HL7® International

SEPTEMBER 2019

THE OFFICIAL PUBLICATION
OF HEALTH LEVEL SEVEN® INTERNATIONAL

NEWS

HL7® FHIR®
Driving Innovation

Trillium II Awards Two Prizes for Innovative Use of the HL7 FHIR International Patient Summary

Da Vinci Project Progress Update

CIHI's Newest Reporting System is on FHIR®

Plus: What is a Modal Verb? PSS & ONC Grant Projects and Tooling Updates

In This Issue

Update from Headquarters

By Mark McDougall,
HL7 Executive Director

HL7 FHIR DevDays Hits Another Home Run

HL7 and Firely organized the second HL7 FHIR DevDays in the United States on June 10-12 on Microsoft Corporation's campus in Redmond, Washington. The event attracted nearly 600 attendees.

The three pillars for DevDays are: education, sharing ideas and networking. The program featured over 100 educational sessions and impactful keynote addresses, focused hackathons and invaluable networking opportunities. Experts from around the world were present to instruct, guide and discuss how best to implement the HL7 FHIR standard.

A well-produced five minute video with brief interviews and highlights from HL7 FHIR DevDays 2019 is available at:
https://www.youtube.com/watch?v=rkhnoYmneXk

We are happy to recognize the special contributions from many individuals and organizations, including:

- Rien Wertheim, Ewout Kramer, Marita Mantle-Kloosterboer and their entire team at Firely
- Mary Ann Boyle, Pat Guerra, Melinda Stewart, Laura Mitter, Andrea Ribick, Wayne Kubick and our entire team at HL7
- Each of the speakers at the 107 sessions and subject matter experts
- Microsoft Corporation for their significant sponsorship as the host sponsor

Meeting Sponsors

Host Sponsor
- Microsoft

Platinum Sponsors
- Accenture
- InterSystems
- The MITRE Corporation

Silver Sponsors
- Lantana Consulting Group
- Personal Connected Health Alliance

Bronze Sponsors
- Amazon Web Services (AWS)
- SNOMED International

Startup Track Sponsor
- REDOX

Scenes from HL7 FHIR DevDays 2019 in Redmond

WGM in Montreal, Canada

We produced a productive HL7 International Conference and Working Group Meeting with 510 attendees at the Le Centre Sheraton Hotel, in Montreal, Quebec, Canada, May 4-10, 2019. Over 50 HL7 work groups, committees and steering divisions convened meetings, of which 19 conducted co-chair elections for 27 leadership positions. Attendees also took advantage of 27 tutorials as well as a two-day FHIR connectathon.

I am pleased to also recognize the following organizations that helped sponsor our May Working Group Meeting in Montreal:

- Canada Health Infoway
- iNTERFACEWARE
- AEGIS
- Corepoint Health

Dave Shaver Recognized

Dave Shaver of Corepoint received special recognition at the Montreal WGM for sponsoring the Tuesday Night Party (TNP) for the past 20 years. Montreal's TNP was Corepont's final time hosting this event.

As a small token of appreciation, HL7 presented Dave with four Waterford crystal beer glasses (*two mugs and two pilsner glasses*) that were engraved with:

Sincere thanks to Dave Shaver for the thousands of beers he bought for HL7 members during 20 years of TNPs.

33rd Annual Plenary Meeting in Atlanta, Georgia

We are pleased to report that the theme for our upcoming plenary meeting will focus on innovative solutions to address today's interoperability challenges. More program details are available at www.HL7.org.

Please join us for the 33rd Annual Plenary & Working Group Meeting at the Marriott Marquis Hotel in downtown Atlanta. Highlights of the week of meeting activities include:

- HL7 FHIR Connectathon on Saturday-Sunday, September 14-15
- Plenary program on Monday, September 16
- 27 tutorials Monday-Thursday, September 16-19
- Work group meetings Monday-Friday, September 16-20
- One day FHIR Experience Workshop, Wednesday, September 18

Is your organization interested in sponsoring the upcoming WGM? To learn more visit:

http://www.hl7.org/events/ sponsorWorkingGroupMeeting.cfm

Sydney Harbor

Returning to Sydney, Australia for February 2020 WGM

We are thrilled to return to Sydney for an upcoming HL7 International Conference and Working Group Meeting, February 2-7, 2020.

HL7 Australia has negotiated special terms with Qantas Airlines where HL7 WGM attendees will receive a 13% discount. HL7 Australia has also negotiated terms with booking.com for your hotel arrangements. Please visit Booking.hl7.com.au to secure your special rates for hotel rooms.

More details on the program will be provided soon from HL7 Australia at: http://site.hl7.org.au/.

Benefactors and Gold Members

We are pleased to recognize HL7's 2019 benefactors and gold members, who are listed on page 25. Their support of HL7 is very much needed and sincerely appreciated. We are pleased to recognize our benefactors in all HL7 newsletters, on the HL7 website, at HIMSS and at our HL7 WGMs.

Organizational Member Firms

As listed on pages 26-28, 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 good health along with plenty of hugs and laughter!

HL7 Job Board

MEMBER BENEFIT

Are you looking for health IT experts with HL7 and FHIR experience? In response to increased demand for specialized IT skills, the continued adoption of HL7 FHIR and the proposed rule from CMS and ONC, HL7 recently relaunched the HL7 Job Board at www.hl7.org/jobs/index.cfm.

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.

Free & Discounted Postings for Members

HL7 members receive free postings to the job board based on their membership level! Members also receive a discount on additional postings once free postings are complete.

*   Benefactors receive five free postings
*   Gold members receive three free postings
*   Organization members receive one free posting

All members receive a discount on additional postings after free postings.

This valuable benefit puts open positions in front of a targeted talent pool...and HL7 promotes the job board to key audiences for maximum exposure.

If you have questions on this or other member benefits, please contact the Director Jof Membership, Linda Jenkins at Linda@HL7.org.

Member Spotlight on Bo Dagnall

Professional Life

Bo Dagnall is the Chief Technologist and Strategist for the Provider Segment of Perspecta's Healthcare Group where he drives innovation including the development of HealthConcourse (a digital platform for clinical data interoperability, knowledge delivery, analytics and process automation). He also represents the company in healthcare IT industry groups and standards developing organizations. He has worked for Perspecta (and with previous parent companies: EDS, HP/HPE and DXC) since 2003. Bo's background is in health informatics and enterprise architecture.

He has experience with clinical terminologies, information models, healthcare standards (e.g., HL7, FHIR), decision support, knowledge management and analytics. He regularly engages with leaders in the industry at large in innovation around healthcare interoperability, systems design, analytics, mobility, cloud and internet of things (IoT). Bo routinely presents at industry tradeshows and events where he speaks on the state of healthcare IT, the use and adoption of standards, optimal solution architectures and emerging trends and technologies.

Most of Bo's time at Perspecta has been spent in support for the VA, where he has worked directly on customer deliverables as well as internal innovation projects as an architect, informatician and chief technologist. He has supported projects including electronic health record repositories, SOA services, analytics and BI platforms, clinical data interoperability, clinical user experience design, and clinical terminologies and information models. In addition, Bo spent over three years in Australia standing up an enterprise architecture office for Queensland Health. In this role, he established architecture processes, vision, governance and deliverables defining the roadmap for Queensland Health's eHealth initiative.

Bo first began attending HL7 working group meetings (WGMs) at the January 2010 WGM in Sydney, Australia. Since that time, he has attended approximately two-thirds of all WGMs. He is actively involved in the development of HL7 FHIR and authored portions of the "FHIR for Architects" section of the specification. Bo and his team regularly attend HL7 FHIR Connectathons. In addition, Bo has been a participant of the ArB, Security and SOA Work Groups.

Personal Life

Bo is very family and community oriented. He has been married for 19 years to his wife, Ginger. They have two children. His son, Indigo, is a nine-year-old rambunctious and fun-loving kid who has a great sense of humor. His daughter, Geneva, is 14 years old and is a brilliant young lady with amazing artistic, athletic and academic talent, showing all the traits of a genius and a punky teenager simultaneously.

Bo works from home and lives in the small town of Idyllwild, California, with a population of 4,000 (10,000 in the summer when the local Palm Springs/LA/San Diego people come up to their vacation homes). He was born and raised there and returned 24 years later be closer to family and raise his own children. The town is a dry forest with an abundance of wildlife and is home to many hiking trails and bike trails as well as famous rock-climbing routes, including Tahquitz Rock and Suicide Rock. Unfortunately, he and his family have been evacuated from wildfires twice in the last five years, and two of the three roads to the town were washed out in a deluge on Feb 14, 2019.

Bo is an avid sports lover. His favorite teams are the Miami Dolphins and the Los Angeles Lakers. In his free time, Bo runs the local basketball league, plays softball and volleyball, and coaches middle school girls' basketball as well as his son's youth community sports teams.

Bo Dagnall and his family live in the small California town of Idyllwild, where he enjoys performing arts, sports, cooking and community life.

Likewise, he also has a love of the arts – Bo plays piano, is a member of a beat poetry group that performs every other month at local restaurants and bars, has acted in plays and performed in talent shows. He enjoys movies like *Pulp Fiction, Star Wars, Love Actually, Airplane!* and *Naked Gun*. His daughter has turned him into a huge fan of the musical *Hamilton*. He also likes to pass the time playing poker, board games, ping pong, corn hole, and pickleball, among others. In addition, Bo loves to travel, cook (he's a lifelong vegetarian) and contributes to local charities and climate groups. ◼

Process Points by PIC

HL7 Spotlight – Be A Mentor!

Most of us remember our first HL7 working group meeting (WGM). We might have been following the work for some time, and even been an active participant in some calls, but walking through those doors, checking in, and beginning to navigate the 40-ish work groups and week-long sets of meetings was a little daunting. Moreover, the tight-knitted HL7 community has its own quirks – the language spoken at WGMs is not English (or any other national language for that matter) and is interspersed with not only technical and health acronyms, but HL7's dialect of those.

The Mentor program was established to help first-time (or not quite first-time) attendees to understand, navigate and effectively participate in their first meeting, and to make that process a little easier. Sometimes mentor relationships extend beyond the WGM, but most often mentors serve as that familiar face, that experienced voice, and that "big brother" type guide there to help. Unfortunately, the program is often starved for volunteers due to lack of awareness, ignorance around how to participate, or concerns about the effort involved. Here are a few questions or misconceptions to consider, and to hopefully encourage more of you to help mentor a new attendee:

"I don't have enough experience to be a mentor."

One doesn't need to be a 30-year HL7 participant to mentor. Anyone with a general familiarity with how HL7 works, a reasonable understanding of major activities within the community and the key individuals involved in them, and a willingness to help would be a great mentor.

"What would be expected of me?"

You'll be asked to "coach" one of the new participant activities, likely sitting at a new attendee table. We generally place two to three mentors at each "New Attendee" table. First-time attendees self-select where they sit, but frequently take advantage of the opportunity. From there, just engage in conversation. Tell them where you work and your focal areas. Find out their interests. Make recommendations about

which work groups they might consider visiting. Help show them the ropes. That's it.

Those wanting to go the "extra mile" might seek out some of the new attendees intermittently over the coming days to check-in with them. Often having a familiar face and someone to whom they can ask the "dumb question" can make a huge difference in their perception of HL7, and in their willingness to come back and volunteer.

"I am so busy at HL7. I can't make the time commitment."

There is a common misconception that being a mentor is a sustained commitment and a heavy burden. The fact is that your commitment can be as small as spending just one lunch session at a "new attendee" table, talking with attendees, fielding questions, and helping them connect with the right work groups or individuals.

"I would sign up, but I'm not sure I can continue to participate."

No worries. While many mentors elect to participate meeting after meeting, it is not a requirement, nor is it an expectation. We would welcome your help, and that participation would make a difference to the new attendees you engage.

"How do I sign up?"

We have been working with HL7 Headquarters to include a sign-up option as part of your working group meeting registration. Simply "tick the box" that indicates that you're willing to help mentor for THAT meeting, and we'll work with you and your schedule. ■

Note: This process point has been brought to you courtesy of the HL7 Process Improvement Committee. Our role is to help keep HL7 working smoothly and to advocate on behalf of the membership to help address issues and concerns that are raised. We are available at working group meetings, or at pic@lists.hl7.org.

News from the HL7 Project Management Office

PSS & ONC Grant Funded Project Updates
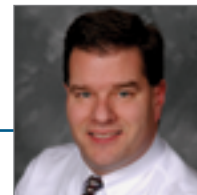
By Dave Hamill,
Director, HL7 Project
Management Office

Confluence/Jira and the Project Scope Statement (PSS)

The Project Scope Statement 'form' on Confluence is undergoing continuous improvement as updates and tweaks are made based on user feedback, which has been greatly appreciated. The vast majority of newly submitted PSSs are via Confluence, which means we plan to retire the MS Word version in the near future.

The PSS review/approval workflow pilot continues. The Jira workflow systematically alerts necessary groups that a project has been submitted to them for review. The group can approve, reject or request additional information from the project facilitator. Additionally, the workflow alerts the PMO of any stagnant review requests, thus ensuring a PSS proceeds smoothly and quickly through all the required approvals.

A centralized overview for each PSS is available in Confluence and includes the progress of approval, involved work groups, and links to the applicable Jira workflow and can be viewed at: https://confluence.hl7.org/display/PSS/Project+Scope+Statement.

ONC Grant Project Updates for HL7

Once again, the ONC extended their grant to continue supporting the Consolidated Clinical Document Architecture (C-CDA) and HL7 Fast Healthcare Interoperability Resources (FHIR®) development and implementation. The grant award will support $1.36 million in projects for fiscal year 2020.

Work continued on projects funded under the current fiscal year 2019 ONC grant. As of Q4, 2019, efforts included the following:

1. Flat FHIR (Bulk Data & Push)
2. Unified HL7 Terminology Governance (UTG) Pilot
3. C-CDA Implementation-A-Thons
4. Improve FHIR JIRA Ballot Process and Tooling
5. FHIR Implementation Guide Publication Coordinator
6. FHIR Connectathon Administrator
7. Compare IPS & Argonaut US Core IGs
8. FHIR Product Support
9. US Core Ballot Reconciliation Support
10. FHIR Education
11. C-CDA Companion Guide Update
12. C-CDA Release 2.2 – Phase 1
13. FHIR IG Training & Workshop
14. FHIR Bulk Data Meeting

Details of each project can be found on the ONC Grant Project Page at: https://confluence.hl7.org/display/PMO/ONC+Grant+Project+Page.

HL7 appreciates ONC's continued support of C-CDA and FHIR for 2019 and beyond. ◼

Tooling Update

Rest Stops Along the Way

By Wayne Kubick,
CTO
HL7 International

As our ongoing retooling journey continues, it's worth a brief stopover now and then to check the roadmap and chart our progress. Since our last update, we've now completed our migration to Confluence, and it has rapidly established itself as the pulse of committee interactions. All work groups should now be using Confluence for agendas, minutes and other work group activities and other content.

Meanwhile, the initial phase of cutting over to JIRA as our primary tool for issue tracking (to replace GForge Tracker) is waiting for a window between ballot cycles but should begin in earnest after the September WGM with a target of completing transition by early next year. Once we migrate issue tracking, we'll resume work on adapting JIRA to support future HL7 ballots.

One quiet, but highly significant improvement to our collaboration toolset has been the recent implementation of single sign-on between Confluence and JIRA. This means that once you've logged into either of these tools, the other will also be simultaneously available. It's an important milestone because

many of the new tooling features, such as online forms, will actually involve both products working together. You can keep abreast of new functions and help features in Confluence at confluence.hl7.org.

Project Scope Statement

As I noted in my last tooling update, we're decoupling forms like the Project Scope Statement (PSS) into separate online modules in an effort to make them easier to complete in smaller chunks, encourage more timely review and approval, and keep the content one-click-away online in Confluence. Our goal is to eliminate forms as email attachments. With the PSS, we would like to see new projects announced soon after they are conceived, with only some

brief descriptive material, so that they're more visible to the community and offer participants to get involved on the ground floor. Adding additional content like milestones and co-sponsors will happen later in the process once more is known. We will also be seeking to make the entire PSS available to all relevant parties (work groups, steering divisions, US Realm, etc.) during a simultaneous, common review period. Once the final updates are completed, the form will be routed using JIRA workflow for TSC review and approval. With online forms and JIRA workflow we should be able to easily track our forms just like we track our Amazon shipments, and hopefully make this process considerably less onerous for co-chairs.

We are currently in the process of reviewing an assessment and requirements analysis of all of our ballot systems and other associated process forms. This will help us prepare our budget requests for beginning a long-term project to modernize our entire balloting environment.

UTG System

Our new Unified Terminology Governance (UTG) system entered alpha testing in July and is still moving toward production rollout in early 2020. UTG, which will provide the single source of truth for HL7 terminologies as well as a modern replacement for harmonization, also makes extensive use of JIRA workflow. Most recently, we've added the Atlassian BitBucket tool which provides a source repository more closely integrated with Confluence and JIRA.

FHIR IG Publication Tooling

In addition to these developments in our collaboration tooling stack, the FHIR team has also made significant processing in improving the capacity, operational efficiency and sustainability of the FHIR IG publication tooling environment. Along with providing a more stable, operational publishing environment for FHIR implementation guides (IGs), the FHIR IG Publisher is also being considered for publishing other HL7 standards, beginning with C-CDA. The ability to support multiple templates for publishing separate documents will also make it possible for the FHIR IG Publisher to support additional HL7 standards and perhaps even publications by certain external partner organizations later this year. This enhanced tooling, together with the availability of process checklists and some new training material, should help the community scale up to handle a higher volume of upcoming IGs become the more efficient at reviewing a more consistent set of ballot documents.
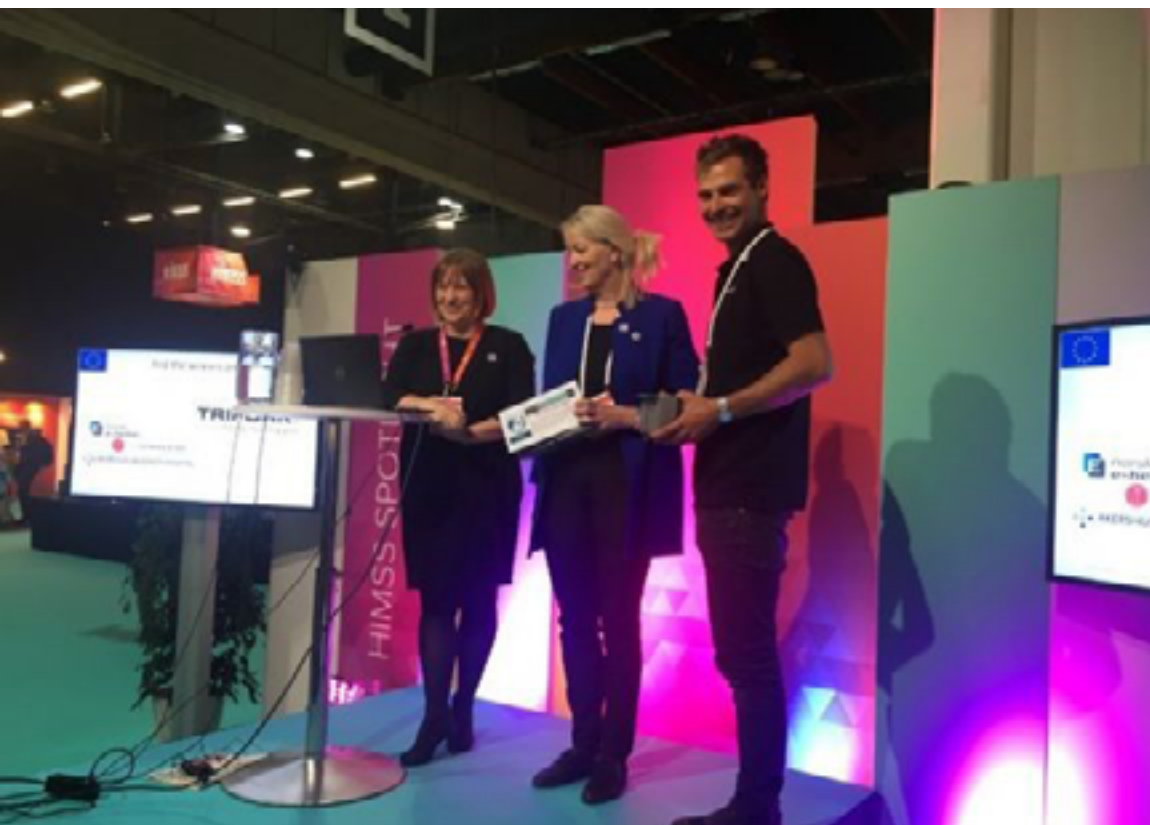
EA Cloud

One final wayside update – our Enterprise Architect (EA) Cloud environment is now available for general use as part of our transition to cloud computing. This will make it easier for people to share and review EA models, though it won't entirely replace the need for the more robust EA client for model development. Directions are available on the Tools & Resources web page at http://www.hl7.org/participate/toolsandresources.cfm?ref=nav

The long journey continues, and we hope to have many more interesting sites to visit until our next rest stop, though we still have plenty of miles to go. ■

Upcoming International Events

Date	Event	Website	Location
September 12, 2019	Swiss eHealth Summit 2019	www.ehealthsummit.ch	Bern, Switzerland
October 7-10, 2019	HIMSS AsisaPac19	www.himssasiapacconference.org	Bangkok, Thailand
October 23-24, 2019	IHIC 2019	www.ihic.info/	Warsaw, Poland
February 1-7, 2020	HL7 May International Conference & WGM	www.HL7.org	Sydney, Australia
October 31-November 1, 2019	SNOMED CT Expo 2019	www.snomed.org/news-and-events/events/snomedct-expo	Kuala Lumpur, Malaysia
November 16-20, 2019	AMIA Annual Symposium	www.amia.org/amia2019	Washington, DC
February 17-21, 2020	GS1 Global Forum 2020	www.gs1.org/events/526/gs1-global-forum-2020	Brussels, Belgium
February 24-26, 2020	HEALTHINFO 2020	www.healthinf.biostec.org	Velleta, Malta
March 9-13, 2020	HIMSS20 - HL7 Booth #2921	www.himssconference.org	Orlando, FL

Janne Rassmussen with the Trillium II Award Winners: Professor Anne Moen from the University of Oslo, Norway and Jens Kristian Villadse from Trifork

Promoting Awareness & Innovative Use of HL7 FHIR International Patient Summary

Trillium II Award

In 2019, the Trillium II Project launched a prize to promote the awareness and innovative use of the HL7 FHIR International Patient Summary (IPS) by health companies and organizations. IPS standards advance the vision of the patient summary as a window to a person's health information and highlight the value of health data as a social good and human right, i.e. it makes key health information about a person available when and where it is needed.

By Janne Rasmussen, Consultant at MedCom, Denmark, and Administrative Coordinator, Trillium II Project

Catherine Chronaki, FHL7, Secretary General, HL7 Foundation, Trillium II Project Scientific Coordinator

What Did We Learn?

CEN and HL7 have worked closely for two years to deliver pragmatic standards and implementation guides, and the Trillium II project has supported this work strategically. Thus, the Trillium Prize was also our chance to see if this work has been successful in spreading the knowledge and guidance on IPS implementation.

After an internal eligibility review process, we had nine finalists who each in their own way has a strong and ambitious plan for how to innovate using the IPS standard. They came from small and medium-sized enterprises (SMEs), governments and public authorities, private companies and multi-national consortia. They represent Latin America, North America and Europe. This demonstrates that IPS is truly global and end-users in all countries can benefit from it.

Who Were the Finalists?

The prize finalists have applied IPS across a range of different types of applications and use cases across the health and care continuum:

1. *FrailSafe: IPS for Frailty Risk Assessment* by Gruppo SIGLA (IT) demonstrates interoperability with HL7 FHIR IPS to share key health data among healthcare systems.

2. *Expanding Shared Medication Record* to IPS by Trifork A/S (DK) aims to build, tune and expand the Shared Medication Record (SMR) established by the Danish Health Data Authority in 2007 with IPS for all Danes when abroad.

3. *CAPABLE Tool for Active Use of IPS by Patients in All Health and Care Interactions* by University of Oslo, Akerhus Univerity Hospital, Norwegian E-Helse AS (NO) wants to empower citizens to actively collect, manage and update clinical and personal health data such as IPS, info leaflets, appointments, diet and nutrition needs, etc.

4. *Care Consumers Mediating Sharing of Their IPS Among Care Providers* by Drimpy (NL) allows care consumers to supervise and share their health data in the personal health record (PHR) available in the drimpy.com eHealth portal.

5. *IPS Connecting Ambulances to Hospitals* by North Denmark Region (DK) use the IPS to integrate the prehospital patient record on tablets used by paramedics in ambulances with the electronic patient record at the hospitals/healthcare systems of all five Danish regions. This will go live by the end of 2019.

6. *IPS as Part of Telehealth Platform* by Ask Your Pharmacist (CAN) use IPS for clinical data support to health professionals in unscheduled teleconsultations.

7. *IPS in the Latin American Network for Cooperation in Health Informatics* by RACSEL (UY) plans to use IPS for health data exchange and will upgrade the currently used Clinical Summary Document to HL7 FHIR IPS.

8. *IPS as Minimum Data Set for Electronic Health Record Sharing* by HL7 Argentina (AR) will deploy the IPS as the minimum data set shared among providers.

9. *MedicalData* by MyData S.A. (AR) is proposing use of pictograms to convey essential health information in the IPS for use in emergency situations and alleviate language barriers when travelling abroad.

Who Were the Judges?

The finalists were reviewed by an international jury, who selected the Trillium II Prize winners for the most innovative use of the IPS. The members of the jury were:

Elaine Blechman, CEO, Prosocial Applications, Inc. and Professor Emerita, University of Colorado

Christopher Chute, DrPH, MD, Chief Research Information Officer, Johns Hopkins Medicine

Gora Datta, FHL7, Group Chairman, CAL2CAL Corporation

Dee O'Sullivan, Director, myhealthapps. net, PatientView

Mike Short, Chief Scientific Adviser, Department for International Trade, UK

Jeremy Thorp, Past Director of Business Architecture, NHS UK

Patricia Van Dyke, RN, Past Chair, HL7 International

Trillium II Award

Who Were the Winners?

The winners of the Trillium prize competition for the most innovative idea or use of the International Patient Summary (IPS) standard were announced at the HIMSS & Health 2.0 European Conference in Helsinki on June 13, 2019.

Ultimately, the judges selected two winners who represent two initiatives that truly reflect the transformative power of the IPS in health and care. They also demonstrate how standards can serve as infrastructure to innovation, both incremental building on existing solutions as well as disruptively challenging the status quo. The winners are:

- *Trifork (Denmark),* which proposes to extend the nationally operational Danish Shared Medication Record service, funded by the Danish Health Data Authority to provide Danish citizens with their patient summary information when abroad.

- *CAPABLE (Norway),* which aims to provide citizens a tool that empowers them to actively use their personal health information in the IPS to make healthy nutritional choices, being mindful of food and medication combinations.

While Trifork is an infrastructure driven project to facilitate safe care, CAPABLE is very much an empowerment tool for the citizens

Winners of the the Trillium II award with their prize reflecting disruptive (IPS vertical) and incremental (IPS horizontal) innovation.

to be in control of their health and wellness. What is common to both projects is the need for health data that is provided through stable, safe and trusted interfaces. This is exactly what the HL7 FHIR IPS standard is about.

IPS standards, when consistently adapted and tailored to specific use cases, can be implemented in electronic clinical documents in the HL7 FHIR format or as collection of FHIR resources from a library of building blocks.

Reusable building blocks for allergies, medication, problems and conditions, lab results, and images, care plans, etc. are

rapidly emerging to advance health data quality, safety and trust, delivering interoperability anytime and anywhere.

Implementations of the IPS building blocks are already advancing proof of concept implementations of the Electronic Health Record Exchange Format recommendation[1] announced by the European Commission in February 2019.

The winners of the Trillium II Prize Competition also realized early the importance of the IPS building blocks.

---

1   https://ec.europa.eu/digital-single-market/en/exchange-electronic-health-records-across-eu

Shared Medication Record IPS Extension

In 2007, the Danish Health Data Authority set out to establish a nationwide Shared Medication Record, containing up-to-date information on every citizen in Denmark and shared across all local systems in the healthcare sector. Trifork was selected as the vendor and has been part of building, tuning, expanding and driving the system since the beginning. Introducing IPS is a natural next step to the range of national services in the Danish healthcare infrastructure. Using existing well-established services such as the Shared Medication Record eases the transition for existing systems toward a national support for IPS in Denmark. It also makes it safer to cross borders for both Danes as well as international citizens while still being able to receive the correct medical care should it be needed.

For more information on a Shared Medication Record IPS extension, please contact:

jvi@trifork.com

CAPABLE

CAPABLE aims to empower citizens to make active use of their health information and the University of Oslo, Akershus University Hospital and Norsk e-helse AS are part of the project. The vision for CAPABLE is to support every citizen who wants to collect, curate and/or complement, and control their personal health information. The content suggested in the IPS is an excellent starting point to include data like e-prescription, medication list and information leaflets, appointments and clinical summary as well as special diet and nutritional requirements. This can drive innovation by allowing for and supporting citizens in efforts to collect, manage and safely keep clinical and personal health information, starting with a) better use of medication, b) understand the role of nutrition for health, especially related to medication, c) coordinate data from primary care, hospitals and other relevant sources. The "CAPABLE-tool" will be available to citizens to be used as they like at all points of need.

Citizen can be the carrier of their health information using the "CAPABLE-tool" in all interactions with the health and care system; a visit to a specialty clinic, hospitalization in Norway, Scandinavia as well as abroad (cross-border), in consultation with general practitioner or primary care institutions (nursing home or a skilled care facility), or in private clinics. Making citizens aware of the benefits in carefully selected health information in the IPS with the "CAPABLE-tool" comes with concrete opportunities and potential to improve digital health literacy, empower and engage people, and use their resources wisely to improve the quality of life and overall wellbeing.

When fully deployed, we expect the "CAPABLE-tool" to impact health and care in multiple ways and by allowing citizens to help there is potential to create significant value for the citizen, the health system and society.

For example, in Norway alone the lack of compliance in medication management is estimated to cause some 2,000 premature deaths every year with direct costs of five billion NOK per year. A recent cost-benefit analysis suggests that prevention and treatment of nutritional problems may contribute to 800 million NOK in reduced hospital costs and additional reductions in primary care. ◼

For more information on CAPABLE please contact:

anne.moen@medisin.uio.no

The IPS Global Community of Practice for Digital Health Innovation has been set up to continue sharing IPS experiences and tools beyond the project and the prize.

Visit www.trillium2.eu to participate and to share your ideas with us and the community.

Canadian Institute
for Health Information

Institut canadien
d'information sur la santé

Managing Health Data in Canada

CIHI's Newest Reporting System is on FHIR®

The Canadian Institute for Health Information (CIHI) is an independent, not-for-profit organization that provides essential information on Canada's health systems and the health of Canadians. CIHI provides comparable and actionable data and information used to accelerate improvements in healthcare, health system performance and population health across Canada. Established in 1994, CIHI currently has 28 pan-Canadian databases across various health sectors. It protects the privacy of Canadians by ensuring the confidentiality and integrity of healthcare information.

By Finnie Flores, Program Consultant, Architecture and Standards, Canadian Institute for Health Information (CIHI)
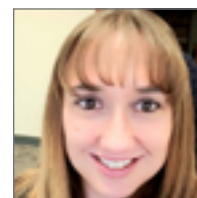
Christine McKenzie, Client Service Specialist, Specialized Care Standards and Engagement, Canadian Institute for Health Information (CIHI)

Ross Shnaper, Technical Lead, Data Acquisition Products, Canadian Institute for Health Information (CIHI)

Three of CIHI's 28 databases use interRAI assessment instruments for data collection:
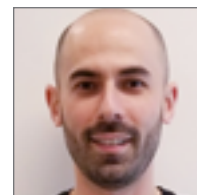
- The Continuing Care Reporting System (CCRS), launched in 2003, contains information on individuals receiving continuing care services in hospitals or long-term care homes in Canada. Data is collected using the Resident Assessment Instrument Minimum Data Set (RAI-MDS 2.0©).

- The Home Care Reporting System (HCRS), launched in 2006, contains information on clients served by publicly funded home care programs in Canada. It uses the Resident Assessment Instrument-Home Care (RAI-HC©) and the interRAI-Contact Assessment (interRAI-CA©).

- The Ontario Mental Health Reporting System (OMHRS), launched in 2005, contains data about individuals receiving adult inpatient mental health services in Ontario, as well as individuals receiving services in youth inpatient beds and selected facilities in other provinces. OMHRS data is collected using the Resident Assessment Instrument-Mental Health (RAI-MH 2.0©).

CCRS, HCRS and OMHRS are not interoperable with each other for several reasons. Firstly, the development of the databases took place separately

and at different times, therefore the integration between them was not part of the design. Secondly, earlier versions of the RAI assessment instruments were used for each database.

While the instruments contain similar or identical questions, some of the identifiers and responses are different; therefore, it was difficult for clinicians to share the information across different care settings. Thirdly, each database uses a CIHI custom-developed data submission specification that is not interoperable.

Building an Integrated interRAI Reporting System

The suite of interRAI assessments has evolved from what CIHI currently collects in CCRS, HCRS and OMHRS. interRAI enhanced and updated the instruments used in long term care, home care and inpatient mental health by leveraging the commonality which existed across the instruments and using standardized language. As a result, it became much easier to share this health information across sectors in a consistent and reliable way. The suite has also been expanded to include palliative care, community mental health, child and youth mental health, and others. The industry has responded positively to these changes, and several jurisdictions across Canada have adopted or are transitioning to the instruments from the integrated assessment suite in several healthcare sectors.

This new landscape provided CIHI with an opportunity to promote interoperability while reducing data submission burden for stakeholders. The new Integrated interRAI Reporting System (IRRS) will manage

the information captured by organizations using these new versions of the instruments. This is a multi-year project to house and report on information collected from interRAI assessments across a number of healthcare settings and population groups including seniors, mental health and addictions, as well as child and youth mental health. Initially, IRRS will capture data from the following instruments:

- interRAI Child and Youth Mental Health (ChYMH) – Inpatient
- interRAI Child and Youth Mental Health (ChYMH) – Community-based
- interRAI Child and Youth Mental Health (ChYMH) – Screener
- interRAI Long Term Care Facility (LTCF)
- interRAI Home Care (HC)

The integrated suite of interRAI assessment instruments uses iCodes, which are unique identifiers for identical questions across various assessment instruments. The use of iCodes in IRRS enables integration of data from various assessment instruments.

While an easier integration of data across instruments is already a significant milestone, IRRS will provide a number of additional benefits. For instance, the system will support a high availability operation, based on cloud and microservices designs. It will also enable a much easier integration with data submitters due to the use of RESTful APIs. IRRS will foster a dramatic simplification and create efficiencies in both vendor development and implementations

through the use of a standard that is reusable between jurisdictions, and a design that leverages a centralized business rules validation engine. Finally, IRRS will operate in near-real-time, shortening the data submission, validation and access cycles from quarterly to seconds. This will enable information to be more readily available to support point-of-care, organizational and system decisions – following a "collect once, use many times" approach. All of this will make it easier to follow a person's healthcare information across settings, which will encourage continuity of care and contribute to improved health outcomes.

Selection and Implementation of HL7 FHIR®

The team considered a number of possible data exchange standards for use in IRRS including HL7 FHIR®, HL7 CDA®, and custom implementation. The team used several criteria for its selection process: standards maturity; extent of adoption; licensing; existing usage at CIHI; implementation complexity; and external opportunities. After reviewing and weighing the options and considerations, the team decided to adopt the HL7 FHIR® standard for IRRS.

Several reasons led to choosing HL7 FHIR®. It is evolutionary from existing standards. HL7 FHIR greatly improves implementation capabilities through adoption of industry technology standards (e.g. REST APIs, XML, JSON, Messaging/ Documents, etc.). Its open license arrangement removes barriers to adoption and implementation.

CIHI's Newest Reporting System is on FHIR®

Even within the context of the IRRS project, the vendor community on several occasions has asked the team whether IRRS would leverage HL7 FHIR for data submission. Furthermore, significant opportunities exist for CIHI to contribute to further evolution of HL7 FHIR, as well as its use to support interRAI assessment instruments which greatly align with CIHI's values as an organization that promotes the development and adoption of standards. Using HL7 FHIR in IRRS is one of the early large-scale implementations of the standard in Canada.

IRRS uses HL7 FHIR R3 (3.0.1) for the data format and REST for the data exchange; HAPI-FHIR framework developed by University Health Network is used for processing FHIR messages while the OpenAPI Specification is used to document the various REST operations that IRRS provides. All the appropriate FHIR resource profiles, code systems, value sets and other supporting documentation are published using the HL7 Implementation Guide Publisher tool and distributed to the vendor community.

To facilitate mapping of interRAI data elements to FHIR resources, interRAI data elements were organized into three major data groupings: 1) demographic; 2) encounter; and 3) assessment. In general, demographic data were mapped to the FHIR *Patient* resource; encounter data to the FHIR *Encounter*

resource; and assessment data to the FHIR *Questionnaire* and *QuestionnaireResponse* resources. Profiles and extensions have been kept to a minimum, but where HL7 FHIR has not supported a data element, an extension was created (e.g. one extension created supports patients' birth sex). IRRS supports creation, deletion, update and query of FHIR resources by implementing the corresponding FHIR API operations. To ensure that HL7 FHIR is leveraged to its maximum potential, an external expert consultant was retained in the early phase of the project to provide guidance.

Approach for Use of Terminology

The use of terminology in IRRS followed several guiding principles, which are listed below:

Conform to HL7 FHIR Requirements

IRRS uses FHIR's assigned value set or code system for attributes where FHIR requires them. For example, the *maritalStatus* attribute in FHIR Patient resource, which corresponds to interRAI's *iA4 – Marital Status*, has an associated value set designated as "extensible". This conformance designation on the value set requires that if an appropriate code exists in the FHIR value set, it must be used. The approach to conform to FHIR's value set requirement necessitated creation of maps between interRAI and FHIR codes.

Minimize Mapping of Data

In support of this principle, interRAI codes and descriptions for permissible values were used as-is in IRRS, unless as previously noted, FHIR required use of a specific value set or code system.

However, to reduce the number of value sets developed and maintained for IRRS, an extensive analysis and harmonization of associated permissible values for interRAI data elements was undertaken.

For example, several interRAI data elements such as *iG1aa - IADL Meal preparation – performance, iG2a - ADL Bathing – performance, iZZ1aa - Familiar indoor - performance*, etc. use the same set of permissible codes.

In this case, one value set was created and reused for each. As an outcome of this analysis and harmonization, while IRRS contains 740 coded data elements, only 167 value sets were created.

Maximize Interoperability

IRRS leveraged international code systems for value sets whenever appropriate. For example, SNOMED CT was used for route of administration and UCUM was used for units of measure corresponding to interRAI's *iM1d1 – Route of Administration* and *iM1c1 – Unit* data elements, respectively.

Success Factors

Several factors contributed to the successful adoption of HL7 FHIR in IRRS. Foremost is the

multi-disciplinary collaboration among experts in clinical, business, technical and standards areas that ensured appropriate mapping of: (a) interRAI data elements to FHIR attributes and (b) interRAI codes to FHIR value sets and other code systems such as SNOMED CT, UCUM and HL7.

Access to open source FHIR reference implementation frameworks such as HAPI-FHIR from University Health Network has greatly shortened the implementation timeframe and allowed the technical team to concentrate on business specific logic and not worry about proper serialization/marshalling of FHIR messages.

Although the technical team had previous experience on a smaller implementation of HL7 FHIR, access to an externally retained expert has greatly helped the technical team to understand the inner workings of HL7 FHIR and has facilitated the maximal use of the standard's capabilities in IRRS.

Lastly, prior work conducted to compile the permissible values from various interRAI assessment instruments has greatly helped in the analysis and harmonization to support the development of value sets and code systems.

Conclusion

HL7 FHIR lends support to many goals that IRRS aims to achieve, including near-real-time validation and submission of interRAI assessments.

It also supports interRAI's integrated suite of assessments very well as demonstrated by the minimal use of extensions and profiles. The implementation of HL7 FHIR in IRRS, coupled with the use of interRAI's iCodes, is expected to promote integration of data from various healthcare sectors. This, in turn, provides benefits to patients, clinicians, and the health system as a whole.

We believe that others who are embarking on similar initiatives can leverage the work the team has done to implement interRAI's integrated suite in HL7 FHIR. ◼

HL7 Standards Approved by ANSI Since May 2019

Name	Designation	Date
HL7 Version 3 Standard: Security and Privacy Ontology, Release 1	ANSI/HL7 V3 SECPRONT, R1-2014 (R2019)	05/31/2019
HL7 Version 3 Standard: Patient Administration; Patient Registry, Release 1	ANSI/HL7 V3PA PATREG, R1-2014 (R2019)	06/07/2019
HL7 Healthcare Privacy and Security Classification System, Release 1	ANSI/HL7 PRIVECLASSSYS, R1-2014 (R2019)	06/07/2019
HL7 Version 3 Standard: Privacy, Access and Security Services; Security Labeling Service, Release 1	ANSI/HL7 V3 PASS SECURITY LABELSRV, R1-2014 (R2019)	06/07/2019
HL7 Version 3 Standard: Personnel Management, Release 1	ANSI/HL7 V3 PM, R1-2005 (R2019)	06/07/2019
HL7 Version 3 Standard: Retrieve, Locate, and Update Service (RLUS), Release 1	ANSI/HL7 RLUS, R1-2013 (R2019)	07/19/2019
HL7 Version 3 Standard: Pharmacy; Medication Order, Release 2	ANSI/HL7 V3 RXMEDORDER, R2-2014 (R2019)	07/19/2019

Using HL7 FHIR for Value-Based Care Models
Da Vinci Project Progress Update

The Da Vinci Project is empowering providers and payers to positively impact clinical quality, cost and care management outcomes by demonstrating how HL7 FHIR can be used to create the scalable solutions to fuel the exchange of critical data necessary for value-based care (VBC) models to succeed.
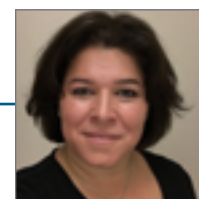
Jocelyn Keegan, Manager, Da Vinci Project, and Lead, Point-of-Care Partners Payer Practice

Da Vinci funds the creation of implementation guides (IG) and reference implementations (RI) to improve and even automate the specific workflows to support payer and provider collaboration.

Launched in January 2018, the Da Vinci Project is fostering a community where members and industry experts can commit time, knowledge and resources to advance use case development. The teams are focused on efficient exchange of clinical data that is timely, appropriate and specific.

The Da Vinci Project invites stakeholders to join the growing number of organizations standing up their initial implementations and are exercising initial IGs and RIs at the HL7 FHIR Connectathon in Atlanta on September 14-15, 2019. Stakeholders can contribute by providing feedback during public calls or start their own implementation project directly between trading partners. There are now seven implementation guides in the ballot process as well as a set queued up for voting in the September ballot pool. The community continues to grow as members define the next set of business challenge to be solved. The HL7 FHIR community:
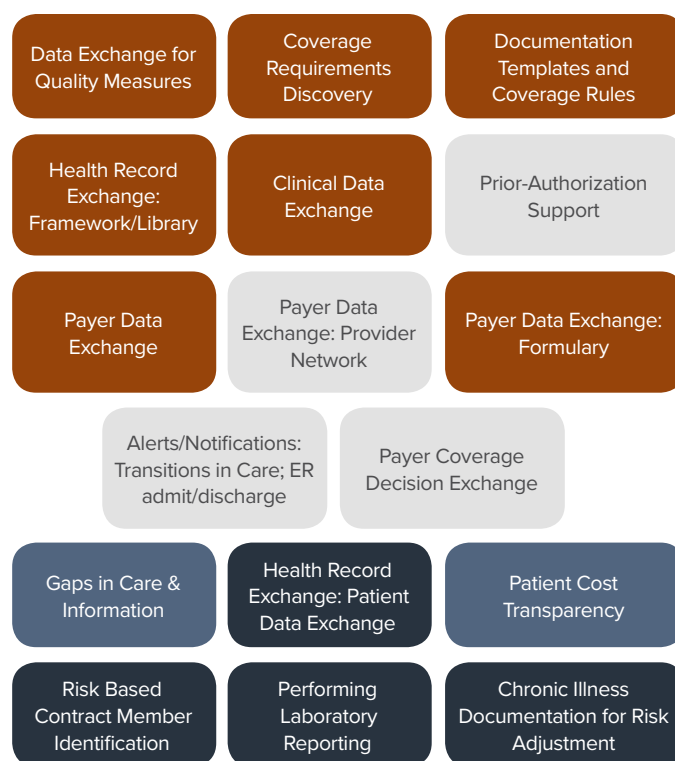
• Works with payers, vendors and providers to define technical requirements;

• Fuels IG development;

• Builds reference implementations that are now available via open sand box environments and built with a test-focused development model to ensure requirements meet needs of larger community.

Beginning in August the team will complete discovery work on the next three use cases:

• Gaps in Care

• Patient Cost Transparency

• Risk Based Member Identification with FHIR Bulk Data Access

You can find all active use case artifacts and collateral

2019 USE CASE INVENTORY & STATUS

Data Exchange for Quality Measures	Coverage Requirements Discovery	Documentation Templates and Coverage Rules
Health Record Exchange: Framework/Library	Clinical Data Exchange	Prior-Authorization Support
Payer Data Exchange	Payer Data Exchange: Provider Network	Payer Data Exchange: Formulary

| Alerts/Notifications: Transitions in Care; ER admit/discharge | Payer Coverage Decision Exchange |

| Gaps in Care & Information | Health Record Exchange: Patient Data Exchange | Patient Cost Transparency |
| Risk Based Contract Member Identification | Performing Laboratory Reporting | Chronic Illness Documentation for Risk Adjustment |

PROJECT PROCESS

Define requirements (technical, business and testing)

→ Create Implementation Guide

→ Create and test Reference Implementation (prove the guide works)

→ Pilot the solution
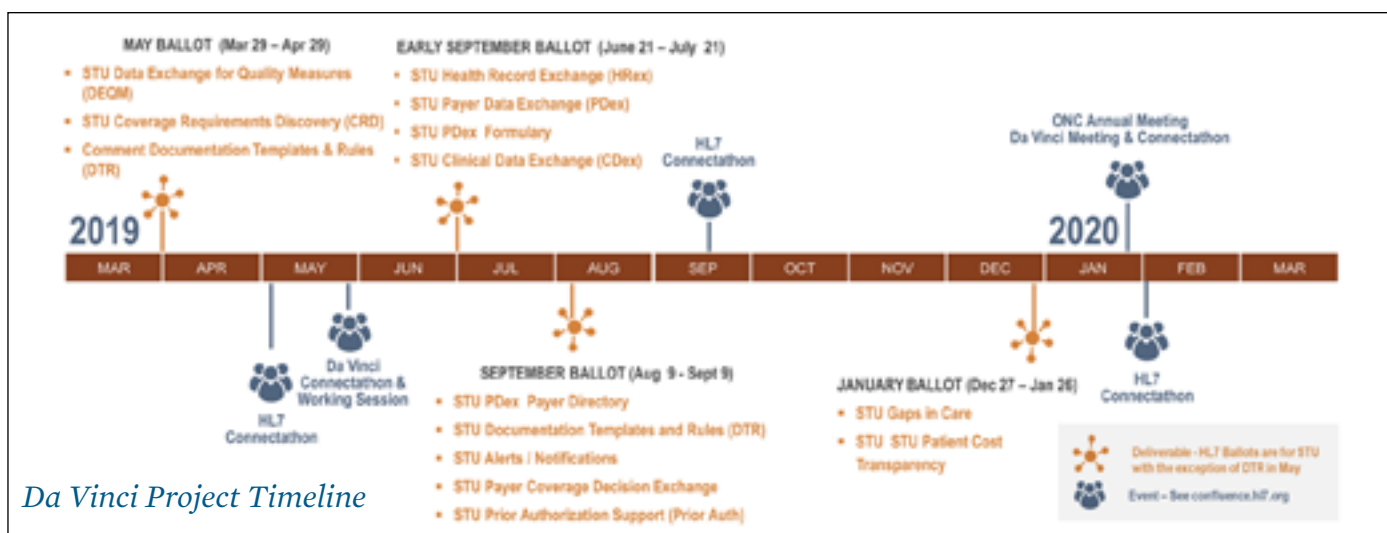
→ Deploy the solution

■ In Ballot Process through HL7

■ Targeted for September Ballot

■ In Discovery targeted for HL7 January Ballot

■ Use cases in discovery (some may be balloted in January 2020)

here: https://confluence.hl7.org/display/DVP/Da+Vinci+Use+Cases.

Da Vinci Project Timeline

The May Meeting at Guidewell

The Da Vinci Project held a three-day onsite meeting at the GuideWell, Florida Blue campus. The event included the first Da Vinci-focused Connectathon as well as early discovery work on the business requirements and challenges that members believe can be developed into FHIR implementation guides.

The Connectathon portion of the event sold out the week before and included over 90 attendees. The overall meeting attracted 112 attendees participating across two sessions, representing 47 organizations including providers, payers, EHRs, integration vendors and consultants.

Connectathon

The Da Vinci team is thankful and beyond excited that over 45 public participants found the time and resources to join the Connectathon. Participants exercised and tested seven use cases.

We would like to extend a huge thank you to our track leads, some of whom had just returned from the HL7 Connectathon in Montreal at the beginning of May. The following individuals were track leads at the event:

1. **Clinical Data Exchange (CDex) & Health Record Exchange (HRex)** - Lisa Nelson and Lloyd McKenzie
2. **Payer Data Exchange (PDex)** – Mark Scrimshire and Tony Benson
3. **Payer Date Exchange Formulary** – David Hill
4. **Prior Authorization Support (PAS)** – Robert Dieterle and Anupam Goel
5. **Clinical Reasoning Track (DEQM)** – Michael O'Keefe and Nikolai Schwertner
6. **Documentation Templates and Rules (DTR)** – Larry Decelles and Keeyan Ghoreshi
7. **Prior Authorization Support** – Jay Walonoski

View the video of end of session read outs here: https://vimeo.com/340222882.

> **For more on active and planned Da Vinci use cases, please see the Confluence page at:**
> https://confluence.hl7.org/display/DVP/Da+Vinci+Use+Cases.
> **Learn More about the Da Vinci Project on Confluence!**
> https://confluence.hl7.org/display/DVP/Da+Vinci.
> **Sign up for the Da Vinci mailing list to be alerted to future events.**

Working Session

During the working session portion of the event, over 55 Da Vinci members participated in active discussions on four new use cases. The use cases and session leaders are listed below:

- **Patient Cost Transparency** – Jocelyn Keegan and Viet Nguyen, MD
- **Alerts** – Linda Michaelsen and Bob Dieterle
- **Gaps in Care** – Gini McGlothin, Linda Michaelsen and Viet Nguyen, MD
- **Payer Coverage Decision Exchange** – Julia Skapik, MD and Bob Dieterle

The power of face-to-face working sessions and concentrated inputs cannot be overstated. Over 2,000 focused hours on Da Vinci work is now a reality thanks to the generosity of our hosts at Guidewell, the hard work of the HL7 team to support Da Vinci to make these events a reality, and all of the participants including coders, architects, and subject matter experts and their respective organizations for their time and investment in Da Vinci's efforts. ◼

Criteria to Guide the Implementation Community

What Is a MODAL VERB, and Why Do I Care?
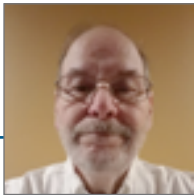
By Anthony Julian, Co-Chair, HL7 Architectural Review Board; Co-Chair, HL7 Infrastructure and Messaging Work Group; IT Technical Specialist II, Mayo Clinic

In recent years, I have seen many examples of specifications being developed which have improperly specified requirements. In one case, the document stated, "You ought to think about requiring this attribute."

A specification that lacks verifiable criteria provides no restrictions on or guidance to the implementation community and is, at best, a white paper.

MODAL VERBS are used in standards documents to define verifiable criteria to which conformance can be claimed. These criteria guide the implementation community.

The Cambridge dictionary defines a modal verb as "**a verb used with another verb** to express an idea such as possibility that is not expressed by the main verb" (Cambridge Dictionary, 2019).

HL7 uses modal verbs consistent with (ISO®/IEC®, 2018).

Verb	Usage	Negation
"SHALL"	**Requirement:** conveys objectively verifiable criteria to be fulfilled and from which no deviation is permitted if conformance with the document is to be claimed. [i] • Do not use "must" as an alternative for "SHALL". • Do not use "MAY NOT" instead of "SHALL NOT" to express a prohibition.	"SHALL NOT"
"SHOULD"	**Recommendation**, an expression, in the content of a document, that conveys a suggested possible choice or course of action deemed to be particularly suitable without necessarily mentioning or excluding others [ii]	"SHOULD NOT"
"MAY"	**Permission**, an expression, in the content of a document, that conveys consent or liberty (or opportunity) to do something [iii] • Do not use "possible" or "impossible" in this context. • Do not use "CAN" instead of "MAY" in this context. • Do not use "might" instead of "MAY" in this context.	"MAY NOT"
"CAN"	**Possibility** or **Capability**, an expression, in the content of a document, that conveys expected or conceivable material, physical or causal outcome, or the ability, fitness, or quality necessary to do or achieve a specified thing [iv] • "CAN" refers to the ability of a user of the document or to a possibility open to him/her.	"CAN NOT"

[i] ISO®/IEC® Directives, Part 2, © ISO/IEC 2018 – All rights reserved

[ii] ibid

[iii] ibid

[iv] ibid

Real world examples are shown below:

Mandatory behavior:

One SHALL NOT swim in the pool.

Recommended behavior:

One SHOULD NOT swim in the pool.

Recommended behavior based on vague capability:

One SHOULD NOT swim in the pool if one is a non-swimmer.

Recommended behavior based on testable capability:

One SHOULD NOT swim in the pool if one CAN NOT swim.

Permissive behavior based on vague capability:

One MAY swim in the pool if one is a swimmer.

Permissive behavior based on capability:

One MAY swim in the pool if one CAN swim.

Non-permissive behavior based on capability:

One MAY NOT swim in the pool if one CAN NOT swim.

Best practice behavior based on capability:

One SHALL NOT swim in the pool if one CAN NOT swim.

The following examples, while grammatically correct, are not testable because they depend on assumptions and circumstances not included as well as the extent to which one is a non-swimmer:

One SHALL drown if one is a non-swimmer.

One SHOULD drown if one is a non-swimmer.
One MAY drown if one is a non-swimmer.
One CAN drown if one is a non-swimmer.

Consider the following example:

If one were to fall off the dock into the water:

One SHALL drown. (It is a requirement that one drown).
One SHOULD drown (it is best practice to drown).
One MAY drown (one has permission to drown).
One CAN drown (one has the capability, or possibility of drowning). ■

HL7® International TRAINING

Get Your Training Straight from the Source!

HL7 Fundamentals Course	Online	9/12-12/5/2019
FHIR Tutorials at Working Group Meeting	Atlanta, GA	9/14-20/2019
FHIR Profiling	Online	10/9-10/2019
Understanding & Using Terminology in FHIR	Online	11/6-7/2019
HL7 FHIR Fundamentals Course	Online	10/31-11/28/2019

Visit HL7.org/events for more information

By the Governance and Operations Committee Members

Annual Work Group Co-Chair Elections Changes Coming in 2020

The September 2019 Working Group Meeting (WGM) will be last time that work group (WG) co-chairs are elected during a WGM. Starting in 2020, WG co-chair elections will be transitioned to an annual schedule matching the current schedule for Board and Technical Steering Committee elections. For those of you unfamiliar with that process:

• Nominations open May 1 and continue through June 15;

• The election period is July 1 through July 30

• Runoffs, if necessary, are held from August 7 through August 21.

• The results are announced during the Plenary Session/September WGM

• Elected individuals are seated January 1 of the following year.

Work group co-chairs will continue to serve two-year terms without term limits. Terms will be adjusted to run from January 1 of the year seated through December 31 of the following year.

As part of the transition to the new election cycle, those WG co-chair positions subject to election in 2020 will have their current term extended through December 31, 2020. Those newly elected or re-elected WG co-chairs in the July 2020 election will take their positions on January 1, 2021 serving through December 31, 2022.

Similarly, current WG co-chairs with terms ending in 2021 will have their terms adjusted to serve through December 31, 2021. The 2021 WG co-chair election will result in those elected/re-elected WG co-chairs beginning their term January 1, 2022 serving through December 31, 2023.

Work groups will continue to have the option to appoint interim co-chairs where circumstances dictate. It is possible that with the move to annual elections the interim WG co-chair may be asked to serve a longer term. For example; a co-chair elected during the January 2019 WGM steps down during the September 2019 WGM and the WG decides to appoint an interim co-chair to fill the position. While the interim WG co-chair may be nominated to fill the seat, the next election of WG co-chairs won't take place until July 2020. This means the interim co-chair would serve through December 31, 2020 with the newly elected WG co-chair (who may be the interim co-chair) taking their seat January 1, 2021.

It should be noted that the extended service for interim WG co-chairs was mentioned as possibly posing a burden on those called to serve given that in the past it may have only required a commitment of three or four months. Therefore, a proviso has been added to the GOM to allow work groups to designate a specific term for interim co-chairs when deemed appropriate. Theoretically, a WG could appoint a new interim WG co-chair to serve between each WGM; however, it is hoped such action would be used as a last resort rather than the preferred option given the burden it would place on HL7 staff.

Depending on the number of co-chairs serving a given WG, the appointment of an interim co-chair and subsequent election activity may affect the concept of leadership continuity. In the example above, the term of the WG co-chair who stepped down in September 2019 would have run through December 31, 2021; however, their replacement (elected July 2020) would be serving a term of January 1, 2021 through December 31, 2022. If the newly elected WG co-chair is one of two serving the WG, this may result in both WG co-chairs being up for election/reelection in 2022. In such a case, the WG should consider the WG co-chair election in 2020 to be for a one-year term (subject to reelection in 2021) to retain continuity of leadership.

A similar circumstance may result from the transition in that some work groups may find themselves in the position of having most, if not all, of their co-chairs up for election in 2020 or 2021. Should this occur, any work group affected is encouraged to have a portion, preferably half, of their co-chairs elected to one-year terms to restore continuity of leadership. ■

Questions or concerns may be addressed to the GOC list; any member of the GOC; or Linda Jenkins, the Director of Membership and Administrative Services, Linda@HL7.org

Benefactors

Organizational Members

BENEFACTORS

Accenture
Allscripts
American Medical Association
Centers for Disease Control and Prevention/CDC
Cerner Corporation
CRISP
Duke Clinical & Translational Science Institute
Edifecs, Inc.
Epic
Food and Drug Administration
Google
GuideWell
Intermountain Healthcare
InterSystems
Kaiser Permanente
NewWave
Office of the National Coordinator for Health IT
Optum
Partners HealthCare System, Inc.
PEO DHMS - DoD/VA Interagency Program Office
Pfizer
Philips Healthcare
Quest Diagnostics, Incorporated
Scope Infotech, Inc.
U.S. Department of Defense, Military Health System
U.S. Department of Veterans Affairs
UnitedHealthcare
Virence Health

GOLD

AaNeel Infotech
AbleTo, Inc.
Academy of Nutrition & Dietetics
ActioNet, Inc
Altarum
American College of Physicians
Apprio, Inc.
Arabic Computer Systems
Association of Public Health Laboratories
Asymmetrik Ltd.
Audacious Inquiry
Availity, LLC
Blue Cross and Blue Shield of Alabama
Blue Cross Blue Shield Association
CAL2CAL Corporation
C-HIT
Chorus Software Solutions
Community Care HIE
Community Care Network of Virginia, Inc.

Computrition, Inc.
Connecticut Department of Public Health
Consolo Services Group, Inc.
Corepoint Health
Department of State Health Services (Texas)
d-wise
EBSCO Health
eHealth Initiative
ESAC Inc
EyeMD EMR Healthcare Systems, Inc.
GE Healthcare
Health Care Service Corporation
Healthcare Integrations, LLC
ICANotes, LLC
immutaMED, LLC
Info World
Inovalon Inc.
iNTERFACEWARE, Inc.
IRIS Health Solutions, LLC
Klein Consulting Informatics LLC
Kno2 LLC
Lumedic
MaxMD
Milliman IntelliScript
Missouri Department of Health & Senior Services
Moxe Health
National Association of Dental Plans
National Marrow Donor Program
NeuralFrame
NHS Digital
NICTIZ Nat.ICT.Inst.Healthc.Netherlands
Northrop Grumman Technology Services
NYC Department of Health and Mental Hygiene
Particle Health Inc
PCPI Foundation
PenRad
Post Acute Analytics, Inc.
Prime Healthcare Management Inc.,
Prime Therapeutics LLC
Prometheus Research, LLC
Public Health Informatics Institute
Ready Computing Inc.
Redox
Regenstrief Institute, Inc.
Rochester RHIO
Samvit Solutions
Security Risk Solutions, Inc. (SRS)
The Sequoia Project
SMART Health IT
Sparx Systems
St. Jude Children's Research Hospital

Starwest Tech
State of New Hampshire
Symptomatic, LLC
Tabula Rasa HealthCare, Inc
Tennessee Department of Health
Therap Services LLC
Transcend Insights
UCSF Center for Digital Health Innovation
UHIN (Utah Health Information Network)
University of Arkansas Medical Sciences
UW Medicine Information Technology Services
Vibrent Health
Vynyl

CONSULTANTS

AEGIS.net, Inc.
Carradora Health, Inc.
CentriHealth
Cognosante, LLC
Curandi
Dapasoft Inc.
Darena Solutions LLC
Elimu Informatics Inc.
EnableCare LLC
Fleet Health
Health eData Inc.
Health Intersections Pty Ltd
HLN Consulting, LLC
J Michael Consulting, LLC
Lantana Consulting Group
M*Modal, Inc.
Mathematica Policy Research
Point-of-Care Partners
Professional Laboratory Management, Inc.
SLI Compliance
Smallboard
Telligen
Vernetzt, LLC
WaveOne Associates Inc.

GENERAL INTEREST

Agence eSante Luxembourg
Alabama Department of Public Health
American Assoc. of Veterinary Lab Diagnosticians
American Clinical Laboratory Association
American College of Cardiology
American College of Obstetricians and Gynecologists
American Dental Association
American Immunization Registry Association (AIRA)
Arkansas Department of Health

Organizational Members (continued)

ASIP SANTE
Australian Digital Health Agency
Baylor College of Medicine
CA Department of Public Health
California Department of Health Care Services
CAQH
CENS
Center for Medical Interoperability
Centers for Medicare & Medicaid Services
Centre for Development of Advanced Computing
College of American Pathologists
College of Healthcare Information Mgmt. Executives
Colorado Regional Health Information Organization
CommonWell Health Alliance
Contra Costa County Health Services
Council of Cooperative Health Insurance
Council of State and Territorial Epidemiologists
DGS, Commonwealth of Virginia
DirectTrust
European Medicines Agency
Florida Department of Health
Georgia Department of Public Health
GS1 US
Health and Welfare Information Systems Centre
Health Sciences South Carolina
HealtHIE Nevada
HIMSS
HSE - Health Service Executive
I3L @ GaTech
ICCBBA, Inc.
ICH
Idaho Health Data Exchange
Illinois Department of Public Health
International Society for Disease Surveillance
Iowa Department of Public Health
Japan Pharmaceutical Manufacturers Association
The Joint Commission
Jopari Solutions
Michigan State University HIT
Michigan Technological University
Minnesota Department of Health
NAACCR
National Cancer Institute
National Centre for Healthcare Information Systems
National Council for Prescription Drug Programs

National Institute of Standards and Technology
National Library of Medicine
NC Division of Public Health
NCQA
Nebraska Dept of Health and Human Services
Nebraska Health Information Initiative (NeHII)
New Mexico Department of Health
New York eHealth Collaborative
New York State Department of Health
New York State Office of Mental Health
NJ Division of Developmental Disabilities
NJDOH
NYS DOH, Office of Quality and Patient Safety
Object Management Group (OMG)
Oklahoma State Department of Health
Oregon Public Health Division
OSEHRA
PCHAlliance
Pharmaceuticals & Medical Devices Agency
Radiological Society of North America
Ramsey County Public Health
Republican Center for Medical Technologies
Rhode Island Quality Institute
RTI International
Social Security Administration
UC Davis School of Medicine
United Network for Organ Sharing
United Physicians
University of AL at Birmingham
University of Miami
University of Minnesota
University of Texas Medical Branch at Galveston
Utah Department of Health
Virginia Department of Health
Washington State Department of Health
Westat
Wisconsin Department of Health Services
WNY HEALTHeLINK
WorldVistA

PAYERS

Anthem, Inc.
Arkansas Blue Cross Blue Shield
Blue Cross Blue Shield of Kansas City
Blue Cross Blue Shield of Louisiana
Blue Cross Blue Shield of Michigan
Blue Cross Blue Shield of South Carolina
Cambia Health Solutions

Healthfirst Management Services LLC
HealthNow New York Inc.
Healthspring
Highmark Health
Humana Inc
Lumeris, Inc.
Meridian Health Plan
Noridian Healthcare Solutions
Wisconsin Physicians Service Ins. Corp.

PHARMACY

GlaxoSmithKline
Merck & Co. Inc.
UCB

PROVIDERS

1Life, Inc.
Acuity Healthcare
Albany Medical Center
Albany Medical Center Hospital
almerys
ARUP Laboratories, Inc.
Avera eCare
Benedictine Health System
Blessing Hospital
Boston Medical Center
Cedars-Sinai Medical Center
Central Illinois Radiological Associates
The Children's Hospital of Philadelphia
Children's Mercy Hospitals and Clinics
Children's of Alabama
CHRISTUS Health
Diagnostic Laboratory Services
Emory Healthcare
Gillette Children's Specialty Healthcare
HCA IT&S
Hendricks Regional Health
Johns Hopkins Hospital
Laboratory Corporation of America
Mary Greeley Medical Center
Mayo Clinic
Mediclinic Southern Africa
Milton S. Hershey Medical Center
Montefiore Medical Center
MultiCare Health System
New York-Presbyterian Hospital
North Carolina Baptist Hospitals, Inc.
Palmetto Health Tuomey
Perry Community Hospital
Rady Children's Hospital
Redington-Fairview Hospital
Sharp HealthCare Information Systems
South Bend Medical Foundation, Inc.
Sparrow Health System

Organizational Members (continued)

Spectrum Health
St. Joseph's Healthcare System

PROVIDERS (continued)

Standing Stone, LLC
Stanford Children's Health
Sutter Health
UK HealthCare
UNC Health Care System
University of Nebraska Medical Center
University of Utah Health Care
University Physicians, Inc.
UT M.D. Anderson Cancer Center

VENDORS

A2C Medical
ACUTA LLC
Adeptia Inc.
ADVault, Inc.
Amtelco
Apelon, Inc.
Apervita, Inc.
Apple Inc.
Applied PilotFish Healthcare Integration
athenahealth
Azuba Corporation
BayHealth Development
Beckman Coulter, Inc.
Becton Dickinson
Bizmatics, Inc.
By Light Professional IT Services LLC
Care Everywhere, LLC
CareRelay, Inc.
Caristix
Carium
The CBORD Group Inc.
Cedaron Medical, Inc.
Change Healthcare
Clinical Architecture LLC
Clinical Software Solutions
Clinicomp, Intl
CMG Technologies Sdn Bhd
Cognitive Medical Systems
Community Computer Service, Inc.
Complia Health
Conéctate Soluciones y Aplicaciones SL
CoverMyMeds
Cyrus-XP LLC
Deer Creek Pharmacy Services
Diameter Health
Document Storage Systems, Inc.
DocuTrac, Inc.
Due North Innovations, LLC
Eccovia Solutions
eClinicalWorks

ELEKTA
EMR Direct
Evident
Exom Deutschland GmbH
Exscribe, Inc.
EXTEDO
ezEMRx
FEI.com
Flatiron Health
Foothold Technology
Forte Research Systems, Inc.
Genesis Systems, Inc.
Goldblatt Systems, LLC
GPM Corp.
Greenway Health
Health Care Software, Inc.
Health Catalyst
HealthLX
HealthTrio, LLC
heartbase, inc.
IBM
IMA Systems LLC
Infor
Information Builders
Innovaccer Inc.
Intelligent Medical Objects (IMO)
Interbit Data, Inc.
iPatientCare, LLC
IRIS Technologies
Isoprime Corporation
KaMMCO
Lab Warehouse, Inc.
Labware, Inc.
Leidos, Inc.
Lindacare
LINK Medical Computing, Inc.
Logibec
MDT Technical Services, Inc.
MedConnect, Inc.
Medecision
MedEvolve, Inc.
MedicaSoft
Medicomp Systems, Inc.
MediSked, LLC
Medisolv Inc
MEDITECH, Inc
Medtronic
Mettle Solutions LLC
MGRID
The MITRE Corporation
ModuleMD LLC
Morris Systems Inc
MyHealth ACCESS NETWORK, INC.
MyHealthcare Online Inc.

NaviHealth
NetDirector
NextGen Healthcare Information Systems, Inc.
OneHealthPort
Orchard Software
Patient Care Intervention Center
Patient Resource LLC
Perspecta
PHI Medical Office Solutions
Premier Healthcare Alliance
Prometheus Computing LLC
Pulse Systems Inc.
QS/1 Data Systems, Inc.
Quadrus Medical Technologies
Quantros, Inc.
Qvera
Real Seven, LLC
Reed Technology and Information Services Inc.
RefleXion Medical
Roche Diagnostics International Ltd.
Rosch Visionary Systems
Sabiamed Corporation
SASA Soluciones de Autoservicios y Serv Asociados
Secure Health Chain
Semaphore Solutions
SIVSA SOLUCIONES INFORMATICAS, S.A.U.
Smiths Medical
Softek Solutions, Inc.
Software AG USA, Inc.
Southwestern Provider Services, Inc
SRSsoft, Inc.
Summit Healthcare Services, Inc.
Surescripts
SurgiVision Consultants, Inc.
Synopsys Finland Oy
TGX Medical Systems
TIBCO Software Inc.
Varian Medical Systems, Inc.
WebMD Health Services
Wellsoft Corporation
Wolters Kluwer Health
XchangeWorx
XIFIN, Inc.
Yardi Systems, Inc.

2019 Technical Steering Committee Members

CHAIR
Austin Kreisler, FHL7
Leidos, Inc.
Phone: +1 706-525-1181
Email: austin.j.kresler@leidos.com

CHIEF TECHNOLOGY OFFICER
Wayne Kubick
Health Level Seven International
Phone: +1 847-842-1846
Email: wkubick@HL7.org

ARB CHAIR
Anthony Julian, FHL7
Mayo Clinic
Phone: +1 507-293-8384
Email: ajulian@mayo.edu

ARB VICE CHAIR
Lorraine Constable
HL7 Canada
Phone: +1 780-951-4853
Email: lorraine@constable.ca

INTERNATIONAL REPRESENTATIVES
Giorgio Cangioli
HL7 Italy
Email: giorgio.cangioli@gmail.com

Jean Duteau
Duteau Design Inc.
Phone: +1 780-328-6395
Email: jean@duteaudesign.com

ADMINISTRATIVE CO-CHAIRS
Mary Kay McDaniel
Cognosante, LLC
Email: marykay.mcdaniel@cognosante.com

Ulrike Merrick
Vernetzt, LLC
Phone: +1 415-634-4131
Email: rikimerrick@gmail.com

CLINICAL CO-CHAIRS
Floyd Eisenberg, MD
iParsimony LLC
Phone: +1 202-643-6350
Email: feisenberg@iparsimony.com

Melva Peters
Jenaker Consulting
Phone: +1 604-512-5124
Email: melva@jenakerconsulting.com

INFRASTRUCTURE CO-CHAIRS
Paul Knapp
Knapp Consulting Inc.
Phone: +1 604-987-3313
Email: pknapp@pknapp.com

Robert McClure MD
MD Partners, Inc.
Phone: +1 303-926-6771
Email: rmcclure@mdpartners.com

ORGANIZATIONAL SUPPORT CO-CHAIRS
Virginia Lorenzi, FHL7
New York-Presbyterian Hospital
Email: vlorenzi@nyp.org

Sandra Stuart
Kaiser Permanente
Phone: +1 925-519-5735
Email: sandra.stuart@kp.org

AD-HOC MEMBER
John Roberts
Tennessee Department of Health
Phone: +1 615-741-3702
Email: john.a.roberts@tn.gov

Steering Divisions

ADMINISTRATIVE
Electronic Health Records
Financial Management
Imaging Integration
Orders & Observations
Patient Administration
Payer/Provider Information Exchange

CLINICAL
Anesthesia
Biomedical Research & Regulation
Clinical Decision Support
Clinical Genomics
Clinical Interoperability Council
Clinical Quality Information
Community-Based Care and Privacy
Emergency Care
Health Care Devices
Learning Health Systems
Patient Care
Pharmacy
Public Health

INFRASTRUCTURE
Arden Syntax
Clinical Information Modeling Initiative
Conformance
FHIR Infrastructure
Implementable Technology Specifications
Infrastructure & Messaging
Mobile Health
Modeling & Methodology
Security
Services Oriented Architecture
Structured Documents
Vocabulary

ORGANIZATIONAL SUPPORT
Cross-Group Projects
Electronic Services & Tools
Process Improvement Committee
Project Services
Publishing

HL7 Work Group Co-Chairs

ANESTHESIA

Martin Hurrell, PhD
Phone: +44 7711-669-522
Email: martinhurrell@outlook.com

John Walsh, MD
Partners HealthCare System, Inc.
Phone: +1 857-282-3953
Email: jwalsh@partners.org

ARCHITECTURAL REVIEW BOARD

Lorraine Constable
HL7 Canada
Phone: +1 780-951-4853
Email: lorraine@constable.ca

Anthony Julian, FHL7
Mayo Clinic
Phone: +1 507-293-8384
Email: ajulian@mayo.edu

ARDEN SYNTAX

Peter Haug, MD
Intermountain Healthcare
Phone: +1 801-507-9253
Email: peter.haug@imail.org

Robert Jenders, MD, MS
Charles Drew University/UCLA
Phone: +1 323-249-5734
Email: jenders@ucla.edu

BIOMEDICAL RESEARCH AND REGULATION

Boris Brodsky
Food and Drug Administration
Phone: +1 301-796-5179
Email: boris.brodsky@fda.hhs.gov

Myron Finseth, BS, MSc
Medtronic
Phone: +1 763-526-3071
Email: myron.finseth@medtronic.com

Hugh Glover, FHL7
Blue Wave Informatics
Email: hugh_glover@
 bluewaveinformatics.co.uk

Bron Kisler, BS
National Cancer Institute
Phone: +1 850-225-2766
Email: bron.kisler@nih.gov

CLINICAL DECISION SUPPORT

Guilherme Del Fiol, MD, PhD
University of Utah Health Care
Phone: +1 801-213-4129
Email: guilherme.delfiol@utah.edu

Robert Jenders, MD, MS
Charles Drew University/UCLA
Phone: +1 323-249-5734
Email: jenders@ucla.edu

Kensaku Kawamoto, MD, PhD
University of Utah Health Care
Phone: +1 801-587-8076
Email: kensaku.kawamoto@utah.edu

Bryn Rhodes
Database Consulting Group
Phone: +1 801-210-0324
Email: bryn@databaseconsultinggroup.
 com

Howard Strasberg, MD, MS
Wolters Kluwer Health
Phone: +1 858-481-4249
Email: howard.strasberg@wolterskluwer.com

CLINICAL GENOMICS

Gil Alterovitz, PhD
SMART Health IT
Email: gil@chip.org

Robert Freimuth, PhD
Mayo Clinic
Phone: +1 507-266-4078
Email: freimuth.robert@mayo.edu

Bob Milius, PhD
National Marrow Donor Program
Phone: +1 612-627-5844
Email: bmilius@nmdp.org

Kevin Power
Cerner Corporation
Phone: +1 816-201-3026
Email: kpower@cerner.com

Patrick Werner
HL7 Germany
Phone: +49 15150602008
Email: pa.f.werner@gmail.com

CLINICAL INFORMATION MODELING INITIATIVE

Richard Esmond
PenRad
Phone: +1 763-475-3388
Email: richard.esmond@gmail.com

Stanley Huff, MD, FHL7
Intermountain Healthcare
Phone: +1 801-507-9111
Email: stan.huff@imail.org

Galen Mulrooney, MBA
U.S. Department of Veterans Affairs
Phone: +1 703-815-0900
Email: galen.mulrooney@jpsys.com

Claude Nanjo
University of Utah Health Care
Phone: +1 810-587-6092
Email: cnanjo@gmail.com

CLINICAL INTEROPERABILITY COUNCIL

Laura Heermann Langford RN, PhD
Intermountain Healthcare
Phone: +1 801-507-9254
Email: laura.heermann@imail.org

Lindsey Hoggle
IRIS Health Solutions, LLC
Email: lhoggle@irishealthsolutions.com

Russell Leftwich, MD
InterSystems
Phone: +1 617-551-2111
Email: russell.leftwich@intersystems.com

Amy Nordo, MMCi, RN
Pfizer
Email: amy.nordo@pfizer.com

CLINICAL QUALITY INFORMATION

Patricia Craig, MS, MIS
The Joint Commission
Phone: +1 630-792-5546
Email: pcraig@jointcommission.org

Paul Denning
The MITRE Corporation
Phone: +1 781-271-9614
Email: pauld@mitre.org

Floyd Eisenberg, MD
iParsimony LLC
Phone: +1 202-643-6350
Email: feisenberg@iparsimony.com

Yan Heras
Optimum eHealth
Phone: +1 949-566-3361
Email: yanheras@gmail.com

Juliet Rubini, MS, MSIS
Mathematica Policy Research
Phone: +1 609-750-3181
Email: julietkrubini@gmail.com

COMMUNITY-BASED CARE AND PRIVACY

Johnathan Coleman
Security Risk Solutions, Inc. (SRS)
Phone: +1 843-442-9104
Email: jc@securityrs.com

Suzanne Gonzales-Webb
Department of Veteran Affairs
Phone: +1 727-605-5081
Email: suzanne.webb@bookzurman.com

James Kretz
SAMHSA
Email: jim.kretz@samhsa.hhs.gov

David Pyke
Ready Computing Inc.
Phone: +1 212-877-3307 x101
Email: david.pyke@readycomputing.com

HL7 Work Group Co-Chairs (continued)

CONFORMANCE

Nathan Bunker
American Immunization Registry
  Association
Phone: +1 435-635-1532
Email: nbunker@immregistries.org

Frank Oemig, PhD, FHL7
HL7 Germany
Phone: +49 208-781194
Email: hl7@oemig.de

Ioana Singureanu, MSCs, FHL7
U.S. Department of Veterans Affairs
Phone: +1 603-548-5640
Email: ioana.singureanu@bookzurman.com

Robert Snelick
National Institute of Standards &
  Technology
Phone: +1 301-975-5924
Email: robert.snelick@nist.gov

CROSS-GROUP PARADIGM

Jean Duteau
Duteau Design Inc
Email: jean@duteaudesign.com

Floyd Eisenberg MD
iParsimony LLC
Phone: +1 202-643-6350
Email: FEisenberg@iParsimony.com

ELECTRONIC HEALTH RECORDS

Michael Brody, DPM
Email: mbrody@cmeonline.com

Gary Dickinson, FHL7
CentriHealth
Phone: +1 951-536-7010
Email: gary.dickinson@ehr-standards.com

Stephen Hufnagel, PhD
Apprio, Inc.
Phone: +1 703-575-7912
Email: shufnagel@apprioinc.com

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

John Ritter, FHL7
Phone: +1 412-372-5783
Email: johnritter1@verizon.net

Feliciano Yu, MD, MS
University of Arkansas Medical Sciences
Email: pele.yu@archildrens.org

ELECTRONIC SERVICES AND TOOLS

David Burgess
Laboratory Corporation of America
Phone: +1 615-221-1901
Email: burgesd@labcorp.com

Elizabeth Newton
Kaiser Permanente
Phone: 925-997-8150
Email: elizabeth.h.newton@kp.org

Brian Pech, MD, MBA, FHL7
Kaiser Permanente
Phone: +1 678-245-1762
Email: brian.pech@kp.org

Andrew Statler
Cerner Corporation
Phone: +1 816-201-3336
Email: andrew.statler@cerner.com

Michael Van der Zel, BSc
HL7 Netherlands
Phone: +31 503619876
Email: m.van.der.zel@umcg.nl

EMERGENCY CARE

Dominik Brammen
HL7 Germany
Phone: +49 700-7777-6767
Email: dominik.brammen@aktin.org

Laura Heermann Langford, RN, PhD
Intermountain Healthcare
Phone: +1 801-507-9254
Email: laura.heermann@imail.org

James McClay, MD
University of Nebraska Medical Center
Phone: +1 402-559-3587
Email: jmcclay@unmc.edu

FHIR INFRASTRUCTURE

Rick Geimer
Lantana Consulting Group
Phone: +1 650-209-4839
Email: rick.geimer@lantanagroup.com

Ewout Kramer
HL7 Netherlands / Firely
Phone: +31 3467171
Email: ewout@fire.ly

Joshua Mandel, MD
SMART Health IT
Phone: +1 617-500-3253
Email: jmandel@gmail.com

Lloyd McKenzie, FHL7
HL7 Canada / Gevity
Email: lloyd@lmckenzie.com

FINANCIAL MANAGEMENT

Kathleen Connor, FHL7
U.S. Department of Veterans Affairs
Phone: +1 727-519-4607
Email: kathleen_connor@comcast.net

Paul Knapp
Knapp Consulting
Phone: +1 604-987-3313
Email: pknapp@pknapp.com

Mary Kay McDaniel
Cognosante, LLC
Email: marykay.mcdaniel@cognosante.com

Benoit Schoeffler
Almerys
Phone: +33 473982044
Email: benoit.schoeffler@almerys.com

Andy Stechishin
HL7 Canada
Phone: +1 780-903-0885
Email: andy.stechishin@gmail.com

HEALTH CARE DEVICES

Todd Cooper
Intermountain Healthcare
Phone: +1 801-290-6887
Email: toddcooperafc@gmail.org

Chris Courville
Epic
Phone: +1 608-271-9000
Email: ccourvil@epic.com

John Garguilo
National Institute of Standards and
  Technology
Phone: +1 301-975-5248
Email: john.garguilo@nist.gov

John Rhoads, PhD
Philips Healthcare
Phone: +1 978-659-3024
Email: john.rhoads@philips.com

IMAGING INTEGRATION

Jonathan Whitby
Vital (Canon)
Phone: +1 952-487-9736
Email: jwhitby@vitalimages.com

IMPLEMENTABLE TECHNOLOGY SPECIFICATIONS

Paul Knapp
Knapp Consulting Inc.
Phone: +1 604-987-3313
Email: pknapp@pknapp.com

Brian Pech, MD, MBA, FHL7
Kaiser Permanente
Phone: +1 678-245-1762
Email: brian.pech@kp.org

Andy Stechishin
HL7 Canada
Phone: +1 780-903-0885
Email: andy.stechishin@gmail.com

INFRASTRUCTURE & MESSAGING

Anthony Julian, FHL7
Mayo Clinic
Phone: +1 507-293-8384
Email: ajulian@mayo.edu

Nick Radov
UnitedHealthcare
Phone: +1 800-328-5979
Email: nradov@uhc.com

Sandra Stuart, FHL7
Kaiser Permanente
Phone: +1 925-519-5735
Email: sandra.stuart@kp.org

HL7 Work Group Co-Chairs (continued)

INTERNATIONAL COUNCIL

Peter Jordan, MSc LLB
HL7 New Zealand
Phone: +64 21-758834
Email: pkjordan@xtra.co.nz

Melva Peters
Jenaker Consulting
Phone: +1 604-512-5124
Email: melva@jenakerconsulting.com

Line Saele
HL7 Norway
Phone: +47 9592-5357
Email: line.sele@nasjonalikt.no

LEARNING HEALTH SYSTEMS

Russell Leftwich, MD
InterSystems
Phone: +1 617-551-2111
Email: russell.leftwich@intersystems.com

John Roberts
Tennessee Department of Health
Phone: +1 615-741-3570
Email: john.a.roberts@tn.gov

MOBILE HEALTH

Nathan Botts, PhD, MSIS
Westat
Phone: +1 760-845-8356
Email: nathanbotts@westat.com

Gora Datta, FHL7
CAL2CAL Corporation
Phone: +1 949-955-3443
Email: gora@cal2cal.com

Matthew Graham
Mayo Clinic
Phone: +1 507-284-3028
Email: mgraham@mayo.edu

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

MODELING AND METHODOLOGY

Jean Duteau
Duteau Design Inc.
Phone: +1 780-328-6395
Email: jean@duteaudesign.com

Grahame Grieve, FHL7
HL7 International; Health Intersections
  Pty Ltd
Phone: +61 3-98445796
Email: grahame@hl7.org; grahame@
  healthintersections.com.au

AbdulMalik Shakir, FHL7
Email: abdulmalik@shakirconsulting.com

Ron Shapiro
Qvera
Phone: +1 801-335-51-1 x7011
Email: ron@qvera.com

ORDERS/OBSERVATIONS

Hans Buitendijk, MSc, FHL7
Cerner Corporation
Phone: +1 610-219-2087
Email: hans.buitendijk@cerner.com

David Burgess
Laboratory Corporation of America
Phone: +1 615-221-1901
Email: burgesd@lapcorp.com

Lorraine Constable
HL7 Canada
Phone: +1 780-951-4853
Email: lorraine@constable.ca

Robert Hausam, MD, FHL7
Hausam Consulting, LLC
Phone: +1 801-949-1556
Email: rob@hausamconsulting.com

Patrick Loyd, FHL7
Email: patrick.e.loyd@gmail.com

Ulrike Merrick
Vernetzt, LLC
Phone: +1 415-634-4131
Email: rikimerrick@gmail.com

John David Nolen, MD, PhD
Children's Mercy Hospitals and Clinics
Phone : +1 816-701-4882
Email: jdlnolen@gmail.com

PATIENT ADMINSTRATION

Alexander de Leon
Kaiser Permanente
Phone: +1 626-381-4141
Email: alexander.j.deleon@kp.org

Irma Jongeneel-de Haas, FHL7
HL7 Netherlands
Phone: +31 681153857
Email: jongeneel@vzvz.nl

Brian Postlethwaite, BaSc
HL7 Australia
Phone +61 420-306-556
Email: brian_pos@hotmail.com

Line Saele
HL7 Norway
Phone: +47 9592-5357
Email: line.sele@nasjonalikt.no

PATIENT CARE

Stephen Chu, MD
HL7 Australia
Phone: +61 416960333
Email: chuscmi88@gmail.com

Laura Heermann Langford, RN, PhD
Intermountain Healthcare
Phone: +1 801-507-9254
Email: laura.heermann@imail.org

Emma Jones
Allscripts
Phone: +1 919-859-8441
Email: emma.jones@allscripts.com

Jay Lyle
U.S. Department of Veterans Affairs
Phone: 727-519-4607
Email: joseph.lyle@va.gov

Michelle Miller
Cerner Corporation
Phone: +1 816-201-2010
Email: mmoseman@cerner.com

Michael Padula, MD, MBI
The Children's Hospital of Philadelphia
Phone: +1 215-590-1653
Email: padula@email.chop.edu

Michael Tan
NICTIZ
Phone: +31 7031-73450
Email: tan@nictiz.nl

PAYER/PROVIDER INFORMATION EXCHANGE

Durwin Day
Health Care Service Corporation
Phone: +1 312-653-5948
Email: dayd@bcbsil.com

Christol Green
Anthem, Inc.
Phone: +1 303-435-6195
Email: christol.green@anthem.com

Russell Ott
Deloitte Consulting LLP
Email: rott@deloitte. com

PHARMACY

Jean Duteau
Duteau Design Inc
Phone: +1 780-328-6395
Email: jean@duteaudesign.com

John Hatem, FHL7
Email: jnhatem@hotmail.com

Melva Peters
Jenaker Consulting
Phone: +1 604-512-5124
Email: melva@jenakerconsulting.com

Scott Robertson, PharmD, FHL7
Kaiser Permanente
Phone: +1 310-200-0231
Email: scott.m.robertson@kp.org

PROCESS IMPROVEMENT COMMITTEE

Ken Rubin
U. S. Department of Veterans Affairs
Phone: +1 301-613-3104
Email: kenneth.rubin@va.gov

Sandra Stuart, FHL7
Kaiser Permanente
Phone: +1 925-519-5735
Email: sandra.stuart@kp.org

HL7 Work Group Co-Chairs (continued)

PROJECT SERVICES

Rick Haddorff
Mayo Clinic
Email: haddorff.richard@mayo.edu

Freida Hall, FHL7
Quest Diagnostics, Inc.
Phone: +1 610-650-6794
Email: freida.x.hall@questdiagnostics.com

PUBLIC HEALTH AND EMERGENCY RESPONSE

Erin Holt, MPH
Tennessee Department of Health
Phone: +1 615-741-3570
Email: erin.holt@tn.gov

Joginder Madra
Madra Consulting Inc.
Phone: +1 780-717-4295
Email: hl7@madraconsulting.com

Craig Newman
Altarum
Email: craig.newman@altarum.org

Laura Rappleye
Altarum
Email: laura.rappleye@altarum.org

Danny Wise
Allscripts
Phone: +1 919-239-7401
Email: danny.wise@allscripts.com

HL7 FHIR Accelerators

Argonaut Project

Carin Alliance

CodeX

Da Vinci Project

Gravity

PUBLISHING COMMITTEE

James Agnew
Smile CDR
Email: jamesagnew@gmail.com

Brian Pech, MD, MBA, FHL7
Kaiser Permanente
Phone: +1 678-245-1762
Email: brian.pech@kp.org

SECURITY

Kathleen Connor, FHL7
U.S. Department of Veterans Affairs
Phone: +1 727-519-4607
Email: kathleen_connor@comcast.net

Alexander Mense
HL7 Austria
Phone: +43 01-1-333-40-77-232
Email: alexander.mense@hl7.at

John Moehrke
By Light Professional IT Services LLC
Phone: +1 703-224-1000
Email: john.moehrke@bylight.com

Chris Shawn
U.S. Department of Veterans Affairs
Phone: +1 518-681-1858
Email: christopher.shawn2@va.gov

Patricia Williams, PhD, MSc
HL7 Australia
Phone: +61 420-306-556
Email: patricia.williams@flinders.edu.au

SERVICES ORIENTED ARCHITECTURE

Jerry Goodnough
Cognitive Medical Systems
Phone: +1 541-338-4911
Email: ferret@stormwoods.com

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

Vince McCauley, MBBS, PhD
Telstra Health (Australia)
Phone: +61 298186493
Email: vincem@bigpond.com.au

Diana Proud-Madruga
U.S. Department of Veterans Affairs
Phone: +1 619-467-5568
Email: diana.proud-madruga@va.gov

STANDARDS GOVERNANCE BOARD

Lorraine Constable
HL7 Canada
Phone : +1 780-951-4853
Email: lorraine@constable.ca

Paul Knapp
Knapp Consulting Inc.
Phone: +1 604-987-3313
Email: pknapp@pknapp.com

Calvin Beebe, FHL7
Mayo Clinic
Email: cbeebe@mayo.edu

Gay Dolin, MSN RN
Intelligent Medical Objects (IMO)
Phone: +1 847-613-6645
Email: gdolin@imo-online.com

Benjamin Flessner
Redox
Email: benjamin@redoxengine.com

Austin Kreisler, FHL7
Leidos, Inc.
Phone: +1 706-525-1181
Email: austin.j.kreisler@leidos.com

Sean McIlvenna
Lantana Consulting Group
Phone: +1 802-785-2623
Email: sean.mcilvenna@lantanagroup.com

Andrew Statler
Cerner Corporation
Phone: +1 816-201-3336
Email: andrew.statler@cerner.com

VOCABULARY

Reuben Daniels
HL7 Australia
Phone: +61 408749769
Email: reuben@saludax.com

Heather Grain
eHealth Education
Phone: +61 3-956-99443
Email: heather@lginformatics.com

Russell Hamm
Intelligent Medical Objects (IMO)
Phone: +1 847-613-6645
Email: russellhamm@gmail.com

Robert Hausam, MD, FHL7
Hausam Consulting, LLC
Phone: +1 801-949-1556
Email: rob@hausamconsulting.com

William Ted Klein, FHL7
Klein Consulting Informatics LLC
Phone: +1 307-883-9739
Email: kci@tklein.com

Caroline Macumber
Apelon, Inc.
Phone: +1 203-431-2530
Email: cmacumber@apelon.com

Robert McClure, MD, FHL7
MD Partners, Inc.
Phone: +1 303-926-6771
Email: mcclure@mdpartners.com

HL7 Work Group Facilitators

BIOMEDICAL RESEARCH AND REGULATION

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

Myron Finseth, BS, MSc
Publishing
Medtronic
Phone: +1 763-526-3071
Email: myron.finseth@medtronic.com

Julie James, FHL7
Vocabulary
Blue Wave Informatics
Email: julie_james@bluewaveinformatics. co.uk

CLINICAL DECISION SUPPORT

Craig Parker, MD, MS, FHL7
Modeling and Methodology; Publishing
Email: craigparkermd@gmail.com

Robert McClure, MD, FHL7
Vocabulary
MD Partners, Inc.
Phone: +1 303-926-6771
Email: mcclure@mdpartners.com

CLINICAL GENOMICS

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

Grant Wood
Publishing
Intermountain Healthcare
Phone: +1 801-408-8153
Email: grant.wood@imail.org

Joel Schneider
Vocabulary
National Marrow Donor Program
Phone: +1 763-406-8207
Email: jschneid@nmdp.org

CLINICAL INFORMATION MODELING INITIATIVE

Susan Matney, PhD, RN
Vocabulary
Intermountain Healthcare
Email: susan.matney@imail.org

CLINICAL INTEROPERABILITY COUNCIL

AbdulMalik Shakir, FHL7
Modeling and Methodology
Email: abdulmalik@shakirconsulting.com

Amy Nordo, MMCi, RN
Publishing
Pfizer
Email: amy.nordo@pfizer.com

Sarah Ryan
Vocabulary
Email: ryansaraha1@earthlink.net

COMMUNITY-BASED CARE AND PRIVACY

Ioana Singureanu, MSCs, FHL7
Modeling and Methodology; Publishing
U.S. Department of Veterans Affairs
Phone: +1 603-548-5640
Email: ioana.singureanu@bookzurman. com

Kathleen Connor, FHL7
Vocabulary
U.S. Department of Veterans Affairs
Phone: +1 727-519-4607
Email: kathleen_connor@comcast.net

EDUCATION ADVISORY COUNCIL

Heather Grain
Vocabulary
eHealth Education
Phone: +61 3-956-99443
Email: heather@lginformatics.com

ELECTRONIC HEALTH RECORDS

Corey Spears
Modeling and Methodology
Infor
Phone: +1 917-426-7397
Email: corey.spears@infor.com

John Ritter, FHL7
Publishing
Phone: +1 412-372-5783
Email: johnritter1@verizon.net

EMERGENCY CARE

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

FINANCIAL MANAGEMENT

Kathleen Connor, FHL7
Modeling and Methodology; Vocabulary
U.S. Department of Veterans Affairs
Phone: +1 727-519-4607
Email: kathleen_connor@comcast.net

Beat Heggli, FHL7
Modeling and Methodology; Publishing
HL7 Switzerland
Phone: +41 44-297-5737
Email: beat.heggli@netcetera.com

Mary Kay McDaniel
Publishing; Vocabulary
Cognosante, LLC
Email: marykay.mcdaniel@cognosante. com

HEALTH CARE DEVICES

Ioana Singureanu, MSCs, FHL7
Modeling and Methodology
U.S. Department of Veterans Affairs
Phone: +1 603-548-5640
Email: Ioana.singureau@bookzurman.com

Todd Cooper
Vocabulary
Intermountain Healthcare
Phone: +1 801-290-6887
Email: toddcooperafc@gmail.com

Christof Gessner
Vocabulary
HL7 Germany
Phone: +49 172-3994033
Email: christof.gessner@gematik.de

IMAGING INTEGRATION

Elliot Silver, MSc
Vocabulary
Change Healthcare
Phone: +1 604-279-5422 x2686
Email: elliot.silver@changehealthcare.com

INFRASTRUCTURE AND MESSAGING

Grahame Grieve, FHL7
Modeling and Methodology
Health Intersections Pty Ltd./Health Level Seven International
Phone: +61 3-98445796
Email: grahame@healthintersections.com. au / grahame@HL7.org

Anthony Julian, FHL7
Publishing
Mayo Clinic
Phone: +1 507-293-8384
Email: ajulian@mayo.edu

Sandra Stuart, FHL7
Vocabulary
Kaiser Permanente
Phone: +1 925-519-5735
Email: sandra.stuart@kp.org

HL7 Work Group Facilitators

MODELING AND METHODOLOGY

AbdulMalik Shakir, FHL7
Modeling and Methodology
Email: abdulmalik@shakirconsulting.com

William Ted Klein, FHL7
Vocabulary
Klein Consulting Informatics LLC
Phone: +1 307-883-9739
Email: kci@tklein.com

ORDERS AND OBSERVATIONS

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

Lorraine Constable
Publishing
HL7 Canada
Phone: +1 780-951-4853
Email: lorraine@constable.ca

Robert Hausam, MD, FHL7
Vocabulary
Hausam Consulting LLC
Phone: +1 801-949-1556
Email: rob@hausamconsulting.com

PATIENT ADMINISTRATION

Alexander Henket
Modeling and Methodology; Publishing
NICTIZ Nat.ICT.Inst.Healthc.Netherlands
Phone: +31 7031-73450
Email: henket@nictiz.nl

Wendy Huang
Vocabulary
Email: wendyyjhuang@gmail.com

PATIENT CARE

Jean Duteau
Modeling and Methodology
Duteau Design Inc.
Phone: +1 780-328-6395
Email: jean@duteaudesign.com

Susan Matney, PhD, RN
Vocabulary
Intermountain Healthcare
Email: susan.matney@imail.org

PHARMACY

Jean Duteau
Modeling and Methodology
Duteau Design Inc.
Phone: +1 780-328-6395
Email: jean@duteaudesign.com

Scott Robertson, PharmD, FHL7
Publishing
Kaiser Permanente
Phone: +1 310-200-0231
Email: scott.m.robertson@kp.org

Julie James, FHL7
Vocabulary
Blue Wave Informatics
Email: julie_james@bluewaveinformatics.
  co.uk

PUBLIC HEALTH

Joginder Madra
Modeling and Methodology
Madra Consulting Inc.
Phone: +1 780-717-4295
Email: hl7@madraconsulting.com

Jean Duteau
Publishing
Duteau Design Inc.
Phone: +1 780-328-6395
Email: jean@duteaudesign.com

Susan Barber
Vocabulary
Email: subarber3@gmail.com

Sunanda McGarvey, BSss
Vocabulary
Northrop Grumman Technology Services
Phone: +1 404-679-9384
Email: sunanda.mcgarvey@ngc.com

SECURITY

Mike Davis
Publishing
U.S. Department of Veterans Affairs
Phone: +1 760-632-0294
Email: mike.davis@va.gov

Kathleen Connor, FHL7
Vocabulary
U.S. Department of Veterans Affairs
Phone: +1 727-519-4607
Email: kathleen_connor@comcast.net

SERVICES ORIENTED ARCHITECTURE

Diana Proud-Madruga
Vocabulary
U.S. Department of Veterans Affairs
Phone: +1 619-467-5568
Email: diana.proud-madruga@va.gov

STRUCTURED DOCUMENTS

Austin Kreisler, FHL7
Modeling and Methodology
Leidos, Inc.
Phone: +1 706-525-1181
Email: austin.j.kreisler@leidos.com

Sheila Abner, PhD
Vocabulary
Centers for Disease Control and
  Prevention/CDC
Phone: +1 470-344-2864
Email: sha8@cdc.gov

VOCABULARY

William Ted Klein, FHL7
Modeling and Methodology
Klein Consulting Informatics LLC
Phone: +1 307-883-9739
Email: kci@tklein.com

HL7 ARGENTINA
Fernando Campos, FHL7
Phone: +54 11-4781-2898
Email: fernando.campos@
hospitalitaliano.org.ar

HL7 AUSTRALIA
Jason Steen
Phone: +61 488881882
Email: chair@HL7.org.au

HL7 AUSTRIA
Stefan Sabutsch
Phone: +43 664-3132505
Email: stefan.sabutsch@hl7.at

HL7 BOSNIA & HERZEGOVINA
Samir Dedovic
Phone: +387 0-33-721-911
Email: samir.dedovic@medit.ba

HL7 BRAZIL
Marivan Abrahao, MD, FHL7
Phone: +55 11-5573-9580
Email: marivan@mac.com

HL7 CANADA
Ron Parker
Phone: +1 416-595-3448
Email: ron@parkerdhc.com

HL7 CHINA
Baoluo Li Professor
Phone: +86 010-65815977
Email: liblpumch@qq.com

HL7 CROATIA
Miroslav Koncar
Phone: +385 99-321-2253
Email: chair@HL7.hr

HL7 CZECH REPUBLIC
Libor Seidl
Phone: +420 605740492
Email: seidl@HL7cr.eu

HL7 DENMARK
Sofia Stokholm
Phone: +45 39966222
Email: svs@ds.dk

HL7 FINLAND
Juha Mykkanen, PhD
Phone: +358 29-524-8038
Email: juha.mykkanen@thl.fi

HL7 FRANCE
Francois Macary
Phone: +33 786-160-591
Email: francois.macary@phast.fr

HL7 GERMANY
Christof Gessner
Phone: +49 172-3994033
Email: christof.gessner@gematik.de

HL7 GREECE
Alexander Berler
Phone: +30 2111001691
Email: a.berler@gnomon.com.gr

HL7 HONG KONG
Chun-Por Wong
Phone: +852 3488-3762
Email: chair@HL7.org.hk

HL7 INDIA
Chandil Gunashekara
Email: chairman@HL7india.org

HL7 ITALY
Giorgio Cangioli
Phone: +39 06-42160685
Email: giorgio.cangioli@gmail.com

HL7 JAPAN
Michio Kimura, MD, PhD
Phone: +81 53-435-2770
Email: kimura@mi.hama-med.
ac.jp

HL7 KOREA
Byoung-Kee Yi, PhD
Phone: +82 234101944
Email: byoungkeeyi@gmail.com

HL7 NETHERLANDS
Rob Mulders
Phone: +31 30-689-2730
Email: rob@fire.ly

HL7 NEW ZEALAND
Peter Jordan, MSc, LLB
Phone: +64 21-758834
Email: pkjordan@xtra.co.nz

HL7 NORWAY
Line Saele
Phone: +47 9592-5357
Email: line.sele@nasjonalikt.no

HL7 POLAND
Roman Radomski, MD, MBA
Phone: +48 605-404-363
Email: radomski@iehr.eu

HL7 PORTUGAL
Paulo Alves
Email: paulo.alves@proside.pt

HL7 ROMANIA
Florica Moldoveanu
Phone: +40 21-4115781
Email: florica.moldoveanu@cs.pub.ro

HL7 RUSSIA
Sergey Shvyrev, MD, PhD
Phone: +7 495-434-55-82
Email: sergey.shvyrev@gmail.com

HL7 SAUDI ARABIA
Wael Al Dahhasi
Phone: +966 11-2021555
Email: HL7@cchi.gov.sa

HL7 SINGAPORE
Adam Chee
Email: HL7@binaryhealthcare.
com

HL7 SLOVENIA
Brane Leskosek EE, PhD
Phone: +386 543-7775
Email: brane.leskosek@mf.uni-lj.si

HL7 SPAIN
Francisco Perez, FHL7
Phone: +34 637208657
Email: fperezfernan@gmail.com

HL7 SWEDEN
Mikael Wintell
Phone: +46 736-254831
Email: mikael.wintell@vgregion.se

HL7 SWITZERLAND
Roeland Luykx, PhD
Phone: +41 71-279-11-89
Email: roeland.luykx@arpage.ch

HL7 TAIWAN
Yu-Ting Yeh
Phone: +886 2-2552-6990
Email: yuting@tmu.edu.tw

HL7 UK
Ben McAlister
Email: chair@HL7.org.uk

HL7 UKRAINE
Leonid Stoyanov
Phone: +380 443336829
Email: leo@hl7.org.ua

2019 HL7 Staff

Chief Executive Officer

Charles Jaffe, MD PhD
+1 858-720-8200
cjaffe@HL7.org

Chief Technology Officer

Wayne Kubick
+1 847-842-1846
wkubick@HL7.org

Executive Director

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

Associate Executive Director

Karen Van Hentenryck
+1 734-677-7777 x104
karenvan@HL7.org

Director of Education

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

Director of Meetings

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

Systems Administrator

Bryn Evans
+1 734-677-7777 x107
bryn@HL7.org

FHIR Product Director

Grahame Grieve
+1 734-677-7777
grahame@HL7.org

Director of Marketing

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

Director, Project Management Office

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

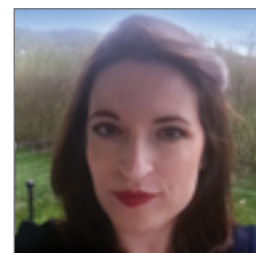**Director of Membership and Administrative Services**
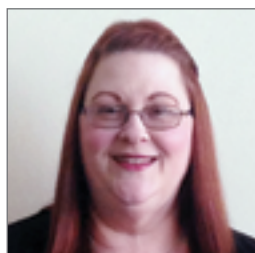
Linda Jenkins
+1 734-677-7777 x170
linda@HL7.org

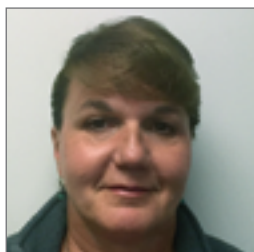**Director of Technical Services & Webmaster**

David Johnson
+1 734-677-7777 x125
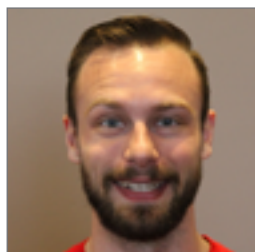davidj@HL7.org

Director of Technical Publications

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

Web Developer

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

Accounting Manager

Renee Previch
+1 734-677-7777 x106
renee@HL7.org

Applications Manager

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

Director of Communications

Andrea Ribick
+1 734-677-7777 x165
andrea@HL7.org

Education Marketing Manager

Melinda Stewart
+1 734-677-7777 x101
melinda@HL7.org

HL7 Project Manager

Anne Wizauer
+1 734-677-7777 x112
anne@HL7.org

2019 HL7 Board of Directors

BOARD CHAIR	CHAIR-ELECT	BOARD SECRETARY	BOARD TREASURER	CHAIR EMERITUS

Calvin Beebe, FHL7
Mayo Clinic
cbeebe@mayo.edu

Walter Suarez, MD, MPH
Kaiser Permanente
+1 301-801-3207
walter.g.suarez@kp.org

Melva Peters
Jenaker Consulting
+1 604-512-5124
melva@jenakerconsulting.com

Russell Leftwich, MD
InterSystems
+1 617-551-2111
russell.leftwich@intersystems.com

W. Edward Hammond, PhD, FHL7
Duke Clinical & Translational Science Institute
+1 919-668-2408
william.hammond@duke.edu

APPOINTED DIRECTORS

AFFILIATE DIRECTORS

Dave Shaver, FHL7
Corepoint Health
+1 214-618-7000
dave.shaver@corepointhealth.com

Mary Ann Slack
Food and Drug Administration
+1 301-796-0603
maryann.slack@fda.hhs.gov

Andrew Truscott
Accenture
+1 713-855-8402
andrew.j.truscott@accenture.com

Diego Kaminker
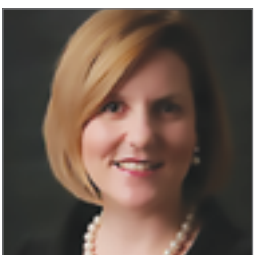HL7 Argentina
+54 11-4781-2898
diego.kaminker@kern-it.com.ar

Line Saele
HL7 Norway
+47 9592-5357
line.sele@nasjonalikt.no

TSC CHAIR

DIRECTORS-AT-LARGE

Austin Kreisler, FHL7
Leidos, Inc.
+1 706-525-1181
austin.j.kreisler@leidos.com

Jennifer Covich Bordenick
eHealth Initiative
+1 202-624-3270
jennifer.covich@ehidc.org

Kensaku Kawamoto, MD, PhD
University of Utah Health Care
+1 801-587-8076
kensaku.kawamoto@utah.edu

Janet Marchibroda
Bipartisan Policy Center
+1 202-379-1634
jmarchibroda@bipartisanpolicy.org

Nancy Orvis, MHA
U.S. Department of Defense, Military Health System
+1 703-681-6350
nancy.j.orvis.civ@mail.mil

NON-VOTING MEMBERS

HL7 International ®

Charles Jaffe, MD, PhD
HL7 CEO
+1 858-720-8200
cjaffe@HL7.org

Wayne Kubick
HL7 CTO
+1 847-842-1846
wkubick@HL7.org

Mark McDougall
HL7 Executive Director
+1 734-677-7777 x103
markmcd@HL7.org

HL7®
International

Newly Certified HL7 Specialists

Congratulations to the following people who recently passed the HL7 Certification Exam:

Certified HL7 Version 2.x Chapter 2 Control Specialist

APRIL 2019
Santosh Ahuja
Scott Banner
Arvind Choudhary
Ruben Lopez Deus
Pablo Dominguez Malleiro
Alejandro Cortizas Garcia
Susanna Pandakasala
Shreyashee Sarkar
Murtuza Shaik Mohammed
Aditi Shukla
Vyshak Sugunan
Vignesh U
Dipesh Yadav

MAY 2019
Nipun Garg
Lohitha Indukuri
Venkat Kovelamudi
Prithvi Narang
Eddy Rospide
Pablo José Viqueira Becerra

JUNE 2019
Santiago del Riego Fernandez
Akhilesh Thakur

JULY 2019
David Zacharski

Certified HL7 CDA 2.0 Specialist

APRIL 2019
Ruchi Aggarwal

MAY 2019
Jamarrial Ellis

JUNE 2019
Siddhesh Prabhu

HL7 FHIR R4 Proficient Certified

APRIL 2019
Rahul Goel
Karan Gupta
Aditya Mandal

JUNE 2019
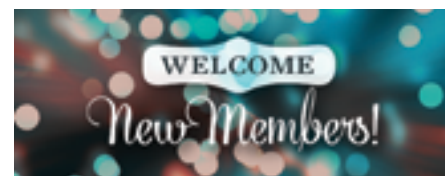Manoj Gupta

JULY 2019
Ming Jiang
Sathyanarayana
 Kovour

HL7 FHIR STU 3 Proficient Certified

APRIL 2019
Shehzad Merchant

MAY 2019
Fredric Santiago

WELCOME
New Members!

HL7 Welcomes New Members

Benefactor

- CRISP

Gold

- Arabic Computer Systems
- C-HIT
- Lumedic
- Particle Health Inc
- PCPI Foundation
- Post Acute Analytics, Inc.
- Vibrent Health
- Vynyl

Organizational

- 1Life, Inc.
- Apervita, Inc.
- Benedictine Health System
- Darena Solutions LLC
- Exom Deutschland GmbH
- IRIS Technologies
- Lindacare
- Patient Care Intervention Center
- Quadrus Medical Technologies
- SASA Soluciones de Autoservicios y Serv Associados
- Semaphore Solutions

HL7®
International

Upcoming HL7 Meetings

September 14-20, 2019
33rd Annual Plenary & Working Group Meeting

Atlanta Marriott Marquis

Atlanta, GA

February 2-3, 2020
FHIR Connectathon
February 4-7, 2020
Working Group Meeting

To be announced

Sydney, Australia

May 16-22, 2020
Working Group Meeting

Hyatt Regency San Antonio on The Riverwalk

San Antonio, TX

September 18-25, 2020
Working Group Meeting

Baltimore Renaissance Harborplace

Baltimore, Maryland

May 22-28, 2021
Working Group Meeting

Hilton Lake Las Vegas Resort & Spa

Henderson, NV

January 16-22, 2021
Working Group Meeting

Hilton New Orleans Riverside

New Orleans, LA