HL7 INTERNATIONAL

NEWS

The Transatlantic Exchange of Electronic Health Records

Live Demo: Trillium Bridge Tests the Transatlantic Interoperability Bridge

Are There Business Opportunities?

SemanticHealthNet... Breaking Down the Tower of Babel in Medicine

Plus...

FHIR Clinician Connecathon

How the HL7 Website Got Its New Look

And More!

In this Issue

Update from Headquarters

By Mark McDougall,
HL7 Executive Director

HL7 Awards Program and the Invaluable Co-Chairs

At each HL7 working group meeting I am honored to recognize so many incredibly talented individuals and organizations for their dedication and service to HL7. Since it is the co-chairs of our over 50 work groups that do so much of HL7's standards development work, I often refer to the co-chairs as the backbone of HL7. For the complete list of co-chairs who provide so much invaluable support to HL7, please refer to page 30.

HL7 Fellowship Award

The HL7 Fellowship award was presented to three individuals during HL7's 28th Annual Plenary and Working Group Meeting in Chicago, IL.

The award was established to recognize HL7 members with at least 15 years of active membership as well as outstanding service, commitment and contributions to HL7.

The 2015 HL7 Fellows pictured with HL7 Chair Dr. Stan Huff and CEO Dr. Charles Jaffe. From left to right: Stan Huff, MD; Michio Kimura, MD, PhD; Doug Pratt, Juha Mykkanen, PhD on behalf of Niilo Saranummi Photo credit: Kai Heitmann

HL7 is honored to recognize the 2014 recipients of the HL7 Fellowship Award for their incredible service to HL7:

- Michio Kimura, MD, PhD
- Douglas Pratt
- Niilo Saranummi

Volunteers of the Year Awards

It is amazing to realize that we are already in the 18th year of recognizing incredible efforts by our dedicated volunteers via our W. Edward Hammond, PhD HL7 Volunteer of the Year Awards. While there are certainly dozens of individuals who merit this recognition each year, the Awards Committee is challenged to limit the annual award to only a few. This year's recipients have contributed hundreds of hours—if not thousands—and have certainly served HL7 extremely well for many years. HL7 is pleased to recognize this year's recipients of the W. Ed Hammond HL7 Volunteer of the Year Awards.

- Lorraine Constable, principal, Constable Consulting Inc.; HL7 Canada
- Melva Peters, president, Jenaker Consulting; consultant, Gordon Point Informatics; chair, HL7 Canada

Please see the article on page 7 to read more about the impressive contributions that these dedicated volunteers have made to HL7.

28th Annual Plenary Meeting

HL7's 28th Annual Plenary and Working Group Meeting convened September 14-19, 2014 at the Chicago Hilton Hotel on the popular Michigan Avenue in Chicago, Illinois.

We were pleased to have the talents of Fred Bazzoli onsite to cover our plenary meeting. As the Senior Director of Communications for the College of Healthcare Information Management Executives (CHIME), Fred provided a valuable perspective when it comes to IT. Below is an excerpt from Fred's coverage of the HL7 plenary meeting:

"Healthcare, as it exists today, can no longer avoid the effects of change. Despite the size of the industry and its many components, it must change and change quickly.

Through the impact of technology, economics, societal pressure, business and other factors, each segment in the industry is under pressure to improve performance, reduce costs, increase efficiency and better serve patients and their families. The calls for improvement present major systemic challenges, but those making demands of the industry will no longer accept the status quo.

These were the major messages emphasized in HL7's 28th Annual Plenary Meeting on September 15 in Chicago. Speakers at the event approached the need for change in different ways, but attendees at the event were challenged by the variety of forces that are bringing pressure to bear on the industry.

To achieve improvement, the healthcare industry needs more collaboration and coordination, and these trends point to the need for more effective exchange of information, pointing to the need for adoption of standards for exchanging data, such as initiatives currently being supported by HL7."

Packed room for the 28th Annual Plenary session. Photo credit: Kai Heitmann

Fred highlighted several HL7 keynote presentations with insight on:

- Creating a learning healthcare system
- Challenges in using EHR data
- Standards needed to support new care settings
- The ethical imperative to achieve interoperability

To read the full executive summary on the plenary as well as the payer summit, please visit Issues and Policy Statements section in the HL7 Newsroom on the HL7 website.

In addition to our 28th Plenary meeting, we also hosted our regular working group meeting with over 50 groups meeting and 30 tutorials.

Meeting Sponsors

I am also pleased to recognize these organizations that sponsored key components of our 28th Annual Plenary and Working Group Meeting.

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

HL7 CEO Dr. Charles Jaffe with the 28th Annual Plenary & Working Group Meeting Sponsors. Photo credit: Kai Heitmann

- Accenture
- AEGIS
- Beeler Consulting, LLC
- Furore
- Gordon Point Informatics
- Hi3 Solutions
- Intelligent Medical Objects
- iNTERFACEWARE
- JP Systems
- Orion Health

Board Election Results

The new year of 2015 will bring new members to the HL7 Board of Directors. As recently announced, the election results for 2015 Board positions are as follows:

CHAIR-ELECT	SECRETARY	DIRECTOR	DIRECTOR	AFFILIATE DIRECTOR
Douglas Fridsma, MD, PhD	W. Edward Hammond, PhD	Hans Buitendijk	James Case, DVM, PhD	Frank Oemig, PhD

Benefactor and Gold Members

We are pleased to recognize the valuable support provided by HL7 benefactors, gold members and supporter members, whose representatives are pictured here. I would like to extend a special thank you to our 2014 HL7 benefactors and gold members. Please see pages 24-25 for a full listing of organizations.

Organizational Member Firms

HL7 is very proud of the impressive list of HL7 organizational member companies as listed on pages 25 through 28. We sincerely appreciate their ongoing support of HL7 via their organizational membership dues.

In Closing

At the time of writing, the holiday season is upon us. I wish to close with a heartfelt thank you to all of you who have supported HL7 throughout the years. On behalf of the HL7 staff, we extend to you and your loved ones our best wishes for good health, much happiness, and lots of smiles this holiday season, for 2015 and beyond.

Paris WGM

I look forward to seeing many of you in Paris, France for our May 10-15, 2015 HL7 Working Group Meeting. Not only will the meeting be productive, but we will also have the opportunity to visit one of world's most beautiful cities. Please plan to join us. See page 22 for more information on the Paris WGM.
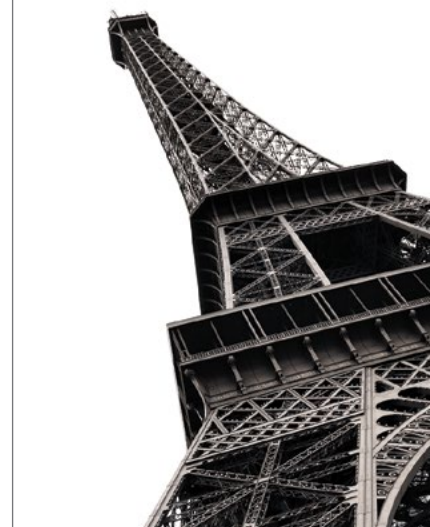
Follow us on Twitter @HL7
http://twitter.com/HL7

Find us on Facebook
http://www.facebook.com/HealthLevel7

News from the PMO and Project Services Work Group

Updated Project Scope Statement Template for 2015

The HL7 Project Management Office and the Project Services Work Group released the 2015 version of the Project Scope Statement (PSS) template; a result of their annual update to the template. As usual, our goal is to streamline and simplify the template so that it's easier to use by HL7 members and provides the most useful data to the membership.

Changes include:

- Merging the FHIR® PSS with the general PSS (and thus eliminating the separate FHIR PSS)

- Adding approval dates for Co-Sponsor Work Group, US Realm Task Force, FMG (FHIR Management Group)

- Modifying the Project Risk section to match TSC risk characteristics as outlined in the Risk Assessment Task Force Interim Report along with adding the ability to identify security risks

- Adding sections for
  - Describing external schedules and calendars that drive the project's target dates
  - Identifying the standard's "common name" (e.g. C-CDA, LRI, eDOS)
  - Indicating external vocabularies
  - Lineage for "Release 2" projects (or higher)

By Dave Hamill, Director, HL7 Project Management Office

Rick Haddorff, Co-Chair Project Services Work Group

Freida Hall, Co-Chair Project Services Work Group

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

AUGUST 2014
Karla Mills

SEPTEMBER 2014
Kirana Kumara B M
Seuli Maji
Kumaran A
Jeffrey Karp
Paul Spadafora
Amina Shaikh
Ritika Jain
Rajesh Sahu
Hari Tarun
Nitin Gupta
Rohit G
Puneetha Hegde
Soni Shahi
Vijay Panchal
Rishu Ranjan
Ashwani Kumar Sharma

OCTOBER 2014
Damanjeet Singh
Siva Kumar Nadella
Seshagiri Rao Vissa
Premila Vadasseri
Francisco Javier Pedrero Vaquero
Francisco José Carrasco Tena
Antonio Olivares Báez
Sergio Aguilar Pérez
Ismael Vargas Pina
Víctor Manuel Durán Barrantes
Esther Olivares Moya
Manuel Hans Uber
Verónica Jiménez Lázaro

Certified HL7 CDA Specialist

AUGUST 2014
Ionut Tudor

SEPTEMBER 2014
Oyvind Aassve
Ted Walker
Shashank Shekhar
Raja K

OCTOBER 2014
Ismael Vargas Pina
Víctor Manuel Durán Barrantes
Esther Olivares Moya
Verónica Jiménez Lázaro
Ernesto Barranco Navarro
Manuel Hans Uber

Certified HL7 Version 3 RIM Specialist

AUGUST 2014
Lochana Padmanabhan

SEPTEMBER 2014
Shaibya Bhagat
Somila Tripathy
Manjunatha R
Ashok Balaraju
Bhimesh Deshpande

WELL DONE

Member Spotlight on Thomson Kuhn

Thomson Kuhn joined the HL7 community as a member in 2001. Since that time he has been actively involved in several HL7 work groups, including Clinical Decision Support, Clinical Quality Information, Electronic Health Records, and Structured Documents. He has also served as a member of the following Board appointed committees: Awards, Nominations and Policy Advisory. In 2007, Thom received the W. Edward Hammond HL7 Volunteer of the Year Award. He is also actively engaged in other health IT industry organizations such as AMIA, ANSI, AHRQ, ANSI, eHI and the ONC's Standards & Interoperability Framework.

Thom has worked as a senior systems analyst for the American College of Physicians (ACP) since 1989. Over the past 25 years, he has designed, built and managed the technical architecture for the College publishing operations. In addition, he designed the production and product architecture for the clinical decision support service. He is currently responsible for health IT policy and standards at ACP, where he develops and coordinates the College positions and policies regarding health, including position papers, comment letters, testimony and presentations (http://www.acponline.org/advocacy/where_we_stand/health_information_technology/).

Thom received his undergraduate degree in history from the University of Pennsylvania

Long-time HL7 Member Thomas Kuhn, in Tuscany (top) and with his grandchildren (right).

and his graduate degree in communications from Temple University. He has always worked in the non-profit sector and has a passion for health IT policy. Thom's primary interest is in addressing new emerging models of healthcare delivery that extend beyond the traditional encounter or admission experience. He notes that these new models cannot succeed without effective health IT.

Thom loves living in Northern Virginia, near Washington, DC. However, he's not a fan of the traffic. He grew up in Philadelphia and remains a diehard Eagles fan. Thom has two adult children – a

daughter and son – as well as four grandchildren. Fishing on the Shenandoah streams and riding his Harley Road King motorcycle are his favorite activities and an ideal day would include both. He also enjoys traveling, especially for fine art and architecture. Finally, he is an avid supporter of several progressive political causes. ◼

The 2014 W. Ed Hammond
Volunteer of the Year Awards

HL7 honored two members with the 18th annual W. Edward Hammond, PhD Volunteer of the Year Award. Established in 1997, the award is named after Dr. Ed Hammond, one of HL7's most active volunteers and a founding member as well as past Board chair. The award recognizes individuals who have made significant contributions to HL7's success.

By Andrea Ribick,
HL7 Director of
Communications

The 2014 recipients include:

Lorraine Constable, principal, Constable Consulting Inc.; HL7 Canada

Melva Peters, president, Jenaker Consulting; consultant, Gordon Point Informatics; Chair, HL7 Canada

About the Recipients

Lorraine Constable has been a member of HL7 since 2007. Her organizational and architecture skills have made her a leader and primary content contributor in a wide range of HL7 work groups. Lorraine currently serves as a co-chair for the Electronic Services and Tools and Orders and Observations (O&O) Work Groups. She was also one of the founding members of the Fast Healthcare Interoperability Resources (FHIR®) Management Group and currently participates on the FHIR Governance Board as well as contributing content for the O&O, Patient Care and Financial Management Work Groups. Constable also helps lead the HL7 Architecture Review Board, where she serves as vice-chair. Her active contributions include the HL7 SAIF Architecture program, the Technical Steering Committee and work groups ranging from Application Implementation and Design to Patient Care.

Melva Peters has been involved in HL7 since 2008. Since that time, she has actively participated in a number of work groups. She is the current chair of the HL7 Canada affiliate and co-chairs the Pharmacy and Education Work Groups. In addition, Ms. Peters co-chairs the Domain Experts Steering Division of the Technical Steering Committee, is an affiliate representative to the Membership Committee and is a member of the International Council. Finally, as a tutor for the online HL7 Fundamentals course, she provides excellent feedback and guidance to students. These volunteer efforts reflect an ongoing outstanding commitment to Health Level Seven International and to the training of members and future generations of leaders. ■

Dr. Hammond congratulates 2014 Volunteer of the Year Award recipients Lorraine Constable and Melva Peters

SAVE THE DATE FOR HIMSS15

April 12-16, 2016 | Chicago, IL

Join us in the HL7 Booth (#3836) at the HIMSS15 Exhibit

HL7 will once again offer a variety of education sessions covering HL7 standards such as FHIR and current industry topics such as the Argonaut Project and Meaningful Use. Visit our booth to learn more about how HL7 and HL7 standards contribute to meaningful use and are helping change the face of healthcare IT.

Live Demo: Provider-Mediated Exchange of Patient Summaries

Trillium Bridge Tests the Transatlantic Interoperability Bridge

On October 22, at the State House of Massachusetts in Boston, during the 5th EU-US eHealth Marketplace and Conference, Trillium Bridge— a project co-funded by the European Commission to support the activities of the EU/US MoU Roadmap on eHealth/HIT cooperation—presented a live demonstration of provider-mediated exchange of patient summaries between the European Union (EU) and the United States (US). This demonstration proved the technical feasibility of the exchange.

Over the past 14 months, Trillium Bridge compared EU patient summaries as implemented in the epSOS project involving 26 member states that formed the basis for the EU patient summary guidelines with the US Meaningful Use II, Continuity of Care Document that serves as the basis for the Blue Button initiative. Over the past 14 months, Trillium Bridge compared EU patient summaries as implemented in the epSOS project. This effort involved 26 member states and

resulted in the development of EU patient summary guidelines using US Meaningful Use Stage 2, the Continuity of Care Document (CCD®) and Blue Botton as input. Both the EU and US clinical document specification are based on the same standard, HL7 Clinical Document Architecture (CDA®) Release 2. Despite nontrivial differences and gaps in the clinical sections, elements, and value sets, it is possible to transform significant parts of one specification to the other.

By Catherine Chronaki,
Secretary General,
HL7 Foundation; Coordinator,
Trillium Bridge Project

The significant effort of Trillium Bridge is expected to decrease standards development costs and accelerate convergence toward global standards. Following an extensive mapping exercise, the committee identified allergies, problems and medications as the basis of an international patient summary specification. The core data elements of this specification

are essential to emergency or unplanned care and thus support citizens' right to health data and safety regardless of their location.

Gnomon Informatics SA, supported by iUZ and the OpenNCP community, worked with the Kaiser Permanent eHealth Exchange team to create a proof of concept reference implementation of the Trillium Bridge gateway as part of their eHealthPass™ project that is able to exchange clinical patient summaries with the Healtheway. The Trillium Bridge gateway was used to search and retrieve the patient summary of a United States citizen in CCD format who was enrolled in a Kaiser Permanente health plan.

The scenario was as follows: Martha, a cancer survivor from San Diego, had an accident during a trip to Italy and was taken to the hospital. Trillium Bridge project manager Giorgio Cangioli played the role of the Italian Doctor, and queried for Martha's patient summary in Italian, retrieved the HL7 CCD document, and then transformed it to Italian. The transformation changed the structures and transcoded the terms to the coding systems used in the EU. Giorgio then authored a note for Martha's physician

back in the United States. Zachary Gillen, interoperability director at Kaiser Permanente, reviewed the information together with Martha once she was back home.

Zachary, in his role of as a Kaiser Permanente physician, demonstrated that the same functionality can be available for Paolo Cerutti, a European citizen visiting the United States. Paolo suffers from chronic hypertension and lost his new medication while traveling to San Francisco and could not explain the symptoms he was experiencing. Zachary successfully retrieved Paolo's patient summary in CCD format and identified his medication.

Next, Ana Estelrich delved into the details of the demonstration and reviewed the process of syntactically transforming the

> **The demonstration showed that with effective transatlantic collaboration, the EU and the US can set the pace and tone for global standards development and eHealth innovation.**

structure of allergies, medication, and problems, while semantically mapping the value sets. This work is being coordinated by Phast in France and the Mayo Clinic in Minnesota. Using Phast's STS Service, they are creating the Trillium Bridge Transformer software which can transform patient summaries from the EU to the US specifications and vice versa. Currently, the STS Service is available at http://extension.phast.fr/STS_UI and offers 22 coding sets. 22 out 65 value sets in HL7 CCD are mapped the epSOS patient summary counterparts, while 26 value sets out of 46

in the epSOS patient summary specification are mapped into the corresponding ones in HL7 CCD. Ana stressed that this is the starting point. Files and notes have been exchanged with the US Office of the National Coordinator for Health IT that undertook a similar work of more limited scope. In retrospect, a rigorous quality assurance process engaging subject matter experts needs to happen in order to create widely accepted interoperability assets. However, since mapping is never perfect, the original code is always sent for safety reasons. The translated and transcoded Trillium document bears the indication that it has undergone a transformation and the original document is always available in its entirety.

Catherine Chronaki reflected on this transatlantic collaborative effort, noting that it is a game changer as it offers the groundwork for follow-up initiatives. The experience gained and lessons learned will inform the work of IHE profiles XCPD and XCA and will be continued in pursuit of end-end integration for HIMSS 2015 in April 2015. It is also expected to inform the efforts underway toward an international patient summary specification under the auspices of HL7, ISO, and CEN.

The demonstration showed that with effective transatlantic collaboration, the EU and the US can set the pace and tone for global standards development and eHealth innovation. It also highlighted that technical feasibility is frequently the easiest part of the puzzle; establishing trust and addressing legal, compliance and governance questions is usually a greater challenge. ◼

Are There Business Opportunities in the Transatlantic Exchange of Electronic Health Records by Providers and Patients?

By Catherine Chronaki,
Secretary General,
HL7 Foundation; Coordinator,
Trillium Bridge Project

On Wednesday, October 22 at the Massachusetts State House in Boston, two projects supported by the European Commission, Sustains (www.sustainsproject.eu) and Trillium Bridge (www.trilliumbridge.eu) addressed four outstanding panelists with the key question of the 5th EU-US eHealth Marketplace: "Are there business opportunities in the transatlantic exchange of electronic health records by providers and patients?"

The Sustains project, presented by Ain Aaviksoo, chair of the National eHealth Task Force in Estonia, aims to increase citizens' access to their electronic health records in 11 European regions. The project has achieved significant results in patient empowerment, quality of care, efficiency and economy throughout Europe and in Estonia, and is interested in an expanded set of patient empowering capabilities that stem across the Atlantic. While final analysis of the project results are underway, the preliminary results indicate that a critical mass of patients are eager to embrace the opportunities that free and secure exchange of their health data can deliver. Countries with well-developed e-health solutions for patient empowerment and systems efficiency improvement are actively seeking opportunities for real-world exchange use cases between countries and continents.

The Trillium Bridge project, presented by Catherine Chronaki, General Secretary of the HL7 Foundation in Belgium, is carrying out a feasibility study of transatlantic EHR exchange by patients and providers along the following dimensions: standards, incentives, innovative business models, security and privacy, clinical research, education, cross-vendor integration. Building on the infrastructure of the epSOS project, the EU patient summary specification and the Meaningful Use Stage 2, Continuity of Care Document, Trillium Bridge has demonstrated the technical feasibility of patient- and provider-mediated exchange of patient summaries across the Atlantic.

The panelists identified different facets of the business opportunities question and offered the perspectives from a variety of viewpoints, including industry, provider, standards, consumer, and government. Panelists also suggested actions and enabling factors for business engagement that can offer citizens access to their electronic health records in a form that is fit for use anywhere in the world.
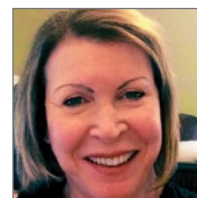
Elaine Blechman, PhD, professor of psychology at the University of Colorado at Boulder and CEO of Prosocial Applications, stressed that older and chronically ill travelers want and need their many healthcare providers to be fully informed about their health status. Gradual increments in EMR interoperability are likely over the next decade, yet are of no immediate value to complex patients who must expend energy, time and money as messengers of health data between all their providers. Complex patients are at a known risk for medical mistakes and suboptimal care if even one of their providers is insufficiently or incorrectly informed about their health status. Based on years of

input from complex patients, dedicated caregivers and professionals, Blechman's team has developed the standards-based SmartPHR iPhone app to ease the messenger burden of complex patients and their justifiable worries about privacy. From her perspective, patient-mediated transatlantic health information exchange must leverage currently available mobile app technology rather than wait for universal inter-provider interoperability. Her expectation is that providers will not be able to exchange patient information between the US and EU for at least another 10 years, which leaves patients alone in solving their health information exchange problems. For Blechman, there are accelerators in the innovations promoted by Apple iOS8 and other smartphone vendors, which confirm the profitability of consumer-driven transatlantic health information exchange without any attention to interoperability and standards, something that her company Prosocial invests in with the SmartPHR suite of apps.

Marcello Melgara from the region of Lombardy in Italy reflected on European Commission funded research which aims at raising awareness of safer and cheaper care as a citizen's right and as a legal and economic duty of states by widening the eHealth market for ICT companies, creating new opportunities for eHealth/healthcare service providers, supporting business/leisure/clinical "tourism", and advancing the eHealth "cultures".

Opportunity: 26 Nations in epSOS Project ☆ + Over 100mm Americans on US eHealth Exchange

He added that there are times he feels countries, regions, and clinicians are not ready, as the market has not reached the critical mass level and eHealth implementations do not interoperate. His expectation is that patients will break the glass in the exchange of health records as awareness assembles critical mass, while providers will start exchanging data as wider business opportunities emerge. Melgara suggested direction for future EU-US activities was to consciously move away from Algebraic Interoperability i.e. the matching of codes and templates, to human interoperability, i.e. the matching of minds. One way to realize that would be to make conscious joint efforts on semantics and workforce.

Dr. Alexander Berler of Gnomon Informatics SA, presented the numbers behind emerging business models that technology such as that of the Trillium Bridge gateway potentially supports. He argued that patient summaries make sense for a number of business cases including medical tourism; disease management; clinical second opinion; telemedicine and mobile health; chronic care; and clinical trial management. Patient summaries also affect a wide range of stakeholders including tour operators; tourism providers; insurance institutions; patient communities; governments; healthcare provider; workflow providers; and the mobile health, telecare, and pharmaceutical industries. Patient summary exchange is just the beginning of a new era of healthcare information exchange; other health data can be exchanged by using the same approach and standards.

According to Berler, medical tourism covers a wide range of patients, including every day tourists that face an emergency or unplanned health event, elective medical tourism, and expatriates including the military and chronic disease patients that wish to keep on traveling. Gnomon Informatics, foreseeing the new market ahead and believing the patient access and empowerment are critical, plans to create an interoperable "healthcare e-passport" service called eHealthPass™. This new service will support

Imagine you have your medical record posted in a safe place in the cloud.

You can read it in words you can understand, anytime your want.
You can take it with you on any trip abroad, for doctors to read it in any language, in any country you choose to travel. Your general practitioner and your specialists can access it, as well as any emergency doctor admitting you, unconscious from an accident or a medical crisis.
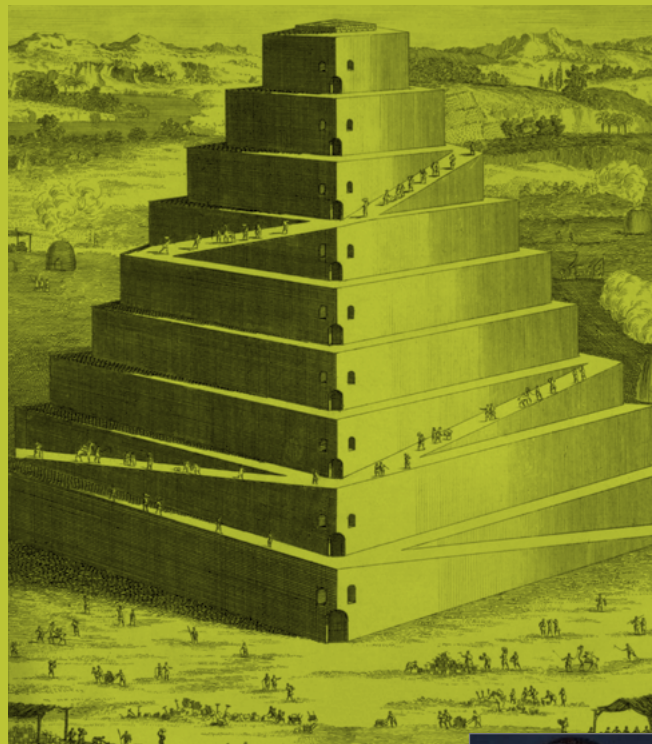
SemanticHealthNet (SHN)
Breaking Down the Tower of Babel in Medicine

Europe is building the info-structure to achieve these objectives. Governments are building electronic highways of medical information, called eHEALTH platforms. This allows medical information to circulate freely but protected between private practices, hospitals, nursing homes, as well as between healthcare workers, policy makers, health insurers, and researchers.

Building highways, however, does not mean that the traffic will be safe. In order to let the information seamlessly flow from one system to the other, something called "semantic interoperability" needs to be achieved. "Interoperability" means the ability to work together smoothly while "semantic" means that we should understand each other when we exchange information and collaborate. It is not easy to ensure that the receiver correctly understands what the sender has conveyed. We must first overcome

hurdles, like different languages, medical cultures, systems, information structures (HL7, openEHR, EN 13606), ways to express information, and ways to classify information.

To solve these soft aspects of medical information exchange, the European Union has gathered 17 top institutes and more that 50 experts in a Network of Excellence for Semantic Interoperability. The short name is SemanticHealthNet (SHN). During this three year project (2012-2015), recommendations, proof of concepts and practical assets are produced to support every aspect of this endeavor.

During the 2nd European e-Cardiology and eHealth Congress on October 29-31, 2014, the progress of SHN and its link to the Trillium Bridge project was presented to a wider audience of cardiologists, interested in eHEALTH, with a focus on prevention and rehabilitation.

By Professor Robert Vander Stichele, MD, PhD, Ramit, Heymans Institute of Pharmacology, University of Ghent, Belgium

The presentations focused on the concrete example (use case) of the care for patients with heart failure. A heart failure specialist medically assesses a patient with suspected heart failure, records the findings in the medical hospital file, and confirms the diagnosis to the general practitioner in an outpatient letter. The information is also sent to the international register of heart failure patients, set up by the scientific association to check the quality of care in Europe. The general practitioner integrates the information in his electronic health record to ensure that the information is available to other doctors in case of emergency, here or abroad.

Achieving this involves several steps which require the full engagement of the scientists from

Joint Trillium Bridge – Sustains Breakfast Workshop

Are There Business Opportunities in the Transatlantic Exchange of Electronic Health Records by Providers and Patients?

patient consent and informed consent mechanisms which are prerequisites for formal exchange of data. It is based on the effective reuse of well established and known standards (HL7, CDA®, IHE) to solve the interoperability equation. The Trillium Bridge Gateway, which is powered by eHealthPass™, is a first step toward future transatlantic services that are open to all patients in need.

Jamie Ferguson, vice president of health policy at Kaiser Permanente, likened business opportunity to citizen value, and discussed the case of a veteran suffering from an allergy that the

Kaiser Permanente EHR was able to flag for the health professional on duty. He then moved on to barriers, highlighting content standards (i.e. EU versus US patient summary), privacy policies and trust frameworks, clinician training and workflow integration. Ferguson recognized powerful accelerators in the international standards collaboration with an international patient summary standard put forward by HL7, ISO and CEN, and the cooperative semantic modeling of SNOMED, CIMI, ISO. He also pointed out continuing opportunities for privacy policy coordination and integration of patient and provider modalities. Ferguson noted that with the rapid growth in US eHealth exchange networks

reaching over 100 million Americans today, a robust market for products and services used for interconnectivity, security, and identity is emerging. He closed his presentation by asserting that expansion of current solutions is the best path toward future interoperability using new standards and methods.

In conclusion, EU and US citizens, even those with chronic disease, may soon feel confident and safe with their healthcare when crossing the Atlantic on business or leisure. It appears that at this early stage, the patient will take the lead in creating the initial products and services in the domain, especially those that are in need for quality healthcare information. ■

this medical discipline and the clinicians working in the field. They must cooperate with experts such as linguists, terminologists, knowledge engineers, ontologists, and health informaticians. They collect and harvest the words and phrases that doctors and patients use in daily conversations in the different languages, and choose the important concepts necessary for communication. These concepts must then be linked to internationally accepted nomenclatures and classifications (terminologies). Agreements must be made about the building blocks of medical records and their organization into clinical models. Terminology must be bound to these building blocks.

More information on Semantic Healthnet:

- Dipak Kalra
  dipak.kalra@eurorec.org
- Trillium Bridge with Catherine Chronaki
  euoffice@HL7.org
- European e-Cardiology and eHealth Congress
  www.e-cardiohealth.org

This will only work to satisfaction if the new semantic technologies to publish and query information in the next generation of the internet (web 2.0 or semantic web) employ clinical models in the right way.

How do we engage the clinicians? How do we make the different information experts work together? How do we make the international organizations for

standardization and profiling work together? How do we stimulate the industry of medical software to adopt novel approaches? How do we assure the availability of open-source, high-quality semantic resources? How do we test whether the systems work properly together? How do we build sustainable business models to pay for all these goodies? It is the task of the SHN Network of Excellence to pave the way, work out the vision, and ensure that investments in this longstanding effort are directed in the right way. SHN is creating a permanent institute with the aspiration to guide the efforts in semantic interoperability in the coming decade. ■

New WGM Feature for Clinicians

HL7 FHIR® Clinician Connectathon

By Russell Leftwich, MD, Co-Chair, HL7 Patient Care Work Group and Chief Medical Officer, Tennessee Office of eHealth Initiatives

The first ever HL7 FHIR® Clinician Connectathon was held on the last day of the September 2014 HL7 28th Annual Plenary and Working Group Meeting in Chicago. The great success of this inaugural event ensures that this will be a regular feature of future HL7 working group meetings.

Traditional connectathons are based on connecting two systems to each other for purposes of interoperable data exchange. The HL7 FHIR Clinician Connectathon was about connecting clinicians to HL7 FHIR developers and implementers (we will call them FHIRicians). The goal was to provide insight for both groups about the needs around HL7 FHIR resources and profiles for clinical data and the effectiveness and completeness of current HL7 FHIR resources in this area.

The September Clinician Connectathon was based on use cases and storyboards created specifically for the connectathon by the HL7 Patient Care Work Group. Three use cases – an acute care episode, a chronic care scenario, and an allergy and intolerance episode – were the basis of these storyboards. The storyboards represented data from a patient story in much the way it would come in actual clinical situations with data coming from patient history, provider observations, and laboratory and diagnostic studies. The data came in unstructured form and the intent was for clinicians from different professional domains to enter this data based

Participants hard at work duing the inaugural HL7 FHIR Clinician's Connectathon.

on their judgment of what was important to capture. Analysis and discussion afterward focused on the success and limitations of existing resources and value sets to capture pertinent data. This approach was taken in contrast to using HL7 FHIR resources to access clinical data that had been previously captured in order to expose possible gaps in HL7 FHIR resources to represent clinical data elements that might be considered of essential importance by clinicians. Or, to state it another way, it was the subtle but profound difference between "Was the data captured important?" and "Was the important data captured?" The difference being whether important clinical data

was not captured and the changes necessary in FHIR resources to ensure it is in the future.

Another important and fundamental goal of this first-ever event type was to develop and test the processes and workflows of this type of connectathon to guide development of future such events. The unstructured data integrated into the user stories allowed the community to "reverse engineer" clinical models for the data to be captured. Detailed clinical models are an important element in building application programming interfaces (API) for healthcare data and this informal approach allowed a flexible and efficient means of communication between clinicians and FHIRicians

Board Convenes Exploratory Group

Including Implementers within HL7

By Grant Wood, on behalf of the HL7 Implementers Project Team

Founded in 1987, Health Level Seven International (HL7) is a not-for-profit, ANSI-accredited standards developing organization dedicated to providing a comprehensive framework and related standards for the exchange, integration, sharing, and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services.

Our 28-years of success are the direct result of the hard work of thousands of volunteer domain experts who have committed their time and expertise to the products and services we offer. As we look toward the next 28 years, in order to grow significantly in numbers and areas of expertise, it's important that we also grow our community of members.

HL7 is committed to maintaining support and resources for our current members and efforts to recruit and develop our core membership, including new member benefits, stake-holder focused summits and policy conferences will continue to be a priority for the organization.

However, as we travel down the path toward increased interoperability, it is apparent that we need to include implementers in this journey. The market for implementers has the potential to not only increase the number of members, but will also provide invaluable expertise in the implementation of HL7 standards.

Implementers play a key role in the successful adoption of standards. Moreover, there are far more implementers than there are standards developers. In order to ensure the ongoing success of our standards development work, it is necessary that we also ensure their successful implementation.

Who is an implementer?

In defining the scope this project, implementers are the primary consumers of the standards. They are the programmers and analysts who interpret the HL7 standards and incorporate them into systems. While implementers are likely to be software developers, they may also be the integrators using HL7 standards for data exchange, end users and the beneficiaries of the standards.

Implementation Board Project Team

During the HL7 August board meeting, the board identified a small group to develop a scope of work and make a recommendation on the best way to include implementers into the broader HL7 community.

Subsequently, this group is convening a representative sub-group to provide input and feedback that includes: those working with implementers at the executive level, active implementers, software developer/vendors, consultants, providers and those who are involved in testing.

Currently, the group is considering a distinct membership offering and benefits for implementers.

If you would like to get involved in this initiative, please contact Grant Wood at grant.wood@imail.org. ■

---

for planning future development of HL7 FHIR resources and profiles. As issues were pointed out, the FHIRicians were able to make coding changes on the fly!

The connectathon was an opportunity for clinicians to better understand the relationship of HL7 FHIR resources and profiles to clinical domain models as well as the relationship of value sets in HL7 FHIR resources to clinical data. For FHIRicians, it was an opportunity to better understand the clinical models and the requirements for clinicians for interoperability between systems, including their own

disparate systems within a facility or institution. For both groups, it was an opportunity to evolve an effective means to develop and improve HL7 FHIR resources using clinician connectathons. ■

CHIME and HL7 Collaboration

HL7 and CHIME: Working Together to Address Challenges to Achieving Interoperability

As part of a partnership to advance interoperability in healthcare, the College of Healthcare Information Management Executives (CHIME) and HL7 are continuing to work together to promote a standardized approach for exchanging healthcare information.

All segments of the healthcare industry are facing growing pressure to deliver improved results, and to do that, the industry needs more collaboration and coordination. Current trends point to the need for a more effective exchange of information. CHIME and HL7 are working together to highlight the importance of developing and adopting standards to achieve interoperability.

Executive Summaries Online

HL7 Plenary Meeting
www.HL7.org/permalink?28thPlenaryExecSummary

HL7 Payer Summit
www.HL7.org/permalink?PayerSummitExecSummary

Various models of interoperability, and the necessity of extending the concept throughout the healthcare industry, were key topics at recent HL7 meetings in Chicago, which CHIME sponsored.

"CHIME is pleased to work with HL7 to promote a standardized approach to interoperable data exchange," said CHIME President and CEO Russell P. Branzell, FCHIME, CHCIO. "Supporting events such as HL7's plenary meeting and payer summit highlight the critical work being done to overcome interoperability barriers and that standards-based technologies lead to improved safety, quality and efficiency of patient care."

Key highlights of the HL7 28th Annual Plenary meeting:

- The potential benefits of a learning health system must be achieved for the industry to make important gains in effective treatment.
- Standards initiatives, particularly HL7's Fast Healthcare Interoperability Resources (FHIR®), have the potential to address many of the concerns brought out in reports by JASON and other groups that have voiced concerns over interoperability.
- Because the technology now is in widespread use to improve the health of patients, optimizing information exchange becomes an ethical issue; achieving

interoperability is more than just the exchange of data as it directly impacts patients' lives. At the inaugural HL7 Payer Summit, Aetna, Blue Cross Blue Shield Association, Cigna, Delta Dental Plans Association, Humana and other industry stakeholders were in attendance to discuss the impact of standards on data exchange with payers.

"We're taking part in collaboration with every segment of the healthcare industry," said Charles Jaffe, MD, PhD, CEO of HL7 International. He added, "Our standards can provide the payer community with the much needed link to clinical information. We believe this will enable the transformation of healthcare from pay-for-service to pay-for-quality."

Provider CIOs need to take notice of payer insistence of standards-based systems and incorporate those preferences into their IT planning.

Key highlights of the HL7 Payer Summit included:

- Payer and provider roles are converging as the industry moves toward a more integrated healthcare system.
- Payers should be able to integrate clinical and financial data to analyze how care practices affect patient outcomes.
- As more payers shift to offering value-based reimbursement to providers, payers must be able to measure the value and integrate care in such a way that it meets the needs of employers and their employee populations.
- The federal government continues to support interoperability by expanding the value of the portfolio of standards to support ACOs, payment reform, value-based purchasing and other administrative priorities.
- An overview of HL7 FHIR, a new-generation framework that accelerates the implementation and use of standards. HL7 FHIR will enable payers and other industry participants to write apps that that help them get the information they need. ∎

13 Industry Leaders Join HL7 Advisory Council
HL7 Announces New Advisory Council Members

By Andrea Ribick,
HL7 Director of
Communications

On November 5, HL7 announced that its Board of Directors named the following individuals to serve a two-year renewable term on the HL7 Advisory Council:

- Dixie Baker, PhD, MS, senior partner, Martin, Blanck & Associates, LLC

- Paul Biondich, director, global health informatics program, Regenstrief Institute

- Jennifer Covich Bordenick, chief executive officer, eHealth Initiative

- Susan Dentzer, senior health policy advisor, Robert Wood Johnson Foundation

- John Halamka, MD, MS, chief information officer, Beth Israel Deaconess Medical Center and co-chair, Health HIT Standards Committee

- David McCallie, Jr., MD, vice president of medical informatics, Cerner Corporation

- Blackford Middleton, MD, MPH, MSc, FACMI, professor of biomedical informatics and medicine, Vanderbilt University Medical Center and chair, American Medical Informatics Association (AMIA)

- J. Marc Overhage, MD, PhD, chief medical informatics officer, Siemens Healthcare

- Christopher Ross, MBA, chief information officer, Mayo Clinic

- Mark Segal, PhD, vice president of government and industry affairs, GE Healthcare IT

- Micky Tripathi, chief executive officer and president, Massachusetts eHealth Collaborative

- Andrew Wiesenthal, MD, director of healthcare practice, Deloitte Consulting, LLP

- Mariann Yeager, chief executive officer, Healtheway

These individuals joined the following incumbent HL7 Advisory Council members, including: Russell Branzell, FCHIME, CHCIO, president and CEO of the College of Healthcare Information Executives (CHIME); Carl Dvorak, president, Epic; Andrew Roddam, vice president and global head of epidemiology at GlaxoSmithKline (GSK); Mary Ann Slack, director, Center for Drug Evaluation and Research, U.S. Food and Drug Administration;

Don Sweete, CEO of the International Health Terminology Standards Development Organization (IHTSDO), John Tooker, MD, MBA, chief executive officer emeritus, American College of Physicians; and Jeremy Thorp, director of business architecture, Health and Social care Information Center.

"These leaders represent a broad spectrum of global stakeholders who are committed to advancing health through information technology. We are delighted to welcome them to the HL7 Advisory Council," said Charles Jaffe, MD, PhD, CEO of HL7. "Their strategic expertise and diverse experience will contribute greatly to HL7's goal of improving the quality of care and reducing costs by overcoming the barriers to interoperability."

In recent years, HL7's Advisory Council was instrumental in the organization's decision to license its standards and implementation guides free of charge as well as the development of programs and services to address the needs of those who implement HL7 standards. The Advisory Council's current focus is on addressing the recommendations from the ONC's draft Interoperability Roadmap and the JASON Task Force, including the acceleration of the HL7 Fast Healthcare Interoperability Resources (FHIR®) standard.
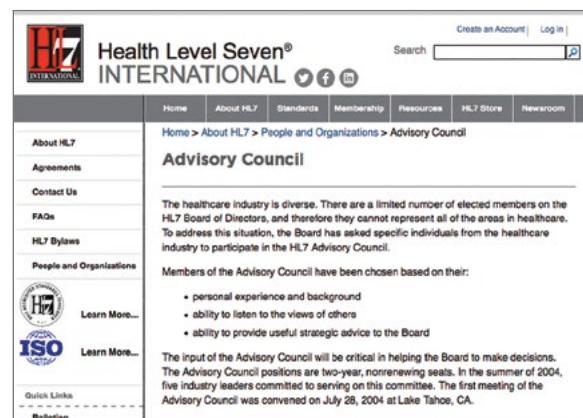
Biographies of the HL7 Advisory Council members are available at: http://www.hl7.org/Special/committees/advisory. ■

A Step-by-Step Review of the Redesign Process
How the HL7 Website Got Its New Look

By Laura Mitter,
HL7 Web Developer

In September of 2014 you might have noticed that the HL7.org homepage looked a bit different. One of the HL7 Key Initiatives for 2014 was to improve the homepage appearance and navigation. Any site redesign, and particularly homepage redesigns, can have cascading effects across a website and across a user base. A small change that might only impact 10% of all users across a heavily trafficked site like HL7.org can end up affecting 1,000 users a day. If that change is made without being properly researched, then the end result to the changes might be 1,000 frustrated and unhappy users.

The Site Redesign Process

It's a pretty good rule of thumb to generally avoid making thousands of people angry, so I stick to an elaborate process to ensure the changes I make are appropriate, well researched, and necessary. The process includes extensive information gathering, creating prototypes, and reviewing and testing those prototypes.

All this happens before the first mockups of what the new page will even look like and before the first edits are made to the webpage.

Step 1: Gather Information

Even though information gathering occurs throughout the process, the largest amount of research is completed in the first steps. The changes that were made to the homepage were based on the following research:

1. **User interviews**
   - Several interviews and surveys were performed over the year. The feedback from those users contained both positive and negative aspects of the site.
   - Additional feedback was collected as the homepage redesign process continued, which allowed changes to be made as the process continued and ensured the changes were not created in a vacuum.
   - Staff feedback about the site's functionality and any frequent and trending comments they might have received from the users.

2. **Google and Web Trends analytics of site usage over the past two years**
   - Analysis of Google Analytics and Web Trends allowed certain patterns to arise. Links on the homepage that were accessed with a frequency of less than 0.10% of the time were removed. The primary user goals (About, Standards, Balloting, Work Groups, OIDs, and Membership) were given high priority.
   - The user feedback was compared to site analytics to see if the suggested changes were valid.

     For example: It was recommended that HL7 remove one of the tabs from the top navigation and deemed the tab to be without merit. This particular tab was access by over 2,000 users a month and is one of our heaviest trafficked sections of the site. Analytics did not confirm this feedback to be a valid, so that particular change was not made.

3. **Competitive Analysis**
   It's always a good idea to keep an eye on what any competitors or partners are doing to their websites. Since the competitors and partners are likely to share the same user base, it's helpful to make a consistent language and element placing is used. If users are familiar with finding login information in the upper right corner, it's best to keep login information where it's commonly found.

After the external research was completed, a site flowchart was created to review the current flow and design of the navigation as it existed before any changes were made to the site. A full Site Analysis was also performed to keep track of any inconsistencies, usability issues, and accessibility concerns.

Some of the major elements I wanted to tackle included:

- Increase the font size throughout the site to improve readability and allow users to find what they're looking for more easily
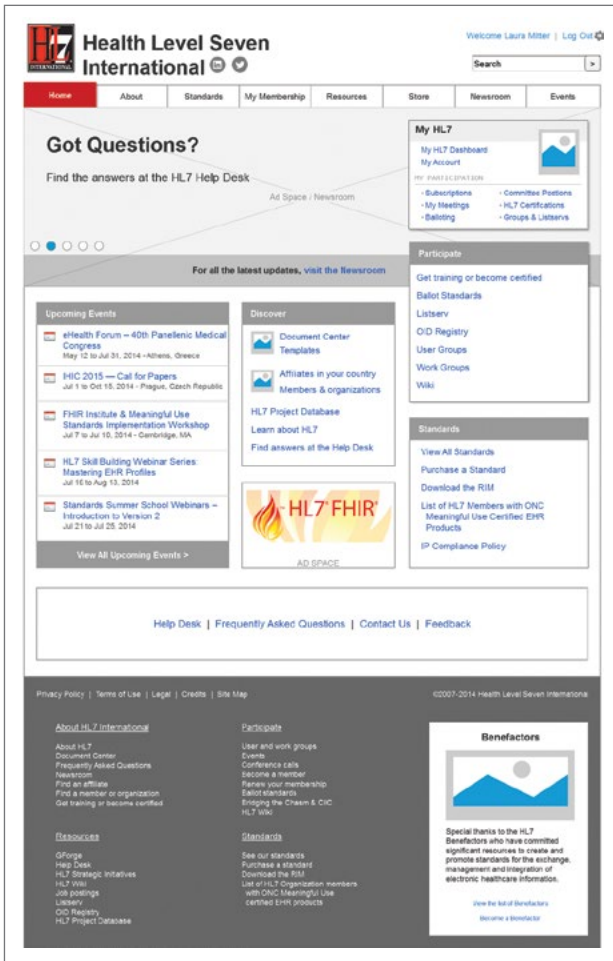
Example of the site wireframe created for the HL7.org homepage redesign.

- Keeping high priority items in the same location on the homepage where users typically accessed them
- Soften up the color to reduce eyestrain
- Increase the use of whitespace
- Use more graphics in the site to break up elements on a page
- Improve the navigation

Some of these changes are currently ongoing and will be implemented as time permits. Other changes impacted elements on the homepage and would also need to be applied to almost all pages across the site.

Step 2: Prototype

After all the above data was gathered, wireframes were developed with the proposed changes. A wireframe is a quick way to lay out elements of a website. Things can be moved around quickly and any issues with a layout can be discovered before building the page. The wireframes are developed in tangent with the new site flow chart.

Step 3: Review & Test

After the wireframe was completed, a functioning prototype of the wireframe was shared with key stakeholders, staff, and invested work groups to make sure the prototype was on the right path. Any feedback received was noted and proposed changes were discussed, reviewed, and implemented.

At the same time as the wireframe review process was under development, the marketing and communications team were hard at work designing a new HL7 Brand Style Guide. We wanted these new design guidelines to be reflected in the design of the new HL7 homepage. Mockups of the new site home and navigation were created using the new brand primary and secondary colors as well as a new custom font. The mockups were then shared and any feedback was integrated if necessary.

An Analysis of the Current Site Performance

The site feedback and critiques we have received since deployment of the new design has been exceedingly positive. In a comparison of the current period versus the previous period, Google Analytics also shows an uptick of sessions (11% increase), new users (13%), and pageviews (8%). In another comparison of the current year versus the previous year, Google Analytics also shows an 8% increase in the number of sessions, a 11% increase in the number of users, and a 4% increase in the number of pageviews. In both comparisons, both the number of pages per session and the average session duration have decreased, which shows that users are able to find what they need and finish their task on HL7.org more quickly and with a fewer amount of clicks.

A Tale of Things to Come

As the year progresses, you might notice additional changes to the HL7.org website. My list of changes is constantly evolving as new developments and priorities are made; however there are a few specific things you can look forward to in the coming months:

- An update to the look and feel of the OID Registry
- Improving the functionality of the FAQ
- Updating the design and functionality of the top navigation
- Improving the Education Portal site organization and archives
- Updating the HL7 Flash Tour
- Redesigning the secondary landing pages ■

Part 4: HL7 Version 1

The Early History of HL7

By Rene Spronk, Senior Consultant and Trainer, Ringholm; Co-chair, HL7 Application Implementation and Design Work Group

HL7 was founded in March 1987. The early HL7 specifications were largely based on the StatLAN protocol which in turn was largely based on a 1979 protocol defined by Don Simborg at USCF. *(For more information on this, please read part 1 of the series from the January 2014 edition of the HL7 News).*

The Founding of the HL7 Organization

At the initial two-day HL7 meeting in March 1987 it was decided to develop a draft standard. HL7 Version 1 (V1) was only used for a proof of concept implementation and served to define the content and structure of the standard. *You can see a scanned copy of the V1 standard at:* http://bit.ly/1v2VwJ0. The HL7 working group has met three or four times a year since the initial HL7 meeting to develop and review this specification. Three two-day working group meetings were held in May, June and September to develop the draft standard. They had an attendance of 7-15 people. The Version 1.0 draft standard covered the overall structure of the interfaces, ADT, order entry, and display oriented queries. This draft was presented at a plenary meeting of the overall group in Tyson's Corner, VA on October 8, 1987.

The aim was to create a standard as soon as possible. This is one of the goals explicitly mentioned in the HL7 V1.0 standard: "A primary interest of the working group is to employ the standard as soon as possible. To facilitate this, there is no short-term goal to seek accreditation by a national or international standards organization. After the standard has passed through its initial development stage, such accreditation might be most desirable once relative consensus among users and vendors and early operational experience is attained."

In October 1987, the highest priorities to standardize were selected being:

- overall transmission control structure (documented in Chapter 2)
- admission, discharge, and transfer (Chapter 3)
- order entry (Chapter4)
- query (Chapter 5)
- patient accounts (Chapter 6)

Although the patient accounting system was recognized as important, the time frame did not allow it to be addressed in the first draft.

According to Don Simborg, "A small group, headed by Wes Rishel agreed to write Version 1 of HL7. The group consisted mainly of

the original STATLan customers (e.g. Jim Gabler, Bill Lachenauer, et. al.) and original STATLan vendors (e.g. John Quinn, Chris White, et. al.). There were about a dozen in total."

Members of the working group listed in the HL7 V1 specification are: Sam Schultz (chairman), Ivo Abraham, Lynda Allen, Kenneth Clarke, Jim Gabler, Mike Glickman, Jay Gore, Ed Hammond, David Kingdon, Clem McDonald, Wes Rishel (the main creator of HL7 V1), John Quinn (who provided technical leadership jointly with Wes), Don Simborg, B.G. Thompson, and Chris White.

The goals of the standard were that it "should be built upon the experience of existing production protocols. It should not, however, favor the proprietary interests of specific companies to the detriment of other users of the standard."

HL7 V1 was effectively based on three sources:

- The StatLAN protocol as defined by Simborg Systems, based on the UCSF specification. This was the main source of functional content (*see part 1 of this series*).
- The Enterprise protocol as defined by Enterprise Systems, based on the X12 specification.

Lab results query and display-oriented response.

- The ongoing ASTM E31.11 work – syntax and some data types (*see part 2 of this series*). HL7 V1.0 did not have any functional content from the E31.11 (E1238) draft specification; harmonization with E31 would take place about a year later.

Enterprise Systems and Simborg were very influential, since they represented protocols that were being used in practice and had been validated by experience. Enterprise provided much of the X12 framework and the experience with batch transmissions. Simborg's influence was related to specific hospital-wide transaction sets and the protocol for online exchange. The syntax of HL7 V1 was similar to ASTM E31.11, but it was also similar to X12 – and other public and proprietary data syntaxes from three HL7 members (Simborg Systems, Enterprise, Compucare) who offered their intellectual property to the common effort.

"After the initial HL7 meeting, I had invited Tom Pirelli, the CEO of Enterprise Systems, to join the group," recalls Don Simborg. "Enterprise was a vendor of hospital departmental systems such as Materials Supply and Surgical Suite and had also developed a proprietary protocol mainly for wide area communications (Enterprise's main focus was communicating between a hospital and various materials suppliers). Dave Carlson from Enterprise was a member of the Version 1 group. Enterprise also agreed to put its protocol in the public domain and hence, Version 1 was based mainly on the STATLan protocol (which had its start as the UCSF protocol) and some Enterprise protocol."

Simborg also noted, "Tom Pirelli, like the other departmental vendors, had an interest – he was the most important vendor-CEO that helped promote the early HL7. So it was Tom Pirelli and myself who were the two vendor companies that worked hard (politically) to get other people involved."

ANSI X12 is a uniform standard for inter-industry electronic interchange of business transactions. The structure of the X12 standard is similar to that of ASTM standards. The HL7 standard is closely modeled on the ANSI X12 Business Data Interchange standard. There are some differences that distinguish the HL7 standard from an ANSI X12 standard. The ANSI X12 standards apply primarily to batch transmission of data among systems. The HL7 standard differs from ANSI X12 in that it accommodates online exchange of individual transactions and LAN interfacing.

The standards work of a joint ACR-NEMA working committee (that was working on a precursor of DICOM, known as ACR-NEMA 300, which was published in 1985) was also known to HL7 at the time. The standard didn't have an impact on the functional content of HL7 V1.

ADT Message Structure as defined in v1. The curly/square braces notation was introduced in HL7v2.0 as a means to define the abstract message structure and was copied from X12.

Example ADT message. Note the handwritten correction to "PID" by the reviewer; the segment name had changed during the HL7 V1 development process.

HL7 Version 1 was authored within the March-August 1987 timeframe – something that was only possible because of a high level of re-use of existing protocols (notably StatLAN and Enterprise), as well as the effort by Wes Rishel, John Quinn and the other volunteers. ◼

This is the fourth part of a series of articles about the early history of HL7. This article is an abridged version of a creative commons article available at http://bit.ly/1e7KScz – you are referred to the full article for references. See http://bit.ly/1njzICA for video interviews related to these series. Please let us know should you have additional information about the early history of HL7.
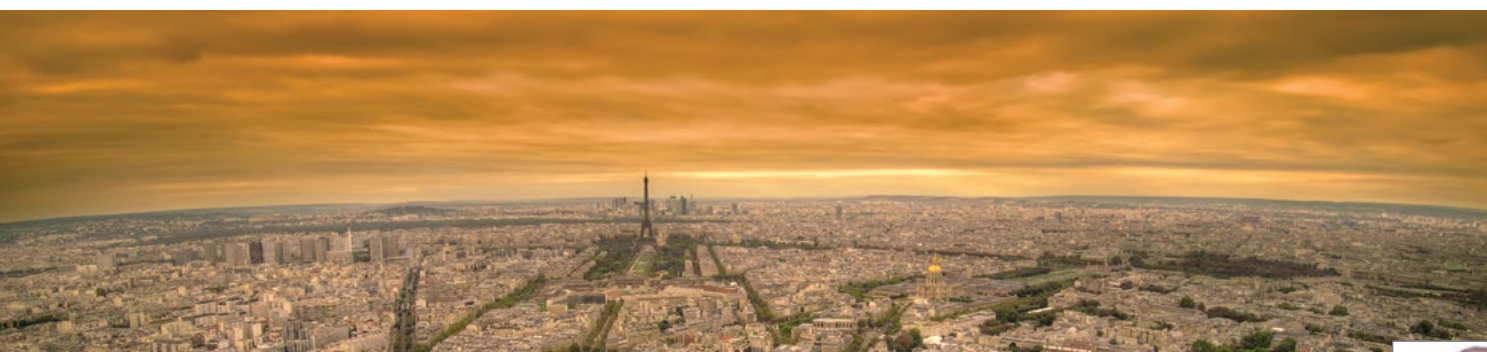
Get Ready for the Paris Working Group Meeting
A Question and Answer Session with HL7 France Chair Nicolas Canu

HL7: Please introduce yourself. What is your job? How long have you been involved with HL7? What motivates you to stay involved?

Canu: I am an independent informatics consultant, and I work for Phast. Phast is an association of French hospital pharmacists. I am in charge of R&D. At Phast, we are developing Standard Terminology Service (STS), which is an HL7 CTS2 implementation.

In 2001, I was elected chair of the HL7 work group of AFNOR, which the French equivalent of the American National Standards Institute (ANSI). A few years later, this led to consensus for creating the HL7 French affiliate as a branch of an already existing organization called HPRIM.

I was then elected chair of HL7 France. I also contributed to the formation of a unique organization encompassing the activities of HL7 France and IHE France. That organization is called Interop'Santé and I am a member of the board.

Currently, I am working on a services oriented architecture (SOA) for large scale health information systems, beginning with terminology services.

HL7: What is the state of interoperability in France (and more broadly the EU)?

Canu: Interop'Santé is a strong organization in France. The main objectives of it are to establish a coherent standardization strategy for health information systems; adapt international norms and standards; contribute to the development of new standards and integration profiles; and facilitate the implementation of norms, standards and integration profiles. All of the French vendors are Interop'Santé members. In addition, there are users, including the government agency in charge of health IT known as ASIP Santé.

The Pharmacists "Order" has led a successful project, DP ("Dossier Pharmaceutique"), a pharmaceutical record. More than 99 % of French pharmacies are connected to DP. There is also a great deal of interest in working with HL7's newest standard, Fast Healthcare Interoperability Resources (FHIR®).

To support global interoperability, France is participating in the transatlantic project known as the Trillium Bridge. This project extends the European Patient Summaries of epSOS and Meaningful Use Stage 2 in the United States to establish an interoperability bridge to meaningfully exchange patient summaries and electronic health records between the European Union and United States.

HL7: What are the top three challenges standards developers face in France?

Canu: I would say that the top three challenges are dealing with the recent failure of a government project known as the Dossier Médical Personnel (DMP), incorporating FHIR into health IT initiatives, and achieving consensus on terminology resources.

HL7: What is the regulatory environment like in HL7 France?

Co-Chair Handbook and DMPs Support Working Groups

By Karen Van Hentenryck, HL7 Associate Executive Director

The Process Improvement Committee (PIC) has been working on several projects in the last year.

The Co-Chair Handbook was updated and published prior to the September Working Group Meeting. This is one of PIC's ongoing three-year projects. All co-chairs and anyone considering running for a co-chair position is encouraged to review this document and provide input. The document itself is available on the website at http://www.hl7.org/permalink/?CoChairHandbook

PIC maintains a wiki page for collecting updates to this document. Those wishing to submit corrections/updates should do so directly to the following wiki page: http://wiki.hl7.org/index.php?title=PIC:COCHAIRS

PIC also reviewed and distributed updated versions of the Decision Making Practices (DMP) just before the September Working Group Meeting. Each work group is required to operate by a set of DMPs. Each time PIC publishes an updates set of DMPs, the work groups are notified and given two working group meeting to either adopt the Default DMPs or use the Generic DMPs to document changes specific to their work group. Since the updated DMPs were published prior to the September 2014 Working Group Meeting, all work groups have until the end of the January 2015 Working Group Meeting to do this.

Both the Default and Generic DMPs can be found on the following page: http://www.hl7.org/participate/decisionmaking.cfm Once a work group has, by vote, adopted a set of DMPS, they should send those to HQ (Karenvan@HL7.org) for posting to the website. Work groups are reminded that having a currently adopted set of DMPs is a health metric. As with its other ongoing projects, PIC maintains a wiki page where members can suggest corrections/updates to the Defaults DMPs: http://wiki.hl7.org/index.php?title=PIC:DMP

The ballot Comment Spreadsheet was updated and pushed out for use during the September ballot cycle. Major changes included updating terminology (e.g. changing technical committee to work group) and instructions. Corrections and suggestions for improvements to the ballot comments spreadsheet should be submitted to the following wiki page: http://wiki.hl7.org/index.php?title=PIC:BCSM

 PIC has also spent a fair amount of time considering the best way to provide support to HL7's first-time attendees. After much discussion with the work groups, PIC's recommendations is for each work group to set aside the first 5-10 minutes of its meetings to allow first-time attendees to introduce themselves, express their interests, and to ask if there are experienced members in the room who would be willing to serve as the individual's mentor should they wish to have one. Many of the work groups have reported that they are already taking this approach with good results and those who aren't felt it was worthwhile.

During the next several months, PIC will be working on suggested updates to the whistleblower policy and creating a ballot overview checklist for co-chairs. ■

Canu: The regulatory environment in France is very strong and centralized but I would also characterize it as clumsy. It is very bureaucratic; dealing with the representatives from the French government is difficult, but necessary.

HL7: What are the goals of HL7 France in 2015?
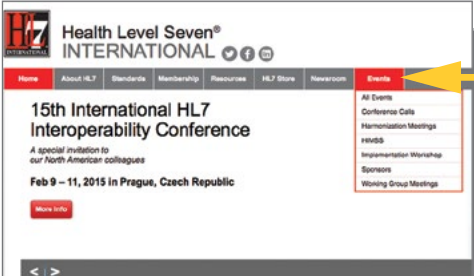
Canu: HL7 France will continue contributing to IHE activities to ensure that HL7 standards are being properly implemented. We will also begin building shared FHIR assets, such as a French repository for value sets and profiles.

HL7: What do you think HL7 attendees from other countries will like most about Paris and France?

Canu: Europe is great. Paris is attractive. ■

Upcoming International Events

| February 9-11, 2015 | ihic2015.hl7cr.eu |
| 15th International HL7 Interoperability Conference | Prague, Czech Republic |

| April 12 – 16, 2015 | www.himssconference.org |
| HIMSS15 | Chicago, Illinois |

| May 10-15, 2015 | www.hl7.org/events/ wgm052015 |
| HL7 May Working Group Meeting | Paris, France |

| May 18 – 20, 2015 | www.health2con.com/events/ conferences/spring-fling- barcelona-2015 |
| Health 2.0 Europe | Barcelona, Spain |

| May 27 – 29, 2015 | www.mie2015.es |
| MIE2015 | Madrid, Spain |

| May 31 – June 3, 2015 | www.e-healthconference.com |
| eHealth 2015 (Canada) | Toronto, Ontario, Canada |

| August 19 – 23, 2015 | www.medinfo2015.org |
| MEDINFO 2015 | São Paulo, Brazil |

TIP: You can always find details on HL7 events at www.HL7.org under the "Events" tab.

Benefactors

Organizational Members

BENEFACTORS

Accenture
AEGIS.net, Inc.
Allscripts
Centers for Disease Control and
 Prevention/CDC
Duke Translational Medicine Institute
Epic
Food and Drug Administration
GE Healthcare
GlaxoSmithKline
Intermountain Healthcare
InterSystems
Kaiser Permanente
McKesson Corporation
Microsoft Corporation
NICTIZ Nat.ICT.Inst.Healthc.
 Netherlands
Office of the National Coordinator for
 Health IT
Oracle Corporation - Healthcare
Partners HealthCare System, Inc.
Philips Healthcare
Quest Diagnostics, Incorporated
U.S. Department of Defense, Military
 Health System
U.S. Department of Veterans Affairs

GOLD

7 Delta, Inc.
American Health Information
 Management Association
Apprio, Inc.
Asseco Poland S.A.
Association of Public Health
 Laboratories
Blenden Healthcare Consulting
Butler Healthcare Providers
CAL2CAL Corporation
CDISC
Center for Medical Interoperability
CNIPS, LLC
Community Health Network of CT
Corepoint Health
Credible Wireless
Department of State Health Services
 (Texas)
DiagnosisOne, Inc.
Digital Healthcare Solutions Arabia
 (DHS Arabia)
Edidin Group, Inc.
Fresenius Vial

Gamma-Dynacare Medical
 Laboratories
General Dynamics Information
 Technology
Health and Social Care Information
 Centre
Hyland Software
Info World
Inofile
iNTERFACEWARE, Inc.
Klein Consulting, Inc.
Liaison Technologies Inc.,
Michiana Computer and Technology
National Association of Dental Plans
NoMoreClipboard.com
North Carolina A & T State University
OTTR Chronic Care Solutions
Pitney Bowes Software
Prime Healthcare Management Inc.,
Rochester RHIO
Siemens Healthcare
Sparx Systems
Standing Stone, Inc.
t2b AG
UW Medicine Information
 Technology Services
Varian Medical Systems
WellPoint, Inc.
Winchester Hospital

CONSULTANTS

Adroitent, Inc.
AHIS - St. John Providence Health
Altarum Institute
Beeler Consulting LLC
CentriHealth
CNI Advantage, LLC
Cognosante, LLC
Dapasoft Inc.
Dulcian, Inc.
Edifecs, Inc.
Edmond Scientific Company
EnableCare LLC
ESAC Inc
FEI.com
Frank McKinney Group LLC
Furore
Haas Consulting
Healthcare Integration Technologies
HLN Consulting, LLC
iEHR.eu
Infinite Consulting Services
Integration Sante

Just Associates, Inc.
Lantana Consulting Group
LOTS, LLC
M*Modal, Inc.
MCNA Dental
Motive Medical Intelligence
OTech, Inc.
Professional Laboratory Management
RedGranite, LLC
River Rock Associates
Rob Savage Consulting
Shafarman Consulting
SLI Global Solutions
Stat! Tech-Time, Inc.
TESCHGlobal
The Audigy Group, LLC
ThinkAnew
TIMSA
Vernetzt, LLC
Virginia Riehl
West Virginia Medical Institute
Westat

GENERAL INTEREST

Academy of Nutrition & Dietetics
Advanced Medical Technology
 Association (AdvaMed)
Agency for Healthcare Research and
 Quality
American Assoc. of Veterinary Lab
 Diagnosticians
American College of Physicians
American Dental Association
American Immunization Registry
 Association (AIRA)
American Medical Association
American Psychiatric Association
American Society of Clinical Oncology
Arizona Department of Health
 Services
ASIP SANTE
ASTHO
CA Department of Public Health
California Correctional Health
 Services
California Department of Health Care
 Services
Centers for Medicare & Medicaid
 Services
City of Houston
College of American Pathologists
College of Healthcare Information
 Mgmt. Executives

Organizational Members (Continued)

GENERAL INTEREST (continued)

Colorado Regional Health Information Organization

Community Mental Health Center of Crawford County

Connecticut Department of Public Health

Contra Costa County Health Services

Council of Cooperative Health Insurance

Danish National eHealth Authority

Delaware Division of Public Health

Department of Developmental Services

Department of Health

DGS, Commonwealth of Virginia

ECRI Institute

Estonian eHealth Foundation

Florida Department of Health

Georgia Medical Care Foundation

HIMSS

ICCBBA, Inc.

IFPMA (as trustee for ICH)

Indian Health Service

International Training & Education Center for Heal

Iowa Department of Public Health

Japan Pharmaceutical Manufacturers Association

Jefferson Health Information Exchange

Kern Medical Center

L.A. County Dept of Public Health

Louisiana Public Health Institute

Michigan Health Information Network

Michigan State University HIT

Ministry of Health - Slovenia

Minnesota Department of Health

Missouri Department of Health & Senior Services

NAACCR

National Cancer Institute

National Center for Health Statistics/ CDC

National Centre for Health Information Systems

National Council for Prescription Drug Programs

National eHealth Transition Authority (NEHTA)

National Institute of Standards and Technology

National Library of Medicine

National Marrow Donor Program

NCQA

New Mexico Department of Health

New York eHealth Collaborative

New York State Office of Mental Health

NIH/CC

NIH/Department of Clinical Research Informatics

NJDOH

OFMQ

Oklahoma State Department of Health

Oregon Public Health Division

OSEHRA

Pharmaceuticals & Medical Devices Agency

Phast

Primary Care Information Project, NYC Dept Health

Radiological Society of North America

Ramsey County Public Health

Region Midt, It-udvikling, arkitektur og design

Region Syddanmark

RTI International

SAMHSA

SC Dept. of Health & Environmental Control HS

Social Security Administration

Telligen

Tennessee Department of Health

Texas Health Services Authority

The Joint Commission

The MITRE Corporation

UCSF School of Medicine

University HealthSystem Consortium

University of AL at Birmingham

University of Kansas Medical Center

University of Miami

University of Minnesota

University of Texas Medical Branch at Galveston

University of Utah Pediatric Critical Care/IICRC

Utah Health Information Network

Virginia Department of Health

Washington State Department of Health

WNY HEALTHeLINK

WorldVistA

PAYERS

Blue Cross and Blue Shield of Alabama

Blue Cross Blue Shield Association

Blue Cross Blue Shield of Louisiana

Blue Cross Blue Shield of South Carolina

Cambia Health Solutions

Delta Dental Plans Association

Health Care Service Corporation

Healthspring

Meridian Health Plan

Premera Blue Cross

Wisconsin Physicians Service Ins. Corp.

PHARMACY

Abbott Laboratories

Bristol-Myers Squibb

Eli Lilly and Company

Merck & Co. Inc.

Rx Linc, LLC

Virco BVBA

PROVIDERS

Adventist Health West

Akron General Medical Center

Alaska Native Tribal Health Consortium

Albany Medical Center

Albany Medical Center Hospital

ARUP Laboratories, Inc.

Ascension Health Information Services

Athens Regional Health Services, Inc.

Banner Health

Barnabas Health

Beaumont Hospital

BJC HealthCare

Blessing Hospital

Blount Memorial Hospital

Boston Medical Center

Campbell County Memorial Hospital

Carilion Services, Inc.

Cedars-Sinai Medical Center

Center for Life Management

Central Illinois Radiological Associates

CHI

Childrens Mercy Hospitals and Clinics

Children's of Alabama

Cincinnati Children's Hospital

City of Hope National Medical Center

Cleveland Clinic Health System

Cottage Health System
Deaconess Health System
Diagnostic Laboratory Services
Dignity Health
Duncan Regional Hospital, Inc.
Emory Healthcare
Geisinger Health System
Gerald Champion Regional Medical
    Center
Gillette Children's Specialty
    Healthcare
Grupo Prides
Hendricks Regional Health
Hill Country Memorial Hospital and
    Health System
Hill Physicians Medical Group
Holzer Health System
Institut Jules Bordet
Interpath Laboratory
Johns Hopkins Hospital
Kernodle Clinic, Inc.
KMH Cardiology & Diagnostic
    Centres
La Rabida Children's Hospital
Laboratory Corporation of America
Lakeland Regional Health System
Lee Memorial Health System
Lexington Medical Center
LifePoint Hospitals
Loyola University Health System
Lucile Packard Children's Hospital
Mayo Clinic
McFarland Clinic PC
Meridian Health
Milton S. Hershey Medical Center
MinuteClinic
MultiCare Health System
New York-Presbyterian Hospital
North Carolina Baptist Hospitals, Inc.
Ohio Valley Hospital
Onondaga Case Management Services
    Inc.
Pathologists' Regional Laboratory
Patient First
Perry Community Hospital
Pocono Medical Center
Rady Children's Hospital
Regenstrief Institute, Inc.
Rheumatology and Dermatology
    Associates PC
Robert Bosch Healthcare
Saudi Aramco - Healthcare
    Applications Division
Scottsdale Health
Sharp HealthCare Information
    Systems

South Bend Medical Foundation, Inc.
Sparrow Health System
Spectrum Health
St. Joseph Health
Summa Health System
Texas Health Resources
Trinity Health
Tuomey Healthcare System
UK HealthCare
UNC Health Care System
University of Louisville Physicians
University of Nebraska Medical
    Center
University of New Mexico Hospitals
University of Pittsburgh Medical
    Center
University of Utah Health Care
University Physicians, Inc.
UT M.D. Anderson Cancer Center
Vanderbilt University Medical Center
West Virginia University Hospitals
William Beaumont Hospital

VENDORS

1MEDiX
Agilex Technologies
AlphaCM, Inc
Altos Solutions, Inc
Altova GmbH
American Data
Amtelco
Apelon, Inc.
Applied PilotFish Healthcare
    Integration
Askesis Development Group
Atirix Medical Systems
Availity, LLC
Aversan Inc
Beckman Coulter, Inc.
Care Everywhere, LLC
Carestream Health, Inc.
Casmaco Ltd.
Cedaron Medical, Inc.
Center for Clinical Innovation
Center of Informational Technology
    DAMU
Cerner Corporation
Certify Data Systems
Cetrea A/S
ChartNet Technologies
ChartWise Medical Systems, Inc.
ClientTrack
Clinical Architecture LLC
Clinical Data Management
Clinical Software Solutions
Clinicomp, Intl

CMG Technologies Sdn Bhd
CNSI
Cognitive Medical Systems
Common Cents Systems, Inc.
Community Computer Service, Inc.
Compania de Informatica Aplicata
Computrition, Inc.
COMS Interactive, LLC
Conceptual MindWorks, Inc.
Conducive Consulting, inc.
Consolo Services Group, LLC
Consultants in Laboratory Medicine
Covidien
CPSI
CSC Healthcare
CSS Health Technologies
Curaspan Healthgroup, Inc.
Cyberpulse L.L.C.
Cyrus-XP LLC
Dansk Medicinsk Datacenter ApS
Data Innovations, LLC
Datuit, LLC
Deer Creek Pharmacy Services
Dell-Boomi
Delta Health Technologies, LLC
Document Storage Systems, Inc.
DocuTrac, Inc.
Dolbey & Company
EBM Technologies Inc.
eCaresoft Mexico SA de CV
eHealth Data Solutions, LLC
eHealthCare Systems, Inc.
Electronic Medical Exchange Holdings
    LLC
ELEKTA
Emdeon, LLC
EmpowerSystems
ESO Solutions
ESRI
Evolvent Technologies
EXTEDO
EyeMD EMR Healthcare Systems, Inc.
ezEMRx
e-Zest Solutions Ltd.
Fenestrae
Foothold Technology
Forte Holdings
Forte Research Systems, Inc.
Futures Group
Genesis Systems, Inc.
Geriatric Practice Management
Get Real Health
GlobalSubmit
Greater Houston Healthconnect
Greenway Health

Organizational Members (Continued)

VENDORS (CONTINUED)

Harris Corporation
Health Care Software, Inc.
Health Companion, Inc.
Health Intersections Pty Ltd
Health Plan Systems, Inc.
Healthcare Management Systems, Inc.
Healthfinch
Healthland
HealthTrio, LLC
HealthUnity Corp
Healthwise, Inc.
heartbase, inc.
Hewlett-Packard Enterprise Services
Hi3 Solutions
i2i Systems
Iatric Systems
ICLOPS
ICS Software, Ltd.
InDxLogic
Infor
Information Builders
Information Management Associates
InformConsulting, LLP
Intelligent Medical Objects (IMO)
Intelligent Records Systems & Services
Interbit Data, Inc.
Interface People, LP
Interfix, LLC
iPatientCare, Inc.
Isoprime Corporation
J&H Inc.
Jaime Torres C y Cia S.A.
Jopari Solutions
Keane, Inc.
Kestral Computing Pty Ltd
Knowtion
Lab Warehouse, Inc.
Labware, Inc.
Lamprey Networks, Inc.
Lavender & Wyatt Systems, Inc.
Lazy LLC
Leidos, Inc.
Life Systems Software
LINK Medical Computing, Inc.
Logibec
Logical Images Inc.
LORENZ Life Sciences Group
M.S. Group Software, LLC
ManagementPlus
MDLand

MDP Systems, LLC
MDT Technical Services, Inc.
MedConnect, Inc.
MedEvolve, Inc.
Medflow, Inc.
MEDfx Corporation
MEDHOST, Inc.
Medical Messenger Holdings LLC
Medical Systems Co. Ltd - medisys
Medical Web Technologies, LLC
Medicity, Inc.
Medicomp Systems, Inc.
Medisolv Inc
MEDITECH, Inc
Medtronic
MedUnison LLC
MedVirginia
MGRID
Mirth Corporation
Mitchell & McCormick, Inc
Mitrais
ModuleMD LLC
MPN Software Systems, Inc.
MuleSoft
NaviNet
NCORD Healthcare LLC
NetDirector
New England Survey Systems Inc
NexJ Systems Inc
NextGen Healthcare Information Systems, Inc.
nSpire Health
Ockham Information Services LLC
Ohio Health Information Partnership
Omnicell, Inc.
OMNICOM srl
Optimus EMR, Inc.
Optum
Orchard Software
Orion Health
P&NP Computer Services, Inc.
PAREXEL International
Patient Resource LLC
Pentacomp Systemy Informatyczne SA
Physician's Computer Company
Physicians Medical Group of Santa Cruz County
Practice Fusion
Pragmatic Data LLC
PresiNET Healthcare
Procura
Prometheus Computing LLC

QS/1 Data Systems, Inc.
QuadraMed Corporation
Qvera
Real Seven, LLC
Reed Technology and Information Services Inc.
Roche Diagnostics International Ltd.
Rosch Visionary Systems
RTZ Associates, Inc
Sabiamed Corporation
Shasta Networks
Simavita Pty Ltd
Skylight Healthcare Systems, Inc.
SOAPware, Inc.
Softek Solutions, Inc.
Software AG USA, Inc.
Software Partners LLC
Southwestern Provider Services, Inc
SRSsoft, Inc.
StatRad, LLC
Stockell Healthcare Systems, Inc.
Strategic Solutions Group, LLC
Summit Healthcare Services, Inc.
Summit Imaging, Inc.
Surescripts
SurgiVision Consultants, Inc.
Systematic Group
Systex, Inc.
The CBORD Group Inc.
The Echo Group
The SSI Group, Inc.
Therap Services, LLC
Thrasys, Inc.
TIBCO Software Inc.
Timeless Medical Systems Inc.
Uniform Data System for Medical Rehabilitation
Valant Medical Solutions Inc.
Valley Hope Association - IMCSS
VigiLanz Corporation
Visbion Ltd
Walgreens
WebMD Health Services
Wellsoft Corporation
WESTECH, Inc.
White Pine Systems, LLC
Wolters Kluwer Health
WorkAround Software, Inc.
XIFIN, Inc.
Zoho Corp.
ZOLL
Zynx Health

2015 TECHNICAL STEERING COMMITTEE MEMBERS

CHAIR
Ken McCaslin, MAR
Quest Diagnostics, Incorporated
Phone: 610-650-6692
Email: kenneth.h.mccaslin@
questdiagnostics. com

CHIEF TECHNICAL OFFICER
John Quinn
HL7 International
Phone: 216-409-1330
Email: jquinn@HL7.org

ARB CHAIR
Anthony Julian
Mayo Clinic
Phone: 507-266-0958
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
Phone: +39 3357584479
Email: giorgio.cangioli@gmail.com

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

DOMAIN EXPERTS CO-CHAIRS
Melva Peters
Jenaker Consulting
Phone: 604-515-0339
Email: melva@jenakereconsulting.com

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

FOUNDATION & TECHNOLOGY CO-CHAIRS
George (Woody) Beeler, Jr., PhD
Beeler Consulting, LLC
Phone: 507-254-4810
Email: woody@beelers.com

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

STRUCTURE & SEMANTIC DESIGN CO-CHAIRS
Calvin Beebe
Mayo Clinic
Phone: 507-284-3827
Email: cbeebe@mayo.edu

Patricia Van Dyke, RN
Delta Dental Plans Association
Phone: 503-243-4492
Email: patricia.vandyke@modahealth.com

TECHNICAL & SUPPORT SERVICES CO-CHAIRS
Frieda Hall
Quest Diagnostics, Incorporated
Phone: 610-650-6794
Email: freida.x.hall@questdiagnostics.com

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

Steering Divisions

DOMAIN EXPERTS
Anatomic Pathology
Anesthesiology
Attachments
Biomedical Research Integrated Domain Group
Child Health
Clinical Genomics
Clinical Interoperability Council
Clinical Quality Information
Community Based Collaborative Care
Emergency Care
Health Care Devices
Patient Care
Pharmacy
Public Health & Emergency Response
Regulated Clinical Research
Information Management

FOUNDATION & TECHNOLOGY
Application Implementation & Design
Conformance & Guidance for Implementation/Testing
Implementable Technology Specifications
Infrastructure & Messaging
Modeling & Methodology
Security
Service Oriented Architecture
Templates
Vocabulary

TECHNICAL & SUPPORT SERVICES
Education
Electronic Services & Tools
International Mentoring Committee
Process Improvement Committee
Project Services
Publishing

STRUCTURE & SEMANTIC DESIGN
Arden Syntax
Clinical Decision Support
Clinical Statement
Electronic Health Record
Financial Management
Imaging Integration
Mobile Health
Orders & Observations
Patient Administration
Structured Documents

HL7 Work Group Co-Chairs

ANATOMIC PATHOLOGY

Victor Brodsky, MD
College of American Pathologists
Phone: 646-322-4648
Email: victorbrodsky@gmail.com

John David Nolen, MD, PhD
Cerner Corporation
Phone: 816-446-1530
Email: johndavid.nolen@cerner.com

ANESTHESIA

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

John Walsh, MD
Partners Healthcare
Phone: 617-726-2067
Email: jwalsh@partners.org

APPLICATION IMPLEMENTATION & DESIGN

Peter Hendler, MD
Kaiser Permanente
Phone: 510-248-3055
Email: peter@javamedical.com

Rene Spronk
HL7 Netherlands
Phone: 33-318-553812
Email: rene.spronk@ringholm.com

Andy Stechishin
HL7 Canada
Phone: 780-903-0855
Email: andy.stechishin@gmail.com

ARCHITECTURAL REVIEW BOARD

Anthony Julian
Mayo Clinic
Phone: 507-266-0958
Email: ajulian@mayo.edu

Charlie Mead, MD, MSc
Phone: 510-541-8224
Email: meadch@mail.nih.gov

John Quinn
Health Level Seven International
Phone: 216-409-1330
Email: jquinn@HL7.org

ARDEN SYNTAX

Peter Haug, MD
Intermountain Healthcare
Phone: 801-442-6240
Email: peter.haug@imail.org

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

ATTACHMENTS

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

Craig Gabron
Blue Cross Blue Shield of South Carolina
Phone: 803-763-1790
Email: craig.gabron@pgba.com

BIOMEDICAL RESEARCH INTEGRATED DOMAIN GROUP

Edward Helton, PhD
National Cancer Institute
Phone: USA +1 301-480-4290
Email: heltone2@mail.nih.gov

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

CHILD HEALTH

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

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

Feliciano Yu, MD
St. Louis Children's Hospital
Phone: 314-454-2808
Email: yu_f@kids.wustl.edu

CLINICAL DECISION SUPPORT

Guilherme Del Fiol, MD, PhD
University of Utah Health Care
Phone: 919-213-4129
Email: guilherme.delfiol@utah.edu

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

Kensaku Kawamoto, MD, PhD
University of Utah Health Care
Phone: 801-587-8001
Email: kensaku.kawamoto@utah.edu

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

CLINICAL GENOMICS

Gil Alterovitz
Boston Children's Hospital
Email: ga@alum.mit.edu

Siew Lam, MD, MsC (Interim)
Intermountain Healthcare
Phone: 801-507-9630
Email: siew.lam@imail.org

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

Amnon Shabo, PhD
Standards of Health
Phone: 972-544-714070
Email: amnon.shvo@gmail.com

Mollie Ullman-Cullere
Partners HealthCare System, Inc.
Phone: 617-582-7249
Email: mullmancullere@partners.org

CLINICAL INTEROPERABILITY COUNCIL

W. Edward Hammond, PhD
Duke Translational Medicine Institute
Phone: 919-668-2408
Email: william.hammond@duke.edu

Dianne Reeves, RN
National Cancer Institute
Phone: 240-276-5130
Email: reevesd@mail.nih.gov

Mitra Rocca
Food and Drug Administration
Phone: 301-796-2175
Email: mitra.rocca@fda.hhs.gov

Anita Walden
Duke Translational Medicine Institute
Phone: 919-668-8256
Email: anita.walden@duke.edu

CLINICAL QUALITY INFORMATION

Patricia Craig
The Joint Commission
Phone: 630-792-5546
Email: pcraig@jointcommission.org

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

Crystal Kallem, RHIA, CPHQ
Lantana Consulting Group
Phone: 515-992-3616
Email: crystal.kallem@lantanagroup.com

Christopher Millet
Lazy LLC
Email: cmillet@thelazycompany.com

Walter Suarez, MD, MPH
Kaiser Permanente
Phone: 301-801-3207
Email: walter.g.suarez@kp.org

CLINICAL STATEMENT

Hans Buitendijk
Siemens Healthcare
Phone: 610-219-2087
Email: hans.buitendijk@siemens.com

Rik Smithies
HL7 UK
Phone: 44-7720-290967
Email: rik@nprogram.co.uk

COMMUNITY BASED COLLABORATIVE CARE

Johnathan Coleman
Security Risk Solutions, Inc.
Phone: 843-442-9104
Email: jc@securityrs.com

Suzanne Gonzales-Webb
US Department of Veterans Affairs
Phone: 619-972-9047
Email: Suzanne.webb@engilitycorp.com

James Kretz
SAMHSA
Phone: 240-276-1755
Email: jim.kretz@samhsa.hhs.gov

Max Walker
Department of Health
Phone: 61-3-9096-1471
Email: maxtangles@bigpond.com

CONFORMANCE & GUIDANCE FOR IMPLEMENTATION/ TESTING

Nathan Bunker
American Immunization Registry Association
Phone: 435-635-1532
Email: nathan.bunker@gmail.com

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

Ioana Singureanu
Eversolve, LLC
Phone: 603-870-9739
Email: ioana.singureanu@gmail.com

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

EDUCATION

Ken Chen
CHI
Phone: 501-552-8206
Email: kkchen@stvincenthealth.com

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

Melva Peters
Jenaker Consulting
Phone: 604-515-0339
Email: melva@jenakerconsulting.com

ELECTRONIC HEALTH RECORDS

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

Mark Janczewski, MD, MPH
Medical Networks, LLC
Phone: 703-994-7637
Email: mark.janczewski@verizon.net

John Ritter
Phone: 412-372-5783
Email: johnritter1@verizon.net

Patricia Van Dyke, RN
Delta Dental Plans Association
Phone: 503-243-4492
Email: patricia.vandyke@modahealth.com

Diana Warner (Interim)
American Health Information Management Association
Phone: 312-233-1510
Email: diana.warner@ahima.org

ELECTRONIC SERVICES & TOOLS

Jeff Brown
Kernodle Clinic, Inc.
Phone: 336-429-2094
Email: jeff.brown@kernodle.com

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

Dennis Cheung (Interim)
Canadian Institute for Health Information (CIHI)
Email: dcheung@cihi.ca

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

Andy Stechishin (Interim)
HL7 Canada
Phone: 780-903-0885
Email: andy.stechishin@gmail.com

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

Nat Wong
HL7 Australia
Email: nathaniel.wong@HL7.org.au

EMERGENCY CARE

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

Sandra Marr
GeoLogics Corporation
Phone: 360-359-0736
Email: smarr@geologics.com

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

Peter Park, MD
US Department of Defense, Military Health System
Phone: 202-762-0926
Email: peterjpark@mindspring.com

FINANCIAL MANAGEMENT

Kathleen Connor
Edmond Scientific Company
Email: kathleen_connor@comcast.net

Beat Heggli
HL7 Switzerland
Phone: 41-44-297-5737
Email: beat.heggli@netcetera.ch

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

HEALTH CARE DEVICES

Todd Cooper
Center for Medical Interoperability
Phone: 858-442-9200
Email: todd@center4MI.org

Chris Courville (Interim)
Epic
Phone: 608-271-9000
Email: ccourvil@epic.com

John Garguilo
National Institute of Standards
Email: john.garguilo@nist.gov

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

IMAGING INTEGRATION

Helmut Koenig, MD
Siemens Healthcare
Phone: 49-9131-84-3480
Email: helmut.koenig@siemens.com

Harry Solomon
GE Healthcare
Phone: 847-277-5096
Email: harry.solomon@med.ge.com

IMPLEMENTABLE TECHNOLOGY SPECIFICATIONS

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

Dale Nelson
Lantana Consulting Group
Phone: 916-367-1458
Email: dale.nelson@squaretrends.com

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

HL7 Work Group Co-Chairs (Continued)

INFRASTRUCTURE & MESSAGING

Anthony Julian
Mayo Clinic
Phone: 507-266-0958
Email: ajulian@mayo.edu

David Shaver
Corepoint Health
Phone: 214-618-7000
Email: dave.shaver@corepointhealth.com

Sandra Stuart
Kaiser Permanente
Phone: 925-924-7473
Email: sandra.stuart@kp.org

INTERNATIONAL COUNCIL

Bernd Blobel, PhD
HL7 International Liaison
HL7 Germany
Phone: 49 941-944-6767
Email: bernd.blobel@klinik.uni-regensburg.de

Helen Stevens, MBA
Secretary
HL7 Canada
Phone: 250-598-0312
Email: helen.stevens@shaw.ca

Michael van Campen
Affiliate Liaison
Global Village Consulting
Phone: 250-881-4568
Email: mvancampen@global-village.net

INTERNATIONAL MENTORING COMMITTEE

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

John Ritter
Phone: 412-372-5783
Email: johnritter1@verizon.net

MOBILE HEALTH

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

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

Matthew Graham
Mayo Clinic
Phone: 507-284-3028
Email: graham.matthew@mayo.edu

Harry Rhodes
American Health Information Management Association
Phone: 312-233-1119
Email: harry.rhodes@ahima.org

MODELING AND METHODOLOGY

George (Woody) Beeler Jr., PhD
Beeler Consulting, LLC
Phone: 507-254-4810
Email: woody@beelers.com

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

Grahame Grieve
Health Intersections Pty Ltd
Phone: 61-3-98445796
Email: grahame@healthintersections.com.au

Lloyd McKenzie
Gordon Point Informatics (HL7 Canada)
Email: lloyd@lmckenzie.com

AbdulMalik Shakir
Hi3 Solutions
Phone: 626-644-4491
Email: abdulmalik.shakir@hi3solutions.com

ORDERS/OBSERVATIONS

Hans Buitendijk
Siemens Healthcare
Phone: 610-219-2087
Email: hans.buitendijk@siemens.com

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

Robert Hausam, MD
Hausam Consulting, LLC
Phone: 801-949-1556
Email: rrhausam@gmail.com

Patrick Loyd
ICode Solutions
Phone: 415-209-0544
Email: patrick.e.loyd@gmail.com

Ken McCaslin, MAR
Quest Diagnostics, Incorporated
Phone: 610-650-6692
Email: kenneth.h.mccaslin@questdiagnostics.com

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

ORGANIZATIONAL RELATIONS COMMITTEE

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

OUTREACH COMMITTEE FOR CLINICAL RESEARCH

Ed Helton, PhD
National Cancer Institute
Phone: 919-465-4473
Email: heltone2@mail.nih.gov

PATIENT ADMINSTRATION

Alexander deLeon
Kaiser Permanente
Phone: 626-381-4141
Email: alexander.j.deleon@kp.org

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

Line Saele
HL7 Norway
Phone: 47 9592-5357
Email: line.sele@helse-vest-ikt.no

PATIENT CARE

Elaine Ayres
NIH/CC
Phone: 301-594-3019
Email: eayres@cc.nih.gov

Stephen Chu, MD
National eHealth Transition Authority (NEHTA)
Phone: 61-730238448
Email: stephen.chu@nehta.gov.au

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

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

Russell Leftwich, MD
Office of eHealth Initiatives
Phone: 615-507-6465
Email: cmiotn@gmail.com

Jay Lyle
Ockham Information Services LLC
Phone: 404-217-2403
Email: jay@lyle.net

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

PHARMACY

Hugh Glover
HL7 UK
Phone: 44-07889407113
Email:
 hugh_glover@bluewaveinformatics.co.uk

John Hatem
Oracle Corporation - Healthcare
Phone: 415-269-7170
Email: john.hatem@oracle.com

Melva Peters
Jenaker Consulting
Phone: 604-515-0339
Email: melva@jenakerconsulting.com

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

PROCESS IMPROVEMENT COMMITTEE

Liora Alschuler
Lantana Consulting Group
Phone: 802-785-2623
Email: liora.alschuler@lantanagroup.com

Sandra Stuart
Kaiser Permanente
Phone: 925-924-7473
Email: sandra.stuart@kp.org

PROJECT SERVICES

Rick Haddorff
Mayo Clinic
Phone: 978-296-1462
Email: haddorff.richard@mayo.edu

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

PUBLIC HEALTH EMERGENCY RESPONSE

Erin Holt, MPH (Interim)
Tennessee Department of Health
Phone: 615-741-3702
Email: erin.holt@tn.gov

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

Ken Pool, MD
OZ Systems
Phone: 214-631-6161
Email: kpool@oz-systems.com

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

Rob Savage, MS
Rob Savage Consulting
Email: rob.savage50@gmail.com

PUBLISHING COMMITTEE

George (Woody) Beeler Jr., PhD-V3
Beeler Consulting, LLC
Phone: 507-254-4810
Email: woody@beelers.com

Jane Daus-V2
McKesson Provider Technologies
Phone: 847-495=1290
Email: jane.daus@mckesson.com

Peter Gilbert-V2
Covisint
Phone: 734-604-0255
Email: peter.gilbert@covisint.com

Brian Pech, MD, MBA-V2
Kaiser Permanente
Phone: 678-245-1762
Email: brian.pech@kp.org

Andy Stechishin-V3
HL7 Canada
Phone: 780-903-0855
Email: andy.stechishin@gmail.com

REGULATED CLINICAL RESEARCH INFORMATION MANAGEMENT

Ed Helton, PhD
National Cancer Institute
Phone: 301-480-4290
Email: heltone2@mail.nih.gov

John Kiser, MS, BS
Phone: 847-937-3725
Email: john.kiser@abbvie.com

SECURITY

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

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

John Moehrke
GE Healthcare
Phone: 920-912-8451
Email: john.moehrke@med.ge.com

Patricia Williams, PhD, MSc
HL7 Australia
Phone: 61-863045039
Email: trish.williams@ecu.edu.au

SERVICES ORIENTED ARCHITECTURE

Don Jorgenson
Phone: 970-472-1441
Email: djorgenson@inpriva.com

Stefano Lotti
HL7 Italy
Phone: 39-06-421-60685
Email: slotti@invitalia.it

Vince McCauley, MBBS, PhD
Medical Software Industry Association
Phone: 61-298-186493
Email: vincem@bigpond.com.au

Ken Rubin
Hewlett-Packard Enterprise Services
Phone: 301-613-3104
Email: ken.rubin@hp.com

STRUCTURED DOCUMENTS

Calvin Beebe
Mayo Clinic
Phone: 507-284-3827
Email: cbeebe@mayo.edu

Diana Behling
Iatric Systems
Phone: 978-805-3159
Email: diana.behling@iatric.com

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

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

Brett Marquard
River Rock Associates LLC
Email: brett@riverrockassociates.com

TEMPLATES

Kai Heitmann, MD
HL7 Germany
Phone: 49-172-2660814
Email: hl7@kheitmann.de

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

Mark Shafarman
Shafarman Consulting
Phone: 510-593-3483
Email: mark.shafarman@earthlink.net

VOCABULARY

Jim Case, MS, DVM, PhD
National Library of Medicine
Phone: 530-219-4203
Email: james.case@mail.nih.gov

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

Russell Hamm
Lantana Consulting Group
Phone: 507-271-0227
Email: russ.hamm@lantanagroup.com

Robert Hausam, MD
Hausam Consulting, LLC
Phone: 801-949-1556
Email: rrhausam@gmail.com

William T. Klein
Klein Consulting, Inc.
Phone: 631-924-6922
Email: kci@tklein.com

HL7 Facilitators

MODELING AND METHODOLOGY FACILITATORS

George (Woody) Beeler, Jr., PhD
Beeler Consulting LLC
Facilitator-at-Large
Phone: 507-254-4810
Email: woody@beelers.com

Charlie Bishop
HL7 UK
Clinical Statement
Phone: 44-7989-705-395
Email: hl7@bishops-online.net

Bernd Blobel, PhD
HL7 Germany
Security
Phone: 49-941-944-6767
Email:
bernd.blobel@klinik.uni-regensburg.de

Kathleen Connor
Edmond Scientific Company
Financial Management
Email: kathleen_connor@comcast.net

Kevin Coonan, MD
Emergency Care
Email: kevin.coonan@gmail.com

Jean Duteau
Duteau Design Inc.
Patient Care; Pharmacy
Phone: 780-328-6395
Email: jean@duteaudesign.com

Hugh Glover
HL7 UK
Medication
Phone: 44-0-7889-407-113
Email:
hugh_glover@bluewaveinformatics.co.uk

Grahame Grieve
Health Intersections Pty Ltd
Infrastructure & Messaging
Phone: 61-3-9844-5796
Email:
grahame@healthintersections.com.au

Alexander Henket
HL7 Netherlands
Patient Administration
Email: henket@nictiz.nl

William "Ted" Klein
Klein Consulting, Inc.
Vocabulary
Phone: 631-924-6922
Email: kci@tklein.com

Austin Kreisler
Leidos, Inc.
Structured Documents
Phone: 706-525-1181
Email: austin.j.kreisler@leidos.com

Patrick Loyd
ICode Solutions
Orders & Observations
Phone: 415-209-0544
Email: patrick.e.loyd@gmail.com

Joginder Madra
Madra Consulting Inc.
Immunization, PHER
Phone: 780-717-4295
Email: hl7@madraconsulting.com

Dale Nelson
Lantana Consulting Group
Implementable Technology Specifications
Phone: 916-367-1458
Email: dale.nelson@squaretrends.com

Lloyd McKenzie
HL7 Canada
Facilitator-at-Large
Email: lloyd@lmckenzie.com

Craig Parker, MD
Intermountain Healthcare
Clinical Decision Support
Phone: 801-859-4480
Email: craig.parker@imail.org

Amnon Shabo, PhD
Standards of Health
Clinical Genomics
Phone: 972-544-714070
Email: amnon.shvo@gmail.com

AbdulMalik Shakir Sr.
Hi3 Solutions
Clinical Interoperability Council; Modeling & Methodology
Phone: 626-644-4491
Email:
abdulmalik.shakir@hi3solutions.com

Ioana Singureanu
Eversolve, LLC
CBCC; Health Care Devices
Phone: 603-870-9739
Email: ioana.singureanu@gmail.com

Corey Spears
Medicity
Electronic Health Records
Phone: 917-426-7397
Email: spearsc2@aetna.com

D. Mead Walker
Mead Walker Consulting
RCRIM
Phone: 610-518-6259
Email: dmead@comcast.net

PUBLISHING FACILITATORS

Becky Angeles
ESAC Inc.
RCRIM
Email: rebecca.angeles@esacinc.com

Douglas Baird
Boston Scientific Corporation
Templates
Phone: 651-582-3241
Email: douglas.baird@guidant.com

Lorraine Constable
HL7 Canada
Orders & Observations
Phone: 780-951-4853
Email: lorraine@constable.ca

Mike Davis
US Department of Veterans Affairs
Security
Phone: 760-632-0294
Email: mike.davis@va.gov

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

Isobel Frean
Bupa Group
Clinical Statement
Phone: 44-207-656-2146
Email: isobelfrean@btinternet.com

Peter Gilbert
Covisint
Structured Documents
Phone: 734-604-0255
Email: peter.gilbert@covisint.com

Robert Hallowell
Siemens Healthcare
Medication; Pharmacy
Phone: 610-219-5612
Email: robert.hallowell@siemens.com

Alexander Henket
HL7 Netherlands
Patient Administration
Email: henket@nictiz.nl

Anthony Julian
Mayo Clinic
Infrastructure & Messaging
Phone: 507-266-0958
Email: ajulian@mayo.edu

Helmut Koenig, MD
Siemens Healthcare
Imaging Integration
Phone: 49-9131-84-3480
Email: helmut.koenig@siemens.com

Margaret (Peggy) Leizear
Food and Drug Administration
RCRIM
Phone: 301-796-8495
Email: peggy.leizear@fda.hhs.gov

Mary Kay McDaniel
Cognosante, LLC
Financial Management
Phone: 602-300-4246
Email: mk_mcdaniel@hotmail.com

Dale Nelson
Lantana Consulting Group
CMET; Implementable Technology Specifications
Phone: 916-367-1458
Email: dale.nelson@squaretrends.com

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

Craig Parker, MD
Intermountain Healthcare
Clinical Decision Support
Phone: 801-859-4480
Email: craig.parker@imail.com

John Ritter
Electronic Health Records
Phone: 412-372-5783
Email: johnritter1@verizon.net

Ioana Singureanu
Eversolve, LLC
CBCC
Phone: 603-870-9739
Email: ioana.singureanu@gmail.com

Margarita Sordo
Partners HealthCare System, Inc.
Gello
Phone: 781-416-8479
Email: msordo@partners.org

Anita Walden
Duke Translational Medicine Institute
Clinical Interoperability Council
Phone: 919-668-8256
Email: anita.walden@duke.edu

Grant Wood
Intermountain Healthcare
Clinical Genomics
Phone: 801-408-8153
Email: grant.wood@imail.org

VOCABULARY FACILITATORS

Paul Biondich, MD
IU School of Medicine
Child Health
Phone: 317-278-3466
Email: mollewis@iupui.edu

Kathleen Connor
Edmond Scientific Company
Financial Management
Email: kathleen_connor@comcast.net

Kevin Coonan, MD
Emergency Care
Email: kevin.coonan@gmail.com

Guilherme Del Fiol, MD, PhD
University of Utah Health Care
Clinical Decision Support
Phone: 919-213-4129
Email: guilherme.delfiol@utah.edu

Christof Gessner
HL7 Germany
Health Care Devices
Phone: 49-172-3994033
Email: gessner@mxdx.de

W. Edward Hammond, PhD
Duke Transitional Medicine Institute
Templates
Phone: 919-558-2408
Email: william.hammond@duke.edu

Monica Harry
HL7 Canada
PHER
Email : monicahl1533@gmail.com

Robert Hausam, MD
Hausam Consulting
Orders & Observations; Structured Documents
Phone: 801-949-1556
Email: rrhausam@gmail.com

Joyce Hernandez
Clinical Genomics
Email: joyce.hernandez_0029@yahoo.com

Wendy Huang
Canada Health Infoway Inc.
Patient Administration
Phone: 416-595-3449
Email: whuang@infoway-inforoute.ca

Julie James
Blue Wave Informatics
Medication; Pharmacy; RCRIM
Email:
julie_james@bluewaveinformatics.co.uk

William "Ted" Klein
Klein Consulting, Inc.
Modeling & Methodology
Phone: 631-924-6922
Email: kci@tklein.com

Susan Matney
3M Health Information Systems
Patient Care
Phone: 801-265-4326
Email: samatney@mmm.com

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

Sarah Ryan
Clinical Interoperability Council
Email: ryansaraha1@earthlink.net

Harold Solbrig
Mayo Clinic
Modeling & Methodology
Email: solbrig.harold@mayo.edu

Harry Solomon
GE Healthcare
Imaging Integration
Phone: 847-277-5096
Email: harry.solomon@med.ge.com

Sandra Stuart
Kaiser Permanente
Infrastructure & Messaging
Phone: 925-924-7473
Email: sandra.stuart@kp.org

Pat Van Dyke, RN
Delta Dental Plans Association
Electronic Health Records
Phone: 503-243-4992
Email: patricia.vandyke@modahealth.com

Tony Weida
Apelon
Security
Phone : 203-431-2530
Email: weida@apelon.com

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

HL7 AUSTRALIA
Patricia Williams PhD MSc
Phone: +61 420-306-556
Email: trish.williams@ecu.edu.au

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

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

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

HL7 CANADA
Melva Peters
Phone: CAN +1 604-515-0339
Email: mpeters@global-village.net

HL7 CHINA
Baoluo Li Professor
Phone: +86 010-65815129
Email: liblpumch@gmail.com

HL7 CROATIA
Miroslav Koncar
Phone: 385 99-321-2253
Email: Miroslav.Koncar@oracle.com

HL7 CZECH REPUBLIC
Libor Seidl
Phone: +420 605740492
Email: seidl@hl7cr.eu

HL7 FINLAND
Juha Mykkanen PhD
Phone: +358 403552824
Email: juha.mykkanen@uef.fi

HL7 FRANCE
Nicolas Canu
Phone: +33 02-35-60-41-97
Email: nicolas.canu@wanadoo.fr

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

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

HL7 HONG KONG
Dr. Chung Ping Ho
Phone: +852 34883762
Email: chair@HL7.org.hk

HL7 INDIA
Lavanian Dorairaj MBBS, MD
Email: Chairman@HL7India.org

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

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 MALAYSIA
Mohamad Azrin Zubir
Email: Azrinmd@Mpmsb.net

HL7 NETHERLANDS
Robert Stegwee MSc, PhD
Phone: +31 30-689-2730
Email: robert.stegwee@capgemini.com

HL7 NEW ZEALAND
David Hay MD
Phone: +64 9-638-9286
Email: david.hay25@gmail.com

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

HL7 PAKISTAN
Maajid Maqbool
Phone: +92 5190852159
Email: maajid.maqbool@seecs.edu.pk

HL7 PHILIPPINES
Michael Hussin Muin, MD
Email: mikemuin@gmail.com

HL7 PUERTO RICO
Julio Cajigas
Phone: +1 787-447-3713
Email: cajigas@caribe.net

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

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

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

HL7 SWITZERLAND
Marco Demarmels MD, MBA
Phone: +41 712791189
Email: HL7@lakegriffin.ch

HL7 TAIWAN
Chih-Chan (Chad) Yen
Phone: +886 2-2552-6990
Email: cyen@linkmedasia.com

HL7 TURKEY
Ergin Soysa, MD, PhD
Email: esoysal@gmail.com

HL7 UK
Philip Scott, PhD
Phone: +44 8700-112-866
Email: chair@hl7.org.uk

HL7 URUGUAY
Julio Leivas, MD
Phone: +598 095229291
Email: jleivas@adinet.com.uy

2015 HL7 Staff

Chief Executive Officer

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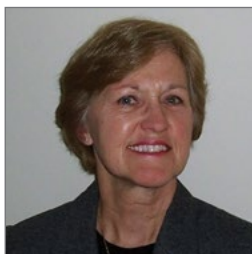+1 858-720-8200
cjaffe@HL7.org

Chief Technology Officer

John Quinn
+1 216-409-1330
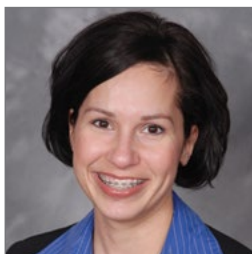jquinn@HL7.org

Executive Director

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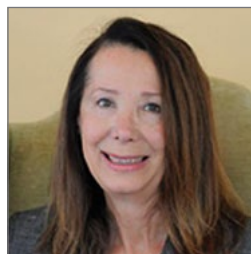
Associate Executive Director

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

Director of Meetings

Lillian Bigham
+1 989-736-3703
lbigham@HL7.org

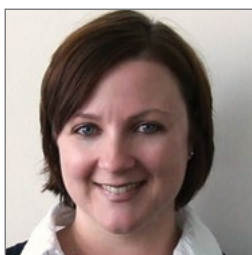**Manager of Education**

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

Director of Education

Sharon Chaplock PhD
+1 414-778-2167
Sharon@HL7.org

Director of Global Partnerships and Policy

Ticia Gerber
+1 202-486-5236
tgerber@HL7.org

Director, Project Management Office

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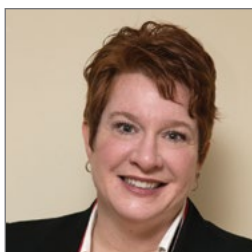dhamill@HL7.org

Director of Marketing

Melanie Hilliard
+1 734-677-7777
melanie@HL7.org

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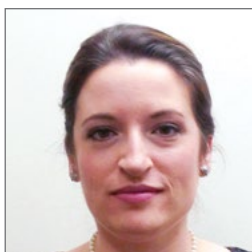
Linda Jenkins
+1 734-677-7777 x170
linda@HL7.org

Director of Technical Services

Tamara Kamara
+1 734-677-7777 x125
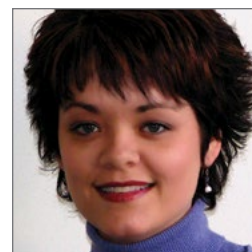tamara@HL7.org

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

Director of Communications

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

HL7 Project Manager

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

2015 HL7 Board of Directors

BOARD CHAIR

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

CHAIR-ELECT

Douglas Fridsma MD, PhD
+1 301-657-1291
doug@amia.org

CHAIR EMERITUS & BOARD SECRETARY

W. Edward Hammond, PhD
Duke Translational Medicine
Institute
Phone: USA +1 919-668-2408
william.hammond@duke.edu

BOARD TREASURER

Calvin Beebe
Mayo Clinic
+1 507-284-3827
cbeebe@mayo.edu

TSC CHAIR

Ken McCaslin, MAR
Quest Diagnostics,
Incorporated
+1 610-650-6692
kenneth.h.mccaslin@
questdiagnostics.com

APPOINTED

Jamie Ferguson
Kaiser Permanente
+1 510-271-5639
jamie.ferguson@kp.org

Liz Johnson, BS, MS
Tenet Healthcare
Phone: USA +1 4698932039
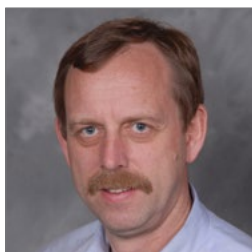liz.johnson@tenethealth.com

AFFILIATE DIRECTORS

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

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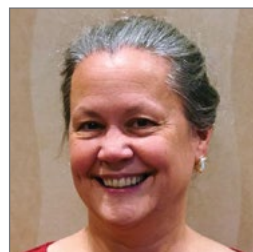hl7@oemig.de

DIRECTORS-AT-LARGE

Hans Buitendijk
Siemens Healthcare
Phone: USA +1 610-219-2087
hans.buitendijk@siemens.com

James Case, MS, DVM, PhD
National Library of Medicine
+1 530-219-4203
james.case@mail.nih.gov

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

Patricia Van Dyke
Delta Dental Plans Association
+1 503-243-4492
patricia.vandyke@modahealth.com

NON-VOTING MEMBERS

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

John Quinn
HL7 CTO
+1 216-409-1330
jquinn@HL7.org

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

HL7 INTERNATIONAL®

Gain real-world
HL7 knowledge
TODAY
that you can apply
TOMORROW

HL7® FHIR®

Institute & Meaningful Use Standards Implementation Workshop

What is the HL7 FHIR® Institute?

The HL7 FHIR® Institute provides resources and training for the next generation standards framework created by HL7: Fast Health Interoperability Resources or FHIR®. The FHIR Institute focuses on making this new standard easier to understand and implement across the healthcare community. Training at the FHIR Institute includes both face-to-face and virtual events and is targeted at software developers, implementers and executives. Learn about FHIR straight from the source at FHIR® Institute programs delivered by expert FHIR standard developers.

UPCOMING EVENT

March 16-19, 2015	The Double Tree Hotel & Suites Pittsburgh City Center
HL7 FHIR Institute & Meaningful Use Standards Implementation Workshop	Pittsburgh, Pennsylvania

What is an Implementation Workshop?

An HL7 Implementation Workshop is a three-day interactive hands-ons event focused on HL7-specific topics such as Version 2, Clinical Document Architecture (CDA®), Quality Health Reporting Document Architecture (QRDA), and Health Quality Measure Format (HQMF). It includes a combination of exercises and presentations to help attendees learn how to implement HL7 standards.

Why Should I Attend?

This is an invaluable educational opportunity for the healthcare IT community as it strives for greater interoperability among healthcare information systems. Our classes offer a wealth of information designed to benefit a wide range of HL7 users, from beginner to advanced.

Among the benefits of attending are:

- **Efficiency** Concentrated format provides maximum training with minimal time investment

- **Learn Today, Apply Tomorrow** A focused curriculum featuring real-world HL7 knowledge that you can apply immediately

- **Quality Education** High-quality training in a "small classroom" setting promotes more one-on-one learning

- **Superior Instructors** You'll get HL7 training straight from the source: Our instructors. They are not only HL7 experts; they are the people who help develop the HL7 standards

- **Certification Testing** Become HL7 Certified: HL7 is the sole source for HL7 certification testing, now offering testing on Version 2.7, Clinical Document Architecture, and Version 3 RIM

- **Economical** A more economical alternative for companies who want the benefits of HL7's on-site training but have fewer employees to train
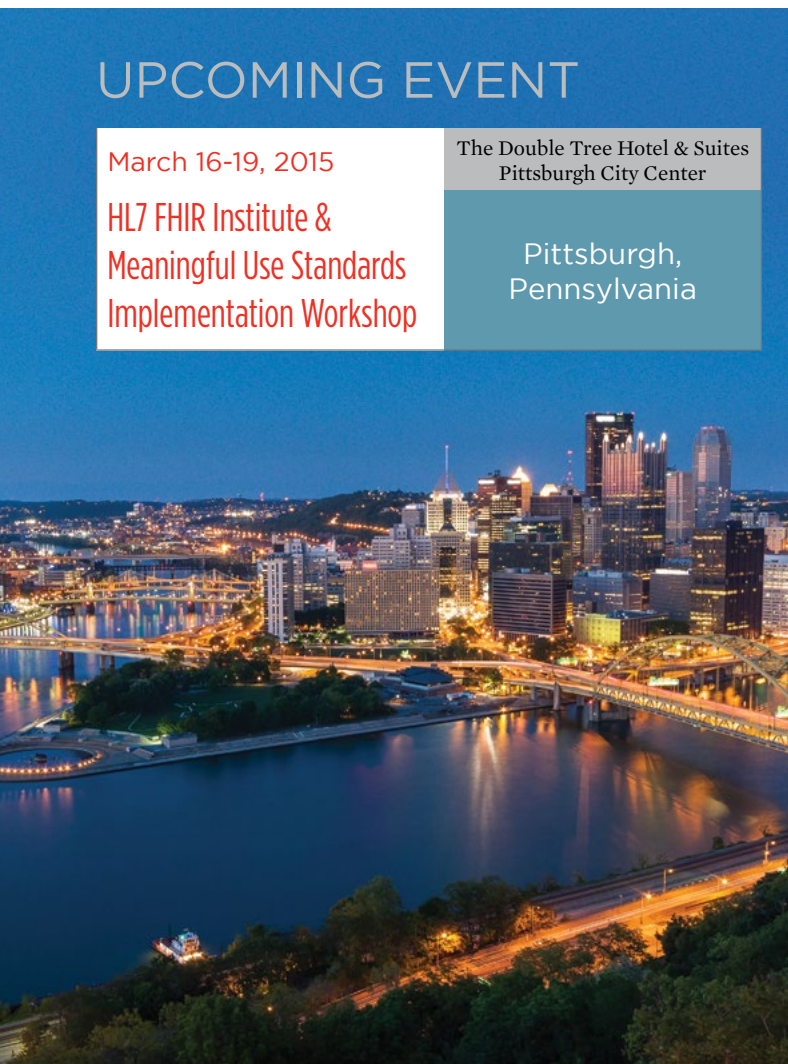
Upcoming Working Group Meetings

January 18 – 23, 2015
Working Group Meeting

Hyatt Regency on the Riverwalk
San Antonio, Texas

May 10 – 15, 2015
Working Group Meeting

Hyatt Regency Paris –
Charles de Gaulle Hotel
Paris, France

October 4 – 9, 2015
**29th Annual Plenary &
Working Group Meeting**

Sheraton Atlanta Hotel
Atlanta, Georgia

January 10 – 15, 2016
Working Group Meeting

Hyatt Regency Orlando
Orlando, Florida

May 8 – 13, 2016
Working Group Meeting

Le Centre Sheraton
Montreal (Quebec),
Canada

September 18 – 23, 2016
**30th Annual Plenary &
Working Group Meeting**

Hyatt Regency Baltimore
Baltimore, Maryland