen similar to the one below. Note that there are no pull-down menus, but there is a significant space between the checkbox and title of the ballot (consensus group).



Should you have questions about this change, please feel free to contact Associate Executive Director Karen Van Hentenryck (Karenvan@HL7.org) or Director of Technical Publications, Lynn Laakso (Lynn@HL7.org). ■



By Karen Van Hentenryck, Associate Executive Director, HL7 International

Newly Certified HL7 Specialists

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



**Certified HL7 CDA
R2.0 Specialist**

JULY 2022

Santiago Aso

AUGUST 2022

Anmer Ayala



**Certified HL7
Version 2.x
Chapter 2 Control
Specialist**

MAY 2022

Sai Teja D

JUNE 2022

Anudeep Kilaparathi

Niranjan Gajagouni

JULY 2022

Roshani Singh

Estefanía de las
Mercedes Ferrera
Vizcaino

Antonio Gabriel Sánchez
Hernández

Adrian Vargas Rodriguez

AUGUST 2022

Zoe Chimunda

Ritesh Singhvi



**HL7 FHIR R4
Proficient
Certified**

MAY 2022

Srinivas Konchada

Maja Bogdanovic

Mary Burgess

Santiago Aso

Matthew Brewster Storer

Brandon Raab

Meagan Peat

Jesse Barr

Carmen Daniel Moriana

Damir Drnovsek

Kresimir Kers

Ryan Weihler

Xiaoyang Pi

JUNE 2022

Andrii Krylov

Mohamed Omar

Plamen Tassev

Toàn Ngô

JULY 2022

Mario Enrique Cortes
Monsalve

Nicolas Riss

Mikel Blanco

Yessica Andrea Dios
Fernández

Luc Chatty

AUGUST 2022

Alexander Bennett

Christoph Rettinger

HL7 Internal Projects and ONC Grant-Funded Projects

News from the HL7 Project Management Office

Fonteva: The New Meetings and Membership Software System

Testing continues with Fonteva, a leading association management and membership software solution powered by Salesforce.

Implementation is targeted to be completed by November 1, 2022. At that point, everyone's account and membership information will be migrated to the new platform. Registration for events and educational opportunities will be a much-improved user experience; however, be aware that historical event and education training registrations will not be migrated to the new system.

Jira and the Project Scope Statement (PSS)

While progress has slowed due to the focus on Fonteva, work continues to add the ability for the Jira PSS to accommodate reaffirmation and specification withdrawals. For the time being, those actions will continue to use the PSS form in Confluence. The same applies to efforts by the project team to migrate all active non-Jira PSSs to Jira as well as planning to sunset Project Insight.

ONC Grant Funded Projects Update

September 2022 ends ONC's five-year Cooperative Agreement which awarded \$1.36M to HL7 each year for continued maturation of the C-CDA and FHIR standards.

Work completed under the most recent fiscal year (2022) included the following:

- Support of the Unified Terminology Governance (UTG) process and tooling
- Improvements to the FHIR Jira Ballot process
- Administration of the FHIR Connectathons
- Advancement of Bulk Data Access and Push
- Continued support for the FHIR Terminology Server
- Continued support on the HL7 FHIR Build and Implementation Guide Publishing tasks
- Enhancements and support to the FHIR Registry
- C-CDA Implementation-A-Thons held in October 2021 and March 2022
- Enhancements to, and quality assurance of, the C-CDA Web Publishing Tool
- Updates to C-CDA R2.1 value set
- Support of the Gender Harmony project
- Develop and deploy key infrastructure for the FHIR-OMOP community
- Prepare for and ballot the At-Home Test Result Report FHIR Implementation Guide

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

The first is a four-year \$2M cooperative agreement titled "HL7 Public Health Standards and Solutions for Future Pandemics." Projects under this endeavor include the following:

- Expand the clinical domains supported by HL7 standards by balloting the COVID-19 FHIR Profile Library implementation guide
- Improve the privacy and security of health information by examining the current landscape of relevant security, privacy, and public health standards
- 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
- Support development, advancement, and harmonization of Social Determinants of Health (SDOH) standards by analyzing the current state and emerging activities of SDOH related data
- Advance HL7 public health standards by developing a Physician Orders for Life-Sustaining Treatment (POLST) CDA Implementation Guide

- 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
- Testing of the Gravity SDOH Clinical Care GHIR Implementation Guide

The second opportunity is a five-year \$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

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. ■



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.

HL7 Welcomes New Members

Gold

Asymmetrik, a Blue Halo Company

Brooklyn Data Co.
MedCom

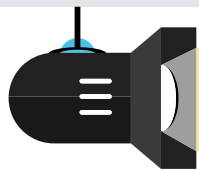
MY Synergy Ltd.
USAging

Organizational

Allendale County Hospital
Best Option Healthcare PR
Brightspace Advertising PTY LTD
CLM Center for Life Management

CloverDX
Idaho Bureau of Vital Records & Health Statistics
NeuroPsychiatric Hospitals
Oddball, Inc.

Radiological Society of North America
SoftDev Incorporated
SYNCRONYS
Vital Data Technology



Member Spotlight on Reuben Daniels, FAIDH CHIA



Professional Background

Reuben Daniels, FAIDH, CHIA, is Principal Consultant at Saludax and is based in Brisbane, Australia. He received his Bachelor of Science (majoring in mathematics and computer science) and Bachelor of Science (Honours in Computer Science) from the University of Cape Town. He is also TOGAF 9 certified, an HL7 Certified CDA Specialist, a Certified Health Informatician Australasia (CHIA) and a Founding Fellow of the Australasian Institute of Digital Health (FAIDH).

Reuben's career in health IT began when he moved to Australia and joined the National E-Health Transition Authority (NEHTA) as a Senior Software Developer in 2010. NEHTA was responsible for the development and delivery of Australia's national e-health program. He became the Lead Architect responsible for the development and execution of strategies, and provision of technical oversight and architectural leadership. During his time at NEHTA, he benefitted greatly from the knowledge and experience of colleagues and mentors, including Grahame Grieve and Dr. Andy Bond.

While at NEHTA, he participated in the following major initiatives:

- Healthcare Identifiers Service – Development of a Java-based integration software library and a software conformance scheme to support software vendors integrating with the service that provides the Individual Healthcare
- Identifier (IHI)—the Australian national patient identifier
- My Health Record System (formerly known as the Personally Controlled Electronic Health Record) – Participated in the development of new technical specifications to support the exchange of prescriptions, dispense records, pathology reports, and radiology reports in the CDA-based national electronic health record. Later, he participated in the development of a FHIR-based API allowing mobile devices to access the system
- CDA Rendering specification – Co-authored a foundation interoperability specification which ensures consistent rendering of HL7 CDA clinical documents based on NEHTA Implementation Guides. Reuben developed a corresponding XSLT CDA Stylesheet which has been broadly adopted in most Australian healthcare software applications that render CDA documents including the My Health Record System's patient and provider web portals
- National Clinical Terminology Service (NCTS) – Participated as the lead architect in the project to establish the NCTS, which supports the distribution and meaningful use of SNOMED CT, LOINC, and FHIR CodeSystem based coding systems through adoption and localization of the FHIR terminology service and IETF Atom specifications

During his time at NEHTA, Reuben was very active in standards development and represented NEHTA in various national and international standards development organizations including HL7, SNOMED International, GS1 and Standards Australia.

Reuben started as Principal Consultant with Saludax in July 2016. In this role he provides professional services related to strategy, architecture, standards, interoperability, health informatics, and governance in healthcare. He is currently engaged as an enterprise architect by the state of Queensland's public health system (Queensland Health) in a team responsible for technical oversight of major IT initiatives, and the development of strategy, policy and standards. In this role Reuben led the design of Queensland Health's first FHIR-based solution—the Queensland Clinical Terminology Service (QCTS).

HL7 Activities

Reuben's involvement with HL7 started when he joined NEHTA in 2010 which, at the time, was an organizational member of HL7 with many employees participating in standards development in HL7 International and HL7 Australia.

The January 2011 HL7 Working Group Meeting (WGM) in Sydney, Australia was his first WGM, which sadly was cut short due to the Brisbane floods, requiring him and other Brisbane-based NEHTA attendees to return to Brisbane. In May 2014, Reuben attended the HL7 FHIR Connectathon and WGM events in Phoenix, Arizona with the primary objective of developing a good understanding of FHIR. This event proved to be an extremely valuable experience in which he not only achieved his primary objective, but also became more familiar with HL7, and made many new friends. Since then, he has remained an active participant in HL7.

Reuben currently serves as a Co-Chair of both the Vocabulary Work Group and the Terminology Services Management Group (which he played a role in establishing in 2021). In these roles, he is able to influence the development and implementation of terminology-related standards, policies, products and services in HL7, including how both internal and external terminologies may effectively and meaningfully be used in

HL7 standards. Key to this is HL7 Terminology (terminology.hl7.org) and its underpinning Unified Terminology Governance (UTG) process. Reuben was a member of the team that developed the first release of HL7 Terminology, and he continues to support its evolution and broad adoption.

Reuben is also a member of the board of directors of HL7 Australia. In this role, he works with other board directors to promote the effective and consistent use of standards developed by HL7 International and HL7 Australia across the Australian health sector.

Personal Life

Reuben's family of five lives in Brisbane, Australia. It includes his wife, Joanne, daughters Maya (15) and Zara (13), and Doug, the family dog.

Joanne is a Quality Assurance & Regulatory Affairs Manager working in the medical device manufacturing field. They met in Cape Town, South Africa in 2001, and shortly thereafter, moved to the United Kingdom (UK) when Joanne was awarded a scholarship to undertake a PhD in molecular genetics. After eight years in the UK — during which time they were married and had two daughters — the family moved to Brisbane.

Maya is currently in Year Nine in high school and enjoys reading and playing the piano. She recently started her first part-time job in a local coffee shop. Zara is in Year Seven and enjoys camping and playing the violin. Both daughters are Shotokan karate students: Maya hopes to get her provisional black belt and Zara her first Kyu brown belt by the end of 2022.

The family enjoys cooking, restaurants, travel, hiking in the local Australian bushland, beaches, movies, TV shows, boardgames, constructing large LEGO Star Wars sets, and socialising. They regularly travel to South Africa to visit family and friends.

Reuben's other interests include graphic novels, current affairs (often to his own detriment!), as well as the drum & bass genre of electronic dance music. He enjoys fine wines and whiskies—and a good local brew (especially with fellow HL7 standards developers). ■



Vulcan Phenotypic Data Project



Some domains, such as rare diseases, genomics and genetics, and cancer, rely on phenotypic information for more accurate treatment of patients, but this information is not typically recorded in a patient's electronic medical record or in a codified format. Phenotypic information is difficult to document for clinical genetics and is often found across medical records, clinical notes, structured labs, image annotations and problem lists. Many times, the data is located in other clinical systems because the EHRs do not fully support what is needed for computational diagnostic tools.

The goal of the Vulcan Phenopackets project is to design an exchange standard using HL7 Fast Healthcare Interoperability Resources (FHIR), for case-level phenotypic and clinical information called a Phenopacket, a GA4GH/ISO standard.

- The Phenopacket can be a single visit encounter or the complete medical history of a patient.
- This standard aims to support the exchange of de-identified case-level information across EHRs, clinical laboratory, registries and journals.
- The result will be an FHIR implementation guide (IG) that will be used by collaborating vendors, healthcare organizations and clinical genetic laboratories.

Included in this package is the Human Phenotype Ontology (HPO) terminology, a standard in many rare disease diagnostic contexts, that has special features such as a full semantic graph with logical underpinnings, i.e., there are multiple inheritances with terms that describe complex relationships not found in clinical terminologies. In clinical genetics, when performing whole exome, genome analysis or targeted gene panels to help diagnose the patient's genetic disease, the HPO terms are used to improve the diagnostic efficacy by

matching against known diseases annotated with HPO or via other algorithms. It would therefore be incredibly impactful if there were a way to extract the HPO terms from all of the locations where such phenotypic descriptors are found within the EHR, to allow a clinician to vet and enhance the description and export the Phenopacket for use by the diagnostic labs.

The September Vulcan Phenotypic Data Connectathon track tests the current implementation guide that aims to do just this.

Connectathon Goals:

- Representing phenotypic information in FHIR based on the IG, or beyond the IG, if and when needed.
- Representing phenotypic profiles.
- Being able to exchange phenotypic data and packets in a reliable way.
- Relating/connecting FHIR-based phenotypic data and packets to other FHIR resources such as laboratory requests and results.
- Converting between the GA4GH Phenopackets Schema format and the equivalent FHIR representations.
- Understanding the possible issues with adopting the GA4GH Phenopacket (version 2) FHIR IG by existing systems such as PhenoTips.

The most recent Connectathon information is here on the HL7 Connectathon Confluence space. We welcome participants!

Phenopacket Community meetings are held on the first and third Mondays at 3 pm PT/6 pm ET.

Zoom information can be found on the Vulcan Phenopacket Confluence page here

If you are interested in the project, contact the Vulcan Project Office (vulcan@hl7.org). ■



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Developing a Standard Data Exchange in Support of Patient Cost Transparency for Devices, Services and Collection of Services Using FHIR APIs for Exchange of Data

Solving Challenges and Creating a Better Customer Experience with Patient Cost Transparency

In its fifth year, the HL7 Da Vinci Project continues to channel industry’s best and brightest across provider, payer and vendor sectors to solve interoperability problems and increase efficiencies. More than a dozen use cases and Implementation Guides (IGs) have been developed to date and organizations are using them.



For example, real-world progress was demonstrated at this summer’s CMS HL7 FHIR Connectathon. Google, Hook.md, Infor, MCG, Onyx, Palmetto, and Redox collaboratively leveraged CRD, DTR, PAS IGs as building blocks inclusive of using CQL for populating a questionnaire to demonstrate how HL7 Fast Healthcare Interoperability Resources (FHIR®) can reduce administrative burden for prior authorizations.

To learn more about the use cases and the status of all of the Da Vinci IGs, visit the Use Case Status Tracking pages at Da Vinci Implementation Guide Dashboard (<https://confluence.hl7.org/display/DVP/Da+Vinci+Implementation+Guide+Dashboard>).

Patient Cost Transparency Implementation Guide

Of all the IGs, Patient Cost Transparency (PCT) has particularly gained interest and attention this year. The goal of the IG is to develop a standard data exchange in support of patient cost transparency for devices, services and collection of services using FHIR APIs for exchange of data. Objectives include:

- Ability to communicate good faith estimates (GFE) for single service, collection of services, and items from provider to payer
- Ability to communicate advanced explanation of benefits (AEOB) prior to scheduled service or upon request to patient and optionally, to provider
- Support current and future regulations and enable compliance

Cost transparency of services for patients is not historically provided in USA healthcare in a consistent way. The complexities of providing costs are inherent in our systems, especially when multiple providers contributing to one patient’s period of care/service (e.g., surgery) and coupled with payer’s complex benefits, plan structures, and



By Vanessa Candelora, Project Manager, HL7 Da Vinci Project and Senior Consultant, Point-of-Care Partners



Project Focus

To ensure the success of the industry's **shift to Value Based Care**



Transform out of Controlled Chaos:

Develop **rapid multi-stakeholder** process to identify, exercise and implement initial use cases.



Collaboration:

Minimize the development and deployment of **unique solutions**.
Promote industry wide **standards** and adoption.



Success Measures:

Use of FHIR®, implementation guides and pilot projects.

all the contract structure, discounts available and financial aid. Often additional unknown factors also contribute to a patient's care.

Consumers have increasingly been able to achieve better transparency into their costs outside of healthcare. When you want to renovate your home, fix your car, or buy milk—you can request a quote or clearly view the price. Bodies are not as simple as cars. With a mechanic, you can get an estimate and then when your car is being serviced, they stop, call you, and mention, “When I was fixing your brakes, I noticed XYZ was broken...do you want me to fix it?” In contrast, the surgeon is not going to wake a patient up while on an operating table. With healthcare, you frequently sign up for services and then cross your fingers when you receive the bill, often having no idea how hard your wallet will be hit.

The No Surprises Act (NSA) became effective January 1, 2022 and was passed to end surprise billing. One piece of the law requires that patients receive a comprehensive estimate of their out-of-pocket costs for expected services and items in advance, and the ability to shop for the best fit to meet their healthcare needs. Note that cost is one factor of the equation—quality, location, language, providers accepting new patients, are just some of the others—that all need to fit together to truly empower patients to be better stewards of their healthcare.

Da Vinci expects continued regulatory activity to improve cost transparency for patients. The

industry is in a bit of limbo, with emerging standards, but no clearly adopted or mandated way to solve this problem. The community expects continued CMS/ONC interoperability mandates for increased use of APIs and is working to help shape a solution that will fill this void for transparency in coverage, working across payers, providers on a long-term approach to unlock the workflows and data necessary to ensure patients get accurate estimates. Litigation, arbitration and lawsuits that are currently pending show the government is holding the industry accountable for meeting regulations. For example, fines to a few well known hospital systems (<https://www.fiercehealthcare.com/providers/after-months-warnings-cms-begins-handing-out-fines-hospitals-failing-price-transparency>) have prompted many laggards and reluctant industry participants to get their rates published to demonstrate compliance with the first set of regulations.

While we await more regulatory activity, it's clear to the Da Vinci community that there is an opportunity for FHIR. The promise of pending regulations is allowing parties to reevaluate and update their processes, contracts, and flow of information.

Instead of waiting for the regulations, Da Vinci's Patient Cost Transparency use case team is looking at the long term, end-to-end problem, and encourages this community to take a thoughtful, incremental approach to building FHIR APIs and the necessary crosswalks to other existing and

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Solving Challenges and Creating a Better Customer Experience with Patient Cost Transparency

emerging standards, so we can begin to unlock these long standing industry challenges.

While the community acknowledges and is informed by regulatory and potential policy inputs, and where there are specific external regulatory or industry dates that can inform and help prioritize the order of the work, as always the work of Da Vinci is not to be constrained to only meeting regulation or anticipated regulation. In all of our work, the focus is to create the supporting rails and connectors to achieve semantic interoperability and deliver value for all stakeholders to begin to unleash the data needed, so industry participants can get to true price transparency for patients. We acknowledge this is only one part of the necessary activities to move forward.” The community appreciates clear support and alignment on goals from Da Vinci’s Steering Committee issued statement of scope around PCT. The full text is here: <https://confluence.hl7.org/display/DVPDa+Vinci+Steering+Committee+PCT+Scope+Statement>

The team has developed the initial definition of a standard API for creating a “Good Faith Estimate (GFE)” FHIR bundle and to return an Advanced Explanation of Benefit (AEOB) FHIR bundle. The IG balloted and is slated for initial publication of the STU1 draft standard once ballot reconciliation is complete.

Alongside this work, it is imperative that payers and providers ensure they have a process to update

their network directories with accurate provider information, and that this data is available for use by partners now more than ever with NSA requiring verification of information every 90 days and updates to be made within two days of notification. There was a great demonstration at the July CMS HL7 FHIR Connectathon during the combined FAST National Directory and Da Vinci Plan Net/Provider Directory track showing how FHIR standards can be leveraged for providers to update their information once and appropriate business partners (e.g. payers) can leverage updated, authenticated, verified provider data in a distributed directory model, reducing the burden for updating information several times and supporting the goal for patients to access in-network providers for anticipated services.

While business processes and strategy of data management continue to be some of the biggest underlying challenges to price and cost transparency, getting the data flowing between siloed systems and business partners is essential to progress. Thinking about how your data fits together to create a better customer experience for a patient is critical; consider the services they can expect, how their benefits apply and their out-of-pocket costs. ■

Come join the work underway at an IG work group, upcoming FHIR Connectathon or pick up the guides and use them

Use Case confluence site:

<https://confluence.hl7.org/display/DVP/Patient+Cost+Transparency>

Implementation Guide:

PCT CI IG: <https://build.fhir.org/ig/HL7/davinci-pct/#overview>

PCT Jan22 Ballot: <http://hl7.org/fhir/us/davinci-pct/2022Jan/>

Project Scope Statement:

[Project Scope Statement](#) approved by HL7 (FM Sponsor, PIE co-sponsor)

Zulip Chat

<https://chat.fhir.org/#narrow/stream/301151-Da-Vinci.20PCT>

Eight Professionals Honored as Innovative Health IT Leaders

HL7 Da Vinci Project Honors 2021 Community Champions

As an HL7 Accelerator, the Da Vinci Project’s primary mission is to improve the healthcare delivery system by accelerating interoperability standards while reducing administrative burden and improving health outcomes, with a focus in value-based care. Da Vinci is creating change through the collaboration of providers, payers and vendors who have this core mission as their focus. Our greatest strength is our people, and to transform healthcare delivery, we need to foster and attract diverse talent.

Last year Da Vinci created the Community Champions Program to recognize and foster talented problem solvers. The Community Champion Program recognizes individuals who display the unique traits of industry above self, a passion for making the healthcare system work better, supporting others, and promoting change. The honorees are highlighted below.



Dave DeGandi

Senior Interoperability Strategist
Cambia Health Solutions

“The use case implementation guide standards being created by the Da Vinci project are the best option in the healthcare industry for scalable solutions to improve payer/provider interoperability.”

Holding the unique honor of appearing in both the inaugural class of champions in 2020 and in the Class of 2021, David DeGandi continues to be a leader in advancing modern healthcare by expanding the implementation of the HL7 Da Vinci Project. Dave has created and worked on the Value Metrics Framework, which can be applied to all use cases. Dave also worked on several “firsts” in the nation, including the release of the CRD Smart on FHIR app into the Epic app orchard, and the CMS 278 exception for prior authorization support. His collaborative spirit and commitment to advancing healthcare through interoperability and the Da Vinci project show his passion for innovation and improving the healthcare experience.



Rajesh “Raj” Godavarthi

Associate Vice President of Technology and Interoperability
MCG Health

“It’s an honor to participate in the HL7 Da Vinci Project because it means you have a role in building the future of healthcare technology. This translates to fewer burdens for both payers and providers, and most importantly, improved outcomes for patients.”

The next champion, “Raj” Godavarthi, is highly engaged and is always willing to share the Da Vinci story. He was named the co-lead for the HL7 Da Vinci Project’s burden reduction use cases in prior authorization support (PAS), coverage requirement discovery (CRD), and documentation templates and rules (DTR). He has shared his experiences at MCG in numerous presentations to provide a roadmap for others to become involved in the project. He also embarked on an extensive initiative to educate payers and providers about the future of prior authorization automation by creating a free monthly webinar series that has attracted thousands of individual registrations from payers, third-party administrators, providers, government agencies and quality auditors. He continues to lead interoperability efforts and build bonds between other Da Vinci subject matter experts as well as those new to the project.

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Eight Professionals Honored as Innovative Health IT Leaders



Heather Kennedy

Principal Interoperability Architect
Humana

“As a twenty something new to healthcare, I never went to the doctor, used a portal or even thought about what a care team was. In my thirties, while navigating cancer, I quickly learned the importance of having the right data at the right place at the right time. It is beautiful

to see the healthcare ecosystem partners come together through Da Vinci and solve problems that I know will improve patient outcomes and remove provider burden.”

Heather Kennedy has demonstrated innovative technical leadership to improve payer and provider business for members and patients while bringing together other experts and leaders across the industry to deliver on the vision of value-based care that the Da Vinci project supports. She has provided subject matter expertise and thought leadership, and her continued real-world experience is why we are recognizing her continued efforts.



Heidi Kriz

Assistant Director Medical Policy
Regence

“Our goal is to be an industry leader in transforming health care processes to improve care access as well as the patient and provider experience, ultimately resulting in better patient outcomes. FHIR is a next-generation standards framework, and the future of healthcare data exchange

allowing for a significantly greater degree of automation. Using data, automation and interoperability technology for service reviews improves speed-to-care for members while reducing the burden for providers.”

Heidi Kriz has the heart and the passion to drive prior authorization forward. She is a rising star and is spreading the word to the nation on how we can make healthcare better for patients, members, providers and payers—a “win, win, win, win.” She walks the talk of making change to improve upon the opportunities we have in creating a healthier future for all. Her work on prior authorization is where she started, but her intelligence and her drive has led her to seek more about the use of FHIR and its capabilities to achieve better health outcomes.



Alice O'Carroll

Interoperability Product Manager
Florida Blue/GuideWell

“Engagement in Da Vinci is vital for organizations who want to ensure their roadmaps will align with the future industry standards. It also affords organizations the opportunity to have a seat at the table where the standards are being developed. This has taken on an

ever-increasing importance as Federal mandates have started to require adherence to some of the IGs coming out of Da Vinci work groups.”

Alice O'Carroll has stepped into Da Vinci to represent Florida Blue from a payer perspective and brings her previous provider expertise to the Patient Cost Transparency Implementation Guide efforts. Her leadership as co-chair brings providers and payers together, and she willingly presents on many stages, including HIMSS, in order to bring awareness and transparency to the implementation guide and future regulations.



Semira Singh

Director, Population Health Informatics
Providence

“Da Vinci creates an opportunity for payers, providers, and vendors to come together and develop national standards that promote transparency, success, and help further the adoption of Value Based Care (VBC). This incredibly important work cultivates an ecosystem where a common

healthcare data language is spoken to empower organizations to make data driven decisions that positively impact patient care.”

Semira Singh has served as a pillar of strength and innovation within Da Vinci's provider community, with a focus on seeking to establish a scalable implementation pathway for value-based care use cases. She has served as a pioneer in working with partners on piloting challenging first initiatives, such as member attribution, and has single handedly led the technical initiatives within Providence that aim to convert these concepts into reality. She has been a great collaborator with Providence's payer partners in engaging them within a Da Vinci framework, championing standards-based approaches and a collaborative sensibility.



Jason Teeple

*Enterprise Architect
Evernorth*

“Da Vinci provides us with an opportunity to work cooperatively to use standards, use cases and implementation guides to improve interoperability for the entire healthcare system.”

Jason Teeple’s dedication to various use cases and implementation guides has truly created an opportunity to improve interoperability for the entire healthcare system. From burden reduction and prior authorization to payer data exchange, his insight and ideas have made a difference.



Brent Zenobia

*Chief Strategist
Novillus*

“By reducing the administrative burden on health care providers I believe Da Vinci is our best hope for easing physician burnout.”

Brent Zenobia has been instrumental in getting the risk adjustment use case off the ground, and he is dedicated to making health care better. He has produced numerous slide decks to educate and help the community increase its understanding and knowledge. He also actively digs into the work, taking several examples and identifying additional elements to strengthen them. He works very cooperatively and, like many of his peers, he is truly passionate about getting it right.

Many Thanks to our Champions!

“On behalf of the HL7® Da Vinci Project, our Steering Committee and members, we are delighted to recognize our 2021 Da Vinci Community Champions. The important work of our FHIR accelerator is powered by people dedicated to solving today’s interoperability challenges. Each individual was nominated by their peers based upon their daily applied effort, exemplary achievements and unique contributions to the Da Vinci Project in 2021,” said Kirk Anderson, HL7 Da Vinci Project Steering Committee Member and Vice President and Chief Technology Officer at Cambia Health Solutions.

He added, “The growth and advancement of the industry standards, the expansion of FHIR community between payers and providers, and individuals like these champions are fueling the industry towards true interoperability. We will continue to identify and lift up community members who exemplify our goals, and to encourage and inspire others to join us on this incredible journey of building the future standards that are already improving the delivery of care.”
Congratulations to all the 2021 HL7 Da Vinci Project Community Champions, whose efforts continue to inspire and transform healthcare! ■



By Leslie Amoros, Communications Lead, HL7 Da Vinci Project and Vice President and Senior Consultant, Imprado



Membership Team Assesses and Prioritizes Possible New Areas of Work

FHIR at Scale Taskforce (FAST) Establishes Steering Committee

Earlier this year, FAST began transitioning from an ONC-convened initiative, focused on solving infrastructure challenges to enable scalable FHIR adoption, into an HL7 FHIR Accelerator and

much progress has already been made! Now FAST, while continuing current work in progress, will also look to prioritize new projects moving forward. Before we get into that, let's cover how we got here.

Founding members joined FAST between January and April 2022.

Transitioning from a volunteer-driven organization to the HL7 Accelerator membership model seemed like a tall order, but a diverse and prominent group of organizations came forward to join and express their commitment to building the FHIR infrastructure to enable scalable adoption. Once founding members were in place, they implemented weekly member meetings to build the foundation for ongoing governance.

Steering Committee Elections

In June, FAST held elections to establish the Steering Committee whose purpose is to serve as the elected and representative body that will

evaluate and prioritize the focus of FAST work and most especially how resources are applied to support the work. The FAST Steering Committee was designed to include representation from two provider organizations, two payer organizations and two technology/health IT vendor organizations as well as have representation from HL7, Centers for Medicaid and Medicare Services (CMS) and the Office of the National Coordinator for Health Information Technology (ONC), HL7 and 4 at-large seats. The results of the election and the new FAST Steering Committee are detailed below.

FAST Steering Committee

2 Providers	Ashish Atreja, UC Davis Health Deepak Sadagopan, Providence
2 Payers	Robert Holzer, HCSC Sheryl Turney, Elevance
2 Technology/ HIT Vendors	Sanford Coker, AWS Duncan Weatherston, Smile CDR

Next Steps

Now that the FAST governance structure is in place, the team looks to identify the next tranche of work FAST will take on. As stated previously, FAST already had implementation guides underway when



By the FAST Project Team



FAST 2022 Founding Members



the transition to a FHIR Accelerator began, so work on version 2 of the Security, Identify and Directory related implementation guides will likely be on the nearer term horizon for new work. FAST leadership has started consideration of completely new projects as well. It's important that any new project fall squarely in the scope of building infrastructure to enable scalability rather than functional use cases the other FHIR Accelerators are working on. New FAST projects will:

- Address a common need across functional use cases
- Focus on scaling FHIR and driving towards a national, FHIR-based, API network
- Enable dynamic use of restful APIs based on FHIR

Some examples of new projects under consideration are the architecture approach needed for consent” and scaling architecture as it relates to TEFCA among several others. FAST leadership know that broad industry input is important to ensure FAST is addressing the highest priority infrastructure challenges. With that in mind, we’re asking for your input and suggestions for possible new use cases by submitting this form.

Learn More!

The interoperability community can learn more about FAST, its current work and schedule of public meetings by visiting the FAST Confluence page at <https://confluence.hl7.org/display/FAST/FHIR+at+Scale+Taskforce+%28FAST%29+Home>. To learn more about becoming a FAST member, please contact fast@hl7.org. ■



CodeX Advances Oncology Data Sharing, Starts New Domains

CodeX's evolving efforts around prior authorization, plus new domains dedicated to genomics and cardiovascular health, looks to leverage lessons learned from oncology data-sharing



The first half of 2022 has been one of tremendous growth for the CodeX community, with the launch of new domains dedicated to genomics and cardiovascular health. CodeX now boasts 10 different use cases through which community members are working to demonstrate the value of using mCODE-based data in clinical care scenarios. The addition of the new domains offers a variety of new opportunities to positively impact patient care using mCODE and other open data standards to improve system-to-system communication and data sharing. CodeX use cases highlight opportunities to support health care and research in oncology and beyond.

CodeX members began applying mCODE, an open standard language for cancer data, in use cases addressing clinical trial matching, cancer registry reporting, and developing and automating the exchange of radiation therapy treatment summaries. Now teams are advancing use cases through planning phases in preparation for

executing pilots, in addition to beginning discovery and pre-discovery work in other areas to address challenges and barriers to care delivery. Some recent use case highlights follow.

Prior Authorization in Oncology Use Case

The CodeX Prior Authorization in Oncology use case team is completing a robust planning phase that addresses the complex process associated with obtaining prior authorization (PA) for aspects of care delivery. A recent public call hosted by CodeX confirmed the prior authorization use case aligns with the Centers for Medicare & Medicaid Services' aspirations to improve the care experience by all involved, including the patient, and to deliver optimal care in a timely manner. The use case team continues with important Coverage Requirements Discovery (CRD) process development, drafting technical specifications and pilot metrics, supporting and leading to the planned synthetic pilot in December 2022/January 2023.

The use case team is interested in having additional stakeholders join this effort. If interested, please contact use case coordinator Kim Boyd. The Prior Authorization in Oncology team meets with the public monthly on the fourth Tuesday of the month. See call details here: <https://confluence.hl7.org/pages/viewpage.action?pageId=66941426#PriorAuthorizationinOncology-ConferenceCallSchedule&Dial-Ins>

GenomeX: Enhancing Access to Genomic Data for Improved Patient Care

Healthcare and EHR workflows lack the collection of standardized, machine-readable data to support reporting and analysis of genomic data. Genomic data provides critical information for identifying treatment options in cancer and other disease states. The standardized transmission of genomic data is important for population health management. The GenomeX community continues their work to identify opportunities to advance the interoperability of genomic data using HL7 Fast Healthcare Interoperability Resources (FHIR®) resources. Over 27 organizations are working together to develop leadership teams and timelines for two use cases:

- FHIR Genomics Data Exchange – Designing and building scalable FHIR genomics interfaces so that genomic data can easily be shared between laboratories, EHRs and/or genomics repositories
- FHIR Genomics Operations – Enabling access to complex genomic data through APIs so that developers can more easily develop and populate data for a range of genomic applications

The community is interested in engaging all stakeholders in the use cases, especially those from laboratories and healthcare organizations. Join the GenomeX effort to accelerate the adoption of FHIR genomics by contacting facilitator Arthur Hermann or coordinator Mallory Carellas.

CardX: Developing Smarter Cardiovascular Data to Improve Adherence and Outcomes

The CardX use case team intends to improve provider and patient adherence to national hypertension management guidelines through FHIR resources and open APIs that leverage treatment standards. This use case is in the early stages of development and, as with the GenomeX use case, takes the CodeX and mCODE experience into new disease states. CodeX invites all interested stakeholders to join in defining and discovering use case possibilities. For information on the goals and objectives of the Cardiovascular domain, please visit: <https://confluence.hl7.org/display/COD/Cardiovascular>. Contact Kim Ball to learn more about becoming involved with the CardX Hypertension Management Use Case. CardX plans to host its first public call in September. Look for more information via the CodeX Calendar and LinkedIn.

Stay in Touch

CodeX encourages stakeholders across the oncology and broader patient health ecosystem to stay up to date with the latest mCODE and CodeX news and project updates by visiting the CodeX Confluence home page and clicking “Sign up for CodeX Communications.” Reach out to Steve Bratt sbratt@mitre.org, Su Chen suchen@mitre.org or Kim Ball kim.ball@pocp.com with any questions! Explore these links for ongoing CodeX work and stay informed of upcoming calls and activities:

- For more information about CodeX public calls and activities, please visit: <https://confluence.hl7.org/display/COD/CodeX+Calendar>
- To learn more about the real-world application of mCODE, register for the monthly mCODE Community of Practice call (last Friday of the month, 12-1pm ET): <https://confluence.hl7.org/display/COD/mCODE+Community+of+Practice>
- To view the high-level CodeX Project Plan, please visit: <https://confluence.hl7.org/display/COD/CodeX+Program+Plan> <https://confluence.hl7.org/display/COD/CodeX+Program+Plan> ■

The Gravity Project

Accelerating National SDOH Data Standards

Since May 2019, over 2,500 stakeholders across the health care, health IT, community-based, federal and state agency, payer, academic, and consumer advocacy sectors have signed up as members of the Gravity Project. Key project accomplishments and target milestones over the past year are:

HL7 FHIR Connectathons. The Gravity Project track regularly participates in scheduled HL7 FHIR Connectathons. In July 2022, the Gravity SDOH Track presented at the 2022 July CMS FHIR Connectathon, which consisted of two sessions where industry organizations demoed Use Cases as part of real-world testing scenarios. The goal of the Gravity track was to understand implementation needs and exercise testing capabilities to advance exchange of health-related social needs information using the Gravity SDOH FHIR Implementation Guide to improve whole-person care.



Success Story: Transforming Assessments and Referrals for NJ Residents. A project funded by the Centers for Medicare & Medicaid Services, called Integrated Care for Kids (InCK), aims to significantly improve health outcomes for at-risk pediatric Medicaid recipients by identifying them far earlier, and then delivering integrated care coordination that connects them to health and human services across an array of partner organizations (e.g., schools, housing, food, and child welfare, and mobile crisis-response services). In doing so NJ InCK's team partnered with MayJuun and Open City Labs (OLC) to scale the Gravity Project's standards for identifying and addressing patients' social needs.

Gravity's Comments to CMS's Proposal in 2023 Hospital IPPS Proposed Rule (CMS-1771-P). The Gravity Project submitted comments to the CMS proposed rule on the Hospital Inpatient Prospective Payment System and associated changes for 2023, File No. CMS-1771-P, published May 10, 2022, and specifically



Launched in May 2019 by the Social Interventions Research and Evaluation Network (SIREN) with funding from the Robert Wood Johnson Foundation, the Gravity Project is a national public collaborative that is developing data standards to help reduce current barriers for documenting and exchanging social risk and protective factors within health care and other sectors. In August 2019, the Gravity Project became an official HL7 FHIR Accelerator Project.



By Evelyn Gallego, Program Manager, Gravity Project

To learn more about the Gravity Project, please visit: <https://thegravityproject.net/>

For more information on the multi-SDOH domain ICD-10 CM submission, please visit: <https://confluence.hl7.org/display/GRAV/ICD-10+Coding+Submissions>

To view the latest consensus voted master datasets by SDOH domain, please visit: <https://confluence.hl7.org/display/GRAV/Terminology+Workstream+Dashboard>

For more information on the HL7 FHIR Accelerator Program, please visit: <https://www.hl7.org/about/fhir-accelerator/>

on CMS's welcome proposal to require two new screening measures in the Hospital Inpatient Quality Reporting (IQR) Program to measure social drivers of health and integrate social drivers of health factors into Medicare quality reporting and payment. View comment letter here.

[CMS Proposed Rules, requiring standards](#). On January 12, 2022, CMS published proposed policy and technical changes for Medicare Advantage in 2023. Proposed MA Special Needs Plans (SNPs) include standardized questions on housing stability, food security, and access to transportation as part of their currently required health risk assessments. CMS intends to align the required standardized questions with the SDOH Assessment data element integrated in USCDI v2. Final rule just released. Medicare Program; Contract Year 2023 Policy and Technical Changes to the Medicare Advantage and Medicare Prescription Drug Benefit Programs, 87 Federal Register 27704, 27726-27727 (May 9,

2022) (requiring Special Needs Plans to include standardized questions on housing stability, food security, and access to transportation aligned with Gravity Project's assessment standards in USCDI v2)

Upcoming Activities

The Gravity Project will begin addressing the digital inequity domain from August to November. We are looking for a wide range of community engagement for content submission and domain subject matter experts to serve as expert references in vetting screening tools for validity, developing necessary diagnosis terms and definitions aligned with the evidence, identifying appropriate patient-centered goal statements, and ensuring core programs and professions are included in all intervention terminology. If you are interested in learning more about the pilots, please email: gravityproject@emiadvisors.net ■

HL7 Standards Published Since May 2022



STU Publication of HL7 FHIR® Implementation Guide: Risk Adjustment, Release 1 – US Realm

Informative Publication of HL7 Short Term Solution – V2: SOGI Data Exchange Profile

Errata Publication of US Core STU5 Release 5.0.1

STU Publication of HL7 FHIR® Implementation Guide: Digital Insurance Card, Release 1 – US Realm

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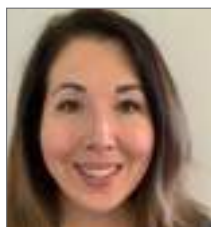
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