

SPARKING
an Industry **FHIR**[®]



2014

ANNUAL REPORT

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The focus on interoperability
aligns perfectly with the mission of HL7.
**WE ARE THE WORLD EXPERTS ON
INTEROPERABILITY.**

Stanley Huff MD
HL7 International Chair

HL7[®] VISION

**A world in which everyone can securely
access and use the right health data when
and where they need it**

HL7[®] MISSION

**HL7 empowers global health data
interoperability by developing standards and
enabling their adoption and implementation.**



CHAIR REPORT

It has been an honor to serve as the Chair of the Board of HL7 for the past year. It has been a year of change and progress. I would like to report on a few of the most important accomplishments and events of the last year.



Stanley Huff MD
HL7 International Chair

Organizational Membership Stabilization

Probably the most important event of 2014 was the turnaround in organizational membership. In April of 2013, HL7 began licensing its standards and other intellectual property free of charge. The change was made so that there would be no financial or political barriers to the adoption of HL7 standards worldwide. While this change was widely applauded by members and non-members, and by governments and other organizations, this change was not without risk. It was feared that this change could lead to a loss in membership because the right to use HL7 standards was viewed as an important element of membership. This concern was well-founded. During the first part of 2014, HL7 saw a dramatic loss in organizational members. Fortunately, that trend ended around May 2014. Since that time, organizational memberships have been level or slowly increasing. The HL7 Board and staff continue to look for ways to enhance the value of HL7 to all members and to explore ways of encouraging new groups interested in creating standards to make HL7 their home.

National Recognition of the Need for Public APIs Like FHIR

A second important event was the wide acceptance of the HL7 Fast Healthcare Interoperability Resources (FHIR®) initiative. On October 15, 2014 a joint meeting of the Office of the National Coordinator for Healthcare Information Technology (ONC) HIT Standards Committee (HITSC) and the HIT Policy Committee (HITPC) was held. A key report was presented by the JASON Task Force (JTF). The JTF is an HITPC ad hoc working group charged with reviewing the 2013 JASON Report A Robust Health Data Infrastructure, which is a federally commissioned study authored by the JASON Advisory Panel. The following recommendations from the JTF were unanimously approved by the committee members attending the joint meeting:

1. Focus on Interoperability – ONC and Centers for Medicare & Medicaid Services (CMS) should re-align the meaningful use program to shift focus to expanding interoperability, and initiating adoption of public APIs.

2. Industry-Based Ecosystem – A coordinated architecture based on market-based arrangements should be defined to create an ecosystem to support API-based interoperability.

3. Data Sharing Networks in a Coordinated Architecture – The architecture should be based on a coordinated architecture that loosely couples market-based data sharing networks.

4. Public API as Basic Conduit of Interoperability – The public API should enable data- and document-level access to clinical and financial systems according to contemporary internet principles.

5. Priority API Services – Core data services and profiles should define the minimal data and document types supported by Public APIs.

6. Government as Market Motivator – ONC should assertively monitor the progress of exchange and implement non-regulatory steps to catalyze the adoption of public APIs.

These recommendations are very relevant to HL7 and FHIR. The focus on interoperability aligns perfectly with the mission of HL7. We are the world experts on interoperability and should be encouraged by new attention being focused on interoperability. Secondly, though FHIR is not mentioned by name in the recommendations, FHIR is clearly the best solution as a public API as a basis for interoperability. This public validation of FHIR principles is a confirmation of the value that FHIR can bring to the community. It should be motivation to continue on the current path and also increase our efforts to make FHIR easy to use. It is a credit to the HL7 CEO and the leaders and members of the FHIR initiative that this effort is so broadly acclaimed nationally and internationally.

Immunization User Group

The HL7 Membership and Strategic Resources Committee has been looking for innovative ways to involve new groups in HL7. The committee has recognized that there are many more implementers of HL7 standards than there are developers of HL7 standards, and that there is an opportunity to provide value to this community of HL7 users. Fostered by the Membership Committee, the CEO, the Board of Directors, and HL7 staff, the Immunization

CHAIR REPORT

User Group was launched in 2014. The purpose of the Immunization User Group is to support Immunization Information System (IIS) and Electronic Health Record (EHR) implementers globally as they work to create and maintain immunization interfaces. The use group is jointly supported by HL7 and the American Immunization Registry Association (AIRA). The focus of user group is to provide education and training on how to implement and use the HL7 Version 2.X immunization messages, share lessons learned during implementations, and provide a forum for discussion of improvements that can be made to immunization standards. The Immunization User Group is a prototype for other user groups that HL7 expects to create in the near future.

Board Task Forces

As a result of the 2014 Board Retreat, three new task forces (TF) were formed: the MORE (Make Outreach Real Everywhere) task force, the SHARE task force, and the Implementation task force. The MORE TF is focused on creating or strengthening relationships with other standards related organizations. The group is cataloging, categorizing, and prioritizing groups that will be important for HL7's success in future years. Plans will then be created to develop relationships between HL7 and the highest priority groups. The SHARE TF is focused on sharing valuable artifacts such as implementation guides, localized standards, translations of standards, and other helpful information among affiliates and with HL7 International. A program is in place that allows affiliate chairs to notify HL7 staff of items that they would like to share. The Implementation TF is focused on providing information and services to implementers of HL7 standards to make their job easier. It is still too early to tell how successful each of these task forces will be, but each is focused on an area where there is an opportunity for HL7 to provide greater value to its members.

Thanks for Your Continued Support

HL7 continues to grow in importance in the standards development world. That growth is a direct result of the hard work and creative talents of HL7 members. I am extremely grateful for those contributions, and look forward to new opportunities and accomplishments in 2015.

A handwritten signature in black ink that reads "Gary M. Arf, MD". The signature is written in a cursive, flowing style.

CEO REPORT

The transformation of HL7 is nearly complete. Less than two years after the decision to make our standards freely available, the organization has begun to grow again and to flourish. The credit goes to our members, all of whom share in the accomplishment. Remarkably, the delicate balance that defines our transparent and consensus-driven organization is stronger and more productive than ever. We have enjoyed the introduction of new products and services, and have developed new partnerships and cemented existing ones. The vision that makes HL7 so unique has been reaffirmed.



The Year of FHIR

To our stakeholders—from the private sector, to government agencies, to academic healthcare centers—this was indeed the year of Fast Healthcare Interoperability Resources (FHIR®). The interest, development, and adoption of FHIR have been unparalleled. At the same time, the HL7 path to interoperability has been unbroken. The family of Version 2 (V2) specifications remains the most widely used data exchange standards in the world, with more than 10 million messages exchanged every day. In fact, more healthcare data is delivered utilizing V2, than all of the other standards combined. We continued to improve the V2.x standard with the release of Version 2.8 in February and Version 2.8.1 in August.

Charles Jaffe MD PhD
*HL7 International Chief
Executive Officer*

Across the industry, Clinical Document Architecture (CDA®) has become the de facto global document exchange standard. CDA provided a platform for the epSOS (European Patient Smart Open Services) project to exchange clinical summaries and electronic prescriptions among more than two dozen countries in the European community. This 6-year program saw the development of infrastructure and brought new opportunities for collaboration in Europe.

In the United States, Consolidated-CDA (C-CDA) remained front and center in the Meaningful Use regulation. C-CDA provides a unique opportunity for document-centric resources to be leveraged for public health reporting, quality measures, data aggregation across a broad range of patient care and research applications around the globe. We have continued to refine CDA and plan to ballot Release 2.1 in 2015. Recognizing the industry need for a greater

CEO REPORT

degree of interoperability HL7 has taken the initiative to further constrain the C-CDA with plans to release a new version in 2015.

The critical distinction that separates FHIR from other development efforts is the focus on implementation. FHIR is fast and agile. As FHIR development expanded, internal collaboration with existing HL7 work groups ensured compatibility with both future development and legacy systems. At HIMSS 2014, a FHIR panel played to a standing-room-only audience and created a buzz that continued throughout the year.

“FHIR Release 1 became a Draft Standard for Trial Use (DSTU) in late 2013 and development increased even more rapidly. Connectathons were conducted around the world. Clinician input dramatically increased the usability of profiles and resources. The private sector embraced FHIR as a means of achieving interoperability among disparate systems. Opportunities in mobile health and patient engagement grew exponentially. The SMART (Substitutable Medical Apps & Reusable Technology) Project from Boston Children’s Hospital found a natural synergy with FHIR. The same can be said for international initiatives, such as OpenMRS, which is the world’s leading open source enterprise electronic medical record system platform.

In 2013 the JASON Report outlined an aggressive program for the development of an architecture and a technology for advancing interoperability. By mid-year 2014, the ONC HIT Standards Committee appointed the JASON Task Force to refine the original report. This group offered a different approach to the role of government and technical development in healthcare IT. The HL7 Argonaut Project, a private sector initiative comprised of vendors and healthcare systems, was launched in December to accelerate FHIR development and foster adoption. The Argonaut Project announcement garnered praise from both the healthcare and mainstream press resulting in nearly two dozen articles. With the support of the Argonaut Project, the FHIR development team is focused on delivering a second release of FHIR by mid- 2015.

Collaboration: Keys to Success

Collaboration has always been part of the HL7 DNA. This year, our joint initiatives with Regenstrief Institute and with the International Health Terminology Standards Development Organization (IHTSDO) culminated in the creation of the HL7 Terminology Authority. Throughout the year, we

focused on the critical deliverables that make joint development possible. As IHTSDO becomes SNOMED International in 2015, HL7 will continue to streamline our processes to benefit implementation.

The Joint Initiative Council (JIC) has become a significant force for streamlining international standards development. As the JIC adds members, the impact becomes more evident to our stakeholders. The JIC does far more than harmonize existing specifications; it provides an opportunity to identify gaps in standards development and enable cross-system and cross-domain interoperability.

The HL7 global community is actively engaged in the development of international specifications. An excellent example of this work has come from the HL7 Europe Foundation and the European affiliates. International programs included the eHealth Governance initiative, the Antelope Network, Semantic Healthnet and Trillium Bridge to name just a few. In addition, ART-DÉCOR provided an emerging environment to facilitate CDA artifacts and to test CDA compliance. The successful evolution of HL7 Asia has also helped to demonstrate a degree of unprecedented international cooperation.

Conformance Testing

After nearly a year in development, the AEGIS DIL (Developers Integration Lab) became a critical element for the implementation of solutions based upon HL7 specifications. The DIL is the ability to conduct conformance testing 24/7, utilizing a web-based application, without the need for peer-to-peer co-location. The testing platform enables negative testing to ensure that non-compliant elements are evaluated side by side with conformant ones. This provides greater assurance of interoperability and enhances the quality of the specifications and implementation guides that work groups produce. These characteristics of the DIL were recognized in one of the most significant Gartner reports published in late 2014. When tested in a real-world public forum, the test platform developed for the Immunization Registry, now part of Meaningful Use, won praise from developers and end-users alike.

Focus on Implementation

In 2014, HL7 made a significant decision to focus on implementation and implementers. One such important effort was the evolution of the HL7 Help Desk. Not only did it provide a library of frequently asked questions, the Help

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Desk also provided the ability to escalate questions to domain experts.

In addition, new work groups have emerged with a specific focus on implementation. The Mobile Health Work Group added to a growing library of resources for enhancing the broad constituency for mobile delivery. Our growing collaboration with IHE (Integrating the Healthcare Enterprise) evolved into a work group that will tackle the need for HL7-IHE harmonization and integration.

HL7 also increased its focus on vertical integration with the launch of user groups. The Immunization User Group launched jointly with the AIRA in April. Most recently, the Payer User Group was announced at the January 2015 Working Group Meeting.

Policy & Global Outreach

In the fall of 2013, HL7 hosted the first International Policy Summit. This event brought prominent speakers from nearly every continent. In addition, the Policy Committee became more active in responding to federal regulations as well as delivering the global policy perspective on non-technical societal and governmental imperatives. In December, the Second Annual Policy Summit heightened the awareness of the value that HL7 brings to fundamental policy issues. The event addressed both national and international issues that attempt to bridge the healthcare divide between societies with advanced healthcare systems and those of low and middle income countries.

Looking Ahead

We look forward to an even brighter 2015. Across the healthcare continuum, the growing interest in FHIR development and implementation is unparalleled. With it our offerings in outreach, education, and conformance testing will certainly grow. Plans for a Genetics and Genomics Summit in late spring will bring together experts in biology, healthcare policy, data analytics, and privacy and security. HL7 Asia members will bring their annual meeting to Seoul and the May WGM will take place in Paris, France. These are exciting times in healthcare information technology and HL7 members will bring their expertise and enthusiasm to every corner of the globe.

A handwritten signature in black ink, appearing to read "Cheryl Jaffe".

WORKGROUPS & COMMITTEES

Affiliate Due Diligence
Anatomic Pathology
Anesthesia
Application Implementation and Design (formerly RIMBAA)
Architectural review Board
Arden Syntax
Attachments
Biomedical Research Integrated Doman Group
Child Health
Clinical Decision Support
Clinical Genomics
Clinical Interoperability Council
Clinical Quality Information
Clinical Statement
Community Based Collaborative Care
Conformance & Guidance for Implementation/Testing
Education
Electronic Health Records
Electronic Services and Tools
Emergency Care
FHIR Governance Board
FHIR Management Group
Financial Management
Governance and Operations
Health Care Devices
HL7 Foundation Task Force
Imaging Integration
Implementable Technology Specifications
Infrastructure and Messaging
International Council
International Mentoring Committee
Membership and Strategic Resources Committee
Mobile Health
Modeling and Methodology
Nominations
Orders and Observations

Organizational Relations
Outreach Committee for Clinical Research
Patient Administration
Patient Care
Pharmacy
Policy Advisory Committee
Process Improvement
Project Services
Public Health and Emergency Response
Publishing
Recognition and Awards
Regulated Clinical Research Information Management
Security
Services Oriented Architecture
Strategic Initiative Committee
Structured Documents
Technical Steering Committee
Templates
Terminology Authority
Vocabulary



CTO REPORT

The year 2014 saw steady progress within HL7 in key technology areas. Three important topics that I will cover include: Ken McCaslin's first year as chair of HL7's Technical Steering Committee, the development and maturation of the HL7 Terminology Authority (HTA), and the continued development of



John Quinn
*HL7 International
Chief Technology Officer*

balloted content as well as needed evolution of the Fast Healthcare Interoperability Resources (FHIR®) team and its evolving standard into an HL7 Work Group (www.HL7.org/fhir).

The HL7 Technical Steering Committee

In 2007, HL7 restructured its working group organization under a Technical Steering Committee (TSC) that reported to the HL7 Board. The TSC was tasked with defining its own structure and the processes that working groups would all use as they developed and maintained the now very considerable catalogue of HL7 products. Charlie McCay was our first TSC Chair followed by Austin

Kreisler. In 2013 Austin decided step back from his role as chair but continue in his leadership role with the Structured Documents Work Group. Ken McCaslin from Quest Diagnostics became the new chair in 2014. All TSC chairs have had their own style and interests within HL7. As CTO, I have the titular position of co-chair of the TSC. Working with Ken this first year has been enjoyable both in how he approaches questions and problems that come to the TSC for resolution, and in the energy and patience that he exercises. The TSC is central to setting structure and process that we all must follow in order to ensure the timely delivery and high quality of HL7's products. This year has been a good year for progress and achievement within the TSC and Ken's knowledge and attitude in working with the steering divisions and their work groups has helped immeasurably.

The HL7 Terminology Authority (HTA)

In last year's report, I announced the formation of the HTA. This has been a good year for developing the specific duties and responsibilities of the HTA.

The HTA, as a representative body of HL7 International, ensures that HL7 provides timely and high quality terminology products and services to meet

its business needs. The HTA serves as the single point of contact with any external terminology standards development organizations (SDO) with which HL7 has established, or in the future shall establish, formal relationships. Anyone using HL7 standards will need to use coded values that are defined as an HL7 value set or, in the future especially, more likely to come from another source (e.g., SNOMED from IHTSDO) and a country authority (e.g., The National Library of Medicine in the US) that has specified a particular edition of SNOMED.

- **The scope of the HL7 HTA is exclusively focused on the content derived from external terminology Standards Development Organization's code systems. Responsibilities include:**
 - Develop and maintain quality processes and measures related to HL7 terminology derived from external terminology SDOs
 - Provide advice, where needed, on the acceptability of external vocabulary proposed for inclusion in HL7 terminology (Note: this does NOT refer to “infrastructure controlling” vocabulary, e.g. the CS data type)
 - Maintain relationships with external terminology SDOs to ensure legal use of their products
- **Going forward, the HL7 HTA will need to bring together resources to:**
 - Identify a set of use cases (e.g., for HL7 FHIR, CIMI, HL7 CDA, etc.)
 - Identify the corresponding value sets
 - Undertake the necessary remodeling, collection and quality assurance steps to ensure fitness for purpose
 - Recognize the international standards that can be used across different development and run-time architectures
 - Determine the requirements for the tooling and processes that must be developed

The result of all of the above will give us the necessary information to create a road map to review all HL7 value sets and identify the resources required to complete the project management work plan and transition.

CTO REPORT

HL7 FHIR® (Fast Healthcare Interoperability Resources)

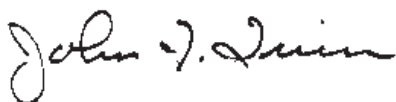
2014 has seen continued industry interest and progress in the development of the HL7 FHIR standard. At the time of the writing of this report, the specifics of intellectual product licensing for all HL7 products continues to be developed and refined. However, the FHIR project continues to strengthen within HL7. The FHIR Governance Board (FGB) and FHIR Management Board (FMG) meet weekly. These meeting minutes are available on the HL7 website.

For those not aware, Fast Healthcare Interoperability Resources (www.HL7.org/FHIR) is a next generation standards framework created by HL7. FHIR combines the best features of Version 2, Version 3 and CDA® product lines while leveraging the latest web standards and applying a tight focus on implementability.

FHIR solutions are built from a set of modular components called *Resources*. These resources can easily be assembled into working systems that solve real world clinical and administrative problems at a fraction of the price of existing alternatives. FHIR is suitable for use in a wide variety of contexts such as mobile phone apps, cloud communications, EHR-based data sharing, server communication in large institutional healthcare providers, and much more.

FHIR is currently published as a DSTU. During this trial use phase, HL7 actively monitors implementations in order to continue to improve the specification, and is able to be responsive to implementers' needs. Due to the many advantages FHIR offers, trial use implementations have already begun.

Following this, HL7 will develop FHIR as a full normative specification, most likely through 2015.



COUNTRIES WITH HL7 AFFILIATES

Argentina	Puerto Rico
Australia	Romania
Austria	Russia
Bosnia & Herzegovina	Singapore
Brazil	Slovenia
Canada	Spain
China	Sweden
Croatia	Switzerland
Czech Republic	Taiwan
Finland	Turkey
France	United Kingdom
Germany	Uruguay
Greece	
Hong Kong	
India	
Italy	
Japan	
Korea	
Malaysia	
Netherlands	
New Zealand	
Norway	
Pakistan	
Philippines	



TREASURER REPORT

Last year's budget planning was challenging! Organizational membership, a significant portion of our total revenue, was in decline. Our expenses were more or less static, but with our revenue in decline, we were facing rough financial



Calvin Beebe

*HL7 International
Board Treasurer*

times. The 2014 budget for HL7 was anticipated to dip into reserves by as much as **\$767K**. However, as we moved through 2014, our organizational membership numbers began to level out. We also boosted our attendance at meetings, generated new revenue from OID sales to non-members, and significantly increased our education revenue. As a result, we are dipping into reserves only by only **\$56K** which is \$711K less than we had budgeted. Credit for this turnaround goes first to our membership who showed up week after week to work on critically needed healthcare standards. In addition, credit is due the leadership and management team at HL7 for seeking out new opportunities, growing the business and limiting our expenses. I am happy to report that HL7 has weathered the storm and is looking to grow in 2015.

A Few Notes:

- Only selected and significant revenues and expenses are noted in the tables below
- All figures are forecasted as of Dec. 22, 2014 in US dollars and are not yet audited
- Some expense items remain outstanding, and will be estimated to budget values
- All figures reflect HL7 International budgets and expenses only

BUDGET	ACTUALS	DIFFERENCE	% DIFFERENCE
Membership Dues			
\$2.390M	\$2.683M	+\$293K	+12.3%
Affiliate Dues			
\$229K	\$235K	+\$6K	+2.7%
Working Group Meetings			
\$975K	\$1,029K	+\$54K	+5.6%
Implementation Workshops / e-Learning Fundamentals / Off-Site)			
\$600K	\$786K	+\$186K	+31%
Other Events			
\$103K	\$120K	+\$17K	+16.9%
Sales (Merchandise, OID, V3 Database, Books, Study Guides...)			
\$47K	\$96K	+48K	+102%
Other (Commissions, Gifts, Interest)			
\$118K	\$71K	-\$47K	-40%
Revenue Summary			
\$4.462M	\$5.031M	\$569K	+12.8%

HL7 HAS BEEN VERY FORTUNATE TO ATTRACT INCREDIBLY TALENTED AND DEDICATED VOLUNTEERS.

2014 Expenses

BUDGET	ACTUALS	DIFFERENCE	% DIFFERENCE
Staff (including HQ, CEO, CTO & attributable expenses)			
\$2.758M	\$2.758M	\$0	0%
Infrastructure & Tooling			
\$304K	\$304K	\$0	0%
Marketing / Communications / Sales / Promotions			
\$277K	\$270K	-\$7.5K	-3%
Contracted Resources & Support Expenses			
\$263K	\$209K	-\$54K	-20%
Working Group Meetings**			
\$795K	\$941K	\$146K	18.3%
Education (Summits / Distance Learning / Off-site)			
\$421K	\$395K	-\$26K	-6%
Other Events			
\$209K	\$217K	\$8K	8%
Liaison Activities			
\$35K	\$35K	\$0	0%
Other Administrative Fees			
\$168K	\$188K	\$20K	12%
Expense Summary			
\$5.229M	\$5.087M	-\$141K	-2.7%

Note: ** Impacted by unexpected audio visual expenses related to hotel union rules.

2014 Net Income and Cash Reserves

HL7 International maintains a policy of setting a six month cash reserve to cover operations of the organization. At the end of 2014, the pre-audited cash reserves were as follows.

BUDGET	ACTUALS	DIFFERENCE	% DIFFERENCE
Net Income			
-\$767K	-\$56K	\$711K	+92%
Cash Reserves			
10.53 months	12.5 months	1.97 months	+18%

Robin E. Brooke

EXECUTIVE DIRECTOR REPORT

Membership Report

Membership Report

HL7 had 1,857 members on December 31, 2014, as compared to 1,973 one year earlier. The net decline of 116 total members represents 5.9% of HL7's membership. The net decline is attributed primarily to HL7's decision to license much of its intellectual property at no cost. We currently have 22 Benefactors and 46 Gold members, which is a gain of 21 new Gold members.



Mark McDougall

*HL7 International
Executive Director*

Individual Memberships

As of December 31, 2014, HL7 had a total of 270 individual members. This total reflects 169 new members joining or being re-instated during 2014, as compared to 240 new members joining/reinstating during 2013. For the 2014 year, there was a net loss of 39 members, as compared to a net loss of 33 in 2013.

Organizational Memberships

There were a total of 555 organizational member firms on December 31, 2014, as compared to 642 one year earlier. In 2014, we had 227 new organizations joining or being re-instated as compared to 295 in 2013. For the year, there was a net decrease in organizational memberships of 87, which compares to a decrease of 154 members during 2013.

International Affiliate Members

There were 36 countries with active HL7 affiliates in 2014, including the following: Argentina, Australia, Austria, Bosnia and Herzegovina, Brazil, Canada, China, Croatia, Czech Republic, Finland, France, Germany, Greece, Hong Kong, India, Italy, Japan, Korea, The Netherlands, New Zealand, Norway, Pakistan, Puerto Rico, Romania, Russia, Singapore, Spain, Sweden, Switzerland, Taiwan, Turkey, United Kingdom, and Uruguay. HL7 welcomed three new affiliates in 2014: HL7 Malaysia, HL7 Philippines and HL7 Slovenia.

Membership Recognition

HL7 has been very fortunate to attract incredibly talented and dedicated volunteers. This year, HL7 recognized a few of these dedicated individuals during at HL7's 28th Annual Plenary and Working Group Meeting in September. On Wednesday morning of the event, the 18th Annual W. Edward

HL7 HAS BEEN VERY FORTUNATE TO ATTRACT INCREDIBLY TALENTED AND DEDICATED VOLUNTEERS.

Hammond, PhD HL7 Volunteer of the Year Awards were presented to these well-deserving volunteers who have contributed hundreds, if not thousands of hours, and have certainly served HL7 extremely well for many years:

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

HL7 also announced the names of the 2014 Class of HL7 Fellows. The HL7 Fellowship program recognizes individuals who have contributed significantly to HL7 and have held at least 15 years of continuous HL7 voting membership. HL7 is pleased to recognize and congratulate the following individuals as the 2014 Class of HL7 Fellows:

- Michio Kimura, MD, PhD (HL7 Japan)
- Douglas Pratt (Siemens)
- Niilo Saranummi (HL7 Finland)

Meetings & Education Report

January Meeting in San Antonio, Texas

HL7 convened the January 2014 Working Group Meeting in San Antonio, Texas. The meeting was productive for its 360 attendees who participated in 45 work group meetings, 26 of which conducted co-chair elections. Attendees also took advantage of 33 tutorials and three certification tests that week.

May Meeting in Phoenix, Arizona

We served 420 attendees at our May Working Group Meeting held in Phoenix, Arizona, May 4-9, 2013. Over 40 HL7 work groups convened meetings in Atlanta, 18 of which conducted co-chair elections. Attendees also took advantage of 30 tutorials and three certification tests that week.

28th Annual Plenary Meeting in Chicago, Illinois

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. The 548 attendees participated in a week filled with the plenary meeting, 50 work group meetings, and 30 educational tutorials.

This year's plenary meeting focused on the industry pressures to improve performance, reduce costs, increase efficiency and better serve patients and their families. To achieve improvement, the healthcare industry needs more collaboration and coordination. These trends demonstrate the need for more effective exchange of information as well as the need for the adoption of

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standards for exchanging data, such as initiatives currently being supported by HL7. The plenary keynote presentations offered 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](#)

Webinar Report

The HL7 Webinar Program had a successful year offering twenty-six webinar programs, totaling 46 individual webinars as many of these webinars were multi-part series. This year marked the addition of 10 Member Advantage webinars available free as a member benefit as well as a series of fee-based Skill Building webinars aimed at expanding online training opportunities for certification and professional development worldwide. Topics included the following: Meaningful Use Stage 2, Clinical Document Architecture (CDA®), Version 2.7 and Version 3 Reference Information Model (RIM) exam preparation, Quality Reporting Document Architecture (QRDA), and the Continuity of Care Document (CCD®). Other subjects included: Clinical Genomics, Fast Healthcare Interoperability Resources (FHIR®), Health IT Policy Snapshots, the Help Desk Pilot and HL7 Member Benefits. Live attendees numbered 592 with revenue totaling \$106,482. Each webinar was also recorded live and posted to the HL7 Education Portal for on-demand, fee-based or free downloads.

Education Portal

Near the end of 2013, HL7 launched an Education Portal that provides a gateway to on-demand professional development resources related to the standards and to specialist certifications. The web-based portal is designed to serve as a highly accessible central repository for both paid and free training and educational materials for HL7 constituents world-wide. It also includes a link to certification information and registration as well as an RSS feed announcing upcoming educational opportunities. The repository provides a range of recorded webinars available 24/7 on topics including Meaningful Use Stage 2, Skill Building for Certification Test Preparation, members-only webinars, and free webinars such as “How to Design & Deliver an HL7 Tutorial.” The portal is for everyone, members and non-members alike, and supports payment tiers depending on membership status. During 2014, 336 people accessed the portal, representing an increase of nearly 100 over 2013.

Fundamentals Course

WITH THE LAUNCH OF COMPUTER BASED TESTING (CBT) LAST YEAR, HL7 EXPANDED OPPORTUNITIES WORLD-WIDE

of guided exercises that teaches by practice and example. The course focuses on learning by doing. During 2014, HL7 produced seven Fundamentals courses around the world that served 517 students. These courses were produced by HL7 International, HL7 Argentina, HL7 Austria, HL7 Pakistan and HL7 Romania.

HL7 FHIR Institute & Meaningful Use Implementation Workshops

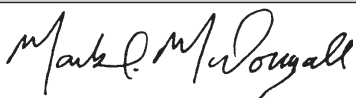
In 2014, HL7 launched the HL7 FHIR® Institute in conjunction with the Meaningful Use Implementation Workshop. These events allow attendees to get in-depth training with hands-on workshops covering HL7 standards such as FHIR, the Clinical Document Architecture and Version 2. In 2014, the workshops were held in Herndon, VA; Cambridge, MA; and Portland, OR. These programs provided training to over 200 attendees.

Computerized Certification Testing Program

With the launch of computer based testing (CBT) last year, HL7 expanded opportunities world-wide to those seeking certification in CDA®, Version 2.7 and Version 3 RIM. Further, test results and certificates are now available immediately. A robust web page centralizes information about certification specialties, training opportunities and resources for exam preparation, and provides a gateway to registration. HL7 partnered with Kryterion, a leader in test development and delivery, to administer its certification exams at over 400 High Stakes Online Secure Testing (HOST) Centers worldwide. In addition to HOST Centers, test-takers may opt for Online Proctored testing from their own computers anywhere in the world, provided they have Internet access and a qualified external webcam.

HL7's popular certification program continues to attract hundreds of individuals from around the globe each year. During 2014, 330 individuals registered for the exam. The table below reflects the number who became HL7 certified specialists. The worldwide number of Certified HL7 specialists by type of exam is provided below.

CERTIFICATION EXAM	CERTIFIED IN 2014	# CBT CERTIFIED	TOTAL # CERTIFIED
Version 2	235	130	3233
Clinical Document Architecture	62	654	654
Version 3 Reference Information Model (RIM)	33	16	358
Total	330	197	4245



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HL7 COLLABORATES

HL7 formally collaborates with many organizations across the industry. The organization currently holds formal agreements with the following groups:

- Accredited Standards Committee X12 - ASC-X12
- American Immunization Registry Association (AIRA)
- America's Health Insurance Plans (AHIP)
- American Dental Association (ADA)
- American Society for Testing Materials (ASTM)
- BioPharma Association Associate - SAFE
- CEN/TC 251 (European Committee for Standardization)
- California HealthCare Foundation (CHCF)
- Cientis Technologies Inc.
- Clinical and Laboratory Standards Institute (CLSI)
- Clinical Data Interchange Standards Consortium (CDISC)
- Continua Health Alliance (CHA)
- Digital Imaging and Communication in Medicine (DICOM)
- eHealth Initiative, Inc. (eHI)
- GS1
- Implementation of Regulatory Information Submission Standards (IRISS)
- Institute for Electrical and Electronic Engineers (IEEE)
- Integrating the Healthcare Enterprise (IHE)
- International Conference on Harmonisation (ICH)
- International Health Terminology Standards Development Organisation (IHTSDO)
- International Organization for Standardization (ISO)
- Logical Observation Identifiers Names and Codes (LOINC)
- National Council for Prescription Drug Program (NCPDP)
- Object Management Group (OMG)
- Smart Open Services for European Patients (epSOS) – European eHealth Project
- The Health Story Project
- Workgroup for Electronic Data Interchange (WEDI)



HL7 2014 STANDARDS SNAPSHOT

HL7 Standards Receiving ANSI Approval in 2014

- Health Level Seven Standard Version 2.8 - An Application Protocol for Electronic Data Exchange in Healthcare Environments
Date Approved: 2/21/2014
- HL7 Version 3 Standard: XML Implementation Technology Specification - V3 Structures for Wire Format Compatible Release 1 Data Types, Release 1
Date Approved: 3/14/2014
- HL7 Version 3 Standard: XML Implementation Technology Specification - Wire Format Compatible Release 1 Data Types, Release 1
Date Approved: 3/27/2014
- HL7 Version 3 Standard: Identification Service (IS), Release 1
Date Approved: 4/1/2014
- HL7 EHR Behavioral Health Functional Profile, Release 11
Date Approved: 4/11/2014
- HL7 EHR Child Health Functional Profile, Release 1
Date Approved: 4/11/2014
- HL7 Version 3 Standard: Personnel Management, Release 1
Date Approved: 4/11/2014
- HL7 EHR-System Functional Model, Release 2
Date Approved: 4/21/2014
- HL7 Version 3 Implementation Guide: Data Segmentation for Privacy (DS4P), Release 1
Date Approved: 5/13/2014
- HL7 Personal Health Record System Functional Model, Release 1
Date Approved: 5/13/2014
- HL7 Version 3 Standard: Pharmacy; Medication Dispense and Supply Event, Release 2
Date Approved: 5/13/2014
- HL7 Version 3 Standard: Pharmacy; Medication Order, Release 2
Date Approved: 5/13/2014
- HL7 Version 3 Standard: Pharmacy CMEtS, Release 1

Date Approved: 5/16/2014

- HL7 Version 3 Standard: Security and Privacy Ontology, Release 1
Date Approved: 5/23/2014
- Health Informatics - Identification of Medicinal Products - Data Elements and Structures for Unique Identification and Exchange of Regulated Information on Pharmaceutical Dose Forms, Units of Presentation and Routes of Administration, Release 1
Date Approved: 5/29/2014
- Health Informatics - Identification of Medicinal Products - Data Elements and Structures for Unique Identification and Exchange of Regulated Medicinal Product Information, Release 1
Date Approved: 5/29/2014
- Health Informatics - Identification of Medicinal Products - Data Elements and Structures for Unique Identification and Exchange of Regulated Information on Substances, Release 1
Date Approved: 5/29/2014
- Health Informatics - Identification of Medicinal Products - Data Elements and Structures for Unique Identification of Units of Measurements, Release 1
Date Approved: 5/29/2014
- HL7 Version 3 Standard: Context-Aware Retrieval Application (Infobutton); Knowledge Request, Release 2 (revision of ANSI/HL7 V3 INFOB, R1-2010)
Date Approved: 6/5/2014
- HL7 Version 3 Implementation Guide: Context-Aware Knowledge Retrieval Application (Infobutton), Release 4
Date Approved: 6/5/2014
- Health Informatics - Identification of Medicinal Products - Data Elements and Structures for Unique Identification and Exchange of Regulated Pharmaceutical Product Information, Release 1
Date Approved: 6/5/2014
- HL7 Version 3 Standard: Privacy, Access and Security Services;

Security Labeling Service, Release 1
Date Approved: 6/20/2014

- HL7 Version 3 Standard: hData Record Format, Release 1
Date Approved: 6/20/2014
- HL7 Implementation Guide for CDA® Release 2 – Level 3: Emergency Medical Services; Patient Care Report, Release 1 – US Realm
Date Approved: 6/27/2014
- HL7 Version 3 Standard: Clinical Statement Pattern, Release 1
Date Approved: 7/4/2014
- HL7 Version 3 Standard: Pharmacy; Medication CMET, Release 1
Date Approved: 7/11/2014
- HL7 Healthcare Privacy and Security Classification System, Release 1
Date Approved: 8/8/2014
- Health Level Seven Standard Version 2.8.1 - An Application Protocol for Electronic Data Exchange in Healthcare Environments
Date Approved: 8/27/2014
- HL7 Version 3 Standard: Common Product Model, Release 1
Date Approved: 9/5/2014
- Health Level Seven Arden Syntax for Medical Logic Systems, Version 2.10
Date Approved: 11/7/2014
- HL7 Service-Aware Interoperability Framework: Canonical Definition Specification, Release 2
Date Approved: 11/7/2014
- HL7 Version 3 Standard: Laboratory; Result, Release 1
Date Approved: 11/21/2014
- HL7 EHR Clinical Research Functional Profile, Release 1
Date Approved: 12/12/2014
- HL7 Version 3 Standard: Medical Records; Data Access Consent, Release 1
Date Approved: 12/12/2014
- HL7 Version 3 Standard: Regulated Studies - Annotated

HL7 2014 STANDARDS SNAPSHOT

ECG, Release 1

Date Approved: 12/12/2014

- HL7 Version 3 Standard: Patient Administration; Patient Registry, Release 1
Date Approved: 12/12/2014
- HL7 Version 3 Standard: Scheduling, Release 2
Date Approved: 12/12/2014

HL7 Draft Standards for Trial Use (DSTUs) Published in 2014

- HL7 Implementation Guide for CDA®: Release 2 - Level 3: Healthcare Associated Infection Reports Release 2, DSTU Release 1.1 - US Realm
- HL7 Implementation Guide: Decision Support Service, Release 1.1
- HL7 Version 3 Standard: Decision Support Service Release 2, DSTU Release 1
- HL7 Implementation Guide: Clinical Decision Support Knowledge Artifact Implementations, Release 1.1
- HL7 Version 3 Standard: Orders; Diet and Nutrition Orders, DSTU Release 1
- HL7 Implementation Guide for CDA® Release 2: Questionnaire Response Document, Release 1
- HL7 Implementation Guide for CDA® Release 2: Questionnaire Form Definition Document, Release 1
- HL7 Fast Healthcare Interoperability Resources Specification (FHIR), DSTU Release 1
- HL7 Version 2.6 Implementation Guide: Early Hearing Detection and Intervention (EHDI) Results, DSTU Release 1
- HL7 Version 3 Implementation Guide: Quality Data Model (QDM)-based Health Quality Measure Format (HQMF), DSTU Release 1 - US Realm
- HL7 Version 3 Standard: Virtual Medical Record for Clinical

Decision Support (vMR-CDS) Logical Model, Release 2

- HL7 Implementation Guide for CDA® Release 2: Trauma Registry Data Submission, Release 1
- HL7 Implementation Guide for CDA® Release 2 - Level 3: Healthcare Associated Infection Reports Release 2, DSTU Release 2 - US Realm
- HL7 Version 3 Standard: Clinical Decision Support Knowledge Artifact Specification, Release 1.2
- HL7 Version 2.6 Implementation Guide: Newborn Screening for Critical Congenital Heart Defects (CCHD), Release 1
- HL7 Version 3 Standard: Clinical Decision Support; Virtual Medical Record (vMR) Templates, Release 1
- HL7 EHR-System Electronic Nutrition Care Process Record System (ENCPRS) Functional Profile, Release 1
- HL7 Version 3 Standard: Virtual Medical Record for Clinical Decision Support (vMR-CDS) XML Specification, Release 1
- HL7 Implementation Guide for CDA® Release 2: Digital Signatures and Delegation of Rights, Release 1
- HL7 Templates Standard: Specification and Use of Reusable Information Constraint Templates, Release 1
- HL7 Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes (US Realm) DSTU Release 2

Informative Documents Published in 2014

- HL7 Implementation Guide for CDA® Release 2: HIV/AIDS Services Report, Release 1 - US Realm
- HL7 Virtual Medical Record for Clinical Decision Support (vMR-CDS) Logical Model,

Release 2Assa

- HL7 Virtual Medical Record for Clinical Decision Support (vMR-CDS) XML Implementation Guide, Release 1
- Informative Publication Request for HL7 Virtual Medical Record for Clinical Decision Support (vMR-CDS) Templates, Release 1
- HL7 Version 3 Detailed Clinical Models: Heart Rate RISdsd
- HL7 Version 3 Domain Analysis Model: Allergies and Intolerances, Release 1Ddd
- HL7 Domain Analysis Model: Harmonization of Health Quality Artifact Reasoning and Expression Logic
- Informative Publication request for HL7 Version 3 Domain Analysis Model: Trauma Registry Data Submission, Release 1
- HL7 Version 2 Implementation Guide: Clinical Genomics; Fully LOINC-Qualified Cytogenetics Model, Release 1Adda
- HL7 EHR-System ePrescribing Functional Profile, Release 1
- Informative Publication Request for HL7 Version 3 Domain Analysis Model: Major Depressive Disorder, Release 1
- HL7 Implementation Guide for Arden Syntax, Release 1
- HL7 Version 3 Implementation Guide: Regulated Studies; CDISC Content to Message - Study Participation, Release 1
- HL7 Version 3 Domain Analysis Model: Schizophrenia, Release 1 - US Realm
- HL7 Implementation Guide: S&I Framework Transitions of Care Companion Guide to Consolidated-CDA for Meaningful Use Stage 2, Release 1 - US RealmSds
- HL7 Domain Analysis Model: Health Quality Improvement, Release 1

HL7 YEAR IN PHOTOS







HEALTH LEVEL SEVEN® INTERNATIONAL

3300 Washtenaw Avenue, Suite 227

Ann Arbor, MI 48104 USA

(+1) 734-677-7777

(+1) 734-677-6622

hq@HL7.org

www.HL7.org

Twitter: www.twitter.com/HL7

Facebook: www.facebook.com/HealthLevel7

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