

THE PROMISE OF **INTEROPERABILITY** THROUGHOUT HEALTHCARE

Drimpy Realizes the World's First
International Personal Health
Data Exchange

HL7 Launches Helios FHIR Accelerator
for Public Health

Telligen-MCG Interoperability
Project on Prior Authorization

Three New Executives to
Join HL7 Team

PLUS: HL7 NAMES 2021
VOLUNTEERS OF THE YEAR



John D'Amore



Janet Marchibroda



Feliciano Yu, MD

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HL7 News

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Excelling at Successful Virtual Meeting Production

Update from Headquarters

35th Annual Plenary & Working Group MEETING

September 20-24, 2021
Virtual Event



35th Annual Plenary and Working Group Meeting

The 35th Annual Plenary, WGM and FHIR connectathon were all produced virtually. The Plenary and WGM attracted 718 attendees, and the FHIR connectathon attracted 553 participants.

The plenary meeting featured two panel presentations. The first panel addressed the trends and challenges of using artificial intelligence in healthcare and included following speakers and topics:

1. AI in Genomics & Population Health

Xihong Lin, PhD, Professor of Biostatistics & Coordinating Director of the Program in Quantitative Genomics, Harvard University

2. Overview of AI Lab, Ethics, Skunkworks & Developments in Clinical Care

Jennifer Hall, AI Senior Data Scientist, NHSX, London, England

3. AI in Argentina: Lessons learned at Hospital Italiano de Buenos Aires

Sonia Benítez, MD, PhD, Internal Medicine Specialist, Hospital Italiano, Buenos Aires, Argentina

4. AI: Its Positive Impact on Health Outcomes in Asia Pacific, Japan and Beyond

Julian Sham, MD, Healthcare Lead, Asia Pacific & Japan, Amazon Web Services, Singapore

*Moderated by **Walter Suarez, MD, MPH**, Chair of HL7 Board of Directors and Executive Director, Health IT Strategy and Policy, Kaiser Permanente*

The second panel presentation focused on the future of interoperability from the uniquely qualified perspectives of current and former US National Coordinators for Health Information Technology, including:

1. **Micky Tripathi, PhD, MPP**, National Coordinator for Health Information Technology

2. **Karen DeSalvo, MD, MPH**, Chief Health Officer, Google and former ONC National Coordinator

3. **Don Rucker, MD, MBA**, Former National Coordinator at ONC

*Moderated by **Lori Evans Bernstein**, Co-Founder and President, HealthReveal*

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. The new Board members will serve two-year terms from January 2022 through December 2023.

- **Treasurer of the Board: Floyd Eisenberg, MD**, President, iParsimony, LLC
- **Director: Janet Marchibroda**, President, Alliance for Cell Therapy Now
- **Affiliate Director: Peter Jordan**, Solutions Architect, Patients First Ltd, Chair, HL7 New Zealand

We are pleased to congratulate these individuals for their commitment and valued service to HL7 as members of the HL7 Board of Directors. As announced last year, Andy Truscott, Partner, Accenture, will start his two-year term as the Chair of the HL7 Board of Directors on January 1, 2022.

HL7 Technical Steering Committee Elections

Those elected to the HL7 technical steering committee for the 2021-2022 term:

- **TSC Chair-Elect** – Jean Duteau, Director, Duteau Design Inc.
- **Work Group Representatives** – **Riki Merrick**, Lead specialist, Informatics Terminology, Association of Public Health Laboratories (APHL); **AbdulMalik Shakir**, President and Chief Informatics Scientist, Hi3 Solutions; **Gora Datta**, Industry Director, Smart Pandemic Management, University of California, Berkeley
- **Implementer Representative** – **Rick Geimer**, Chief Innovation Officer, Lantana Consulting Group
- **Affiliate Representative** – **Giorgio Cangiali**, Senior Consultant, HL7 Europe

HL7 Fellows Class of 2021

The HL7 Fellowship program recognizes individuals with outstanding commitment and sustained contribution to HL7 with at least 15 years of active membership.

During HL7's 35th Plenary meeting, HL7 honored the well-deserving members with distinction as HL7 Fellows in the Class of 2021:

- Lorraine Constable
- Jean Duteau
- Jamie Ferguson
- Paul Knapp
- Galen Mulrooney
- Ron Parker
- Melva Peters
- Rik Smithies
- Michael Tan



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Continued from page 4

HL7 Welcomes New Members (continued)

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. Please see the article at right to read more about the impressive contributions that these dedicated volunteers have made to HL7.

Meeting Sponsors

We are pleased to recognize these companies that sponsored key components of our 35th Annual Plenary and Working Group meeting:

- IBM – Social Networking Hour Sponsor
- Axway – Silver Level Sponsor

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



By Mark McDougall, HL7
International Executive Director

Benefactors and Supporters

We are thrilled to continue to attract impressive numbers of HL7 benefactors and gold members, who are listed below. Their support of HL7 is very much needed and sincerely appreciated. A special thank you is extended to those firms that represent our 2021 HL7 benefactors and gold members.

Organizational Member Firms

As listed on pages 29-31, HL7 is grateful for the support of its member companies listed on pages 29-31. We sincerely appreciate their ongoing support of HL7 via their organizational membership dues.

In Closing

While the global pandemic has certainly changed all of our lives, may you and your loved ones stay vigilant and be blessed with good health and plenty of hugs and laughter. ■

HL7 Welcomes New Members

Benefactor

European Medicines Agency

Graphite Health Inc.

Gold

ADVault, Inc.
DasLab GmbH
HHS/Office of Inspector

General
Karkinos Healthcare Private
Limited

SenecaGlobal
Vermont Oxford Network

Organizational

Affidea Spain
American Society of Clinical
Oncology
Babylon Health
Biology Works
BookZurman

CitiusTech Healthcare
Technology Private Limited
Clinetic, Inc.
Consensys Health
MacroHealth
Magellan Health

MHNEXUS SDN BHD
Retrace
StationMD, PC
Virginia Department of
Corrections
West Coast Informatics

Congratulations to the 2021 Recipients

HL7 Names Three Volunteers of the Year for 2021

HL7 honored three members with the annual W. Edward Hammond, Ph.D. Volunteer of the Year Award. 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 2021 recipients include:

- John D'Amore, President, More Informatics
- Janet Marchibroda, President, Alliance for Cell Therapy Now
- Feliciano "Pele" Yu, M.D., Chief Medical Information Officer, University of Arkansas Medical Sciences

About the Volunteers:



John D'Amore has been an active participant in HL7 since 2013. While FHIR is today's hottest health care standard, clinical documents are already exchanged in the billions. Applying the standard to the latest US requirements for clinical data exchange, known as the US Core Data for Interoperability, also routinely requires information from the C-CDA Companion Guide. D'Amore volunteered his time to developing the HL7 C-CDA 2.1 navigation tool, which makes each template searchable and distinct via unique webpages. This web-based tool was launched at the January 2021 Working Group Meeting. In addition, he contributed to C-CDA as a co-editor and has been an active volunteer creating C-CDA examples over

the past eight years with the HL7 Structured Documents Work Group. Finally, he also published an article on HL7 standards through a 2021 JAMIA on the benefits of data sharing and an award-winning 2018 article on interoperability progress.



Janet Marchibroda has been active with HL7 since 2018 and has been recognized as one of the Top 25 Women in Healthcare by Modern Healthcare, one of the Most Powerful Women in Healthcare IT by Health Data Management and is a recipient of the Federal Computer Week Top 100 Award. Marchibroda is serving her second term as a member of the HL7 board of directors where she has created and organized Friends of HL7, an independent coalition devoted to advocating for federal funding support for HL7's work to support FHIR. The coalition has heightened the awareness of HL7 in Washington and has been successful in getting funding for HL7 in legislation. Friends of HL7 worked with members of Congress to

achieve inclusion of \$2 million for HL7 FHIR in FY 2021 Appropriations legislation passed and signed into law in December 2020. An additional \$5 million was included in the FY 2022 Appropriations bill passed by the House of Representatives this summer due to Friends of HL7's efforts. Work continues with the Senate to assure inclusion of this language in the final FY 2022 Appropriations bill that is expected to pass later this year.



Feliciano "Pele" Yu, MD, has been active with HL7 since 2003, when he became a founding member of the HL7 Child Health Work Group and served as its chair from 2008 until 2016. In 2012, he co-authored the HL7 Version 3 Implementation Guide for CDA® R2 L3: Neonatal Care Reports (NCR), R1 – a standard that specifies a standard for electronic submission of neonatal care records (NCRs) and facilitates electronic extraction of a subset of the Children's Hospitals Neonatal Consortium (CHNC) dataset using a standard reporting specification in the form of a Neonatal Care Report (NCR) to support performance improvement and research. In 2017, Dr. Yu also co-authored the HL7 Developmental Screening and

Reporting Services Derived Profile, Release 1 - US Realm – a standards that identifies the critical EHR capabilities for pediatric Developmental Screening and Reporting services. In addition, he has served as co-chair of the HL7 EHR WG since 2016, where he began to work on the HL7 Pediatric Care Health IT Functional Profile project, which will establish a standard that will support the Recommendations for the Voluntary Certification of Health IT for Use in Pediatric Care settings, as published by the 21st Century Cures Act and the U.S. ONC Health IT Certification Program.



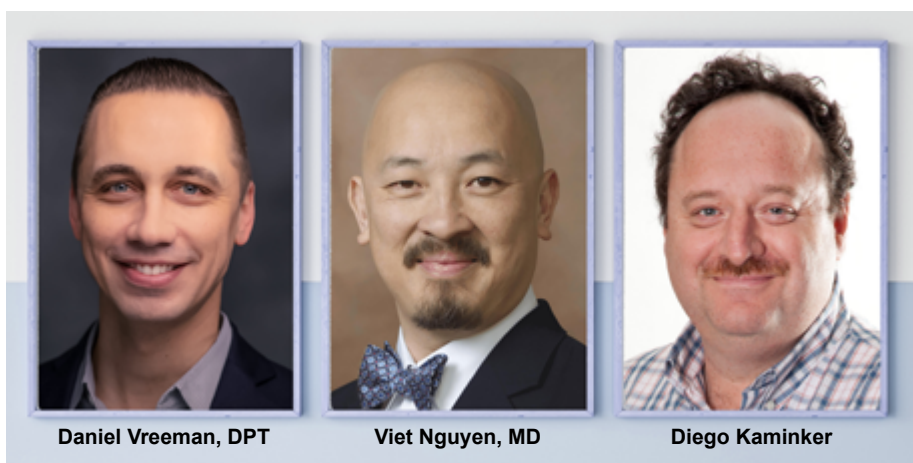
WELCOME
to the **TEAM!**

HL7 Appointees to Support Organization's New Divisions

Three New Executives to Join HL7 Team

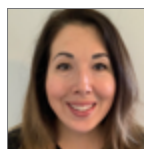
HL7 today announced the appointment of three executives: Daniel Vreeman, DPT as the Chief Standards Development Officer; Viet Nguyen, MD, as the Chief Standards Implementation Officer; and Diego Kaminker, as the Deputy Chief Standards Implementation Officer. All three roles are newly created positions that will support HL7's restructuring into two divisions: Standards Development and Standards Implementation.

HL7 has undertaken an 18 month-long re-envisioning project to assess the best path forward to better serve both the HL7 community and the healthcare information technology industry. The formation of the Standards Development and Standards Implementation Divisions are a result of this initiative. Importantly, the divisions will seamlessly collaborate to address the needs of the industry and increase the impact of HL7 standards. The HL7 Standards Development Division will focus on the development and maintenance of HL7 specifications while the Standards Implementation Division will concentrate on helping communities discover, access and understand the specifications as well as test their implementations.



“We are excited to have such accomplished and globally recognized individuals join the HL7 executive leadership team,” said Charles Jaffe, MD, PhD, CEO of HL7 International. “Each of them brings their unique skills and experience with HL7. We expect that the impact of their leadership will be felt in the near term and in the years to come.”

Please join us in welcoming these individuals to the HL7 team!



By Andrea Ribick, HL7 Director of Communications

Chief Standards Development Officer

Daniel Vreeman, DPT, a physical therapist, biomedical informatician, and expert in health data standards, will lead the HL7 Standards Development Division. Dr. Vreeman has developed internationally adopted health data standards, implemented them in multi-institutional health IT systems, evaluated their use, and provided strategic advice to interoperability initiatives of numerous U.S. federal agencies and national eHealth efforts in other countries. He has served as Principal Investigator on 30 externally funded projects totaling \$23 million. Most recently, Dr. Vreeman was the Senior Clinical Data Standards Lead at RTI since 2019 and was previously the Director of LOINC and Health Data Standards at Regenstrief Institute from 2006-2019. In addition, he has been an active HL7 member since 2006 and serves as the Technical Director for the HL7 Gravity FHIR Accelerator, the Chair for the Health Standards Collaborative and is a founding member of the HL7 FHIR Foundation. Dr. Vreeman believes in the power of the HL7 community to produce specifications that become public goods whose value is shared and increases as more people contribute and use them. "I am passionate about creating a world where open data standards enable people to experience optimal health" said Dr. Vreeman. "I am truly delighted to join HL7 and its community in developing standards that empower global health data interoperability."

Chief Standards Implementation Officer

Viet Nguyen, MD, is an internist, pediatrician and clinical informaticist who has held leadership roles such as Chief Medical Officer and Chief Medical Information Officer at Leidos Corporation, Lockheed-Martin and Systems Made Simple. He will lead the Standards Implementation Division alongside Diego Kaminker. Dr. Nguyen served as the Chief Pediatric Resident at University of Cincinnati and Cincinnati Children's and completed an informatics fellowship at the University of Utah. Most recently, he founded Stratametrics, LLC, an informatics consulting firm at which he works with numerous commercial and federal clients. Dr. Nguyen has been active in HL7 for approximately 20 years and has nearly two decades of experience in health information technology focused on interoperability standards and product development. He has been a consultant to government and commercial organizations in developing interoperable workflows and technologies. He serves as the Technical Director for the HL7 Da Vinci FHIR Accelerator. In addition, Dr. Nguyen is a nationally recognized FHIR educator and a former HL7 Board Member.

"I am honored that HL7's Board of Directors has put its trust in this leadership team to be the stewards of this important phase of HL7's digital transformation," said Dr. Nguyen. "I look forward to helping the division further HL7's mission to improve healthcare around the world by supporting the implementer community with education, best practices and tools to advance the adoption of HL7 standards."

Deputy Chief Implementation Officer

Diego Kaminker is a globally recognized interoperability expert and implementer in the field of healthcare information technology. He is the Founder and Owner of Kern IT with specialties in integration, software development and project management. Kaminker has been a member of the HL7 community for twenty years and has served multiple terms as the Chair of HL7 Argentina as well as an Affiliate Director of the HL7 International Board of Directors. He has defined, implemented and maintained hundreds of HL7 interoperability projects throughout the course of his career. As a prominent HL7 educator, he has led hundreds of training courses and created the self-paced online HL7 Fundamentals Course, which has attracted over 6,000 students worldwide. He is also a founding member of HL7 Argentina and the HL7 FHIR Foundation and has participated in the Argentina National Digital Health Network and has served as a guest faculty member at Columbia University in the United States.

"I have always advocated for the implementers in HL7, as I am one as well. I want to help close the chasm between standards and how to implement them," says Kaminker. He continues "I am thankful to the HL7 board for this opportunity and to work closely with Dr. Nguyen to launch new programs and contribute to the widespread adoption of HL7 standards worldwide."

The HL7 Job Board



Are you looking for health IT experts with HL7 and FHIR experience? Or are you looking for the next step in your career?

Be sure to check out the HL7 Job Board! It's a great resource to address the growing demand for specialized IT skills, as well as the increasing adoption of HL7 FHIR and the ONC/CMS rule!

HL7.org/jobs

The Job Board provides a central location for the HL7 community to learn about openings aligned with their skills and for employers to gain visibility with implementers that have HL7 experience. During the pandemic we are waiving all fees to post positions.

HL7 FHIR Fundamentals Course

Next edition begins March 31, 2022!



March 31–April 28, 2022

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HL7 Standards Published Since August 2021



STU Publication of HL7 FHIR® Implementation Guide: Situational Awareness for Novel Epidemic Response (SANER) STU 1

Informative publication of HL7/NCPDP Informative Document: Standardized Medication Profile, Release 1

STU Publication of HL7 CDA R2 Implementation Guide: Dental Data Exchange, Release 1, STU 1 – US Realm

Normative Publication of HL7 CDA® R2 Implementation Guide: Quality Reporting Document Architecture (QRDA III), Release 1 – US Realm

Informative publication of HL7 Domain Analysis Model: Unique Device Identification (UDI), Release 1

Informative Publication of HL7 Guidance: Implementation of Standard Attachments for Healthcare Transactions (ACP) – US Realm

Errata publication of HL7 CDA® R2 IG: C-CDA Templates for Clinical Notes R2.1 Companion Guide, Release 2 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Vital Records Common FHIR Profile Library, Release 1

STU Publication of HL7 FHIR® Implementation Guide: NHSN Inpatient Medication COVID-19 Administration Reports, Release 1

STU Publication of HL7 FHIR® Implementation Guide: NHSN Adverse Drug Event – Hypoglycemia Report, Release 1- US Realm

STU Update Publication for HL7 FHIR® Implementation Guide: Payer Data Exchange (PDex) Drug Formulary, Release 1 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Vital Records Birth and Fetal Death Reporting, Release 1 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Dental Data Exchange, Release 1 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Post-Acute Care Functional Status, Release 1- US Realm

STU Publication of HL7 FHIR® Implementation Guide: Post-Acute Care Cognitive Status, Release 1- US Realm

Normative Publication of HL7 EHRS-FM Release 2: Personal Health Record System Functional Model, Release 2

STU Publication of HL7 FHIR® IG: Bulk Data Access IG, Release 2

STU Publication of HL7 FHIR® IG: SMART Application Launch Framework, Release 2

STU Update Publication of HL7 CDA® R2 Implementation Guide: Quality Reporting Document Architecture Category I (QRDA I) Release 1, STU Release 5.3 – US Realm

STU Publication of HL7 FHIR® Implementation Guide: Common Data Model Harmonization for Research (CDMH), Release 1 – US Realm

*HL7 Internal Projects and ONC Grant-Funded Projects***News from the HL7 Project Management Office****Jira and the Project Scope Statement (PSS)**

Thanks to all that participated in the three pilots and provided valuable feedback. The pilots are complete and as of November 1, 2021, all Project Scope Statements (PSS) must be created in the Jira Project.

Projects for reaffirmation and withdrawal ballots will continue to use the PSS form in Confluence at this time.

The HL7 Essentials Space has been updated with a new process flow that describe the steps for a specification through its' lifecycle. Access the new process flow page here: <https://confluence.hl7.org/pages/viewpage.action?pageId=111117149>. The following “How To” documents will help with the process to create and review the Project Scope Statement in Jira:

- Create a PSS: <https://confluence.hl7.org/display/HL7/How+to+Create+a+Project+Scope+Statement+in+JIRA>
- Review a PSS: <https://confluence.hl7.org/display/HL7/How+to+Review+a+Project+Scope+Statement+in+Jira>

If you have an existing PSS to be updated, the TSC has approved the following process:

- PSS originally created as a Word Document—create a new PSS in Jira and include a reference to the original PSS ID in the Summary
- PSS originally created in Confluence—update the Confluence form and distribute for approvals as needed

Fonteva: The New Meetings and Membership Software System

Work continued on replacing HL7's decade-plus old meetings and membership software with Fonteva, a leading association management and membership software solution powered by Salesforce. Fonteva includes the features member-based organizations require to develop and nurture relationships, manage events, measure engagement and drive collaboration.

Users of HL7's website will notice the changes with event registration, education and training along with membership maintenance. 2021 focused on requirements definition and analysis, solution designs and data mapping, migration, and validation. Implementation of the system is targeted for mid-2022.

Website Cleanup

HL7 staff concluded the arduous task of cleaning up the HL7 website achieving its goal to make the site easier to navigate, especially for newcomers to HL7. Staff evaluated over 500 items. Obsolete material

was removed, outdated information was updated, and tools/resources used by co-chairs are now on Confluence via the Essentials page (<https://confluence.hl7.org/display/HE/HL7+Essentials>).

2022 brings forth an annual evaluation to ensure the website is as updated as possible.

ONC Grant-Funded Project Update

Work continued under the ONC grant for continued maturation of the C-CDA and FHIR standards. Fiscal year 2022 is the last year of a 5-year renewal grant that awarded HL7 \$1.36 million each year. Projects underway for fiscal year 2022 are the following:

- Unified Terminology Governance (UTG) maintenance and enhancements
- Continued improvements to the FHIR Jira ballot process
- Continued administration of the FHIR Connectathons
- Continued work on Bulk Data Access and Push
- Continued support for the FHIR terminology server
- Continued work on the HL7 FHIR build and

implementation guide publishing tasks

- Support of the FHIR Registry
- Additional C-CDA Implementation-A-Thons
- Gender harmony support

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

1. A 4-year \$2M cooperative agreement titled “HL7 Public Health Standards and Solutions for Future Pandemics”. Projects under this endeavor include the following:
 - Expanding 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

- Development of a POLST CDA Implementation Guide
2. The 5-year \$3.5M contract “COVID-19 support for Accelerating Standards Development for the US Realm” which include the following projects:
 - Ballot, reconcile and publish updates to HL7’s US Core Implementation Guide
 - Financial support for the US Realm Steering Committee (USRSC) Project Manager and US Realm Senior Advisor, US Realm Content Administrator and US Realm Dashboard Developer
 - Creation of a 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 ■

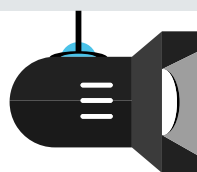


By Dave Hamill, Director, HL7 Project Management Office

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.



Member Spotlight on Jess Bota



Professional Background

Jess Bota earned her undergraduate degree in molecular and cell biology from the University of Connecticut in 2012. She then completed her master's degree in bioinformatics from Johns Hopkins University in 2013. After completing her education, Jess began as an Informatics Analyst with Apelon in 2013 with no prior experience in informatics but eager to learn the field. She enjoyed working on several projects with terminology experts and was eventually promoted to Manager of Content and Product Services, where she oversees the development of Apelon's terminology server and two terminology mapping tools. Jess is passionate about assisting organizations to leverage these tools to tackle data standardization and interoperability challenges and improve data quality and exchange.

Early in her career at Apelon, Jess became involved in providing monthly updates to the US Department of Veterans Affairs National Drug File – Reference Terminology (NDF-RT). This is what jumpstarted her interest in standard terminologies as she began to understand the challenges of terminology

management and the importance of standards. She was also involved in the transition from NDF-RT to the Medication Reference Terminology (MED-RT) and continues to provide subject matter expertise and support for monthly releases. In addition, Jess participates in HL7 activities on behalf of the VA.

HL7 Activities

Jess attended her first HL7 working group meeting in San Antonio in 2014. Her first experience proved to be memorable as many stories thought she was the 12-year-old daughter of a well-known HL7 member who had mentioned his daughter would be attending the conference. She had several people ask her if she was the daughter throughout the week and got a lot of laughs out of it (for reference, she is under five feet tall and was in her early 20s at the time).

Jess became more involved with the HL7 Vocabulary Work Group when she began as the project manager for the Unified Terminology Governance (UTG) project in early 2019. She worked closely with Ted Klein to manage the



release of the first publication of the of the HL7 Terminology (also known as THO) as well as the delivery of the UTG consensus-based workflow to submit, review and implement terminology change proposals.

In September 2021, Jess was appointed as a member of the newly minted Terminology Services Management Group (TSGM) and became a Vocabulary Work Group Co-Chair in January 2022. She has a vested interest in the management of UTG and THO, particularly in ensuring that the processes and tooling support the implementer community and that education materials are easily accessible. Jess believes that the convenience of accessing the HL7 terminology content through THO is an excellent asset and that the UTG process will encourage the submission of quality change requests and terminology additions that will benefit the community.

Jess is grateful to work alongside some fantastic mentors, including Carol Macumber, Ted Klein and the HL7 vocabulary community whose

insight and encouragement has proven invaluable over the years.

Personal Life

Jess lives in southeast Florida with her husband, Matt, their dog, cat and four chickens. She grew up in Connecticut and remained there until 2015, when she moved to Florida in pursuit of warm weather and blue water.

Jess says her favorite pastime is fishing, and she and Matt received second place in a Wahoo tournament this past August with a 40.6 pound fish! She enjoys preparing freshly caught fish (sushi is her favorite), anchoring up on the sandbar with family and friends, and scuba diving for lobsters or simply to enjoy the aquatic life. In addition, Jess is an avid sports fan whose favorite team is the New York Giants. She also plays on a local recreational softball team, competes in shooting competitions, and enjoys running. When she's looking to unwind in her free time, she plays video games. Her favorites include Halo, Call of Duty, Elder Scrolls, and the Fallout series. ■



Winter 2021 CTO Tooling Update

A Farewell

“Focus on finishing” was my main slogan for 2021, though it quickly became clear that tooling at HL7 can never completely be finished. Technology improves, companies adapt, users become more or less sophisticated, and the world turns.

Tooling needs to keep up with a changing world and a changing organization, and HL7 is currently undergoing as much or more change than ever before in its history. Even while we strive to get more tasks done today, there are always many more to do tomorrow. Still, in the final days of my tenure as HL7 CTO, it makes sense to take a brief look back and an even briefer look ahead.

Collaboration

One of my first HL7 goals in early 2016 (in addition to listening and learning) was to revitalize our basic tools for collaboration and standards development. Given my longstanding commitment to essentialism and simplicity, it was important to refresh our basic tooling stack so HL7 would be able to move ahead more quickly with more agility. We were soon approved under Atlassian’s Non-Profit Community License program to install Confluence and JIRA at HL7. That was the easy part—it took several years to really get going with both tools, and we’re still transitioning to JIRA forms for many of our fundamental processes. However, the last of our work groups made the switch to Confluence a couple of years ago, so we could retire the old Wiki in 2021. We’ve also come close to eliminating the use of Word documents as email attachments. Another looming milestone awaits as we’re finally completing the transition to JIRA-based balloting in 2022.

Since our modus operandi as work groups is to meet early and often, it’s a little hard to believe that back in 2016 we conducted most of our meetings using Intercall phone conferencing. Some co-chairs occasionally used their own screen-sharing tools to display content, but most did not. It seemed important to me that we all use modern web conferencing instead, but our limited budget led us to FreeConferenceCall.com. Though we experienced the expected limitations that accompany a free service, FCC gained traction, and work groups became

dependent on web conferencing (which was also more cost effective for international callers). Later, the onset of the pandemic helped justify a transition to Zoom conferencing (which was also discounted for non-profits). Now we’re on Zoom nearly all the time (though often wishing we didn’t have to be).

Early on, we arranged for Zulip chat—already a mainstay in the FHIR community—to be available for the rest of HL7. It was odd that this hadn’t happened already, but I discerned some occasional tension between the HL7 old-timers and newer members of the FHIR community, which included many who had not historically been HL7 members.

The HL7 way did not always match the FHIR approach. Some members may have felt that FHIR had disrupted the prior HL7 business model and culture by introducing open access and open source, so we needed to remind ourselves that we’re all part of the same HL7 family and aligning on common tooling promised to reinforce that.

Offering FHIR Chat to all HL7 was one of several steps that brought us together, including elimination of a 90-day delay for non-members to access standards and allowing non-members access to work in progress.

Although HL7 continues to look for new ways to bring more value to members, these actions didn’t seem to cause a mass exodus of members. In fact, it may have attracted participation in new work groups like Patient Empowerment, and the many new projects launched under the FHIR Accelerator program.

Publishing

However, these collaboration tools weren’t necessarily the ones that needed the most attention. At that time, HL7 relied heavily on bespoke tooling, each uniquely customized by a different individual for a specific product or family. This approach helped HL7 get things done, but it was also unsustainable, especially as tool smiths left the fold.

It was also apparent that while Version 2 (V2) and the Clinical Document Architecture (CDA®) were widely implemented, Version 3 (V3) was fading away, along with the tools that had been supported by it. This led to the decision to stop publishing V3

normative editions in 2017, and to freeze the Reference Information Model (RIM) soon after. While FHIR was recognized as the path to the future, it was also clear that V2 and CDA and other existing standards would still play an important role for years to come.

With so much momentum toward FHIR, and the popularity of web specifications over pdf, it seemed logical to try to adapt the FHIR IG Publisher and validator to support other standards. The downside was that it increased the load on Grahame Grieve, and increased risk as changes for one product use might have ripple effects on others.

With the generous support of the US Office of the National Coordinator (ONC), we were able to fund assistance for Grahame, update the codebase, documentation and add new use cases, notably the publication of terminology.hl7.org as well as a capability to re-publish Consolidated CDA (C-CDA). The V2 community began a project to develop a web-based specification named V2+, though it wasn't directly based on the FHIR Publisher. Each new use case for the Publisher has added more interdependencies, which means that the IG Publisher and validator will be in a state of continuous improvement for the foreseeable future. The end goal is to better serve the HL7 and FHIR community members and improve quality while reducing the effort of committees.

Meanwhile, Back at the Ranch

There were also many less visible infrastructure improvements, such as moving servers to the cloud, refreshing the website, and upgrading our system management tools and disaster recovery capabilities. There were some quick wins to improve standards visibility, such as the StandUps feed that listed all new publications in chronological order, and John D'Amore's C-CDA navigation tool. There were also many things that I never got around to doing (which still leaves me with an aching anxiety as I stare at ~1300 emails in my Inbox that I've yet to close out with a response). We didn't quite get as far as I'd hoped, but it was quite a ride, and I do feel we're in a far better place than when I arrived.

Looking Ahead

So, what's next for HL7? There are many more major projects to finish. The changeover to the new Fonteva Association Management System that supports a robust API and reporting will drive key

business processes for a re-envisioned HL7, including membership, services, and education, for the next decades. Fonteva also brings the Salesforce Customer Relationship Management System, which can help us expand our membership and collaborations.

In addition, there are plans to replace the accounting system to manage finances for a growing organization. There are also a few final servers that need to move to the cloud to reduce our vulnerability to power outages. There are also plans to move to a new Content Management System for the website. We plan to roll out a new dashboard for more visibility of work in progress, so the healthcare community may have insight into what's coming from HL7.

There's so much more HL7 can do to simplify the way we create standards for less burden on our volunteers. While we need to retain our accredited processes to develop ANSI normative standards, we also need to make it easier for project teams and work groups to start new projects and deliver standards to the implementers. Ideally, HL7 processes will continue to evolve to be as effortless and familiar as muscle memory for an athlete. Continuous improvement should be a constant objective for HL7 and all SDOs because the world needs the benefits that standards can bring—and the sooner HL7 can make quality standards available and easily implementable, the better for all of us.

Signing Off

At the risk of self-aggrandizing, I feel a bit like Moses looking out over the promised land (no, I'm not talking about never getting invited to "The Master Class" during my tenure). Moses passed away before setting foot in Canaan, whereas I hope I'm merely stepping away for a while to recuperate, recharge, learn as many new things as I can, and figure out what else I want to do with the last quartile of my projected life. I hope my future will allow me to encounter many of you again, and hopefully I'll be able to keep half an eye on how things progress in a bright and expansive future for FHIR and HL7. Until then, à votre santé. ■



By Wayne Kubick, HL7 CTO

HL7® FHIR®

Celebrating 10 Years of HL7 FHIR



The Next Generation Standard Has Transformed Health Information Technology Across the Globe

Celebrating 10 Years of HL7® FHIR®

HL7 Fast Healthcare Interoperability Resources (FHIR®) the widely adopted, open-source standard from the Health Level Seven (HL7®) International community, celebrates 10 years of international development and implementation. With the ability to streamline the many variations in health information technology (HIT) systems and the capacity to accommodate modern technology, FHIR is at the forefront of healthcare interoperability. In keeping with HL7's vision of a world where access to health data is readily available to everyone whenever and wherever it is needed, FHIR creates connections between different parts of the healthcare system to facilitate the secure, real-time exchange of data and, ultimately, improve patient care.

Since its inception, FHIR has fostered a collaborative culture. HL7 International Chief Executive Officer Charles Jaffe, MD, PhD, recalls, "The development and adoption of FHIR was advanced by a remarkable and committed international community. The impact that FHIR has had on global healthcare was driven by an unprecedented level of collaboration that today continues to grow." Grahame Grieve, principal at Health Intersections, FHIR product director at HL7 and the inventor of FHIR, agrees. "Most people think about FHIR as a technical specification, but I look at it first of all as a community."

With open servers, free implementation guides and dedicated FHIR Accelerator programs aimed at continuous development, FHIR maintains an active international community of collaborators. This makes it easy for developers to access the healthcare data they need to build applications so institutions can realize enterprise-level solutions quickly. FHIR is widely used in mobile apps, cloud communications, electronic health record (EHR)-based data sharing and server communications in institutional healthcare provider settings.

Over the last ten years, FHIR has achieved implementation success in several key areas, specifically with the HL7 FHIR Accelerator Program. The Argonaut Project helped

enable users of a leading platform to aggregate and access personal health data on their mobile devices, and the integration of decision support algorithms into caregiver workflow. The HL7 DaVinci Project helps payers and providers positively impact clinical, quality, cost and care management outcomes. In addition, the highly anticipated FHIR Release 5 update is expected to be released later next year.

FHIR was built to empower health data interoperability and continues to drive the innovation and collaboration necessary to achieve its mission. By all accounts, the future appears bright for the best-in-class FHIR standard. James Agnew, head geek and chief technology officer at Smile CDR and early FHIR implementer, believes "FHIR is destined to become the underlying 'network' that supports health applications everywhere." Owner and manager at Kern-IT, HL7 fellow and Deputy Chief Standards Implementation Officer, Diego Kaminker, declares that for "the first time in HIT history—everything you need can be based on one standard: FHIR."

FHIR provides a next-generation, standardized solution for health data with human readability and real-time exchange that aims to improve patient care. HL7 International recognizes that the success of the last ten years was made possible by the extraordinary efforts of so many. Jaffe sums it up, "In retrospect, none of this could have been achieved without the tireless work of the global FHIR community and the remarkable contributions of many volunteers within the HL7 work groups." ■



HL7 Da Vinci Project

Sharing Real-World Successes for 2021 and Vision for Next Year



“Implementation guides are real and active,” say HL7 Da Vinci Project leaders, who gave a full progress report on implementation guides (IGs) and other achievements at HL7’s December 1 Joint Operating and Steering Committee meeting.

Viet Nguyen, M.D., Da Vinci’s Technical Director and Founder of Stratametrics, reported that 85 percent of use cases are currently member-led—with three or more members leading.

Da Vinci was busy this year. It held a five-day April education event and a July Connectathon with the Centers for Medicare & Medicaid

Services (CMS). The project also held dozens of pilots and go-lives across the community, with PDex suite, Burden Reduction and Quality. “We are driving discussion on use of APIs/FHIR in Patient Cost Transparency and Risk Adjustment and promoted Da Vinci progress at industry meetings—leveraging a bench of over 100-plus presenters,” Nguyen said.

This fall, Da Vinci established transition plans with member leads, CMS (MITRE) and ESAC to begin to transition day-to-day management of the Data Exchange for Quality Measures IG, including Gaps in Care functionality, according to Nguyen. Da Vinci also validated strong support and ownership of the IG by the industry and will maintain support through 2022. Member leads are actively engaged, and the Da Vinci team and members will monitor process for growing pains and any unmet needs.

Use cases are advancing to industry supported because of the “Great leadership in the community.

Thank you to Linda Michaelson, Yan Harris, Gini McGlothlin, Bryn Rhodes and their teams for their leadership, diligence and success here,” Nguyen said.

Joint funding and in-kind resources have been the fuel to get to this next phase. “We want to build on our successes by supporting the maturation of our use cases; efficiently utilizing financial resources; and transitioning use cases to the HL7 community in order to free up resources,” said Nguyen.

Da Vinci is keeping Patient Coverage Decision Exchange on hold and will ballot Burden Reduction and Payer Data Exchange in early May 2022 to allow for additional time for hands-on testing, according to Nguyen.

As far as IG build and maturity for 2022, “We are recognizing that the use cases don’t stand by themselves,” Nguyen said. “We have to do a lot of coordination across the use cases and across the FHIR community. Next year with FHIR R5 coming out, there could be some impact.”

Risk Adjustment will be balloted and published in 2022. Notifications is just gathering information on opportunities once a month, he added. “This is a good example of something where we created the guide, some of the community picked it up, but there is not a lot happening with it—so [we] scaled back with it, but now are looking at ramping back up.”

Patient Cost Transparency is in ballot, with plans to publish next year. “It is important for us to provide implementer support for the IGs,” Nguyen said. ■



By Diana Manos, Writer, HL7 Da Vinci Project

*New FHIR Accelerator Alliance***HL7 Launches Helios FHIR® Accelerator for Public Health**

Alliance of government, private sector, and philanthropic partners aims to use widely accepted health care standard to help advance public health.



A new initiative launched by HL7 and jointly supported by the Centers for Disease Control and Prevention (CDC) and the Office of the National Coordinator for Health IT (ONC) seeks to use widely recognized data exchange standards to help advance public health. The effort, called Helios, intends to strengthen the capacity and streamline data sharing across all levels of public health using the HL7 Fast Healthcare Interoperability (FHIR®) standard.

“Public health has risen in urgency and importance over the last 18 months,” said the ONC’s National Coordinator for Health IT Micky Tripathi, PhD, MPP. “FHIR accelerators have had great success in engaging implementers as early as possible to help identify and overcome longstanding barriers to interoperability. The Helios alliance is a market-based implementation collaboration that will help to ensure FHIR development is coordinated and focused on real world public health needs.”

The initiative is the latest to use HL7’s FHIR Accelerator program, which seeks to speed the development and availability of FHIR to deliver better data that leads to better health outcomes. The Helios alliance represents an ambitious new use of the FHIR Accelerator Program, pulling together a diverse group of state, tribal, local, territorial, and Federal public health agencies,

private and philanthropic sector partners, and other groups interested in the equitable and effective use of data for the advancement of public health.

“Helios is expected to become an integral component of the HL7 FHIR Accelerator Program and comprise a cornerstone to the newly announced HL7 Implementation Division,” said HL7 International CEO Charles Jaffe, MD, PhD. “The Helios Public Health Accelerator will provide a critical step toward the direct access to data needed for public health.”

As the FHIR standard matures, there is a clear path to utilize FHIR and other existing standards to execute the interoperable exchange of data for public health. Helios members will help demonstrate the utility of FHIR and ensure public health needs are at the

forefront as FHIR-based implementations evolve and rollout nationwide.

“Standardizing and automating our data flows will help us accelerate data into action,” said Daniel Jernigan, MD, MPH, CDC’s Deputy Director for Public Health Science and Surveillance.

“Organizing in this way will help ensure FHIR-based solutions are integrated, aligned, and are a complement to everything else that’s going on in the public health community.” ■

The Office of the National Coordinator for
Health Information Technology



Organizers of Helios are encouraging other entities to participate in the effort.

More information about Helios and the project’s goals can be found on HL7’s website, www.hl7.org/helios/

The Gravity Project

Accelerating National SDOH Data Standards

The Gravity Project convenes multi-stakeholder groups from across the health and human services sectors through an open and transparent collaborative process where they develop and test consensus-based standards to facilitate social determinants of health (SDOH) data capture, exchange and use across a variety of systems and settings of care and social services.

Project Accomplishments

Since May 2019, over 2,000 stakeholders across the healthcare, 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 quarter are:

ONC USCDI SDOH Data Class Submission.

On July 9, 2021, the Office of the National Coordinator

(ONC) officially announced the inclusion of the SDOH data class to the United States Core for Data Interoperability (USCD) V2. This addition provides health IT stakeholders nationwide clear direction toward standardized electronic exchange of SDOH. Gravity is coordinating with FHIR US Core team and C-CDA Supplemental Guide team to inform their representation of USCDI SDOH content. Gravity is also coordinating with other accelerators and HL7 work groups that have SDOH exchange interest.

Multi-domain SDOH ICD-10 CM Code Submission

In December 2020, the Gravity Project submitted its multi-domain ICD-10 CM submission representing a year and a half of collective labor. The submission was presented to the ICD-10 CM Coordination and Maintenance Committee on March 10, 2021. The submission for new and updated ICD-10 codes for education, food insecurity, and housing were approved and implemented



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/>

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

October 1, 2021. Gravity is currently revising the 2022 ICD-10-CM codes for maternal hardship, military service and deployment, and health insurance insecurity. Additional domains such as food deserts, neighborhood safety, racism, environment, healthcare access, health literacy, and digital inequity are currently in the domain development pipeline.

HL7 SDOH Clinical Care FHIR Implementation Guide & Reference Implementation

The Gravity Project submitted its first FHIR IG for ballot as part of the HL7 January 2021 ballot cycle and completed ballot reconciliation and the development of a reference implementation in June 2021. The ballot was published as an HL7 Standard for Trial Use (STU) in August 2021. Gravity is continuing to target the January 2022 ballot cycle for FHIR IG STU2 and incorporating USCDIv2 standards.

Multi-domain SDOH Data Set Development

In May 2021, the Gravity Project completed the development of screening and diagnosis data sets

for the SDOH domains of material hardship, stress, social isolation, elder abuse, and intimate partner violence. These data sets are available for download via the SDOH Domain Code Dashboard. In the fall, we will continue development of goals and interventions data sets for these same domains.

FHIR Connectathons

The Gravity Technical team led the SDOH track at the September 2021 HL7 FHIR Connectathon and assisted in refining the scope for Clinical Care IG STU2.

Upcoming Activities

The Gravity Project will facilitate the testing and validation of the Gravity terminology and technical standards through real-world pilots in 2022. We anticipate pilots will advance the maturity of the SDOH Clinical Care FHIR IG and validate coded SDOH data elements. If you are interested in learning more about the pilots, please email: gravityproject@emiadvisors.net. *DOH+Data+Elements+And+Status*

HL7 Collaborates

HL7
has renewed
an SOU with
the following
organization:

- IHE



FIND HL7 ON SOCIAL MEDIA



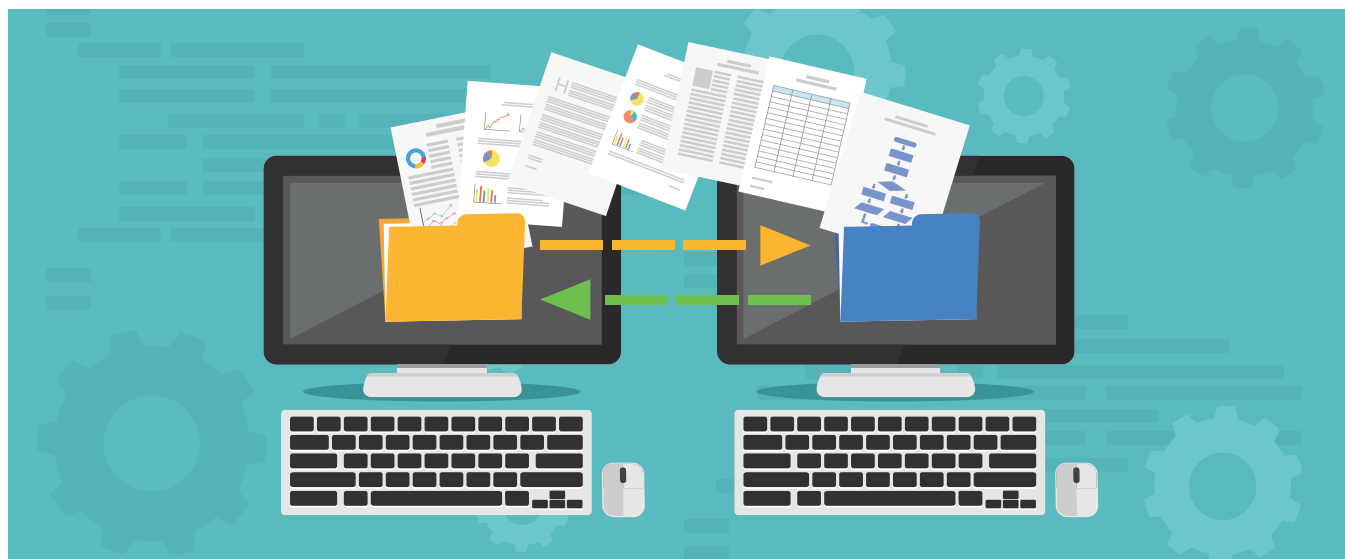
<https://www.linkedin.com/groups/2478980>



<http://twitter.com/HL7>



<http://www.facebook.com/HealthLevel7>



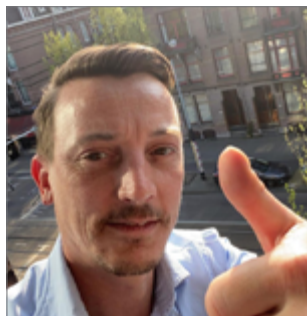
A Conversation with Arnold Breukhoven, Founder and CEO, Drimpy: “Don’t wait. Just do it!”

Drimpy Realizes the World’s First International Personal Health Data Exchange

The international HL7 FHIR Connectathon last September caused a sensation in healthcare technology. It set the stage for the world’s first international data exchange between a Dutch Personal Health Record (PHR) and healthcare systems in New Zealand and Italy. HL7 Netherlands offered technical support. The exchange was realized by Drimpy, one of the first Dutch providers of a PHR. CEO and Founder Arnold Breukhoven and his technical right-hand man Hidde Schultze explain how this came about and its significance for a patient.

Drimpy

Arnold Breukhoven comes from a family of successful entrepreneurs. He owns several Dutch and international businesses. One of these is Drimpy, among the first to launch a Personal Health Record (PHR) in the



Arnold Breukhoven, CEO and Founder of Drimpy

Netherlands. Breukhoven: “Actually, what I wanted was my own Electronic Health Record (EHR). That was not available at the time, so I decided to make one myself.”

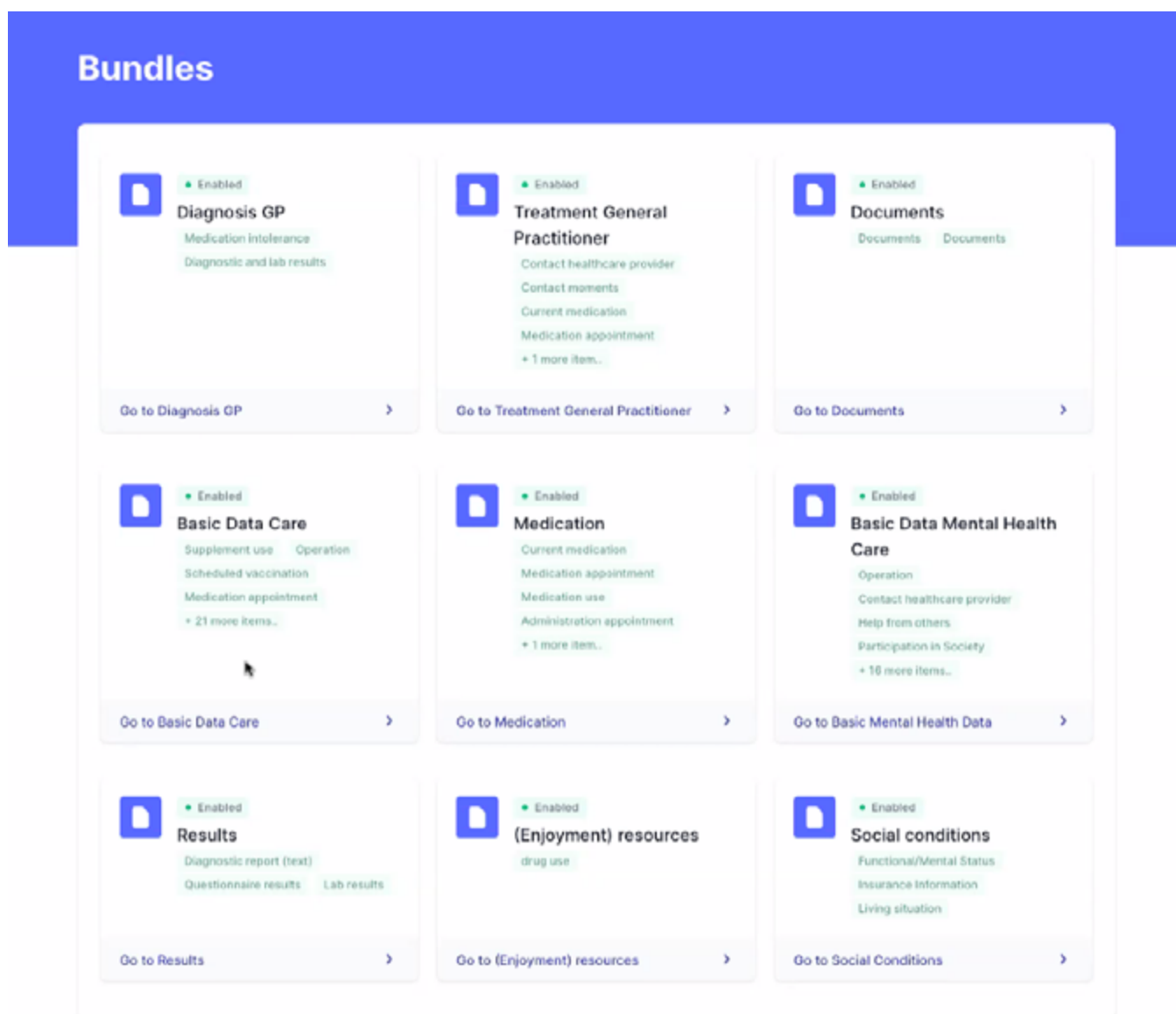
What about the name, Drimpy?

“Dr’ stands for doctor and ‘imp’ (‘impi’ actually) is the name of a military unit of a Zulu king which not only protects him in times of war but also during illness and death. That’s beautiful, I thought. That one’s for me!”

Breukhoven thinks, talks, and works at high speed, chooses his own path and is always ready to take on a challenge he believes in, even in the face of commercial risks. “When I founded Drimpy in 2010 the healthcare sector was mainly interested in portals. It took years for the sector to recognize what a PHR can do for a patient and how it can make life easier for him. By then Drimpy had made a lot of progress towards a first version, because a number of clever idiots had joined me. Intrinsically motivated as they were, they had a keen eye for a patient’s needs and for ways to improve healthcare.”



Text by Marieke Keur, commissioned by HL7 Netherlands



Secure Exchange through MedMij and DigiD

One of those “idiots” is Hidde Schultze, Drimpy’s Lead Developer and Chief Healthy Algorithms.

Says Schultze: “Our PHR was the first to receive the MedMij certification for PHRs in the Netherlands. MedMij is the Dutch standard for the secure exchange of health data between care users and care providers. Our client’s privacy and security are guaranteed by its use of DigiD, the digital identification system of the Dutch government. Additionally, MedMij uses the HL7 FHIR standard in combination with Clinical Buildingblocks (CBBs) and thus realizes a well-standardized data exchange. However, many small-scale healthcare

provider organizations are not yet able to exchange data according to the MedMij standards. If a client insists, we can access these systems through a point-to-point connection; but we had rather not. For our PHR we prefer generic connections and standards that enable an easy data exchange on a national level. This is a fundamental technical choice. Besides, we have taken pains to make our PHR as patient friendly as possible. Everybody should be able to work with it, regardless of their age or digital skills.”

A Lifesaver for Patients

In a PHR you can collect and manage all your personal health data. Not only standardized data

Continued from page 24

Drimpy (continued)

from your care providers, but also from paramedics, gyms or wearables. In the event of an acute health incident, you can have your latest health data ready at hand in your PHR. “This is not only an efficient and cheap solution. A PHR can actually save your life,” Breukhoven says. “Of course, not everybody sees it that way. They say: ‘What’s the use of a PHR? Why bother? I don’t need it.’ But they forget that, like everywhere else, many mistakes are made in healthcare. Take for instance administering the right medication. When a pharmacist asks a patient what medication he is currently on, does he get the right answer? Does a patient know? Be honest, do you? Our PHR can include an up-to-date survey of your medication, which is not only useful for a care provider, but also saves you a lot of trouble. Always remember that a professional needs your latest health data to give you the best care.”

Exchange with New Zealand and Italy

HL7 Netherlands and Drimpy share the conviction that thinking is good but acting is better. Says Breukhoven, “It is a good thing to have a bunch of very clever people developing something. But you can only see if it really works when you start building and testing it. The people who dare do this are few. But we must, there is no other way.”

Not surprisingly, Drimpy is very much at home at the HL7 FHIR Connectathons. Schultze comments, “On HL7’s request we offered input for the international HL7 FHIR Connectathon last September. We suggested to integrate the International Patient Summary in our PHR using the HL7 FHIR specifications. An HL7 FHIR Connectathon is a perfect setting to tackle such a challenge. When so many smart professionals come together, things start happening. With their help we were able to make a demonstration in a real product version. Everybody could use it through registering in the test environment. Here we realized a first exchange of medical data with New Zealand. After this, we pulled in an Italian EHR for a Dutch patient, translated from Italian into Dutch, using patient friendly language. It was a first. This had never been done before.”

Dutch Healthcare and HL7 FHIR

As the world quickly got used to the international exchange of data in finance, for instance, or the traveling business, one might argue that this is not so sensational after all. But, in healthcare it is. Realizing an easy data exchange in this sector has only just begun. The adoption of the HL7 FHIR standard is crucial as it supports an easy national and international exchange between care providers. In the case of a PHR it is the patient (or “healthcare consumer,” says Breukhoven) who manages their personal data. On their request his PHR can communicate with the systems of their care providers and receive standardized data from these. This is how a patient can always have an up-to-date health record summary at his disposal. “In healthcare we can now realize an exchange using standards and code systems. This opens up many opportunities for the future and is of unprecedented value for a patient,” says Schultze.

One Little Button

Drimpy’s PHR currently has 50,000 users. Breukhoven states, “This is only the beginning. Our PHR is free of charge and health data are



everywhere available. Look at internet banking. Everybody does it. A PHR is about your health: your kidneys, heart, brain. What we offer is a little button. Press it and all your health data are collected in your PHR. That’s all. It stores all your data in one place. It is private and secure. There is no need to worry about your health data anymore. If something happens to you, you have them 24/7 ready at hand.” ■



Newly Certified HL7 Specialists

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



Certified HL7 CDA R2.0 Specialist

OCTOBER 2021

John McCabe



Certified HL7 Version 2.x Chapter 2 Control Specialist

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Antonio de la Coba
Nibedita Tripathy
Gunupati Akshitha
Prathiksha M Urs
Roshni Krushnadas Sorde
Rafael Roca Ferrer
Radhika Cherukuri
Neeladri Nandi

SEPTEMBER 2021

Vignesh Kumar Baskaran
Chandrasekar Venkateswaran
Sankar
Shruthi M
Mayank Vaishnavi
Jeelani Mohammed
Mahendra Reddy
Harshad Mandlik

OCTOBER 2021

Ritika Jagtap
Yash Panchal
Sonia Rani
Reshma Suthar
Anant Das

NOVEMBER 2021

Randall Cummins
Saravana P
Pooja Gajawada
Harikumar Varatharaj
Amulya Paidi
Colin Snyder
Alexandre Neiva
Usha Kiran

DECEMBER 2021

Nitin Jain

AUGUST 2021

Chidamber Kumar
José María Fernández Buzón
Faraasha
Pratyush Kumar Singh
Rajratna Mihir
Michael Lipton
Jenifer Jardo Suarez
Joan Melchor
Franciso Romero Gracia
Krishnamoorthi Govindan
Davor Hafnar
Peter Welch
Andrew Stevens
Malcolm McRoberts
Kristaps Ginters
Caitilin Ryan

SEPTEMBER 2021

Himanshu Chavda
David Rodríguez
Daniel Bach
Jose Antonio Irlas Melgarejo
Xinrui Zheng
Janaka Peiris
Sonja Ziegler
David Fann
Barbro Vessman
Savita Subramanian

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Adele Adams
Carlos Mateu Lopez
Reshma Ali
Maria Aranzazu de Alfredo
Shruthi M
Crystal Hewitt
Julian Saß
Willa Constantino

NOVEMBER 2021

Supharek Thawillarp
Srinivas Velamuri
Michael Weeks
Bobeth Tubig
Mayank Vaishnavi
Michael Watkins
Andrea Essenwanger
Parikshit Krishna
Adrian Johnson
Ryan Christenson
Eirik Myklebost
Amarinder khatra
Prasanthi Paruchuri
Mart Aegidius van Zwienen
Pascal Bartosch
Joseph Bonazza
Yonggang Tang
Carlos Serna Martínez
Wang Hui

DECEMBER 2021

Zhengzhi Lu
James Patrick Sarigumba
Pedro Enrique Salazar
Martínez
Lovee Rico
Sergio Girona Valero
Matthew McLaughlin



HL7 FHIR R4 Proficient Certified

Telligen-MCG Interoperability Project on Prior Authorization

Prior Authorization is a process commonly used by payer organizations to determine medical necessity for services and manage healthcare costs. However, the process of requesting and receiving prior authorizations can be slow and inefficient. Prior authorizations are often solicited by fax or by using payer-specific portals. Fax submission requires manual transcription on the payer side - and may result in significant back-and-forth, requesting additional information prior to a decision being made. Re-keying information in payer-specific portals results in extra work for providers. The HL7 Prior Authorization Support (PAS) Implementation Guide strives to enable direct submission of prior authorization requests from EHR systems using the HL7 Fast Healthcare Interoperability Resources (FHIR®) standard. Direct submission of prior authorization requests from the EHR will reduce costs and burden for both providers and payers. It will also result in faster prior authorization decisions which will lead to improved patient care and experience.

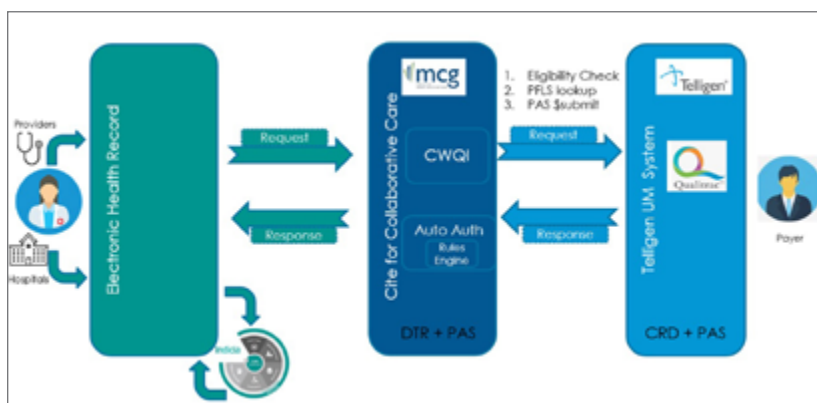
Clients nationwide from state Medicaid programs and private self-insured plans use Telligen's Utilization management (UM) Portal, Qualitrac, to relieve the administrative burden for providers and staff while managing healthcare costs. Telligen is partnered with MCG for integrated clinical criteria and to automate authorization decisions. To reduce burden for providers further, and to take requests directly from Provider's EHR systems, Telligen has partnered with MCG on the Interoperability Project by implementing HL7 Da Vinci PAS implementation guide (see the diagram).

Interoperability Project Description

- Providers will be using MCG's Indicia as their documentation tool for clinical guidelines
- MCG's Collaborative Care will turn the data collected from EHR system, such as patient details, ordering provider details, treating facility details, service request

details, patient's coverage details, and patient's clinical data, into HL7 FHIR resources and deliver a PAS FHIR Claim Bundle to Telligen's Qualitrac UM system

- Qualitrac UM system exposes a PAS FHIR API endpoint for incoming prior authorization requests. This endpoint is secured via OAuth2.0 protocol using Okta, a third-party identity provider
- Qualitrac system consumes the incoming PAS FHIR Claim Bundle, validates the FHIR resources, extracts the data, calls Qualitrac internal APIs to create prior authorization request, runs payer-specific rules and determines the outcome
- For the response, the Qualitrac system creates the PAS FHIR ClaimResponse Bundle and sends the same to the client (e.g., MCG). The bundle will contain information about disposition that will provide one of the following outcomes – Pended, Complete-Approved, Denied, Voided, Complete-Rejected
- For error scenarios, the Qualitrac system will return a OperationOutcome FHIR resource which will provide the error details to the client (e.g., MCG)
- Prior authorization involves several types of service requests such as inpatient, ambulatory, medication, durable medical equipment (DME), maternity, neonatal intensive care, orthopedic, pediatric, surgical, gastrointestinal, etc. For this interoperability project, our business



priority was focused more on concurrent and retrospective authorizations for emergent inpatient admissions. In due course, support for other service requests will be added to the Qualitrac PAS FHIR endpoint

Benefits of the Interoperability Project

- For payers, creation of a new channel to submit prior authorization requests directly from the EHR system
- Real-time prior authorization responses back to the Provider so that care can be delivered faster to the patients
- Elimination of multiple payer-specific portals. Providers can just submit prior authorization requests directly from their familiar EHR system, thus reducing burden to the providers

Future Enhancements

- Implement coverage requirement discovery (CRD), and documentation templates and rules (DTR) so that precise clinical data needed for the prior authorization request can be collected directly from the EHR system, thus eliminating the need for faxes or scanned records
- Implement support for revisions and extensions to the prior authorization requests
- Implement payer-initiated workflow so that final disposition can be conveyed back to the clients on prior authorization requests (useful for pending requests)
- Add support for attachments for prior authorization requests

Challenges to Adoption

- Though the HL7 Da Vinci project is trying its best to promote CRD/DTR/PAS implementations, there is still a certain degree of complexity around these specifications, thus hindering the

participation from the industry. There should be a concerted effort to reduce complexity

- Some of the clinical workflow related items could be left to the implementers. As an example, for a prior authorization request, the response need not be synchronous. Asynchronous responses should also be supported by PAS implementation guide
- Another added complexity is asking payers to support X12 278 messaging (for HIPAA purposes) in addition to FHIR based exchange, which could be made optional for more adoption by the industry

Conclusion

Clinicians would be able to make more informed decisions and reduce workload (for providers and patients) if they had appropriate and timely information from payers at the time of decision making. Does this item or service require Prior authorization/additional documentation? Is this item or service covered? The Da Vinci Project thus aims to address the following important points for prior authorization:

- Reduce provider burden by eliminating faxing and numerous payer-specific portals
- Reduce improper payments and appeals
- Improve provider-to-payer information exchange
- Most importantly improve patient outcomes

Early adopters, like Telligen and MCG, are combining their efforts to understand and implement the Da Vinci implementation guides for Burden Reduction (CRD/DTR/PAS) and bring the lessons learned back to the provider-payer community, thus promoting interoperability across various care settings. ■



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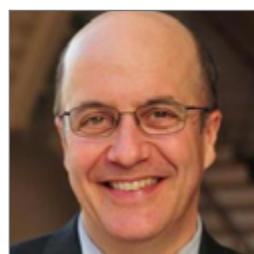
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