

## FHIR – HL7's Hottest New Standard

By Austin Kreisler, Chair, HL7 Technical Steering Committee  
and Lloyd McKenzie, FHIR Project Coordinator



*Austin Kreisler*



*Lloyd McKenzie*

If you were at the May Working Group Meeting in Vancouver, you likely noticed the excitement about a new standard called FHIR. If you were not at that meeting, you may be somewhat puzzled about what FHIR is and why there is so much buzz about this new standard. First, the name FHIR stands for “Fast Healthcare Interoperability Resources.” FHIR is pronounced “Fire.” Let’s look at that name a little closer:

- Fast – it’s intended to be fast to develop and, more importantly, fast to implement
- Interoperability – it’s focused on being a standard for interoperability (no different from most HL7 standards)
- Healthcare – no surprise here, HL7 is about healthcare
- Resources – what the heck are those?

The introduction to FHIR states:

“These resources represent granular clinical concepts that can be exchanged in order to quickly and effectively solve problems in healthcare and related processes. The resources cover the basic elements of healthcare – patients, admissions, diagnostic reports, medications, and problem lists, with their typical participants, and also support a range of richer and more complex clinical models.”

A FHIR Resource is analogous to an HL7 Version 2.x “Segment” or a Version 3 “CMET” (Common Message Element Types). FHIR Resources are:

- Granular – they are the smallest unit of operation, and a transaction scope of their own
- Independent – the content of a resource can be understood without reference to other resources
- Simple – each resource is easy to understand and implement without needing tooling or infrastructure (though that can be used if desired)
- RESTful – resources are able to be used in a RESTful exchange context
- Flexible – resources can also be used in other contexts, such as messaging, document or SOA architectures, and moved in and out of RESTful paradigms as convenient
- Extensible – resources can be extended to cater for local requirements without impacting on interoperability
- Web Enabled – where possible or appropriate, open internet standards are used for data representation
- Free for use – the FHIR specification itself is open - anyone can implement FHIR or derive related specifications without any IP restrictions

You can find out a lot more about the technical details regarding FHIR at: <http://www.hl7.org/fhir>.

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FHIR is built on the HL7 Reference Information Model (RIM), data types and vocabulary. FHIR hides the complexity of Version 3 (V3) from the implementer while leveraging the semantic strength of V3. FHIR also leverages the concept of extensions from HL7 2.x which has the capability of z-extensions. It will allow extensions, but does so in a controlled fashion that should avoid many of the issues with the 2.x extension mechanism.

FHIR is built on certain design premises. It's designed for the 80%, not 100%, meaning it only includes data elements in the artifacts if 80% of all implementers of that artifact will use the data element. FHIR extensions allow sharing of those data elements expected to be used by fewer than 80% of implementers ("the 20%"). Unlike V3, FHIR focuses on documenting what the implementer needs, not what the modelers thought or designers need to remember. FHIR documentation strives to be concise; every word written is a word that must be read thousands of times. FHIR focuses on the physical wire format (XML), not an abstract implementable technology specification (ITS). FHIR also requires wire format stability from release to release. FHIR retains the semantic rigor of HL7 V3 but hides it from implementers. The V3 semantic richness is still there for implementers who want to leverage it.

The "Fast" aspect of FHIR is very important. Fast to develop means that the FHIR standard development is intended to be a rapid process. FHIR resources are documented in a spreadsheet format. Java tooling has already been developed to create the technical artifacts from these resource definitions. Fast to implement means that developing a FHIR based interface or application should be quick and simple. FHIR has been designed to utilize off the shelf tools to enable very rapid implementation. There are already a couple of FHIR test servers publically available as well

as example applications using FHIR. Obviously, these are all based on what is currently the draft specification of FHIR.

One thing to understand about FHIR today is that it is under development as an HL7 Standard. Like any other HL7 Standard, it will go through the HL7 ballot process. The current plan is for FHIR to be balloted as draft for comment this summer. That ballot will cover the methodology for developing FHIR as well as a small set of draft resources. During the May Working Group Meeting in Vancouver, the FHIR team (Grahame Grieve, Ewout Kramer and Lloyd McKenzie) joined a number of work groups to discuss development of FHIR resources. One project for developing FHIR resources for Pharmacy has been approved and there are likely more projects being considered by other work groups. The first DSTU ballot for FHIR is expected to occur as part of the January 2013 ballot cycle.

How will HL7 be managing the development and balloting of the FHIR standard? As this article is being written, the Technical Steering Committee is considering how FHIR will be managed within the HL7 organization. The TSC is using another HL7 standard called SAIF (Service-Aware Interoperability Framework) to set up the FHIR governance, management and methodology within HL7. FHIR governance will define and oversee the boundaries of the FHIR standard and FHIR resources. FHIR management will be responsible for coordinating development of resources, ensuring that developers are following FHIR methodology, as well as performing quality assurance on the FHIR artifacts being developed. FHIR methodology will be responsible for defining guidelines, validation rules and best practices for use by work groups in constructing FHIR artifacts. At this point, the methodology group will likely be the Modeling and Methodology Work Group.

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## HL7 NEWS

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Catherine Chronaki

# Economics of Interoperability

*Report from an HL7-organized panel at the eHealth Week/World of Health IT, Copenhagen, May 7-9, 2012*

by Catherine Chronaki, Affiliate Director, HL7 Board of Directors

Interoperability in healthcare IT in Europe is characterized by strong political support, increased awareness, and pockets of best practice. The European Union (EU) digital Agenda 2020 has recognized interoperability standards as one of the main pillars in its mission to achieve the triple win: sustainable healthcare systems, quality care, and innovative solutions that unlock market potential. EU-wide initiatives such as the European eHealth Project (epSOS), the Semantic Healthnet network of excellence, the European Interoperability Framework, the eHealth Governance Initiative (eHGI), and the eHealth Network address interoperability at the semantic, technical, organizational, and political levels in Europe. Thus, interoperability in healthcare IT is perceived as a driver to contain costs as well as improve patient safety and quality of care; but, more importantly, as an enabler to innovative eHealth solutions. In her speech, Nellie Croes, commissioner for the Digital Agenda, and vice president of the European Commission, said that in the future she will not need

to worry about her health record, as it will be available in the cloud.

Although there is some awareness of the direct and indirect economic benefits of interoperability, the business models for interoperability need to be reworked to unlock the market potential. This was the topic of an HL7-organized panel at the recent eHealth Week & World of Health IT 2012 Congress in Copenhagen that highlighted the notion of incremental interoperability championed by HL7 CDA®.

Fredrik Linden, coordinator of the epSOS large scale pilot for cross-border ePrescription and Patient Summaries; Matic Megli, coordinator of the PAR-ENT joint action for patient registries; Rick Cnossen, from Intel; and myself participated in a panel moderated by HL7 CEO Charles Jaffe, MD, PhD, for a focused discussion on interoperability. In his talk, Fredrik Linden quoted Mark Bertolini from AETNA pointing out that the “future lays in uncommon connections” and comparing paper records with electronic health records, noted the environmental impact from savings in paper (estimated 1,000 tons a week), as well as savings in accessibility (time spend searching for missing documents), sharing of records, and organization of care (savings in time).

Rick Cnossen outlined the keys to successful product interoperability strategy that leads from requirements to viable products: market viable use cases, standards to enable the require-

ments, business conditions that support interoperability, interoperability guidelines, interoperability compliance testing, and promotion (marketing, education, conferences), presenting WiFi as a successful model.



Figure 1: Innovation prizes at the eHealth Week

Matic Megli focused on the public health and research perspective, noting the tremendous effort lost in merging data from different clinical or population registries, resulting frequently in data of poor quality that does not add enough value and could mislead policy makers. Starting from Porter’s five forces view of healthcare IT, Matic moved on to reflect that healthcare providers as purchasers are mostly frustrated due to IT vendor lock-in, creating low buying power and discouragement for new entrants. However, with interoperability, a different landscape is gradually forced. This results in reduced entry barriers, reduced lock-in, and new (XAAS, plug-and-play) business models where once deemed impossible: business intelligence, clinical decision support, business rules and process management. He concluded that healthcare providers need to be aware of the financial value of reduced lock-in risk when choosing interoperable solutions.

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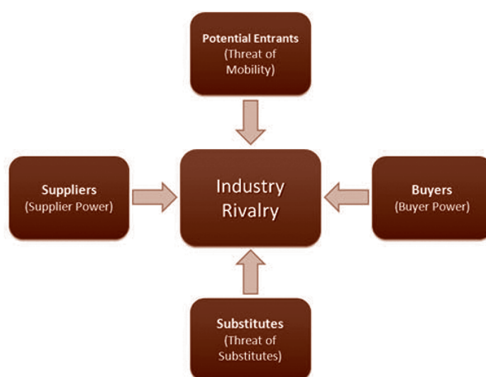


Figure 2: Porter’s five forces view of Healthcare IT (<http://hbr.org/2008/01/the-five-competitive-forces-that-shape-strategy/ar/1>)



# Update from Headquarters

By Mark McDougall, Executive Director, HL7



Mark McDougall

This year London hosts the 2012 Summer Olympic Games, officially the Games of the XXX Olympiad. When thinking of all of the Olympic events and the participants from around the globe, I was reminded of a few similarities to the HL7 organization and activities – albeit on a smaller scale and somewhat a stretch.

The 2012 Summer Olympics are expecting athletes from 204 countries. HL7 has members from 58 countries – a very impressive number.

The Olympic record for weightlifting (“clean & jerk”) is 263 kg (580 pounds). HL7 has an incredibly valuable group of people that do the heavy lifting for HL7: the 146 co-chairs of our work groups who serve as the back bone of the HL7 organization and lead the effort to produce our standards.

The Olympic record for running the marathon (42.195 km, or 26 miles and 385 yards) is 2 hours, 6 minutes and 32 seconds. HL7 members collectively participate in marathon conference calls routinely. Just last month, HL7 members logged 104,427 minutes of HL7 related conference calls. Yes, that was all within one month.

A total of 4,700

medals for the 2012 Olympic and Paralympic Games have been produced. HL7 has awarded 64 Volunteer of the Year Award recipients and 30 HL7 Fellows to-date. For a complete list of these well deserving HL7 award winners, please go to HL7’s website at these URLs.

<http://www.hl7.org/about/hl7volunteers.cfm>

<http://www.hl7.org/about/hl7fellows.cfm>

## Vancouver Welcomes HL7 Again

For its second time, Vancouver welcomed HL7 for another productive and enjoyable HL7 May Working Group Meeting – this time during the week of May 13, 2012. Situated along British Columbia’s coastline

and majestic mountains, Vancouver was one of the most beautiful cities that ever hosted an HL7 meeting. We produced 30 tutorials and hosted over 60 work groups and committee meetings in Vancouver.

On behalf of the HL7 staff and board, I extend a warm thank you to the members of HL7 Canada and their WGM Planning Committee for their invaluable guidance and support that helped make this recent meeting a big success. I would also like to single out these individuals for going above and beyond the call of duty. Their guidance and dedication were instrumental to the success of this meeting:

- Michael van Campen
- Melva Peters
- Rajan Rai



*The 2012 HL7 Board of Directors. First row from left: Catherine Chronaki; W. Ed Hammond, PhD; Becky Kush, PhD; Jill Kaufman, PhD; Diego Kaminker; and Michael van Campen. Second row, from left: Don Mon, PhD; Mark McDougall; Doug Fridsma, MD, PhD; Charles Jaffe, MD, PhD; and Keith Boone. Top row, from left: Austin Kreisler; Ed Tripp; Richard Dixon Hughes; James Ferguson; and Bob Dolin, MD*





*Chairs of the HL7 Affiliates who attended the May Working Group Meeting in Vancouver*

We are pleased to also recognize all of the organizations that sponsored key components of our recent Working Group meeting in Vancouver, Canada. Thanks in part to the generous sponsorship by GPI, our Wednesday evening networking reception was a Vancouver harbor cruise on the Queen of Diamonds ship. The additional sponsorship support provided by these organizations contributes heavily to HL7's meeting budget and is much appreciated.

- Beeler Consulting – MnM Facilitators Roundtable dinner meeting
- Gordon Point Informatics – Networking reception co-sponsor
- iNTERFACEWARE – Lanyards
- LINKMED – Morning coffee break all week
- Sparx Systems – Co-Chair Dinner Meeting

### **Plenary Meeting**

We encourage you to join us in Baltimore, Maryland for HL7's 26th annual Plenary Meeting on September

10, 2012. The theme will be HL7 in the Era of Patient Empowerment. Presentations will cover a wide range of topics, such as:

- Engaging Patients with Standards: how the HIT standards

professional can transform healthcare by enabling patients to be informed and informing; bridging the legacy and innovative technologies; harmonizing EHR and patient facing system

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*Ed Hammond and Rik Smithies during the Wednesday evening Networking Reception Cruise*



**Update, continued from page 4**

interactions; maximizing the data to improve quality.

- The Rise of e-Patients: Three technology revolutions in the last generation have changed the way patients care for themselves and interact with doctors and peers: 1) the internet/broadband revolution; 2) the mobile revolution; 3) the social networks revolution. Discuss how patients and caregivers use these technologies to inform themselves, deal with medical providers, and share their stories with fellow patients and their loved ones.
- Panel discussion featuring presentations from different stakeholders in the mobile health space on how they view the future of mobile health and HL7's potential role in this evolving arena

For more details on the HL7 Plenary meeting, please see the schedule on pages 12-13 or go to the [www.HL7.org](http://www.HL7.org) website.

**Care Connected by HL7 Campaign**

HL7 recently launched a membership outreach campaign through



*Fernando Campos, Melva Peters and Iryna Roy at the Wednesday evening Networking Reception Cruise*



*The 2012 May Working Group Meeting Sponsors*

an HTML email promoting our new "Care Connected by HL7" logo with a sports theme encouraging industry stakeholders to "Get in the game". These logos were initially intended to be used on HL7 members' splash screens when their applications are started. We are pleased to report that this campaign has received quite a bit of attention. This logo has also been used on HL7 member websites as well.

In an effort to address the needs of our HL7 Affiliates, we also made the original files available to our HL7 Affiliates for them to modify, translate and tailor to meet the needs of their specific audience. We hope that this new "Care Connected by HL7" logo will be appearing on your desktop soon.

tremendous contributions to developing the logo for this new program.

**In Closing**

What does the "Olympic spirit" mean? Pierre de Coubertin's statement that "The important thing is not to win, but to take part", and the view of athletes who try their best but finish last are often epitomized as the "Olympic spirit".

We are very appreciative of everyone who contributes to HL7 in so many different ways. Some roles get the limelight, and other roles are much less glamorous and receive little recognition or thanks.

In this time of the 2012 Olympics, please allow me to extend a heartfelt thank you to each and every HL7 member for their ongoing support and contributions at any level, big or small.

Best wishes to you and your loved ones.

*Mark P. McDougall*

The concept for this campaign originated from HL7's Advisory Council who is comprised of industry "big shots". I would like to thank the members of the Advisory Council for this great idea, and to extend a special thanks to Carl Dvorak and the Epic marketing team for their

## *Economics of Interoperability, continued from page 3*

I elaborated on the notion of iterative, incremental interoperability as introduced by HL7 CDA, a standard widely adopted for health information exchange by many governments worldwide. I also described the Trifolia Workbench tool, which provides reusable components for the creation of clinical documents in HL7 CDA, and highlighted the emerging trend toward interoperability standards that are delivered through online tools that enable their consistent implementation accelerating development of interoperable solutions. I closed my presentation with a call for commitment to interoperability standards, recognizing interoperability as enabler of affordable innovation for the health sector.

In a highly interactive discussion, the participants and the audience reflected on investments in interoperability recognizing misconceptions, unrealistic expectations, and schedules. In a question inquiring whether the Cloud will solve the interoperability problem, Dr. Jaffe responded that we will still need data and transport standards to dis-

ambiguate health information. Tom Jones, a member of the audience, noted that eHealth interoperability calls for long-term investment as concrete savings may take up to 10 years to be realized. Miroslav Koncar also noted that the stakeholders need to realize that interoperability involves an iterative incremental process associated with milestones and investment cycles, and should be dealt with, at least in the beginning, separately for each use case.

Recognizing the importance of focused interoperability efforts linked to investment cycles, alleviating the fear to change course, even small vendors can create robust resilient interoperable solutions at an affordable cost. At the same time, patients will enjoy better care and health systems will save money through business intelligence and agile decision making.

In an aging society hampered by chronic disease that is faced with an urgent need to contain healthcare costs, interoperability is a cost-saving investment that triggers innova-

tion, creates a bridge from clinical research to patient care, and enables agile policy development.

Beyond the benefits to individual stakeholders, interoperability combined with technological development can benefit our society by enhancing its ability to respond to epidemics and emerging diseases much more rapidly than in the past. Such insights in population health can also help the treatment of a patient making available information on his genetic profile as well as “similar” patient trajectories as part of advanced clinical decision support.

### Helpful Links:

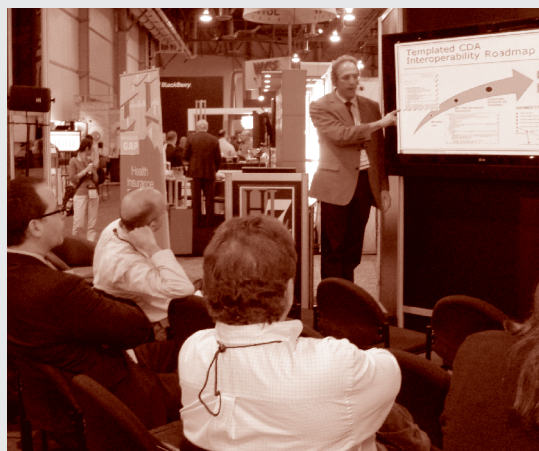
- EU Digital Agenda: [http://ec.europa.eu/information\\_society/digital-agenda/index\\_en.htm](http://ec.europa.eu/information_society/digital-agenda/index_en.htm)
- Continua: <http://www.continuaalliance.org>
- Parent Joint Action: <http://www.patientregistries.eu/>
- epSOS: <http://www.epsos.eu>
- Economics of interoperability: <http://www.hl7.org/events/EconomicsofInteroperability201205/>

# **Save The Date For HIMSS 2013**

**March 3 – 7, 2013  
New Orleans, LA**

**Join us in the HL7 Booth (#4325)  
at the HIMSS 2013 Exhibit**

HL7 will once again offer a variety of education sessions covering HL7 standards and current industry topics such as 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.



*HL7 Vice Chair Dr. Bob Dolin presents at the HL7 Exhibit at HIMSS 2011 in Orlando, FL.*



Catherine Chronaki

# Information Exchange Standards

## Meet Supply Chain Standards

By Catherine Chronaki, Affiliate Director, HL7 Board of Directors

In late August 2012, HL7 International and GS1 join forces again at Medical Informatics Europe 2012 in Pisa, for the latest in a successful series of joint workshops, including STC2010 in Iceland, STC2011 in Slovenia, and MIE2011 in Norway. The focus of this joint HL7-GS1 synergy workshop is on addressing core challenges of quality and safety information exchange to support the well-being of elderly people through integrated care provision. Taking the scenario of an elderly lady living alone, the workshop will focus on the adoption of interoperability standards, bridging the supply chain world and the clinically oriented health-care world. The expected outcome of this workshop is to increase clarity in the actions needed to accelerate the adoption of interoperability standards for high quality and efficient information exchange.

Plug-n-play interoperability is a major aspect of, and a challenge to, quality for health information exchange particularly when leveraging standards from different worlds. Launched in 1987, the mission of HL7 is to provide standards for interoperability that improve care delivery, optimize workflow, reduce ambiguity and enhance knowledge transfer among all healthcare stakeholders, exhibiting timeliness, scientific rigor and technical expertise without compromising transparency, accountability, or practicality. The vision of GS1 is a world where



***Joint HL7-GS1 workshop at Medical Informatics Europe (MIE 2012)  
August 29, 2012 • Pisa, Italy***

things and related information move efficiently and securely for traceability that benefits businesses and helps improve people's lives, every day and everywhere.

The concept of this HL7-GS1 workshop started from a long list of questions associated with collaborative sharing of meaningful information in a scenario of an elderly woman

requiring health and social care services that cross the world of healthcare and that of the supply chain. This taps into the value proposition of synergies between HL7 and GS1. Some of the relevant questions were:

- What is the most important information needed to support integrated care, e.g. emergency care, public health, emergency, and social care? For example, how can GS1 and HL7 standards be leveraged to document and retrieve medication in a way that upholds quality and safety?
- What are the GS1 and HL7 standards that support integrated care and what is the state of their adoption and interrelation? For example, how do we leverage GS1 and HL7 standards to support core processes related to transfer of care?
- How can the quality of information exchange be secured? What about privacy, protection and maintained confidentiality?

Starting from the story of a health-challenged elderly woman that highlights how health information exchange are a requisite to meet her care needs introduced by Anne



Moen, short presentations by Christian Hay, Dr. Charles Jaffe and myself will address interoperability challenges in bridging information from the clinical and supply chain worlds:

- **Supply Chain World:** By concentrating on the information exchange along Mrs. Erkel's health journey from home to hospital, the presentation will highlight selected elements from both GS1 and HL7, which document the sequence of encounters. Unique identifiers according to the GS1 system of standards will be used along the envisioned journey or trajectory of care, with selected encounters being used as examples of supply chain achievements. The shift from GS1 messaging to HL7 messaging will further be drawn with the purpose to illustrate continuity of information from automatic identification data capture to data processing, and some guidance will be provided on how to understand the benefits of unique identification in the clinical environment.
- **Patient Summaries for Health and Social-Care:** Beginning with the patient scenario, the potentialities of patient summaries in bridging the worlds of emergency, health and social care will be presented, building on current initiatives. Current limitations will be highlighted and the role of interoperability standards in amending them will be introduced as part of the presented best practices.
- **Quality of Information Exchange:** Misinformation is worse than no information at all. Starting from the patient scenario, HL7 standards that uphold quality and safety at different stages of information exchange will be presented.

Inspired by the presentations, the discussion aims to gain insight about the

added value of GS1 and HL7 joint efforts, the challenges, and steps ahead toward even more effective collaboration. The moderated discussion will be targeted toward implementation priorities, benefits of implementations, privacy and security challenges, quality and safety, etc. In this way, challenges for the innovative interplay of current and future standards will be identified to strengthen collaboration and commitment to wide adoption. The workshop will be moderated by Bernd Blobel, PhD, and Ulrike Kreysa.

Links:

<http://www.HL7.org>  
<http://www.gs1.org>  
<http://www.mie2012.it>

### ***FHIR**, continued from page 2*

Initially, the FHIR governance and management groups will be organized under the TSC.

One question that keeps cropping up regarding FHIR is whether HL7 will continue to support the Version 2, Version 3 and CDA standards alongside of FHIR. The answer to that question is "Yes!" HL7 will continue to support all those standards as long as members continue to use them. We expect V2.x, V3 and CDA to be with us for a long time. That being said, we also expect there will interest from some users of HL7 standards to migrate toward FHIR from these earlier standards. On the other hand, we expect that FHIR will appeal to entirely new markets where V2.x and V3 have poor adoption, such as the mobile health market where FHIR seems particularly well suited. FHIR is built for the future, but today it's a "bleeding edge" HL7 standard. As such, many implementers will shy away from it simply because it is too new. Other implementers will be attracted to FHIR because it is bleeding edge.

In conclusion, we are trying to set up FHIR to be a successful HL7 standard. We are building FHIR using lessons learned from the development and implementation of other major HL7 standards. We are trying to avoid mistakes we have made in the past while leveraging the goodness to be found in those earlier standards. Only time will tell how successful we are in lighting this new FHIR!

# News from the **PMO** and Project Services Work Group

By Dave Hamill, Director, HL7 Project Management Office; Rick Haddorff and Freida Hall, Co-Chairs, Project Services Work Group



*Dave Hamill*

## **FHIR Project Scope Statement (PSS)**

At the May 2012 WGM in Vancouver, Project Services worked with the TSC and Modeling and Methodology Work Group to create a Project Scope Statement template that supports FHIR (Fast Healthcare Interoperability Resources).

The FHIR PSS is pre-filled with verbiage that provides the ability to identify and define the initial set of key FHIR resources related to the specified domain. These resources will be defined using the available FHIR tooling, and in accordance with documented quality guidelines and balloted as part of the initial FHIR specification.

## **Interim Release of the 2012 Project Scope Statement Template**

The HL7 Project Management Office and the Project Services Work Group have released updates to the 2012 version of the Project Scope Statement (PSS) template. This mid-year release included the following changes:

- Added the Conformance Facilitator Role for Implementation Guide projects
- Added a section to identify Project Requirements in order to enable requirements traceability
- Included a reference to the TSC's Guidance on Ballot Levels to assist project managers in

determining their ballot strategy

- Included a reference to the PBS Metric Guidance for Steering Division Co-Chairs to assist SD co-chairs evaluate work group capacity to undertake new effort.
- Created a "Read Me" file pointing to the FHIR PSS template and included it in the .zip file that contains the Project Scope Statement templates and Project Approval Processes

## **Come join us for the Project Management Roundtable**

Every Working Group Meeting, Project Services hosts an informal gathering at lunchtime on Wednesday called the Project Management Roundtable. Look for the tent card with "Project Managers" on it in the general session/lunch ballroom.

The forum is open, so please come forward with any project questions, concerns or ideas. We'd love to have you join us!

## **Webinar Recording: HL7 Project Management Tool Overview for HL7 Project Facilitators**

In case you didn't know, the HL7 PMO recorded a webinar which provides an overview of the various HL7 Project Management tools. To view the 38 minute webinar recording, go

to [www.HL7.org](http://www.HL7.org) > Resources > Webinar Recordings.

This session, targeted for co-chairs and those leading HL7 projects (i.e. project facilitators), demonstrates HL7 project tools including Project Insight (HL7's primary project repository), the HL7 Searchable Project Database, GForge, as well as a review of HL7 project processes and methodologies.

If you would like the PMO to present this webinar at one of your Steering Division or work group conference calls, please contact Dave Hamill at [pmo@HL7.org](mailto:pmo@HL7.org) to schedule a day and time.

## **HL7 Project Tracking Tools**

All of HL7's project tools, including the Searchable Project Database, GForge and Project Insight, are available on [www.HL7.org](http://www.HL7.org) via [Participate > Tools & Resources > Project Tracking Tools](#).



*Freida Hall*



*Rick Haddorff*





Andrea Ribick

# HL7 Launches New Membership Program and Webpage for Caregivers: Gives Doctors, Nurses and Other Clinicians a Say in the Development of EHRs

By Andrea Ribick, HL7 Director of Communications

HL7 recently announced a pilot membership program and webpage to encourage clinician caregivers to participate in the process of developing standards for electronic health records (EHRs).

“We have always valued the contributions of caregivers—the physicians, nurses, pharmacist, and others in the healthcare continuum. These clinicians are best suited to provide input about the usability, interface design, and workflow demands of electronic health records,” said Charles Jaffe, MD, PhD, CEO of HL7. “Yet, for several years, the HL7 leadership has voiced its concerns about the typical first encounter with the standards development process. We are now in a better position to translate the practical clinical expertise of these caregivers into tangible improvements in the interaction with the health record technology.” Caregiver membership is open to physicians, nurses, pharmacists and others who are involved in direct patient care. The annual membership is \$100. More information is available at [www.HL7.org/caregivers](http://www.HL7.org/caregivers) or by visiting [HL7.org](http://HL7.org) and clicking on “Join HL7.”

“My participation in HL7 has allowed me to make a tangible impact

on how technology is used in healthcare. I reap the benefits in a very practical way as I apply technology within my institution,” said Feliciano Yu, MD, a practicing pediatrician and chief medical information officer at St. Louis Children’s Hospital, and co-chair of the HL7 Child Health Work Group.

With an HL7 Caregiver Membership, clinicians can:

- Help ensure that standards adopted for healthcare IT (HIT) offer real and practical value in supporting the information exchange between health providers that is essential to coordinating patient care.
- Improve the quality and usability of the HIT standards developed by HL7 and, ultimately, the EHR products that use them.
- Network with HL7 members who are nationally recognized experts in HIT.
- Share knowledge and gain insight on how the use of data standards affects clinical practice in supporting patient care and improving quality and efficiency.
- Have the information they need to make informed decisions in EHR purchases, and know what to request from vendors.

“HL7 standards are the most widely used in the industry,” said Don Mon, PhD, chair, HL7 board of directors. “Caregiver members will not only gain first-hand exposure to the standards and technology that drive clinical summaries, laboratory results, prescriptions, and public health and quality data, they will have a direct channel to influence the clinical technology requirements that support an increasingly patient-centered healthcare system.”

Standards development projects currently under way that will benefit from caregiver input include HL7:

- Electronic Health Records System Functional Model, Release 2
- Preoperative Domain Analysis Model (DAM)
- Emergency Medical System DAM
- Neonatal Functional Profile
- Cardiovascular DAM

Functional models and profiles describe requirements for EHR system capabilities. DAMs describe workflow and data requirements within specific domains of care.

## 26th Annual Plenary Meeting

# HL7 in the Era of Patient Empowerment

**Monday, September 10, 2012**  
**Hyatt Regency Baltimore, Baltimore, MD**

**8:30 – 8:45 am**

### ***Welcoming Comments***

*Don Mon, PhD, Chair, HL7 Board of Directors*



*Don Mon, PhD*

**8:45 – 9:15 a.m.**

### ***Keynote Session 1: Engaging Patients with Standards***

Topics covered will include how the HIT standards professional can transform healthcare by

- Enabling patients to be informed and informing
- Bridging the legacy and innovative technologies
- Harmonizing EHR and patient facing system interactions
- Maximizing the data to improve quality.



*Leslie Kelly Hall*

*Leslie Kelly Hall, Senior Vice President, Healthwise*

**9:15 – 9:50 a.m.**

### ***Keynote Session 2: The Rise of e-Patients***

Three technology revolutions in the last generation have changed the way patients care for themselves and interact with doctors and peers:

1. The internet/broadband revolution
2. The mobile revolution
3. The social networks revolution.

Lee Rainie will describe how patients and caregivers use these technologies to inform themselves, deal with medical providers, and share their stories with fellow patients and their loved ones.



*Lee Rainie*

*Lee Rainie, Director, Pew Research Center's Internet & American Life Project, and formerly the managing editor of the news magazine U.S. News & World Report*

**9:50 – 10:15 a.m.**

### ***Keynote Session 3: The Consumer Empowerment Paradox***

Policy makers, professionals and technologists paradoxically believe that homogeneous health information technology standards can empower clinically heterogeneous healthcare consumers. This paradox underlies a 2004 presidential order for a Nationwide Health Information Network and a National Coordinator of Health Information Technology. Since then, HL7, HITSP, IHE, and the Standards & Interoperability Framework have acted on this paradox, developing consumer standards for patient portals, personal health records (PHRs), care coordination, transitions of care, data segmentation, telehealth, mobile devices and direct encrypted email. Evidence that few consumers use free portals threatens belief in the paradox, development of consumer standards and citizen support for healthcare reform.



*Elaine Blechman, PhD*

The consumer empowerment paradox appears to accurately represent longstanding, top-down vs. bottom-up contradictions in health care yet needs empirical testing. Paradox testing, in turn, requires a logic model that traces paths from keystone standards for clinical summary exchange to the potential empowerment of diverse consumers and



the frustration of diverse providers. Test results are likely to reveal gaps in policy and standards that obstruct meaningful health IT use among consumers and providers alike.

*Elaine A. Blechman, PhD, Professor Emerita, University of Colorado-Boulder and President, Prosocial Applications*

### **10:15 – 10:50 a.m. Break**

### **11:15 – 12:20 p.m. Panel discussion featuring presentations on how different stakeholders in the mobile health space view the future of mobile health and HL7's potential role in this evolving arena**

Moderated by Doug Fridsma, MD, PhD, Director, Office of Standards and Interoperability, Office of the National Coordinator for Health IT

- 10:55-11:10 Chuck Parker, President, Continua Health Alliance
- 11:10-11:25 Christoph Lehmann, MD, Professor of Pediatrics and Biomedical Informatics, Vanderbilt University, will discuss empowering families of children
- 11:25-11:40 Jim St. Clair, Senior Director, Interoperability and Standards, HIMSS
- 11:40-11:55 Lonnie Smith, Policy Analyst, U.S. Food and Drug Administration (FDA), will discuss mobile applications of SPL
- 11:55-12:10 Heather Grain, Standards Australia
- 12:10-12:20 Questions and Answers for panelists



*Doug Fridsma, MD, PhD*



*Chuck Parker*



*Christoph Lehmann, MD*



*Charles Jaffe, MD, PhD*

### **12:20 – 12:30 p.m. Closing Comments and a vision for HL7's Future**

*Charles Jaffe, MD, PhD, CEO, Health Level Seven International*



*Jane Curry*

## **HL7 Tooling Challenge**

By Jane Curry, Co-Chair, HL7 Tooling Work Group

Sparx Systems is sponsoring an HL7 Tooling Challenge to encourage more people to help leverage UML in the Tooling infrastructure for HL7. Sparx is the vendor of Enterprise Architect, the UML modeling software used by many of HL7's Working Groups for requirements documentation. The HL7 Tooling Challenge will be

announced at the Baltimore Working Group Meeting and will accept competing entries through the May 2013 Work Group Meeting. Details of the challenge are laid out at [http://wiki.hl7.org/index.php?title=HL7\\_Tooling\\_Challenge](http://wiki.hl7.org/index.php?title=HL7_Tooling_Challenge). The award of \$4,000 for the successful entry will be announced at the 2013 Plenary Meeting.

# HL7 Argentina Welcomes New Chair Fernando Campos



Fernando Campos is an information systems engineer. He is completing a master's degree in strategic direction of software engineering. Fernando is responsible for the definition of software architectures, design patterns, and development standards as the software engineering department chief at the Hospital Italiano de Buenos Aires where he has worked for more than 12 years. He was elected in April 2012 as the HL7 Argentina Chair.

Fernando began using HL7 in 2000 and has been a member of HL7 Argentina since 2001. He is a Certified HL7 V2.x Control Specialist, Certified HL7 CDA R2 Specialist, a Certified HL7 V3 RIM Specialist and also a member of the HL7 Education Work Group. In 2011, he re-

ceived the "HL7 Volunteer of the Year" award for his contributions to the HL7 online e-Learning course (ELC). He redesigned the course modules to partially automate assignment feedback to students, augmenting the course capacity from 100 to 500+ students per session while maintaining the same number of personal tutors.

As a volunteer, Fernando co-authored HL7 ELC educational materials. He has given on-site HL7 courses in Spanish in Argentina and in other Latin-American countries such as Chile and Brazil. He is active in CDA R2 implementations and participated in the design of the implementation guide for the Hospital Italiano de Buenos Aires and several organizations in Chile.

Fernando is proud to have participated in all sessions of the ELC as a tutor, course coordinator and creator of learning material and activities for these courses. He also assists other affiliates to fulfill course/tutor coordination duties and with the e-learning platform technical details. These editions of the ELC were adopted by HL7 India, HL7 Romania, HL7 Canada, HL7 Pakistan, HL7 New Zealand, HL7 Singapore and HL7 Austria and are also being translated to Japanese and Portuguese. He puts not only his time, but heart and soul to help students and tutors to get through the course, understand the materials and implement their acquired knowledge in real life.

## Member Spotlight on Grant Wood

Grant Wood is the senior IT strategist for Intermountain Healthcare's Clinical Genetics Institute. He is based in Salt Lake City, Utah, and is responsible for creating computer systems that will support healthcare providers in delivering genetics-based clinical care. He is a member of the HL7 Clinical Genomics Work Group and a co-chair of the HL7 Marketing Council, where he leads the HL7 Ambassador program. Grant also serves on the board of two non-profit organizations: Alphanet, which provides free disease management services to those with Alpha-1 Antitrypsin deficiency, and the Mountain States Genetics Foundation, which provides educational events for healthcare providers and patients on genetic topics. During his career, Grant has authored 10 papers and articles on varying topics including the role of the healthcare CIO, the patient healthcare encounter of the future, family health history and economic development in the state of Utah.

Grant grew up in southern California and Arizona. He lived in the Netherlands for two years while performing missionary service for his church. Although fluent at one

time, he admits he could use some help from his HL7 Dutch friends to practice the language. He states "Mijn Nederlands is heel slecht."



Grant is the second of eight children. He is close with his extended family, which includes an impressive 7 siblings, 64 first cousins and 38 nieces and nephews. Grant credits his dad's career in hospital administration as the reason why he works in the healthcare field today.

In addition to spending time with family, Grant enjoys attending musical concerts (Rock-n-Roll, Symphony, Christmas), and sporting events for both professional and college teams. He also enjoys the travel opportunities that he has had through his work with HL7. Last November he was able to spend time with Amnon Shabo at this home in Haifa, Israel. One final interesting fact, Grant shares his name—but no relation—with the famous American painter, so if you want to Google him, be sure to use his middle initial "M".



# News from the PBS Metrics Team

By HL7 International Staff Members Dave Hamill, Director, Project Management Office; Lynn Laakso, TSC Project Manager; Don Lloyd, PhD, Director of Technical Publications; and Karen Van Hentenryck, Associate Executive Director

## HL7 Strategic Initiatives Dashboard

The PBS Metrics Team has created a dashboard to track HL7 Strategic Initiatives which the TSC is responsible for managing. Metrics for the dashboard include:

- Effectiveness of working group meetings
- Advancement of realm specifications to international specifications
- Continuing improvement of product quality
- Enablement of requirements traceability
- Reduction of cross-artifact inconsistencies
- Demonstration of industry responsiveness through the timely development and maintenance of key standards
- Improved ease of HL7 standards implementation
- Development of an HL7 education plan

The Strategic Initiatives Dashboard is located on the TSC Wiki at [http://hl7tsc.org/wiki/index.php?title=Strategic\\_Initiatives\\_TSC\\_Dashboard](http://hl7tsc.org/wiki/index.php?title=Strategic_Initiatives_TSC_Dashboard)

## PBS Metrics Reports and Dashboard

The PBS Metrics reporting and dashboards are easily accessible via the Reports link on your work group's HL7.org page. This link directs you to GForge, where the report resides within the TSC's File area ([http://gforge.hl7.org/gf/project/tsc/frs/?action=FrsReleaseBrowse&frs\\_package\\_id=169](http://gforge.hl7.org/gf/project/tsc/frs/?action=FrsReleaseBrowse&frs_package_id=169)).

As a reminder, the PBS Metrics reporting and dashboards reflect the following criteria for each work group:

1. Idle Ballots – Items that haven't balloted in a year, and are still "open" (haven't successfully completed their ballot)
2. No Recon Package – Items that have not had a reconciliation package posted.
3. Non-Advancing Ballots – Items that have gone through 3 or more ballots

4. Expired DSTUs – Expired DSTUs that have not proceeded to normative or some other ballot level
5. Unpublished CMETs – CMETs that are Finished (passed by numbers and Recon is complete) but Unpublished (waiting for the CMET clean-up work to be completed by Andy Stechishin and Dave Hamill)
6. Unpublished Ballots – Items that are "finished" (passed by numbers and reconciliation is complete) but unpublished (not in Normative Edition or on HL7 Standards page)
7. Projects in Project Insight that are behind more than 120 Days
8. Projects in Project Insight with an 'Unknown' status
9. Work Groups that do not have any 3-Year Plan Items in Project Insight

The PBS Metrics Report was created to support the HL7 strategic initiative to "streamline the HL7 standards development process". It is intended to be a tool to assist work groups with managing ballots in addition to cleaning up projects and old data. By reviewing the reports, work groups can identify potential issues before they get out of hand as well as move items through balloting to a final document or standard state.

If you have any questions or comments, please direct them to any PBS Metrics team member:

Dave Hamill ([dhamill@HL7.org](mailto:dhamill@HL7.org)), Lynn Laakso ([lynn@HL7.org](mailto:lynn@HL7.org)), Don Lloyd ([dlloyd@HL7.org](mailto:dlloyd@HL7.org)) and Karen Van Hentenryck ([karenvan@HL7.org](mailto:karenvan@HL7.org)).



*Dave Hamill*



*Lynn Laakso*



*Don Lloyd, PhD*



*Karen Van Hentenryck*

# Congratulations

*To the following people who recently passed the HL7 Certification Exams*

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

**May 17, 2012**

Marla C. Albitz  
Chao Chih Ko  
Sarah A. McGree

**June 9, 2012**

Sam Agner  
Jackie S. Churchill  
Majvor B. Ehnstrom  
Linda D. Hudson  
LeeAnn Lawson  
James L. Lenon

## **HL7 India**

**March 10, 2012**

Arabinda Behera R  
Praveen Shivaprasad  
Sadhana Shree Shivashanker  
Swapna Kintali

**March 31, 2012**

Latif Abdul  
Prachi Agrawal  
Vikram Bethu  
Dipti Chavali  
Sanchita Gulati  
Ranjani Iyer  
Mohan Kalathi  
Rohit Mars  
Seema Rathni  
Deepika Singh  
Sumit Singhal

**April 21, 2012**

Catherine Berkman  
Sajeev Chand. A  
Venkatesan Govindarajan

Badri Narayan  
Manonmani Kandasamy  
Karthik Manivannan  
Byju Prem Kumar N  
Mathuvappan Palaniappan  
Jerry Sahayaraj Richard  
Narsimha Reddy Sudini  
Muthukumaran Thambusamy

**May 19, 2012**

Komal Gulati  
Manikonda Sai Ram Sagar  
Lakshmi Rajasekaran  
Kumar Satyam  
K. V. Prema

**June 9, 2012**

Sharon Christabel  
Srinivasareddy G  
Iyyappan Iyer  
Premalatha Karunamurthi  
Shailesh Kotkundwar  
Raghuraman Murugaiyan  
Kalidass Murugesan  
Meiyappan Ranganathan  
Sethuramalingam Sundaram  
Anita Josephine Wilfred  
Lakshmi Kalyani Yakkala

## **HL7 Korea**

**April 21, 2012**

Sungchul Bae

## **HL7 Spain**

**March 15, 2012**

Jose Carlos Arcenegui  
Marta Bonilla  
Manuel Cortés Martín  
Juan Pedro Díaz García

Ma del Carmen Fernández  
Ferrari  
Francisco Javier Fernández  
Piatek  
Juan Manuel Fuentes  
Hernández  
Jorge García Naz  
David Wenceslao González  
Sojo

**May 19, 2012**

David Lobato Andrades  
María Laura Martínez  
González  
Carlos Javier Navarro  
Francisco Pascual Peña  
Alberto Vargas

**May 3, 2012**

Jorge Cabañuz Biarge  
Juan José Gracia Roche  
Beatriz Herreras Domínguez  
Raquel López Alarcón  
Patricia López Monteagudo  
Antonio Martínez Moreno

**May 8, 2012**

Patricia Andrés Díaz  
José Fernández Engo  
Francisco Medina Gámiz

**June 28, 2012**

Miguel Angel Tercero García  
Laura Tino Ramos  
Álvar Torres de la Hera

**June 29, 2012**

Gonzalo Altuna López  
Alicia Martínez García  
Daniel Mejías Pinto  
Amanda Muñoz Domínguez  
María Palomino Franco  
Dolores  
Claudia Real Barrios  
José Manuel Sivianes Rubio

**July 6, 2012**

Lorenzo Chacón Mendoza  
María Cecilia Costantini  
Belén Pons Pons  
Bernat Sánchez Salo

## **Certified HL7 CDA Specialist**

**May 17, 2012**

Beau Bannerman  
Jeffrey R. Brown  
Christof Gessner  
Iqbal Sian  
Helen Stevens-Love  
Tessa van Stijn

## **HL7 India**

**February 11, 2012**

Akash Gupta  
Mayank Kapoor  
Kanchan Sanjay Kokal  
Pankaj Kumar R. Mishra  
Manali Mannur  
Sandeep K. Patil  
Santosh Gopi Pillai  
Ritu Shukla  
Ankur R. Tripathi

## **HL7 Spain**

**May 3, 2012**

Carlos Mendoza Hernando

**May 8, 2012**

David Alaber Toro  
Florencio Llanos Ruiz



**June 28, 2012**

Víctor Martínez Sánchez

**June 29, 2012**

Juan Pedro Díaz García  
Juan Manuel Fuentes  
Jorge García Naz  
David Wenceslao González  
Sojo  
Laura Martínez González

**July 6, 2012**

Joan Casals Alonso  
Mario Rabasseda

**Certified HL7 Version  
3 RIM Specialist**

**May 17, 2012**

Bob Milius  
Christopher M. Millet  
Wei Wang

**HL7 Canada**

**April 10, 2012**

Jeesun Park

**May 15, 2012**

Kuan Fan

**May 22, 2012**

Han Ming Zhou

**HL7 India**

**May 19, 2012**

Rawlani Ritika Pradeep

**HL7 Benefactors  
as of August 13, 2012**



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# HL7 Welcomes New Director of Education Sharon Chaplock, PhD

Sharon Kayne Chaplock, PhD, has been working in the field of instructional technology for more than 25 years, both in the academic and non-profit sectors. Her recent experience includes the planning, development and deployment of distance learning programs for clinical data managers for the Society for Clinical Data Management, and continuing education programs for clinicians and researchers associated with the Society for the Immunotherapy of Cancer. Prior to that, she was a project administrator for two major US Department of Education grants at Marquette University's College of Education focused on technology integration and extending teacher certification online to adult, post-baccalaureate students.

Sharon was also a staff member of Marquette's Center for Teaching and Learning where she consulted with faculty to provide pedagogical and instructional design support for online, hybrid and web-enhanced courses. During this time she earned her PhD in Educational Policy and Leadership with a concentration in online learning. Her dissertation explored the efficacy of virtual study groups in preparing participants for certification exams. Since the time she introduced videodiscs to the exhibit floor of the Milwaukee Public Museum (where she worked as Director of the Audiovisual Center), Sharon has been passionate about opportunities afforded by technology supported learning, and believes that learners are served best by engaging the right technology in the right setting for the right outcomes.



*Sharon Chaplock, PhD*

## Upcoming **INTERNATIONAL EVENTS**

### **MIE 2012: Quality of Life through Quality of Information**

Pisa, Italy

August 26 - 29, 2012

For more information, please visit  
<http://www.mie2012.it>

### **HIMSS AsiaPac 2012**

Marina Bay Sands, Singapore

September 17 - 19, 2012

For more information, please visit  
<http://www.himssasiapac.org>



### **13th International HL7 Interoperability Conference**

Vienna, Austria

September 28 - 29, 2012

For more information, please visit  
<http://ihic2012.hl7.at/>

### **eChallenges 2012 e-2012 Conference**

Lisbon, Portugal

October 17 - 19, 2012

For more information, please visit  
<http://www.echallenges.org/e2012/>

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## General Interest

Aarhus University, Dept of Computer Science  
Advanced Medical Technology Association  
(AdvaMed)  
Agency for Healthcare Research and Quality  
AGH University of Science and Technology  
Alabama Department of Public Health  
Alliance for Pediatric Quality  
American Assoc. of Veterinary Lab  
Diagnostics  
American College of Cardiology Foundation  
American College of Surgeons, NTDB  
American Dental Association  
American Dietetic Association  
American Health Information Management  
Association  
American Immunization Registry Association  
(AIRA)  
American Medical Association  
Arizona Department of Health Services  
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Centers for Disease Control and Prevention/  
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DGS, Commonwealth of Virginia  
Duke Translational Medicine Institute  
ECRI Institute  
eHealth Platform  
Emory University, Research and Health  
Sciences IT  
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Illinois Office of Health Information  
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Indiana State Department of Health  
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Iowa Department of Public Health  
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Lab  
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New Mexico Department of Health  
New York State Department of Health  
NICTIZ Nat.ICT.Inst.Healthc.Netherlands  
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Informatics  
OA-ITSD - Department of Mental Health  
Oak Ridge Associated Universities  
Office of the National Coordinator for  
Health IT  
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Oklahoma State Department of Health  
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South Dakota Department of Health  
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Iowa  
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Texas Department of State Health Services  
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University HealthSystem Consortium  
University of AL at Birmingham  
University of Kansas Medical Center  
University of Minnesota  
University of Szeged, Institute of Informatics  
University of Texas Medical Branch at  
Galveston  
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IICRC  
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Vermont Department of Health  
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## Payers

American Imaging Management  
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Blue Cross and Blue Shield of Florida  
Blue Cross Blue Shield of Arizona  
Blue Cross Blue Shield of North Carolina  
CIGNA  
CompliantDRG  
MetLife, Inc.  
Neighborhood Health Plan  
Premiera Blue Cross  
TriWest Healthcare Alliance  
UnitedHealth Group  
Valence Health  
Wisconsin Physicians Service Ins. Corp.



# HL7 ORGANIZATIONAL MEMBERS, continued

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Albany Medical Center  
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Carilion Clinic  
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Center for Life Management  
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CHI  
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Human Service Agency  
Imagine Health Centres  
Inland Northwest Health Services  
Institut Jules Bordet  
Integrated Telemedical Solutions  
Intermountain Healthcare  
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KMH Cardiology & Diagnostic Centres  
Laboratory Corporation of America  
Lahey Clinic  
Lakeland Regional Medical Center  
Lexington Medical Center  
Life Labs  
Loyola University Health System

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Mayo Clinic  
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Medicover  
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Milton S. Hershey Medical Center  
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Rheumatology and Dermatology Associates PC  
Rockford Health System  
Rockingham Memorial Hospital  
SA Tartu University Clinics  
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Saudi Aramco - Healthcare Applications Division  
Seneca Family of Agencies  
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Core Sound Imaging, Inc.  
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Health Language, Inc.	Lifepoint Informatics	Otago Clinical Audit & Outcomes Research Unit	Suncoast Solutions
Health Plan Systems, Inc.	LINK Medical Computing, Inc.	OTTR Chronic Care Solutions	Sunquest Information Systems
Health Records for Everyone	Liquent, Inc.	OZ Systems	SunRise Systems and Solutions
HealthBridge	LiveProcess	P&NP Computer Services, Inc.	Surescripts
Healthcare Management Systems, Inc.	Logibec	Pascal Metrics	Surgical Information Systems
HEALTHeSTATE	Logical Images Inc.	Patient Resource	SurgiVision Consultants, Inc.
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Healthy Panacea Network, LLC	MacPractice, Inc.	PilotFish Technology	Tess Data Systems
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Hello Health	Mammography Reporting System Inc.	Politechnika Poznanska	TGI Software
Hewlett-Packard Enterprises Services	Management Style, Inc dba CYCLIS	Practice Fusion	The Antidote.biz
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Hi-Tech Software, Inc.	Marin Health Network	PresiNET Healthcare	The Delta Group
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Kestral Computing Pty Ltd	NRC - Illuminate	Standing Stone, Inc.	
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Labware, Inc.	Omnicell, Inc.	Stratus EMR, Inc.	
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Anesthesiology  
Attachments  
Child Health  
Clinical Genomics  
Clinical Interoperability Council  
Community Based Collaborative Care  
Emergency Care  
Health Care Devices  
Patient Care  
Patient Safety  
Pharmacy  
Public Health & Emergency Response  
Regulated Clinical Research  
Information Management

### FOUNDATION & TECHNOLOGY

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

### TECHNICAL & SUPPORT SERVICES

Education  
Electronic Services  
International Mentoring Committee  
Process Improvement Committee  
Project Services  
Publishing  
Tooling

### STRUCTURE & SEMANTIC DESIGN

Arden Syntax  
Clinical Context Object Workgroup  
Clinical Decision Support  
Clinical Statement  
Electronic Health Record  
Financial Management  
Imaging Integration  
Mobile Health  
Orders & Observations  
Patient Administration  
Structured Documents



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# HL7 EDUCATIONAL SUMMITS

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



## What is an Educational Summit?

The HL7 Educational Summit is a two-day schedule of tutorials focused on HL7-specific topics such as Version 2, Version 3 and Clinical Document Architecture. Educational sessions also cover general interest industry topics such as vocabulary.

## UPCOMING EDUCATIONAL SUMMITS



**November 13-15, 2012  
San Francisco Marriot  
Fisherman's Wharf**

## 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 the HL7 Educational Summit are:

- **Efficiency**  
Concentrated two-day 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 produce 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 13 – 18, 2013**  
**Working Group**  
**Meeting**

Pointe Hilton Squaw Peak  
Resort  
Phoenix, AZ



**May 5 – 10, 2013**  
**Working Group Meeting**

Sheraton Atlanta Hotel  
Atlanta, GA



**September 22 – 27, 2013**  
**27th Annual Plenary &**  
**Working Group Meeting**

Hyatt Regency Cambridge  
Cambridge, MA



**January 12 – 17, 2014**  
**Working Group Meeting**  
Hilton in the Walt Disney World Resort®



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

Sheraton Atlanta Hotel  
Atlanta, GA