

IT-014 Health Informatics Committee

HL7 International Standards and Education Meeting

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1 EXECUTIVE SUMMARY

This report reflects the Australian Delegation participation in the HL7 International Standards and Education Meeting, 9-14 January 2011 in Sydney, Australia, with additional input from NEHTA staff who participated in the meeting.

The co-funding and support of Australian expert volunteer attendance at the HL7 International Standards and Education Meeting in Sydney by the Australian Department of Health and Ageing and Standards Australia is gratefully acknowledged.

2 INTRODUCTION

This report summarises the committee proceedings, issues, actions and outcomes for consideration by Australia from the HL7 International Standards and Education Meeting that was held 9-14 January 2011 in Sydney. 321 participants from 26 countries took part in the meetings of 47 individual Work Groups, committees and other activities all of which were held concurrently.

Given the participatory natures of the HL7 committee work, it is vital that Australians are present and participate in the committee work. Intensive work is done in the committees and often 2 or 3 Australian subject matter experts are required to get the Australian requirements into the consensus-based processes. In most cases, beforehand preparation of "Australian Positions" on the matters to be worked on is not effective, as the discussions and views often substantially change during the consensus-building process. Most of the work done in committee is "leading edge" standards development work that often cannot be locally previewed, assessed and commented on beforehand. As a result, the selection process of the funded participants focuses on their expertise and interests as well as their ability to effectively communicate complex technical issues and achieve the desired outcomes for Australia in a collaborative consensus-based committee environment.

It should be noted that the HL7 International standards work is not structured as "Work Items" that are put forward to the HL7 body for approval, rather most projects arise from the work within the many domain and specialist committees. However, these proposed projects need to be well-defined and documented and require approval by the respective Steering Division and the Technical Steering Committee to ensure appropriate internal (HL7) and external (international standards development organisations) harmonisation.

As is customary, the Australian participants¹ met on a daily basis to plan and monitor its involvement, identify any additional sessions and/or activities that should be covered and to identify emerging issues - particularly those that are relevant to the Standards Australia IT-014 and/or National eHealth Transition Authority (NEHTA) work plans. Australian participants also coordinate their activities through Skype.

¹ This included those Australian (and NZ) attendees who were not funded from the DOHA contract administered by Standards Australia.

3 SUMMARY OF KEY OUTCOMES AND ACTIONS

The principle issues / actions and recommendations identified by the Australian delegation and NEHTA representatives at this meeting are summarized in this section.

Topic	Issue / Action / Recommendations for Australia 2011	Recommended for Action by
HL7 Board new initiatives	The new HL7 strategic initiatives due for release in May, 2011 should be reviewed for their potential impact on the current work programs and the future of eHealth in Australia Action: Review of strategic initiatives is undertaken when released by HL7.	HL7 Australia, IT-014 and NEHTA
New Business Model Framework	In the intellectual property (IP) section of the new framework, the pricing considerations for HL7 IP may have an impact on Australia and its adoption of HL7 to the health arena. These considerations apply equally to the adoption/implementation and documents that the new framework will put in place. Action: Feedback and input into any proposed pricing for HL7 IP model.	IT-014, Standards Australia, and HL7 Australia
New Affiliate Agreement	There will be changes to how Intellectual Property (IP) is handled within the new HL7 Business Model Framework and this will affect the affiliate members and subsequently the new affiliate agreement. Action: Australia to be involved in discussions on new affiliate agreement specifically to ensure localisations are incorporated appropriately for Australia.	HL7 Australia, Standards Australia and IT-014
Approaches to governance and conformance	Services Aware Interoperability Framework (SAIF) and Enterprise Compliance and Conformance Framework (ECCF) approaches should be considered to inform Australian National eHealth processes	NEHTA, IT-014
DCM Archetype Modeling and Methodology Workgroup (MnM) methodology.	The Modeling and Methodology Workgroup (MnM) WG has initiated a project to examine the feasibility of using archetypes as the Detailed Clinical Model methodology to develop HL7-V3 artefacts. Australia should be actively involved in resourcing this project. Action: Australia should actively resource this project.	IT-014, HL7 Australia, NEHTA
Australian HL7 education program	HL7 international are developing an educational strategy which is somewhat limited. It would be appropriate for Australia to identify requirements, in particular in the environment of new contractual arrangements between Affiliates and the International body. We need to understand what we want to do in order to contribute to the international Affiliate discussions. Action: Identify the priorities and objectives of educational development and consider the requirements and strategies for skill development (from basic knowledge through to expertise).	HL7 Australia
Meeting Education Program	The program offered in this meeting was very comprehensive, well attended and larger than any previous working group meeting. Action: Noted for future Working Group Meetings (WGMs), as this increases the educational value of WGM participation. Thank you to sponsors for their support.	All

Vital Records	A new profile for Vital Records (VR) is proposed and working group looking for interest. Action: Consider input to this specification or potential applicability in eHealth initiative.	NEHTA, IT-014
Pharmacy Functions Profile	Balloting on Pharmacy. Pharmacist Functional Profiles & stand-alone E-Prescribing Pharmacy profile is ready to go ahead. Action: Review of this in regard to relevancy and application in Australia.	NEHTA
Mobile Healthrecord Profile	As a new addition to the HL7 Electronic Health Record (EHR) workgroup, it may be relevant to the Australian Personally Controlled Electronic Health Record (PCEHR). This needs review/input for any special requirements for functioning in the Australian environment. Action: Input to the working group for the Mobile Healthrecord Profile.	IT-014 and NEHTA
EHR Services Orientated Architecture (SOA) models	The models being developed jointly by HL7, Health Information Standards Panel (HITSP) and (The USA) the National Health Information Network (NHIN) based on the HL7 EHR functional specification (available at http://hssp.wikispaces.com/Reference+Architecture should be assessed for applicability to the PCEHR.	NEHTA, DOHA
Unique Selling Points	What are HL7 Australia's unique selling points and how can these support Australia's eHealth and general healthcare initiatives. Action: Identify HL7 Australia's unique selling points and objectives in Australia in today's eHealth environment	HL7 Australia
DCM/Archetypes Project	This project is led by Australians, and is a real chance to drive further alignment between USA & Europe, and between international standards and NEHTA pcEHR related work Action: <ul style="list-style-type: none"> • Support this work at further meetings • IT-014-06-06 to track progress between HL7 meetings • NEHTA to participate and track the implications for pcEHR work and provide timely feedback 	IT-014, HL7 Australia, and NEHTA
Provider Registries	This is of interest to Australia. Action: Continue to make a special effort at the WGMs to expose the HL7 International Work Group to the Victorian/Australian requirements.	IT-014-06 IT-014-06-03 DH Victoria
V2.8 Enhancements	These enhancements are being considered for inclusion in V2.8, which will eventually be balloted by Australia. Action: Monitor the V2.8 enhancements.	IT-014-06-03
Upcoming Ballot of Patient Administration V3 R2	Consider the relevance of this work to PCEHR, in particular to identification when forming comments on this work. Consider harmonisation with existing ISO work on identification for individuals and providers supporting registries. Action: Identify any issues of concern	IT-014-02 IT-014-06-03
Patient Care Work Group	The Healthcare, Community Services and Provider Directory, Release 1 has been published. Action: Advise IT-014-06-03 and IT-014-06-06.	IT-014-06-03 IT-014-06-06

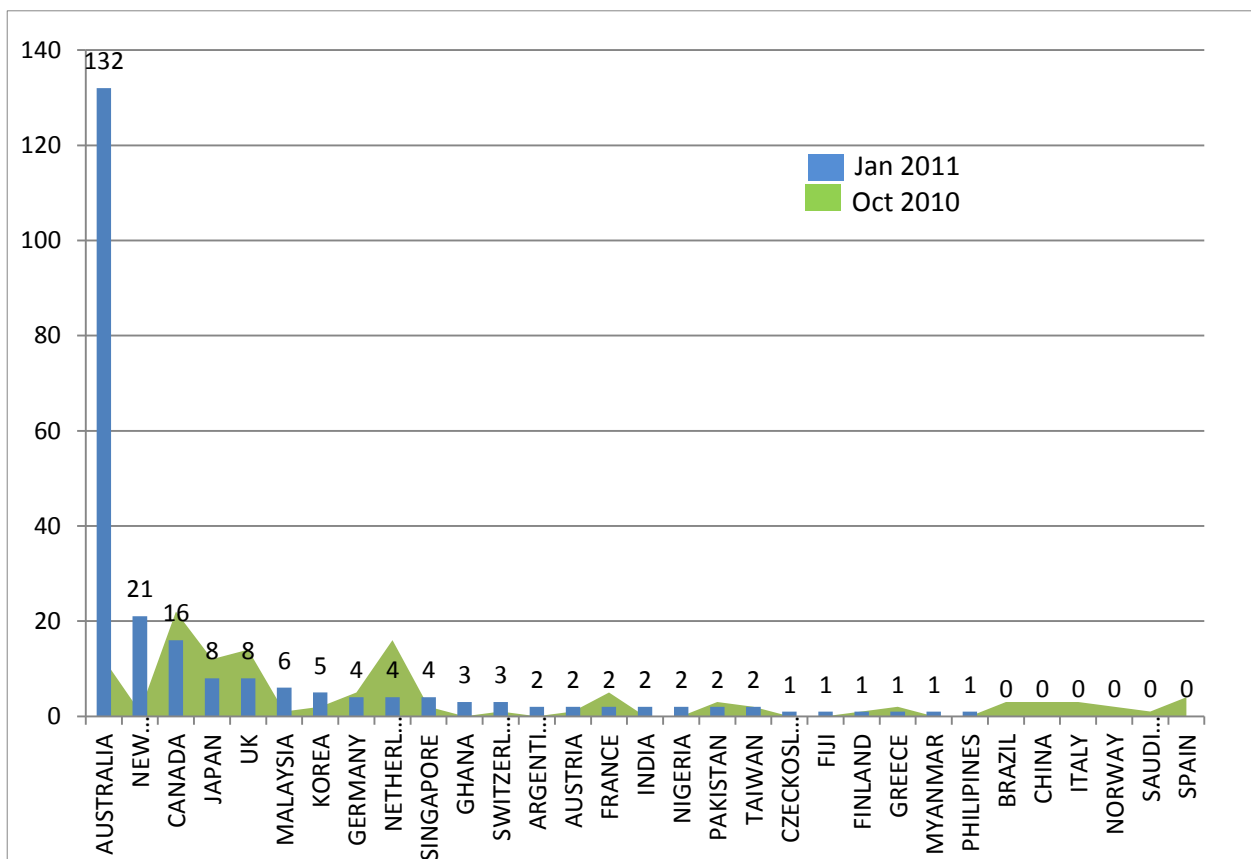
Provider Directory	Healthcare Services Directory Service should be adopted as National infrastructure arising from the Victorian experience but using a standards based, service aggregation implementation Action: Consider adoption	Nehta
DCM Methodology in MnM WG	This project potentially has significant advantages for Standards Australia, HL7 Australia and NEHTA. NEHTA's work with archetypes would be significantly enhanced with the development of a methodology to generate HL7 templates from archetypes. Action: Australia should make sure that resources are involved in this project to make sure that the NEHTA work program can gain the most benefit from it.	NEHTA
Mapping HL7 pharmacy content	Benchmark current Australian development in e-Prescribing to HL7 pharmacy domain documentation. Action: Map current e-Prescribing solutions architecture to the HL7 Pharmacy domain documents.	IT-014-06
Process Improvement Committee	The Decision Making Practices document is of interest to Australia, as it reflects many years of standards development experience and displays a high level of governance sophistication. Action: Distribution of the DMP V3 to inform local organisations in standards and specialisation development.	IT-014 HL7 Australia NEHTA
RIM Based Application Architecture (RIMBAA) /openEHR meeting	A follow-up meeting is scheduled for Orlando in Florida. Action: Australia should make sure that this meeting is attended.	IT-014 And HL7 Australia
Semantic Health Information Performance and Privacy Standard (SHIPPS)	Project scope is currently unclear and also it is slated for the Universal realm whilst the requirement is a legislative US requirement. Timelines are also aggressive which raises concerns on the quality and also the understanding of the true impact of the standard Action: Recommend that HL7 Australia monitor the project progress to ensure that there is no international or specific impact to Australia unless relevant	HL7 Australia
Trans Border ISO & CEN standard.	The development of this standard to be international and not EU centric would be relevant to the Australian context. It is essential that Australia contribute to this given the differences in geographical trans-border information exchange for Australia and its near neighbours. Action: Review and input from Australia.	IT-014, IT-014-06 and NEHTA
ISO 13131 Specification	ISO13131 is a telehealth draft specification on security and privacy services. Since Australia is a potentially large user of telehealth it should be reviewing and contributing to this standard. Action: Review and feedback on ISO13131.	IT-014, IT-014-12
Adoption of SHA2 hash	In light of Digital Imaging and Communication in Medicine (DICOM) adoption of SHA2 hash internationally, Australia needs to ensure it is consistent with this wherever possible. Action: Notification of relevant bodies of its adoption.	IT-014
Patient education of PCEHR security	In light of Australia's adoption of a PCEHR, the issue of security education for patients, and what educational approach will be required. Action: Discussion of patient education on security of PCEHR needs to be initiated and projects created if required	NEHTA, AHIEC

Record, Locate Update Service (RLUS)	This should be assessed as a common Healthcare Registry implementation which can be deployed with registry specific metadata and a standards-based_common service interface Action: Explore the relationship between RLUS as a National EHR Indexing Service and the IHE XDS Architecture.	NEHTA, DOHA
RLUS	The USA National Health Information Network (NHIN) should be considered as a possible architecture for the Australian PCEHR based on standards (IHE XDS) and an incremental approach	NEHTA, DOHA
Identity Cross-Reference Service (IXS)	Currently the implementation of IHI and HPI by Medicare does not conform to the IXS specification. This is largely due to the timing of the Medicare work and the availability of the specification Action: IT-014 Patient Administration to inquire of Medicare as to the Roadmap towards an IHI or HPI service that is compliant with this standard.	IT-014
Healthcare Provider Service Directory	Look at the Healthcare Provider Service Directory work as well as the Provider Directory to utilise within its work program. Also consider the data defined in ISO/TS 27527:2010 Provider identification and the Australian adaptation. Suggestion: Work with other National Programs to move the Common Registries Service and Health Services Directory Service rapidly forward in the next few months.	NEHTA
SOA Capability / requirements register	Action: A register should be developed as part of the national eHealth Model that includes a map of requirements to existing international work	NEHTA
GreenCDA	Action: Continue to track the relationship between international implementation efforts (principally greenCDA) and NEHTA CDA implementation work practices.	NEHTA
Implementation of Terminology (Core Principles)	All those involved in the implementation to terminology (not just in messages) should become familiar with this document. Action: Consider how we should inform the Australian community about this piece of work and its relevance to eHealth and EHR, and the skills we need in this area.	IT-014 HL7 Australia and NEHTA
IHTSDO Workbench	Result of International Health Terminology Standards Development Organisation (IHTSDO) workbench review identified licensing and workbench component issues. Action: Consider the issues related to the workbench and whether they A) impact Australia, and B) What our position regarding these issues should be at IHTSDO.	NEHTA
Glossary Process	Glossary development and best practice material to be developed Action: This is additional workload for IT-014-02, but it is work that we can leverage for our own use.	IT-014 IT-014-02
Terminology Implementation	Understanding of the requirements and principles of common terminology services is a core skill for any person implementing terminology into systems in Australia. There is little knowledge at the moment. Action: Consideration of the priority and requirements for (at least) development of sufficient knowledge and skill to assess risks and opportunities related to terminology introduction in Australia.	IT-014 NEHTA

Object Identifier (OID) Registry Metadata	Ongoing participation in the ISO work in this area is required, including understanding of the approach to be taken by HL7 (who are actively liaising in this process) in order to prepare changes required to Australia's HL7 OID registry where appropriate. Action: Ongoing support of OID registry project participation at ISO	IT-014 HL7 Australia
Common terminology services (2)	This service supports safe, longitudinal use of terminology features to support healthcare. There were no NEHTA staff in attendance at the vocabulary work group at this meeting. Action: Investigate the need for a CTS and the governance required. A national approach would seem vital Action: Active engagement and development of knowledge of the terminology issues addressed at HL7 should be encouraged.	NEHTA

4 MEETING LOGISTICS

In line with standard HL7 practice, decisions and outcomes are voted on and documented in the various committees. This is different to ISO TC215 and IHTSDO where countries effectively vote as a block, HL7 International does not "pass resolutions" in a plenary session as the number of committees would make this extremely impractical, though it is recognised that this process can make harmonisation more difficult. For this reason co-chairs of some of the working groups meet on Thursday evening to discuss decisions and ensure all are familiar with directions. The attendees came from 26 different countries and the graph below shows the difference in attendance at this meeting to the previous meeting in October.



The table below shows the meeting schedule for some of the larger meeting groups. Meetings held outside of Northern America often have fewer attendees, and fewer groups meeting. Most US based meetings have >60 separate working groups and committee meetings. In Brazil (2010) 50 met, and in Australia 47 groups met. The most active and largest groups progressed their work well. Standards Australia assisted in some cases by providing web meeting facilities to bring some key people who could not be there in person into meetings. Some groups also met for a shorter period of time than they normally would due to the limitations on topic discussions due to fewer attendees.

	Sun	Mon	Tue	Wed	Thur	Fri
Architectural Review Board (ARB)						
Clinical Decision Support (CDS)						
Clinical Genomics (Clin Gen)						
Clinical Interoperability Council						
Clinical Statement						
Community Based Collaborative Care (CBCC)						
Education						
Electronic Health Records (EHR)						
Electronic Services						
Emergency Care (EC)						
HL7 Activities with other SDOs						
Health Care Devices (Dev)						
Implementable Technology Specifications (ITS)						
Implementation/Conformance (IC)						
Infrastructure and Messaging (InM)						
International Council (previously Affiliates Council)						
Marketing Council						
Modeling and Methodology (MnM)						
Nurses in HL7						
Orders and Observations (O&O)						
Patient Administration (PA)						
Patient Care (PC)						
Patient Safety (PS)						
Pharmacy (Pharm)						
Public Health and Emergency Response (PHER)						

	Sun	Mon	Tue	Wed	Thur	Fri
Publishing				Yellow	Yellow	
RIM Based Application Architecture (RIMBAA)		Yellow	Yellow		Yellow	Yellow
Security (Sec)		Yellow	Yellow	Yellow	Yellow	
Services Oriented Architecture (SOA)		Yellow	Yellow	Yellow	Yellow	
Structured Documents (SD)		Yellow	Yellow	Yellow	Yellow	Yellow
Templates					Yellow	Yellow
Tooling			Yellow	Yellow	Yellow	Yellow
Vocabulary	Yellow	Yellow	Yellow	Yellow	Yellow	

Note: **Yellow** shows days the Work Groups / Committees / Task Forces met.

This meeting had a large number of well attended tutorials. In total there were 42 tutorials with additional certification examinations held.

4.1 Delegation and Attendance

Attendances at this meeting were exceptional for a non-North American located event. There were 132 Australians and 21 New Zealanders at the meeting which reflects the interest and need for HL7 deliverables and education. This also demonstrates the wisdom of giving this opportunity to the Australian eHealth community. The delegation would like to thank all of the sponsors, with special thanks to the Department of Health and Ageing for fiscal assistance and to NEHTA for their fiscal and staff support. It is also important to thank those individuals - volunteers who came to help without pay or support and the significant participation by the eHealth community and vendors.

In summary, the work at the HL7 International Standards and Education Meeting offers a real opportunity to further the alignment of Australia pcEHR standards and international standards, and to further the alignment of European and American developments.

4.2 Funding Source Summary and Australian Attendance

153 Australians attended for the duration of this meeting. The funding source for these delegate numbers is indicated in the table below. DOHA funded delegates were selected through an independent panel process jointly with NEHTA, DOHA, HL7 Australia and Standards Australia.

Funding Source	Number	Change from Previous meeting
Funding by employer: States/Territories or National Initiatives (Nehta) and contributing to this report.	29	+24
Volunteers with Expenses covered through DOHA Standards Australia contract	7	+1
Other Australians	117	+117
Total	153	+142

There was a large team of delegates from NeHTA who attended the HL7 meeting due to the opportune location in Australia.

The full list of NeHTA delegates is listed below:

- *Andy Bond (NeHTA)*
- *Tina Connell-Clark (NeHTA)*
- *Stephen Royce (NeHTA)*
- *Zoran Milosevic (NeHTA)*
- *David McKillop (NeHTA)*
- *Kai Locke (NeHTA)*
- *Vin Sekar (NeHTA)*
- *John McMillan (NeHTA)*
- *Devendra Maisnam (NeHTA)*
- *Matthew Cordell (NeHTA)*
- *Paul Williams (NeHTA)*
- *Sandra Lim (NeHTA)*
- *David Bunker (NeHTA)*
- *Stephen Chu (NeHTA)*
- *Sarah Gaunt (NeHTA)*
- *Philip Willford (NeHTA)*
- *Andrew Zander (NeHTA)*
- *Andrew Goodchild (NeHTA)*
- *Reuben Daniels (NeHTA)*
- *Hoyleen Sue (NeHTA)*
- *Andy Berry (NeHTA)*
- *Richard Towney-O'Neill (NeHTA)*
- *Wil Pelecanos (NeHTA)*
- *Andrew Howard (NeHTA)*
- *Kanishk Sudarsanan (NeHTA)*
- *Trevor Perry (NeHTA)*

4.3 Australian Delegates - Work Priority Areas

Work Priority Area	Major	If Time Persists	Covered By
Advisory Council		X	
Anatomic Pathology			
Architecture Review Board (ArB)	X		GG
Arden Syntax			
Attachments			
Board	(X)		D. Rowlands, KV
CDISC / BRIDG		X	
Child Health			
CCOW			
Clinical Decision Support		X	(TW)
Clinical Genomics			
Clinical Interoperability Council		X	(VM),HL
Clinical Statement	X		
Community Based Collaborative Care	X		(TW)
Detailed Clinical Models	X		GG, HL
Domain Expert Steering Division	(X)		
Education & Marketing	X		(KV) TW HG
Electronic Health Records	X		TW
Electronic Services			(KV)
Emergency Care			MS
Financial Management			
Foundation and Technology Steering Division	(X)		
Generation of Anaesthetics Standards			
Governance and Operations		X	
Government Projects			
HL7/CEN/ISO	X		KV VM, HG
Health Care Devices			(VM)
Imaging Integration			
Implementation / Conformance	X		TW VM
Implementation Technology Specification	X		GG
Infrastructure and Messaging		X	
International Council	X		KV VM
International Mentoring Committee			(KV)
Laboratory	X		
Modelling and Methodology	X		GG
Orders and Observations	X		
Organisational Relations			KV
Outreach Committee for Clinical Research			
Patient Administration	X		KV(TW)
Patient Care	X		KV, HL

Patient Safety	X		MS
Pharmacy	X		TW, MS
Policy Advisory Committee			
Process Improvement Committee			(KV)
Project Services			
Public Health Emergency Response	X		TW
Publishing	X?		KV, HG
Recognition and Awards			
RIMBAA			GG,HL
Security	X		TW, MS
Services Oriented Architecture	X		VM, MS
Structure and Semantic Design Steering Div.	(X)		
Structured Documents	X		GG (TW)(VM)
Technical and Support Services Steering Division	(X)		KV
Technical Steering Committee	(X)	X	
Templates	X		VM
Terminfo Project		X	
Tooling	X		VM
Vocabulary	X		HG
V2/V3/V4 Taskforce	X		GG

Notes:

(X) = committee meetings that participants need to attend if they have leadership positions.
 (initials) = will participate if time permits

- *Heather Grain (HG)*
- *Vince McCauley (VM)*
- *Michael Stein (MS)*
- *Grahame Grieve (GG)*
- *Hugh Leslie (HL)*
- *Klaus Veil (KV)*
- *Patricia Williams (TW)*

4.4 Australian Leadership Positions

The table below lists leadership positions held by Australians at the HL7 meeting in Sydney in January 2011.

Attendee	Position (held at the meeting)	Funding Source	Working Group or Committee
David Rowed	Chair	Standards Australia via the Do-HA Funding Agreement	HL7 Australia

Grahame Grieve	Co-Chair	Standards Australia via the DoHA Funding Agreement	Structured Documents (Developers of CDA)
	Member		Architectural Review Board
	Co-Chair		Modelling and Methodology Working Group
Heather Grain	Co-Chair	Standards Australia via the DoHA Funding Agreement	Vocabulary
Klaus Veil	Member	Standards Australia via the DoHA Funding Agreement	Organisational Relations Board Committee
	Co-Chair		Patient Care Working Group
	Co-Chair		V2.x Publishing Working Group
Richard Dixon Hughes	Co-chair	Self-Funded	Advisory Council to the Board of HL7 International
	Member		EHR WG
	Member		v2/v3 CDA Strategy Taskforce
	Co-Chair		Sydney 2011 International Organising Committee
	Non-Voting Member		HL7 International Board of Directors
Member	HL7 International Business Plan Task Force		
Stephen Chu	Co-Chair	NeHTA	Patient Care Working Group

5 INTERNATIONAL COUNCIL MEETING

5.1 Committee Description

The International Council provides a forum for the HL7 International Affiliates (like HL7 Australia) and other interested HL7 members to discuss and communicate issues regarding the international development, adoption, application and implementation of the HL7 standard.

The International Council recommends to the Board of Directors actions and policies on behalf of the International Affiliates and advises the Technical Steering Committee and Board of Directors on matters relating to areas of standardisation that are relevant to the International Affiliates.

The International Council meets for most of Sunday and on Thursday afternoon.

Council Overview, Minutes & Documents:

www.HL7.org/Special/committees/international/index.cfm

5.2 Committee Work History

The International Council's focus has been on operational issues of interest to the Affiliates and on providing a forum to report and share the HL7 activities in the various countries and regions.

5.3 Committee Progress at this Meeting

The International Council was well attended with approximately 100 participants and 18 Affiliates formally represented. The meeting was as usual given reports from the HL7 board, the HL7 CEO and the HL7 CTO as well as individual reports from each country. The meeting included a number of reports summarised below.

5.4 Board Report

A Board report by Michael van Campen reported on behalf of the HL7 International Board on the activities that have occurred since the previous meeting in Cambridge. These included:

- A proposed HL7/SNOMED/LOINC bundles licensing model.
- The budget for 2011 has been approved and the HL7 financial status is improving.
 - HL7 Strategic Initiatives are to be published in May. These will need to be reviewed for their relevance and impact on Australia
 - Development of the HL7 Business Model Task Force. This will particularly focus on an IP management solution
 - HL7 Europe was set up in 2010 and is participating in European Health Collaborative
 - HL7 cash reserves are still low but have improved over the last 12 months.

5.5 HL7 Business Model Framework

HL7 is undertaking a business model review and has a business model task force led by Virginia Riehl. This task force is initially looking at a framework for a new business model and various revenue generating options. The Board has completely revised the business model and is looking at new revenue models. The new model will be tightly coupled with intellectual property management issues. This framework has important ramifications for HL7 Australia and Standards Australia and needs to be monitored closely.

Chuck Jaffe presented the outline of the new HL7 Business Model Framework. The framework was approved by the HL7 Board in December, 2010. It was emphasised that it is a framework and not an implementation specification. This is a re-evaluation of the 20 year previous HL7 Business Plan. This new framework will include analysis of new types of products and new delivery methods to support the on-going function of HL7 internationally.

The new model comprises four definitive elements

1. Governance
2. Membership
3. Intellectual Property
 - Standards (Adoption/Implementation)
 - Technical
 - Functional
 - Frameworks and Models (Adoption/Implementation)
 - Domain Models

- RIM
- SAEF (or was this SAIF?)
- Domain Analysis Models
- Other artefacts.
- Implementations Guides (Documents)
- Education Materials (Documents)
- Tools (Software)
- Trademark (Seal)

4. Services

The Intellectual Property section is a major focus of the task force development at present.

In **Adoption / Implementation** the challenges that need consideration include

- Control Consideration: Access, Attestation and Enforcement.
- Pricing consideration – This may be an issue for adoption of HL7 IP in the Australian context

In **Documents**:

- Control Consideration: Access, Attestation and Enforcement.
- Pricing consideration – potentially per copy, with limited redistribution & derivation at an affiliate level. This may be a significant issue in the adoption of the HL7 standards if it is not priced appropriately for Australia.

5.6 Tooling and Chief Technical Officer Report

Funding is an issue as budget includes the publishing costs for v3 but not for development. It has been raised that access to resources on the HL7 website is neither intuitive nor straightforward. Thus, the HL7 Product Visibility Project has been initiated and is aimed at simplifying the HL7 resource web site and access to resources. The Chief Technical Officer confirmed that ongoing collaboration with Open Health Tooling (OHT) was a priority.

Charlie McKay has resigned as TSC chair and has been replaced by Austin Kreisler

5.7 Affiliates on the International Council

There were three new affiliates in 2010 – Pakistan, Luxembourg and Norway.

6 HL7 ROUND THE WORLD UPDATES

Argentina: Running ongoing training seminars around country, with the objective to get more interest in HL7. The membership is increasing slowly and the financial position is stable. Argentina currently has five HL7 experts.

Australia (David Rowlands): Welcomed people to Sydney. Current membership has 2 benefactors, 22 organization and 36 individuals. HL7 Australia has run CDA workshop in 2010 and spent the rest of the time organizing this international meeting. National Developments include the new

national health identifiers and this has been a major focus by government in e-health, together with the National Broadband initiative. There will be considerable informatics capacity building in 2011 to support the e-health program underway. The time frames are short and being driven by government program for the Personally Controlled Electronic Health Record (PCEHR). The expectation for this international meeting is that it will assist Australia in its e-health work to move forward this national program.

Austria (Stefan Sabutsch): Membership has increased to 44 (mostly vendors). In 2011 Austria implemented a portal; made epSOS translations; produced CDA implementation guides; and undertook training programs. Austria will hold a conference and meeting in March, and are planning an e-learning course. 2011 will see a revision of CDA implementation guides for Austrian CDA Implementation Guide in Development (ELGA).

Canada (Michael van Campen): Added IHE Canada as part of Standards Collaborative. 550 members of collaborative (348 HL7 Canada members). There is a renewed focus in terminology and ongoing work with implementers and in adjusting Pan-Canadian specifications. Jurisdictional efforts are being harnessed to develop these specifications. A lot of activity is occurring at an implementation level in many areas. An educational summit is being held in May, with 9 different domain working groups over the 3 days.

Czech Republic (Libor Seidl): Membership consists of 6 personal and 7 organisations (all software vendors). Slovak Republic also included. DASTA is standard used currently. Potential members are enquiring about the usage of standards under Czech law and IP.

Finland: Membership is comprised of 80 organisational members. Lots of v2 use in hospitals and v3 messaging in some domains. Finland joined the epSOS project in 2010. CDA R3, IHE profiles and SOA are of particular interest at this 'meeting. National projects:

- e-Prescriptions have been operational since May 2010.
- In testing phase of eArchive project.

France: Dossier Pharmaceutique (DP) (medication record) now have 8 regions (80% of pharmacies) connected to the DP. In 2011 hospital pharmacy will be added to DP. 'Dossier Medical Portage' (DMP) (portable medical record) is much more difficult but began in Dec 2010 and is currently working on interoperability framework initially for lab reports, anatomic pathology reports, hospital discharge etc. France is currently working on terminologies dedicated to semantic interoperability.

Germany (Bernd Blobel): Continuing collaboration with DIN, IHE & VHitG and to extend to THE German eHealth Standards Collaboration (GMDS). Part of epSOS project in collaboration with Austria. R&D project currently underway for Patient Centered EHR using CDA & RPLUS. Germany is also participating in JIC project for Patient Identification with GS1, and engaging the European Health Informatics Conference 2011 (conHIT2011).

Germany brought to the attention of the group that there will be an HL7/IHE workshop at the EFMI STC in Lasko. Conference: E-health Across Borders without Boundaries to be run end of 14-15 April, 2011.

Greece: 2010 projects included: CALLIOPE project collaboration (European eHealth Roadmap); digital health The group jointly with the Athens Medical Society, ran a General Assembly in May however this had low attendance. They also participated in the eHealth standardization group.

India (Supten Sarbadhikari): Membership consists of 40+ members, with more individuals than organisations. Certifications are a high volume activity for HL7 India. The Ministry of Health and Family Welfare in Sept 2010 initiated official interest in the standardization of EMR. There are future plans to support Bangladesh HL7 and produce 4th edition of HL7 ELC.

Japan: Cabinet Secretariat announced "The healthcare IT Roadmap" in June 2010. It included "My clinic, everywhere", PHR project; seamless regional healthcare; efficient healthcare by reimbursement data; pharmcovigilance by HIS data; and home care for elderly by IT. In 2011 a sentinel project (MHLW) is to link databases and information sharing between five university hospitals based on HL7 standardized data exports. Three HL7 seminars are planned.

Korea: Byoung-Kee Yi gave a moving tribute to the late Dr Yun Sik Kwak (1937-2010).

New Zealand (David Hay): New Zealand's National IT Plan approach is to pilot projects and focus on standards, with particularly use of GP2GP toolkit. They held a number of training seminars in CDA and HL7 in 2010. An e-Prescribing project is to commence in 2011 as are ShareCare. Membership is currently 2 corporate, 2 individuals, and 53 'gratis' members from the CDA. The Ministry of Health is a principal sponsor.

Pakistan: No report presented.

Singapore (Colleen Brooks): Singapore HL7 is only 3 years old and has a only a small potential number of members. It initially obtained base funding from Singapore Government but there is no ongoing funding. 2010 saw the re-launch of website, e-learning course (ran at a loss unfortunately but justified), ran networking events, set up LinkedIn site and the committee remained stable. There are several issues that the affiliate is facing:

- funding value for money as affiliates for its members
- need to find a sustainable business model
- getting a quorum
- committee overload
- IP with ISO and localizations

Singapore is all about secondary data use and user V2 (unlikely to go to V3). They are focusing on marketing to the vendors.

Switzerland (Beat Heggli): Membership stands at 68 members, (55 organizations and 13 individuals). The Annual Meeting, its 20 year anniversary, had over 40 participants. Project was CDA-CH completed.

Taiwan (Yu-Ting Yeh): Taiwan's focus is on developing transactions and integration profiles for exchange of EHR's. They have set clear goals for EMR accelerated adoption. In 2011 they plan to hold a symposia in October.

The Netherlands: 226 members, (103 provider organisations, 113 commercial organisations). The 2011 focus is on communication, and care content related standard activities.

United Kingdom (Charlie Bishop): The membership is 200 members (organizational and personal) but is falling. This creates an issue in the impact of numbers of its financial position. UK HL7 only does standards as NHS is handling the implementation work. The UK has been running training courses in 2010 and opted not to have a conference in order to save money and had a series of Road Shows instead. One success has been engagement with seven universities.

United States of America (Stan Huff): Promotion of next meeting in Florida. President's Council of Advisors on Science and Technology (PCAST) report was released in Dec 2010

HL7 continues to make progress in clarifying its role in USA eHealth "Meaningful Use". Four testing Laboratories have been accredited by the Office of the National Coordinator (ONC) for conformance testing against "Meaningful use" specifications and test cases which have been produced by the National Institute of Standards and Testing (NIST). NIST has produced a range of test tools for HL7 V2 (in particular V2.5.1) which are available as open source from the NIST web site.

Requirements for "Meaningful Use" funding will be minimal for 2011 with the intention that successful participation in the conformance process will be high. Given the level of funding that will be provided for successful participants, this will then provide support for increasing sophistication in requirements and testing over the next three years.

In December 2010 PCAST (Presidential Commission Advisors on Science and Technology) released a white paper on eHealth. The primary suggestion was to represent health data as XML both in motion (messaging) and at rest (data stores). Whilst this is consistent with the HL7 approach there were a number of misunderstandings within the paper which HL7 is drafting a formal response to. In particular in the context of this report there were two paragraphs about why SOA will not scale for information exchanges. This appears to be a basic misunderstanding between SOA implementation as web services and SOA as an architecture.

The USA is implementing a National Health Information Network (NHIN) and multiple regional centres have been funded as the initial steps based on the IHE XDS architecture. It is intended to link these regional centres together over time to form the core of a National EHR. It recommends the nationwide adoption of universal exchange language (e.g. XML variant).

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
HL7 Board new initiatives	The new HL7 strategic initiatives due for release in May, 2011 should be reviewed for their potential impact on the current work programs and the future of e-Health in Australia. Action: Review of strategic initiatives is undertaken when re-leased by HL7.	HL7 Australia, IT-014 and NEHTA
New Business Model Framework	In the intellectual property (IP) section of the new framework, the pricing considerations for HL7 IP may have an impact on Australia and its adoption of HL7 to the health arena. These considerations apply equally to the adoption/implementation and documents that the new framework will put in place. Action: Feedback and input into any proposed pricing for HL7 IP model.	IT-014, Standards Australia, HL7 Australia
New Affiliate Agreement	There will be changes to how IP is handled within the new HL7 Business Model Framework and this will affect the affiliate members and subsequently the new affiliate agreement. Action: Australia be involved in discussions on new affiliate agreement specifically to ensure localisations are incorporated appropriately for Australia.	HL7 Australia, Standards Australia and IT-014

The HL7 affiliate agreement expired in December 2010 and a new affiliate agreement had been developed and circulated to affiliates.

HL7 International has undertaken a formal legal review of its intellectual property portfolio and policy. Whilst it has always been the case that it is necessary to be an HL7 member to have access to HL7 standards, this policy will be made more explicit. Fees may be sought from organizations using HL7 standards that are not HL7 members. One large company has already been asked to explain its position in this regard.

Part of the change in approach to IP involved changing how IP is treated within the International Affiliates agreement which is the agreement signed by all international chapters of HL7 (including HL7 Australia). This agreement was due for revision in 2010 and a number of changes with respect to IP had been agreed by the HL7 International Board and incorporated in a revised agreement to commence 1 Jan. 2011. However, at the International Council meeting held at the start of this WGM, the revised affiliates agreement was not found to be acceptable and the Affiliates Council voted instead to recommend extending the 2009-10 agreement until the end of 2011.

The main issue was concern about changes to the IP distribution clauses in the agreement which severely limited the role of the affiliates in this area. These changes were made in view of the new business model framework that is being developed by the board. The HL7 International Board agreed to this and will continue to work with the Affiliates to see how these concerns can best be addressed.

7 BOARD MEETING

7.1 Committee Description

The HL7 International Board of Directors is the ultimate authority in the HL7 organisation. Its focus is organisational, high-level technical and financial governance. The Board and its Chair are unpaid volunteers. The Board employs support staff including a CEO (Dr Charles Jaffe) and CTO (John Quinn). The board meets four times yearly face-to-face and monthly via teleconference.

7.2 Committee Work History

As is appropriate for a not-for-profit organisation, HL7 has had a volunteer board since its creation in 1987. Board elections for half of its members are held annually. In 2007 the Board structure was modified to enhance the ability to have more input from core stakeholders.

7.3 Committee Progress at this Meeting

The Board dealt with many routine governance items such as reports from CEO, CTO and Hon. Treasurer. The Board also discussed the progress of the Strategic Initiative that focuses on HL7 International's ability to deliver the standards required by stakeholders and users in a timely and efficient manner (more information here: www.hl7.org/documentcomments/index.cfm). Some discussions were also held regarding the HL7 licensing and revenue model. Below are items discussed which may be of relevance to Australia.

7.3.1 CEO Report

- Review of trademark and intellectual property policies is being undertaken - initially on published documents, but also required for WIP and derived works - a "click-wrap" approach is being considered, this may mean no more CDs!
- Closer collaboration agreement has been achieved with IHE (US / or international)
- HL7 and CDISC have together achieved the realisation by the USA FDA that both standards are complimentary, rather than competing

7.3.2 CTO Report:

- The public positioning of the HL7 "products" is now being reviewed and enhanced through product statements created by a contracts marketing company. Their first deliverables are currently being reviewed.
- The CTO outlined the status of HL7 tooling requirements and progress; notwithstanding the urgent need, there are currently no HL7 funds available due to budget limitations.

7.3.3 Treasurer's Report:

- The budget forecasts indicate that the HL7 financial situation is looking somewhat less negative than forecasted.

- The past widely held view that a Working Meeting creates a financial benefit has now been clearly dispelled. It appears that past calculations failed to include HQ staffing costs associated with the WGMs.
- The treasurer indicated that if the less negative budget tracking continues and is confirmed, then some of the tooling work might be funded as strategic initiatives.

The HL7 finances are in unexpectedly good shape. The budget for 2010 had projected a loss of \$811K, mainly due to high expenditure on tooling. However, this was able to be turned around to an \$81K surplus following a membership drive, increased IP income and reduced outlays on Working Group meetings.

For 2011 the budget is forecast to show a \$534K loss but it is anticipated that new income sources from IP will at least partially offset this. Even if this loss is realized, HL7 will have more than 10 month's reserves at the end of 2011.

The next three working Group meetings will take place in the USA – Orlando, San Antonio and San Diego and it is possible there will not be a WGM outside of the USA in 2012. The proposal to hold a WGM in Nice, France will not proceed due to the high cost.

The HL7 Board is going through a period of significant change with four experienced Board members (Ken Lunn, Charlie McKay, Stan Huff and Linda Fishetti) leaving the Board which remains chaired by Bob Dolin.

7.3.4 European Report:

- The European Office (called the HL7 Foundation) is up and running.
- A number of political issues of HL7 in Europe are now being explored.

7.3.5 V2/V3/V4 Task Force:

The outcomes of the Board Task Force looking at future HL7 standards development appear to be positive. The Task Force recommended that HL7 International:

- Continue to publish new V2.x versions with bug fixes, but does not plan to change the syntax or to enhance the semantics
- promote the use of V2.x XML syntax for transactional use cases
- continue to sustain the RIM and data types to support V3 family of standards
- encourage the use of the SAIF methodology
- complete the current work on V3 tooling
- support classic V2 messaging as long as there is a need
- promote CDA as the currently preferred method for sharing static content
- does NOT add update and transactional semantics to CDA
- continue working toward CDA R3
- reconcile and converge V2 and V3 terminology

- initiate a dedicated "Fresh Look" team to develop an approach to a new generation of standards with no pre-conditions or pre-requisites on architecture, approach or technology

8 AFFILIATE DUE DILIGENCE COMMITTEE (ADDC)

8.1 Committee Description

This Board-appointed committee reviews and monitors the application and agreement compliance of the Affiliates.

8.2 Committee Work History

The HL7 International ADDC has successfully guided and managed the Affiliates for the last few years.

8.3 Committee Progress at this Meeting

ADDC reluctantly recommended to the Board that Affiliate status of HL7 Denmark and HL7 Mexico be terminated due to over 12 months of inactivity and non-responsiveness.

9 ARCHITECTURE REVIEW BOARD (ARB)

9.1 Committee Description

Committee Overview, Minutes & Documents:
<http://www.hl7.org/Special/committees/arb/index.cfm>

9.2 Committee Work History

The International Council's focus has been on operational issues of interest to the Affiliates and on providing a forum to report and share the HL7 activities in the various countries and regions.

9.3 Committee Progress at this Meeting

The Technical Steering Committee (TSC), and thus the ARB, has agreed to align the Services Aware Interoperability Framework (SAIF) work more directly to Reference Model – Open Distributed Processing (RM-ODP) and to clean up the existing ODP references to ensure consistency of terms and approach.

The use of Model Driven Architecture (MDA) in the SAIF will now be referenced as Conceptual, Logical, and Implementable layers of abstraction. This will reduce confusion around the re-application of the MDA approach [Common Information Model (CIM), Platform Independent Model (PIM), Platform Specific Model (PSM)] from the Object Management Group (OMG) and will instead directly relate it to the use of layered abstractions in the Enterprise Compliance and Conformance Framework (ECCF).

ODP correspondences are to have greater emphasis so as to link between terms and concepts from different viewpoints. Currently viewpoints are aligned directly within each of the frameworks rather than independently as a set.

The ECCF will be updated to include the technology viewpoint to replace what is currently referred to as the technology binding. This will allow for the specification of “implementable standards”, which can then point to the source of specific technology used to implement logical specifications.

A book on SAIF will be published as a smaller document than originally envisioned. It will not include the variety of material that is more aligned to an Implementation Guide. It requires some new work to position viewpoints and abstractions alongside the frameworks used within SAIF. In particular this should move the point of focus away from the ECCF matrix and more towards the consistent use of ODP and abstractions to support the delivery of working interoperability. Better alignment to ODP will require some rework of the ECCF to better position the ODP viewpoints and their relationship to artefacts and their use within conformity assessment.

The current SAIF lacks shared and consistent use of an enterprise language such as is used within ODP. This is required to link together the Governance and Behavioural Frameworks for instance.

Other working groups continue to experiment with SAIF and in particular the viewpoint approach to more thoroughly define the different aspects/concerns of specifications. For example, EHR are applying a service-aware approach to persistence of EHR records and the related organizational obligations around functional use. Modelling and methodology are looking relating the HL7 Domain Analysis Model (DAM) to the ECCF matrix and other frameworks.

Further efforts are required to align the expectations of Implementation and Conformance with SAIF as their existing terms and concepts don't directly align to the current ECCF. This will be made easier by introducing a technology viewpoint and documenting correspondences between viewpoints should make this easier. In addition, by more accurately following the ODP approach, it will allow for more complete mapping of ECCF approaches to conformity assessment.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
SAIF	Continue to work to align the NEHTA Interoperability Framework to SAIF and align our implementation approach to SAIF to other national programs. This provides a strong foundation for sharing of designs and solutions across nations	NEHTA

10 CLINICAL DECISION SUPPORT (CDS)

10.1 Committee Description

The role of the committee is to address standards that focus on single-patient health care decision support messaging. Its primary focus is on the development of data elements to support

clinical decision support applications and to engage with other workgroup that may require this vocabulary.

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/dss/index.cfm>

10.2 Committee Mission and History

Current work is focussing on ballot planning for May 2011 for vMR, and extending the DSS DSTU.

10.3 Committee Progress at this Meeting

At the session attended there was no formal meeting however there was a discussion on the use of a Virtual Medical Record (vMR) for Clinical Decision Support (CDS) as a data model for representing clinical information inputs and outputs, that can be exchanged between CDS engines such as CDS services and local clinical information systems. The goal of this project is to create HL7 vMR data models capable of supporting scalable, interoperable CDS. This work has application in the current eHealth initiative and moreover be of value in the area of eHealth records in national emergency response.

<http://www.hl7.org/special/committees/projman/searchableprojectindex.cfm?action=edit&ProjectNumber=184>

Subsequent discussion with members of the Public Health and Emergency Response Working Group revealed that there is no current work being undertaken in the area of emergency response in relation to critical infrastructure or specifying records required for ER in case of natural disaster or major incident. This issue is of particular interest to Australia's national security program.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Virtual Medical Record (vMR)	Potential application of vMR project to supplementary areas of electronic records such as national emergency response and disaster recovery. Consultation with national coordination bodies may be required. Action: Review current CDS project (184) for application in national emergency response and disaster recovery plans.	IT-014 and/or NEHTA
Decision Support Service	In anticipation of the Decision Support Service code becoming publically available mid-year, an evaluation process should be put in place, possibly as part of the current Diagnostic service work being undertaken by the NEHTA prescribing service. This should be done in conjunction with the ISO work on clinical decision support.	NEHTA, IT-014

11 CLINICAL INTEROPERABILITY COUNCIL (CIC)

11.1 Committee Description

This Workgroup was set up to provide a way for the clinical community to interact with the standards development framework, processes and forums.

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/cic/index.cfm>

Wiki: <http://wiki.hl7.org/index.php?title=CIC>

11.2 Committee Mission and History

This Council provides the standards development framework, organizational processes and forums to collaborate with the clinical community to define content, flow and other domain requirements necessary to the development of robust health data standards. The Council will provide mechanism for clinical domains to develop common approaches to standards-related activities and form consensus on issues of interest among multiple groups. This Council will be unique to Health Level Seven in that the focus is on the clinical content, not the technology of the standards.

11.3 Committee Progress at this Meeting

The CIC met on Wednesday in a joint meeting with EC, CBCC, Patient Care and PHER. A presentation was given on a project in CIC called the “Domain Analysis Model development guidelines”. This is a project developed by Mead Walker with CIC to produce a ‘Cookbook’ for DAM development. DAMs are the CIC way of producing clinical content; however they not only include content but also include analysis of interactions and processes around a particular domain. Intended use is for CIC projects. Goal of CIC is to express its ideas rather than wait for others to do it and have a stake in the ground. DAMs may have different focuses (not different kinds).

- Primarily for developers
- Primary use – set of definitions
- Dynamic behaviour

There is still much confusion within HL7 including the CIC around the role of DAMs versus the Detailed Clinical Model approach to clinical content. One of the big issues with the clinical content in DAMs is that inevitably if a complex domain is modelled, there is huge overlap with other DAMs in the content area. This gives rise to a need to try to ‘harmonise’ DAMs which is probably impossible in any sensible way as it involves trying to map individual elements that have been described in different contexts. Further discussion of this is given in the Detailed Clinical Model discussion.

Further discussion was had around how DAMs should be included in the HL7 processes. This is still not clear and as DAMs vary in content and purpose it is also problematic.

Progress on Vital records DAM and Immunisation DAM was presented without much progress since the Cambridge WGM. Vital records DAM is still very US focussed.

12 CLINICAL STATEMENT

The clinical statement is a common pattern of HL7 V3 (a DMIM) which is used by the Patient Care, Structured Documents and Orders and Observations Committees to express rich clinical content. It has been developed over 3 years and allows nearly any clinical statement to be encoded in its rich, recursive structure. At present it has passed ballot as a DSTU but did not have a specific “home” or

owner within HL7. This led to the formation of the Clinical Statement working group at the January 2009 WGM with representation from the technical and clinical content committees. Its workspace can be found at:

http://wiki.hl7.org/index.php?title=Clinical_Statement_Workgroup

This WGM was the seventh meeting of this group.

The Clinical Statement work group met for only a single quarter at this WGM. The remaining work items are common model elements (CMETs) that are being finalized in other workgroups and have not yet been completed. In particular, the Pharmacy/Medication Workgroup is still finalizing its CMETs for medication prescription and dispensing. There is also a delay finalising the CMET for general supplies. In view of these remaining incomplete components it seemed unlikely that the complete Clinical Statement would be ready for a normative ballot in May. It was therefore agreed to proceed with a comment ballot for May with the completed areas. This decision will be reviewed if the necessary work by the other committees is completed earlier than anticipated. The Clinical Statement is therefore likely to go to normative ballot at the September meeting.

13 CONFORMANCE TESTING (ARRA AND NIST)

As part of the Obama recovery program (ARRA), National Institute of Standards and Testing (NIST) has been tasked with Conformance, Compliance and Accreditation (CCA) testing and tools development to build a testing infrastructure for “Meaningful Use”. Requirements for “Meaningful Use” will be progressively ramped up in 2011, 2013 and 2015. For 2011 most requirements will simply be inspection testing with more rigorous criteria to apply from 2013.

NIST is developing the testing process, has built development testing tools and is producing interoperability testing tools. These developments will be made available in the public domain. NIST’s concept of operation is an integrated Portal for all testing including V2, V3, XDS and DICOM integrated under a single web service paradigm which can be accessed by other agencies and potential international communities. It will include validation services, as well as automated generation of messages/documents with test data.

NIST will also provide “Test agents” (simulators) to provide actors to interact with the system under test with a test harness controlling execution of the test.

Test case management especially versioning is proving difficult. There will be a sophisticated test case management system (for HL7 V2 initially) which will be integrated via a scenario manager. Another group within NIST is developing a test case development tool whose XML output can be input to the test engine. Initially NIST will concentrate on isolated system testing (to support IHE pre-Connectathon testing) and will use IHE Connectathons for peer to peer testing. Value set content testing will be provided against standards based value sets but also against scenario required values (usually a constraint on the standards based value set).

NIST already supports an implementation of the IHE patient identity manager (PIX/PDQ) which implements five actors from the Profile. Online Health Tools (OHT) also has a PIX manager (MISYS) permanently on line.

The USA Department of Health and Human Services will maintain a list of accredited products online. Further information on testing procedures and methodology (current and proposed) can be obtained from:

healthcare.nist.gov/testing_infrastructure

healthcare.nist.gov/use_testing

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Approaches to governance and conformance	SAIF and ECCF approaches should be considered to inform Australian National eHealth processes	NEHTA, IT-014

14 DETAILED CLINICAL MODELS

14.1 Committee Description

The Detailed Clinical Models (DCM) project is not a working group in HL7, however it has a home mostly in the Patient Care Working Group. The DCM project also has visibility at ISO and there is some confusion within HL7 and ISO about the roles and responsibilities of the two organisations with respect to the project.

14.2 Project Summary Documents

<http://www.hl7.org/special/committees/projman/searchableProjectIndex.cfm?action=edit&ProjectNumber=320>

Wiki: http://wiki.hl7.org/index.php?title=Detailed_Clinical_Models

The Wiki is probably the most detailed view of what DCMs are trying to achieve, although there is still a lot of discussion within HL7 and ISO about the place and use of DCMs. DCMs will not be useful inside HL7 unless there is clear guidance as to how they can be engineered into the current HL7 process. The current issue for DCMs inside HL7 is that while instances of DCMs are being balloted, there is no published methodology for building or creating a DCM. This makes it very difficult to review a balloted model to see if it is fit for purpose. It is the author's expert opinion, that the current loose UML approach to developing DCMs will not enable sensible use of the models in any engineering environment. This author believes that there is a great risk of spending an inordinate amount of cost and effort in developing models that are not fit for purpose without first investing in selecting or developing a solid methodology for this.

With this in mind, the Modeling and Methodology working group are exploring approaches to DCM modeling in order to standardise an approach for HL7 which is an important first step. The DCM approach that NEHTA are using (based on *openEHR* archetypes) has a solid basis and is one of the approaches that are being examined by the Modeling and Methodology working

group. These concerns in no way should be construed as a criticism of the need for a DCM approach which is critical for our eHealth program.²

DCMS are clinical models. For that reason, they are in the domain of the clinicians and need to be able to be approachable for clinicians to review and discuss. Models that are intended for widespread use in national programs need to be reviewed by a large number of clinicians. The HL7 ballot process in this author's opinion is eminently suited for balloting a methodology for DCMs, but not the DCMs themselves. As clinical concepts change rapidly, the DCMs need to be able to change to keep up with current thinking. There are a lot of DCMs needed and a 3 year standards cycle is not going to meet the rapidly changing needs of eHealth programs. Indeed the current PCEHR effort in Australia has required that DCMs (using the openEHR archetype methodology) be developed and reviewed very rapidly.

The ISO work in DCM has now changed direction so that it is not covering any methodology, but only work around quality criteria for DCMs. The ISO proposed standard is methodology independent.

14.3 Progress at this Meeting

There was a lot of discussion about DCMs in Patient Care and in other meetings, however as William Goossen did not attend this meeting Patient Care could not continue with any DCM work. It was noted that this was unusual that a work program was dependent on a single person.

14.3.1 Detailed Clinical Model (DCM)

In the absence of William Goossen, ballot reconciliation and methodology discussions on DCM could not be progressed. Two quarters of the meeting were committed to discussion on issues arising from DCM works lead by William.

It was proposed that archetypes should be considered as modeling approach rather than the current DCM. It was also strongly agree that there is a need for a full methodology for DCM/archetype development.

A joint meeting with MnM was organized and conducted in Q3 Monday dedicated to discuss DCM modeling approach. MnM hosted the meeting.

During this meeting, the history and issues of DCM development were discussed:

- The development and balloting of DCM instances ahead of approved/accepted methodology caused considerable confusion and disagreements.
- MnM was requested to provide some rigor to the DCM modeling methodology at the Cambridge meeting.
- The question is to understand the intended function in the world of interoperability, therefore to discover the relationship between the methodology and interoperability, especially in HL7.

² 'The author' refers to Hugh Leslie as the contributor to this section of Details Clinical Models.

- It was suggested to develop a methodology to be discussed and endorsed at May 2011 meeting.
- Concerns were raised regarding confusion on what DCM actually is and the differences between the DCM and instances of DCM.

Several questions were raised and discussed:

- Where and How DCM fit into HL7?
- Where do these fit in the interoperability space?
- How do we keep them aligned across settings?
- How does clinical statement relate (as a model against which the “templates” that derive from a DCM can be applied)?

It was recommended that:

- Patient Care WG should develop a set of requirements and expectations for the use of DCMs within interoperability. The requirement and expectation statements should be presented for discussion at the next meeting in May 2011.
- MnM and Patient Care agreed to initiate a feasibility demonstration project:
- Feasibility demonstration project (team to be assembled):
- Start with archetype as the base framework
- Establish adornments that map these to the v3 ontology (structured vocab and RIM)
- Create tools that consume these to produce useful HL7 v3 artefacts (templates, etc)
- Demonstrate each of these in Orlando (May 2011)
- Volunteers for feasibility demo project – Grahame Grieve, Stephen (Royce and Chu), Jared Davison, Heather Leslie, Patrick Llyod, David Rowed
- Grahame Grieve to lead

The progress/outcomes of this demonstration project will be presented to the next joint meeting in May for evaluation and discussion.

This project is potentially very important for Australia as NEHTA is currently producing HL7 structured document templates from openEHR archetypes. This process is currently at least partly manual and would benefit greatly from a standardised approach. Archetypes have been demonstrated to be viewable by clinicians without much technical background.

14.3.2 Allergy, Intolerance and Adverse Reaction Topics

A number of Canadian delegates contributed to the discussions via a “go-to-meeting” session. Canada currently has a set of v3 Allergy/Intolerance, adverse reaction models in use in various ju-

risdictions. Canada plans to define the concepts formally to ensure consistency of use in clinical community, and to review its allergy/intolerance/adverse reaction models.

Australia reported that it is currently defining the clinical concepts to capture adverse reaction details. The model was discussed.

Recommendations:

- The international community will share works done
- Patient Care WG should schedule conference calls to progress work on these topics.

14.3.3 Care Plan Topic

Delegates from Australia (from Melbourne), Canada, US, and UK dialled into a “go-to-meeting” session to provide updates on work done in their realms and participated in intensive discussions. Each group agreed to provide a summary of works done for inclusion in the meeting minutes and for upload to the Patient Care wiki.

Delegates from each realm also agreed to provide relevant materials including use cases, storyboards to be uploaded to the Patient Care wiki as resources for interested parties, and that the wiki should evolve into the main resource repository for this topic. There were very intensive discussions on the adoption of the DAM approach to guide the care plan requirement analysis and development work. It was also highlighted that at the earlier meeting (January 2010) this approach was agreed to but very little progress had been made.

A resolution was passed:

The current Care Plan project scope statement [approved by TSC in January 2010] should be reviewed by the Patient Care WG and to determine a revised date of completion of the project.

A small team was established to lead the Care Plan topic work:

- From Australia: Peter Maclsaac; Jon Hilton
- From USA: Laura Heermann

It was also agreed that fortnightly conference calls should be scheduled to progress work on the Care Plan topic. Three conference calls have been scheduled.

Two topics that were not discussed at the meeting will be managed through future conference call discussions:

- Care plan structure
- Questions on how care plan should be used and how to update and track changes

14.3.4 Domain Analysis Model (DAM) Guidelines

Clinical Interoperability Council (CIC) is in the process of developing a set of DAM guidelines. A presentation was made to Patient Care by the CIC co-chairs at a joint meeting with Patient Care. The documentation will consist of approximately 10 chapters with draft on 5 chapters (“introduction”, “objective”, “DAM definition”, “resources”, “HL7 project process”) completed.

Questions raised:

- How does the DAM and DAM development guideline/processes fit with other components of HL7 v2.x, v3, SOA, SAIF?
- How does DAM of one domain relate to DAM of another domain?

The CIC DAM guidelines are developed mainly based on CIC experiences. It is anticipated that other domains will test these guidelines and provide feedback on its applicability to other domains.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
DCM Archetype MnM methodology.	The MnM WG has initiated a project to examine the feasibility of using archetypes as the DCM methodology to develop HL7-V3 artefacts. Action: Australia should actively resource this project.	IT-014, HL7 Australia, NEHTA
Care Planning	Engage with Care Plan project	IHE Australia, NeHTA, IT-014

15 EDUCATION

15.1 Committee Description

The Education Committee is responsible for ensuring the quality and availability of education and learning deliverables provided by HL7 and about HL7, internationally, and to nurture a community of HL7 educators to enable this. It encourages affiliate educational development consistent with realms’ needs and requirements. Particularly relevant to Australia is that the Education Committee manages the education program a Working Group meetings, but not educational activities and events of the Affiliates.

Documents: <http://www.hl7.org/Special/committees/education/index.cfm>

Wiki: http://wiki.hl7.org/index.php?title=Education_Committee (used infrequently)

15.2 Committee Work History

The HL7 International Education Committee manages and governs the educational offerings of HL7 International, in particular the education programs at the Working Group meetings and the "Education Summits" in the USA.

Recent initiatives include the very successful e-learning program (www.hl7.org/events/elearning.cfm) that is run globally. This program originated in Argentina, and

is now available in India and Romania. Australians have participated in this program which can lead to certification.

15.3 Committee Progress at this Meeting

The Education Committee is developing an education strategy. There is some difficulty with the focus of this group. Though there is some excellent material, subject matter expertise, and educational skill in the community, this is not consistently leveraged. There is also a problem with US focus, which needs to be addressed. The WG are open to discussions on improvement. Some of the specific issues raised at this meeting included:

- Providing tips for tutorial speakers at the educator's lunch – to improve skills
- Evaluating speakers – publication of speaker statistics is being considered
- Improved feedback to speakers – asking attendees to focus their suggestions by asking 'what single change would most benefit this tutorial'.

Web based learning courses are seriously oversubscribed. These courses are delivering well, but there are too few tutors. Strategies to change the remuneration and requirements for tutors are being considered.

The objective in the past seems to have been to provide education with little consideration as to need, or the specific competencies to be acquired by those who attend. The approach has been to provide copious information, rather than a coordinated educational program.

Heather Grain presented the vocabulary tutorial. The existing material has some excellent content but suffers from:

- Too much content for the time allowed (there is enough material for 6 hours of tutorial)
- There is no indication of the competencies expected to be achieved by those who attend, and no attempt to build competency. There are no exercises to build and develop skills. There are no assessment components to test skills. Assessment could be self-assessment at least, or 'marked' assessment which could offer employers some assurance of competency.

Development of online education using techniques that provide student support in an online environment including self-assessment with detailed answer package, can reduce the load on tutors.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Australian HL7 education program	<p>HL7 international are developing and educational strategy which is somewhat limited. It would be appropriate for Australia to identify requirements, in particular in the environment of new contractual arrangements between Affiliates and the International body. We need to understand what we want to do in order to contribute to the international Affiliate discussions.</p> <p>Action: Identify the priorities and objectives of educational development and consider the requirements and strategies for skill development (from basic knowledge, through to expertise).</p>	HL7 Australia
Meeting Education Program	<p>The program offered in this Meeting was very comprehensive, well attended and larger than any previous working group meeting.</p> <p>Action: Noted for future WGMs, as this increases the educational value of WGM participation, thank you to sponsors for their support.</p>	All

16 ELECTRONIC HEALTH RECORDS (EHR)

16.1 Committee Description

The goal of the Electronic Health Record (EHR) Work Group is to support the HL7 mission of developing standards for EHR interoperability. The Work Group will contribute to this goal by creating and promoting appropriate and necessary standards which include:

- Functional Requirements for Electronic Health Records (EHR) and systems (EHRS),
- Functional Requirements for Personal Health Records (PHR) and systems (PHRS),
- Definition of a high-level framework to support the interoperability requirements and life cycles, and
- Identification of existing and emerging information requirements and other HL7 artifacts.

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/ehr/index.cfm>

Wiki: <http://wiki.hl7.org/index.php?title=EHR>

16.2 Committee Work History

Recent work for this committee has been focussed on the preparation EHRS Functional Models Release 2 (R2) for ballot. This has been a major focus for the workgroup in 2010.

16.3 Committee Progress at this Meeting

The tasks and timelines for R2 were updated, with the objective of getting R2 to the HL7 Committee Level ballot by April 2011.

16.4 Current Projects:

The Vital Records (VR) profile may be applicable to the international space and thus Australia. The working group is looking for interest in VR.

The Pharmacy_Pharmacist Functional Profiles & Stand-alone E-Prescribing Pharmacy profile is ready to go to ballot. (Using v1.1 EHR functional model). This may be relevant to Australia as it establishes/continues development in this space.

The other profile updates were mainly US focussed and the group was not considering other realms at present. Many of the profiles required more clinical input. These included:

- Ambulatory Oncology Profile
- Dental Functional Profile (with US Dental association) US Centric and is seen as an EHR for a dentist
- Evidentiary Medical Record Modelling- (under discussion)
- EHR Computationally Independent Information Model
- Clinical Nutrition Functional Profile – universal standard
- Mobile health record profile. This is new and based on CIC requirements on medical devices. Joint meeting with CIC Tues Q1. Maybe of interest to Australian PCEHR. This needs input for any special requirements for functioning in the Australian environment.
- Public Health Functional profile

(others were to be discussed at subsequent meetings).

Elections for the workgroup co-chairs were held and John Ritter, Don Mon and Helen Stevens were the successful candidates.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Vital Records	A new profile for Vital Records (VR) is proposed and working group looking for interest. Action: Consider input to this specification or potential applicability in eHealth initiative.	NEHTA
Pharmacy Functions Profile	Balloting on Pharmacy_Pharmacist Functional Profiles & Stand-alone E-Prescribing Pharmacy profile is ready to go ahead. Action: Review of this in regard to relevancy and application in current Australian space.	NEHTA

Topic	Issue/Action/Recommendations	Recommended for action by
Mobile Healthrecord Profile	As a new addition to the HL7 EHR workgroup, it may be relevant to the Australian PCEHR. This needs review/input for any special requirements for functioning in the Australian environment. Action: Input to the working group for the Mobile Healthrecord Profile.	IT-014 and NEHTA
EHR SOA models	The models being developed jointly by HL7, HITSP and NHIN based on the HL7 EHR functional specification (available at http://hssp.wikispaces.com/Reference+Architecture should be assessed for applicability to the PCEHR.	

17 IMPLEMENTABLE TECHNOLOGY SPECIFICATIONS (ITS)

17.1 Committee Description

The ITS work group is focused on development and maintenance of concrete specifications that describe how to implement v3 related specifications. In addition, the group has become a clearing house to consider technology/implementation related problems.

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/xml/index.cfm>

Wiki: http://wiki.hl7.org/index.php?title=ITS_WG

17.2 Committee Work History

The initial focus of the committee was on the main specifications required to support v3:

- XML serialisations for RIM and data types, from which the ISO data types came
- CDA XML formats
- Maintaining the v3 schemas
- Transport specifications – how to exchange v3 messages using ebXML, web services, etc.

This work has mainly moved into maintenance, and the committee is now focusing on a new set of implementation approaches trying to achieve simpler uptake of v3 specification including hData, uITS, and greenCDA.

17.3 Committee Progress at this Meeting

Two quarters of the meeting were taken up with discussions relating to ongoing issues related to uptake of ITS R2 & the ISO data types. A small but vocal community is resisting the changes. The committee agreed that in some selected sandboxes, committees will be able to opt out of some of the changes (principally in SPL) but otherwise will be required to adopt them.

Other actions:

- Joint meeting with SD
- hData joint meeting with ArB

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Implementation Technical Specifications	Action: Continue to track the various implementation efforts	IT-014-06

18 MARKETING

18.1 Committee Description

The HL7 Marketing Committees primary responsibility is to develop a promotion and marketing strategy for increasing the visibility of HL7 and advancing HL7 Standards globally. Committee Overview, Minutes & Documents: <http://www.hl7.org/Special/committees/marketing/minutes.cfm>
 Wiki: [http://wiki.hl7.org/index.php?title=Marketing Committee](http://wiki.hl7.org/index.php?title=Marketing_Committee)

18.2 Committee Work History

This committee created and maintains the HL7 Marketing Plan. This includes the development, updating and maintaining of marketing themes and materials for members, users and external stakeholders. The major focus of which is currently the Ambassador's program.

18.3 Committee Progress at this Meeting

Marketing discussions are considering activities other than the successful Ambassador's program. This program provides short (30 minute) sessions to introduce specific HL7 products to the world and to establish HL7 members who are able to reproduce these sessions and thereby spread the word.

A review of the approach to marketing is being undertaken. This review does not seem to consider usual approaches to marketing. The work is being undertaken by people with little expertise and a lot of passion. There was no consideration of the unique selling points of HL7 (a standard marketing starting point). Australia raised this point and that unique selling points will be raised at the next meeting.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Unique Selling Points	<p>What are HL7 Australia's unique selling points and how can these support Australia's eHealth and general healthcare initiatives.</p> <p>Action: Identify HL7 Australia's unique selling points and objectives in Australia in today's eHealth environment.</p>	HL7 Australia

19 MODELLING AND METHODOLOGY

19.1 Committee Description

MnM has overall responsibility for the methodology used to develop future HL7 standards and also acts as a clearing house for inter-committee design issues.

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/mnm/index.cfm>

Wiki: http://wiki.hl7.org/index.php?title=Modelling_and_Methodology

19.2 Committee Work History

The main work of the committee – v3 methodology – is mainly in maintenance mode at this time, and the committee spends most of its time responding to issues and requests from other committees. As such, the work of the committee is somewhat disjointed, but covers:

- Resolving hot topics (http://wiki.hl7.org/index.php?title=Category:MnM_Open_Hot_Topic)
- Collaborating with Tooling & publications on the future of v3 internal tooling
- Working with Vocabulary committee & Implementation on aspects of new vocabulary development
- Formally describing existing methodology in the “Core Principles of V3 Models” document
- Working with Architecture Board to enable the SAIF based architectural update (see under ArB).

19.3 Committee Progress at this Meeting

The main item of interest to Australia was the joint meeting with Patient Care. See separate report on DCM/Archetype project.

Other actions of note:

- Further discussion on templates vs. definitional models and how templates work
- Discussions around affiliate role in vocabulary maintenance
- Principles for designing CDA ready models

- Agree to participate in new SAP project (see under ArB / TSC)
- Agree to further clarify how role identification works
- Participate in ongoing problems with roll-out of ISO data types within HL7

20 PATIENT CARE PROJECT ON DCM METHODOLOGY

20.1 Project Description

A project to develop a proposal for how to implement Detailed Clinical Models using Archetypes.

20.2 Committee Mission and History

The Detailed Clinical Models (DCM) project has a long and dubious history. It's an attempt to define a single methodology for defining models that can be used in many different standards/project contexts. As such, it has suffered from too many cooks spoiling the broth and a distinct lack of progress.

Recently, it was brought to ballot. The publication attracted substantial negative votes and much critical discussion. As an outcome of Australian negative votes, Patient Care (which owns the DCM project) had agreed to meet with MnM at this meeting to discuss how the methodology was being approached.

20.3 Committee Progress at this Meeting

Some significant players in both the DCM and MnM space were absent from this meeting. Instead, the meetings were dominated by Australians who would not be expected to attend in the future. As such, we were not in a position to make any binding decisions. Instead, we agreed to consider an alternative approach at the next meeting, with the intent to make a binding decision there (Orlando, May 2011) to take to the ISO meeting that occurs the week after (the DCM project is not HL7's alone).

The project is to evaluate the use of archetypes as the primary means of describing the clinical models, along with providing metadata that describes the mappings to the v3 RIM.

Additional notes:

- The focus is mainly on openEHR archetypes, but 13606 archetypes are in scope
- Not only mappings are required – in order to be mappable, the archetypes will need to conform to special design constraints
- Other standards than V3 RIM are also of interest (in particular, v2), but this is not the direct focus of this particular project.

This project is quite a radical change of direction from previous HL7 thinking and represents a growing Australian influence in this area. In particular, three aspects contribute to this:

- Holding a meeting in Australia
- Long term continuity of Australian attendance and contributions driven by the DOHA funding
- Role of several Australians over the years as Patient Care or MnM co-chairs and/or substantial contributors

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
DCM/Archetypes Project	<p>This project is led by Australians, and is a real chance to drive further alignment between USA & Europe, and between international standards and NEHTA pcEHR related work.</p> <p>Action:</p> <ul style="list-style-type: none"> • Support this work at further meetings • IT-14-06-06 to track progress between HL7 meetings • NEHTA to participate and track the implications for pcEHR work and provide timely feedback 	IT-014, HL7 Australia, and NEHTA

21 PATIENT ADMINISTRATION WORK GROUP (PA)

21.1 Committee Description

The Patient Administration Work Group's remit is the interoperability among clinical and non-clinical systems regarding patient encounters and administrative registries. It provides standards for:

Demographic and administrative data used to describe patients, persons, service delivery locations and patient encounters [scheduled and/or actual], including healthcare providers, places, organisations and their relationships in the context of healthcare encounters.

Administrative data to describe resources, their availability, [for example, represented by schedules or by status], and regulatory topics such as licensing and credentialing information about individuals, animals, organisations and devices directly or indirectly involved in the delivery of healthcare services.

It also provides standards for dynamic behaviours involved in requests and their fulfilment of: Additions and modifications to registries such as patients, persons, service delivery locations, healthcare providers, places and organisations

Scheduling of appointments for services, encounters and associated resources. These processes include the functions of requesting, booking, notification, and modification pertaining to appointments and resources.

PA also has ownership of the "Scheduling" domain that offers a generic set of messages and behaviours to implement any number of Scheduling scenarios.

Committee Overview, Minutes & Documents: www.HL7.org/Special/committees/pafm/index.cfm
Committee Wiki: http://wiki.HL7.org/index.php?title=Patient_Administration

21.2 Committee Work History

The Patient Administration Work Group is one of the longest-existing committees in HL7. It undertook major work to lay the foundations of V2.x patient administration messages (HL7 V2.x Chapter 3). As the HL7 standards is essentially patient-centric, "PA" has always been a core committee for the HL7 standards work.

Scheduling R1 passed Normative ballot in December 2003

Personnel Management R1 passed Normative ballot in October 2005

Sept. 2009: Patient Administration V3 R2 passes DSTU ballot

Registries R1 passed Normative ballot in January 2010

Planned Work:

- Jan 2011: Personnel Management R2 DSTU ballot
- May 2011: Patient Administration V3 R2 Normative ballot
- Jan 2012: Scheduling R2 DSTU ballot
- Jan 2013: Scheduling R2 Normative ballot

21.3 Committee Progress at this Meeting

The Patient Administration Work Group was able to undertake most of its planned work - attended to its routine management business: Approved the revised Decision Making Process, review of its SWOT Analysis and Work Plan.

The main PA Work Group focus at this Working Meeting was on two areas:

- V3 Interdependent Provider Registry
- V2.x Enhancements (discussed Wednesday): PMU/ACK Event B07 (Grant Certificate/Permission) and PMU/ACK Event B08 (Revoke Permission) - both Chapter 15 of the HL7 V2 standard.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Provider Registries	This is of interest to Australia. Action: Continue to make a special effort at the WGMs expose the HL7 International Work Group to the Victorian/Australian requirements.	IT-014-06 IT-014-06-03 DH Victoria
V2.8 Enhancements	These enhancements are being considered for inclusion in V2.8, which will eventually be balloted by Australia. Action: Monitor the V2.8 enhancements.	IT-014-06-03
Upcoming Ballot of Patient Administration V3 R2	Consider the relevance of this work to PCEHR, in particular to identification when forming comments on this work. Consider harmonisation with existing ISO work on identification for individuals and providers supporting registries. Action: identify any issues of concern	IT14-02 IT14-06-03

22 PATIENT CARE WORKING GROUP

22.1 Committee Description

The Patient Care Technical Committee (TC) was formed as a Special Interest Group (SIG) in 1993. A small group of individuals were brought together with the objective of assessing the current HL7 specification and bringing forward recommendations for extensions to support a variety of activities related to direct patient care. Over a series of meetings and discussions the conclusion was reached that the current HL7 model did not adequately support the needs of the patient care community, particularly in the areas of patient goals, problems, care plans/critical paths, assessments, and histories and physicals. The group developed, as a SIG, a set of new segments and messages, and the decision was made in the fall of 1995 to establish Patient Care as a Technical Committee. A new chapter (twelve) was produced and approved as part of HL7 Version 2.3.

Today The Patient Care Work Group defines the requirements and solutions for communicating information regarding the creation, management, execution and the quality of care provision.

Committee Overview, Minutes & Documents:

www.hl7.org/Special/committees/patientcare/index.cfm

Committee Wiki: http://wiki.hl7.org/index.php?title=Patient_Care_WG

22.2 Committee Work History

The goal of Patient Care Working Group is to define the requirements and solutions to support the needs for communicating information regarding the creation, management, execution and the quality of care provision. During the past decade, Patient Care has become more involved in v3 messaging, and the static and dynamic modeling that can be used and reused in different HL7 formats. For instance the core of patient care work is the Care Provision D-MIM, deploying the

clinical statements and dynamic model, which was established as Draft Standard for Trial Use in 2007.

The last twelve months has seen Patient Care heavily involved in working on the Detailed Clinical Models approach to clinical content.

22.3 Committee Progress at this Meeting

The Patient Care Working group met each day of the Sydney meeting and included a number of joint meetings with other working groups as is normal practice for this working group. There were only two co-chairs available for this meeting as the others were unable to attend. This meant that it was difficult to progress much of the normal work of the working group.

Two of the international co-chairs (William Goossen and Ian Townsend) could not attend the Sydney meeting due to funding constraints. With the absence of two key co-chairs works on two topics (“Detailed Clinical Models” and “Care Provision DMIM review and harmonization/alignment with Clinical Statement pattern”) could not be progressed due to the lack of detail working knowledge in these two topics. The work group meeting progressed relatively smoothly with good contributions from many international colleagues including two conference call sessions with participations of delegates dialling in from Canada, UK and USA.

Highlights of the week included:

- A joint meeting with Modelling and Methodology, where Graham Grieve outlined a proposal for a methodology for detailed clinical models that used archetypes. A demonstration of this approach is proposed for the next working group meeting. (See discussion in Detailed Clinical Models section)
- A discussion about the Patient Care DIM and how to progress this work. The Patient Care DMIM has been in DSTU, and needs to be reviewed before it is published. There is a lot of work that needs to be done and limited resources. Patient Care currently doesn't have an assigned modeller.
- A discussion with Patient Administration about a discussion of a universal encounter model as it was felt by PA that an administrative encounter shared much of the content of a clinical encounter. See the issue here at http://wiki.hl7.org/index.php?title=Three_PC/PA_harmonization_issues
- A discussion online with Canada Health Infoway about nutritional care plan needs and Allergy and Adverse reaction models. The current NEHTA archetype for adverse reaction was presented and found to be much richer than the current model in Canada. The Canadian model is based on the HL7 work and is currently under clinical review.
- A Patient Care Services Project proposal was discussed with SOA WG support. This project proposes to develop a standard services model for access to standardised clinical content in different EMRs. The aim is to make this content available for CDS, Secondary use gathering, Referral and service directories, and for national program activities such as NEHTAs PCEHR and Meaningful use in the USA. It was felt that the project needed significant sponsorship to move forward. There was a discussion about limiting the scope to something manageable.

- Max Walker gave an update on the HL7 Version 3 standard: Healthcare, Community Services and Provider Directory, Release 1. The Victorian Services Directory is 90% compliant with the standard.
- A joint meeting with Structured Documents and Templates was very well attended. This meeting discussed Templates and how they should be expressed. Graham Grieve noted that the current Template DSTU was about to expire and that it had not been implemented in its current form. He also discussed the MnM project to utilise Archetypes as a detailed clinical model methodology. Bob Dolin suggested that a white paper be developed that put Templates and DCMs clearly in their place before trying to develop a single Template interchange format. Templates are NOT replaced by DCMs.

22.3.1 Care Provision DMIM and Care Statement model review

These topics were scheduled to be reviewed at the Sydney meeting to determine alignment issues with the still evolving clinical statement pattern and to discuss how these models should be updated taking into consideration new requirements. Robust review and discussions of the two models were conducted with intense contributions from all participants especially Charlie Bishop from UK, Stephen Chu, Sam Heard, Heather Leslie, Hugh Leslie, David Rowed and Brett Esler from Australia. Comparison of the HL7 modeling and openEHR modeling approaches were also done, resulting in high level of agreement that it would be highly desirable and productive for the two approaches to be harmonized.

It was recommended that:

- Validation checks should be conducted on the Care Provision DMIM and all other Patient Care models to determine whether the Care Provision DMIM is a true superset of all other patient care models
- To obtain feedback from implementers of Care Provision DMIM DSTU before initiating a revision and rebalot of the DSTU
- The “care statement” model should be replaced by the evolving “clinical statement” pattern to ensure consistency.

Due to the absence of the other international co-chairs, it was recommended that these topics should be explored further at the Orlando WGM in May 2011.

At the joint sessions with O/O the Australia activities and requirements for V2.x were presented. The O/O committee showed a lot of interest and a follow-on joint meeting in May has been scheduled.

No other substantial V2.x issues were due to be dealt with at this meeting.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Patient Care Work Group	The Healthcare, Community Services and Provider Directory, Release 1 has been published. Action: Advise IT-014-06-03 and IT-014-06-06.	IT-014-06-03 IT-014-06-06
Provider Directory	Healthcare Services Directory Service should be adopted as National infrastructure arising from the Victorian experience but using a standards based, Service aggregation implementation Action: consider adoption	NEHTA
DCM Methodology in MnM WG	This project potentially has significant advantages for Standards Australia, HL7 Australia and NEHTA. NEHTAs work with archetypes would be significantly enhanced with the development of a methodology to generate HL7 Templates from archetypes. Action: Australia should make sure that resources are involved in this project to make sure that the NEHTA work program can gain the most benefit from it.	NEHTA

23 PATIENT SAFETY WG

23.1 Committee Description

The Patient Safety Working group supports the HL7 mission to create and promote its standards by creating a standard message structures for patient safety to facilitate the reporting and investigation of patient safety incidents. This includes but is not limited to Incident Report, Adverse Drug Event Report, Pre and Post Marketing Pharmacovigilance. Patient Safety also has a unique role in HL7 to work with other committees to ensure messages do not adversely affect patient safety and that they appropriately support decision support mechanisms to stop preventable incidents occurring.

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/patientsafety/index.cfm>

Wiki: http://wiki.hl7.org/index.php?title=Patient_Safety_Special_Interest_Group (not actively used)

23.2 Committee Work History

The Patient Safety Working Group is relatively new committee starting as a Special Interest Group (SIG) to the parent committee Regulated Clinical Research Information Management (RCRIM) in 2004. It also has a close relationship with the Public Health Emergency Response WG with whom it shares responsibilities for the public health reporting domain.

The program of work to date has been largely driven by the work program of the European Medicines Agency (EMA) which faces a number of unique interoperability challenges due to the cross

border responsibilities it has with member states of the EU. The FDA agency from the United States is also a very active contributor to the group. To date there appears to have been little involvement from members of the relevant Australian agencies such as the Patient Safety Commission and TGA.

Other than the groups input to the Common Product Model, Structured Product Labelling and Operational Case Safety Report (OCSR) co-ordinated by the Pharmacy and RCRIM WG, the main item of work produced by the Patient Safety group has been the Individual Case Safety Report (ICSR).

23.3 Individual Case Safety Report

The HL7 Individual Case Safety Report (ICSR) message supports the exchange of data and other safety reporting requirements between various public health and patient safety organizations—specifically, reporting of adverse events or product problems associated with the use of drugs, therapeutic biologics, vaccines and devices. The ICSR message is specifically designed to support individual case safety reports and does not support population-based case reporting for disease surveillance or outbreak events. The message can support international safety reporting between public health organizations.

The ICSR is adopted and is used as the standard for reporting of information by manufacturers in Europe to the EMA (using R2) and in the US to the FDA (using R1). There are also plans for the TGA in Australia to adopt the ICSR standard in the next 12-18 months.

23.4 Committee Progress at this Meeting

During this WG there were three major items of work on the agenda for the Patient Safety WG, balloting the Individual Case Safety Report (ICSR) V3, the Public Health Reporting Domain Analysis Model (in conjunction with PHER WG) and the review of the Risk Management Plan project proposal. Other items of note were the update on the Risk Management Plan proposal, Caregiver and Patient ID Harmonisation project and the Joint Regulatory session.

23.5 Individual Case Safety Report (ICSR) V3

The project scope is to finalize the existing HL7 V3 Individual Case Safety Report (ICSR) Release 2 Draft Standard for Trial Use (DSTU) message. This release incorporates new requirements based upon outreach and collaboration efforts with other international standards development organizations (SDOs) and groups: Veterinary International Conference on Harmonization (VICH), International Conference on Harmonisation (ICH), Global Harmonization Task Force (GHTF), International Standards Organization (ISO), and related ISO/CEN/HL7 Joint Initiative Projects. The release seeks to harmonize HL7 CMET, DMIM or RMIM artefacts with committees with common interests in medications, clinical trials and adverse event reporting - Evaluate ICSR alignment and harmonization with the AHRQ Common Formats Project. In regards to the ballot the main item was for inclusion of support for US Vaccine and HHS Reporting Requirements which was accepted.

Additionally a joint session with Patient Safety, Pharmacy and OO was held to cover ballot reconciliation of the ICSR ballot. Much of the discussion focused on the use of the Data Types R1.1

rather than R2. It was explained that most of the Patient Safety, Public Health and Pharmacy products such as Common Product Model, SPL, OCSR (Adverse Drug Reactions) are using Data Types R1.1 and unlikely to move to R2 due to the impact on existing users and implementations of the specifications. This is an ongoing problem and well known throughout the HL7 community and there is unlikely to be a resolution of this inconsistency soon.

It is not clearly understood what impact this will have though in Australia as adoption of any of these work items is yet to occur. Potential interoperability issues may however occur where solutions built upon the R2 Data Types are implemented.

23.6 Public Health Reporting Domain Analysis Model

The scope of the project is to create a Domain Analysis Model (DAM) to facilitate harmonization of new and existing messaging standards and Clinical Document Architecture (CDA) templates in the HL7 Public Health Reporting Domain (PORR). The DAM will be used to reconcile existing content and provide consistent artefacts (core classes, data elements, data types and vocabulary) in support of the US Health Information Standards Panel (HITSP) Populations Perspective Technical Committee (PPTC). PPTC is tasked with the development of interoperability specifications, which includes identifying gaps in standards necessary to support their Public Health and Adverse Event Reporting Use Case.

The DAM will help identify areas of overlap and gaps in V3 messaging and CDA development efforts in progress for the FDA Individual Case Safety Report (ICSR), Agency for Healthcare Research and Quality (AHRQ) Common Formats, and the Center for Disease Control and Prevention (CDC) CDA for Public Health Reporting.

23.7 Risk Management Plans

At the previous WG meeting in Boston a new work item for Patient Safety in regards to the reporting of information from Pharmaceutical companies to regulatory authorities in regards to Risk Management plans for registered products was proposed. This work has progressed and background document to the project was presented to the group to give an understanding of the scope and general approach to be taken for the project. The intention of this standard is to provide data elements and exchange format for the transmission of information about pharmacovigilance activities and interventions designed to identify, characterise, prevent or minimise risks relating to medicinal products, including the assessment of the effectiveness of those interventions. The aim of risk management systems in this context is to ensure that the benefits of a particular medicine or a group of medicines exceed the risks by the greatest achievable margin for a individual patient and for the target population as a whole.

A risk management plan should highlight the important identified risks of a medicinal product, important potential risks, and important missing information. It should also address the populations potentially at risk (where the product is likely to be used), and outstanding safety questions which warrant further investigation.

A draft UML Information Model for a risk management plan was discussed and some refinements were made. This model will serve as the basis for ongoing work and a project scope statement around Risk Management plans is to be developed for the next WG meeting.

23.8 Caregiver and Patient ID Harmonisation

Presentation was given by Christian Hay of GS1 regarding the Joint Harmonisation Initiative between CEN, HL7, ISO, IHTSDO, CDISC and GS1 regarding unique patient and caregiver identification standards. GS1 has recently been added to the joint initiative in 2009 and has been given a work item by the joint committee for the Automatic Identification and data capture marking and labelling for Patient and Caregiver ID's.

This is the first time work from the JIC is concentrated into one single SDO (GS1), following its rules (GSMP) however experts from the other SDO's (such as HL7) are invited to join the GSMP WG – a special status has been adopted for them. Although work is done by the GSMP WG, each SDO can involve its appropriate working teams, to participate through their representative (inputs, comments in public review, etc.)

This work is largely focusing on the GS1 General Specifications for using an identifier created using their GSRN (Global Service Relation Number) format. The key purpose of the GS1 standard is not to replace local identifiers but to complement and assist data collection and interoperability by providing a standard mechanism of converting and identifier into a reusable object by other systems and devices.

The end goal of the project is to is that the deliverable adopted by the GSMP WG becomes an ISO standard. Given the likely hood that this will progress to an ISO standard and will have impact on process such as dispensing, labelling and device integration it is important that a review is conducted to ensure that there is no issue with the standard and Australian IHI and HPI.

23.9 Joint Regulatory Session

An informative joint session was also held on how medicines and medical devices are regulated and public health is safeguarded by the Australian Therapeutic Goods Administration (TGA), the New Zealand Medicines and Medical Devices Safety Authority (Medsafe), the US Food and Drug Administration (FDA) and the European Medicines Agency (EMA).

This session was held as an opportunity for each agency to share information on its current activities, standards used and prospective work plans. It was evident that there were discrete and unique drivers to the different agencies for their investment in standards activities. For example New Zealand is heavily reliant on submission of information regarding Adverse Drug Events via the General Practice population as there is basically no medicine manufacturing industry there. In the US however, accessing information from Manufacturers was much easier than information from the caregiver community. The EMA was also interested in manufacturer supplied information, leaving provider based notification in the domain of the respective European states health services, with summary information then to be provided from those countries to the EMA.

In Australia it was noted that historically there had been a blend between information from Manufacturers and Providers, there has however been a recent change in the balance with an increased surveillance reporting from manufacturers and decreasing reports from providers. Mem-

bers of the TGA present indicated that they were currently looking to adopt the ICH E2B (ICSR) specification over the next 12-18 months however given the timelines for R3 it was likely that R2 be the normative standard adopted.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Caregiver and Patient ID Harmonisation	Recommend NEHTA review and investigate the GSWG Automatic Identification and data capture marking and labelling work to ensure that it is able to accommodate the Australian IHI and HPI standards.	NEHTA
Joint Regulatory Session	TGA is planning to adopt the ICH E2B ICSR standard. Recommend that IT-014 engage with the TGA to understand their program of work as this will become the defacto standard for Individual Case Safety Reporting. Need to establish the approach forward for not only manufacturer based reporting but also provider as significant work was done on HL7 V2 specifications in 2004 as well.	IT-014

24 PHARMACY

24.1 Committee Description

This group helps to assure that the HL7 messages and models concerning medication related information - including prescribing, dispensing, and administering medication - address all of the requirements of the many stakeholders and variations in different countries.

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/medication/index.cfm>

24.2 Committee Work History

The committee has been working in the ballot reconciliation in order to further develop an international standard for pharmacy messaging.

24.3 Committee Progress at this Meeting

An overview of the current Pharmacy and Medication domain (DMIM) was given together with the building blocks (CMET) components, information models and Common Product Model. Further, a discussion of the Domain Level Story Board content (use cases) revealed that whilst useful it was based on the Canadian experience and process modelling. The application of this content to the Australian context is limited as currently it is deficient in the breadth of process specifications and architectures for the cases. As yet no implementation guides have been devised. The current content would need to be expanded to include how the architecture and message paths would function within the DMIM. The committee objective at this meeting was to define the content for the documentation and implementation guides.

Since Australia already has implementations (or trials) of e-Prescribing in place using MediSecure and eRX, it may be useful to map the current e-Prescribing solutions against the HL7 Pharmacy Domain documents. This may assist the Pharmacy working group to develop realm independent implementation guides and assist the Australian development of e-Prescribing standards.

24.3.1 Use of CDA in Pharmacy domain

A number of groups (New Zealand, EU epSOS, IHE, etc) reported on progress works done on the use of CDA in prescription, dispense reporting, etc. The complex issue of management of work flow was again discussed in details. It was agreed that work flow issues should be outside CDA and managed by services profiles. The attractions of CDA to various groups were discussed in detail: perceived simplicity, one single schema, one “place” on HL7 website/wiki to access all required resources, useful implementation guides, etc.

Pharmacy WG urged to review how it organized its models and to improve the search ability and inclusion of implementation guides in order to increase adoption of its models and products.

24.3.2 iCARDEA Device presentation (an epSOS project)

iCARDEA (An Intelligent Platform for Personalized Remote Monitoring of the Cardiac Patients with Electronic Implant Devices) was initiated to support:

- health professionals in making the most of innovation in remote monitoring for CIED patients
- patients with cardiac implants and their informal care givers in leading a safer, more comfortable, better life

Devices included:

- Pacemaker (PM)
- Implantable Cardioverter-Defibrillator (ICD)
- Cardiac Resynchronization Therapy (CRT)
- Implantable Loop recorder (ILR)
- Implantable Hemodynamic Monitoring (IHM)

Data outputs from these devices are used as inputs to EHR, PHR and care plans. CDA and v2.x messages are used to support the data exchanges.

Discussions focused mainly on how to identify “guidance” for the use of terms and codes found in various models, and/or other content in HL7 or IHE. Bob Dolin described one source of guidance (not formalized as normative etc.) found in Structured Documents Wiki on HL7. The scenarios, for example, include information about how to deal with “author” and devices.

24.3.3 IDMP (Identification of Medicinal Products) Update

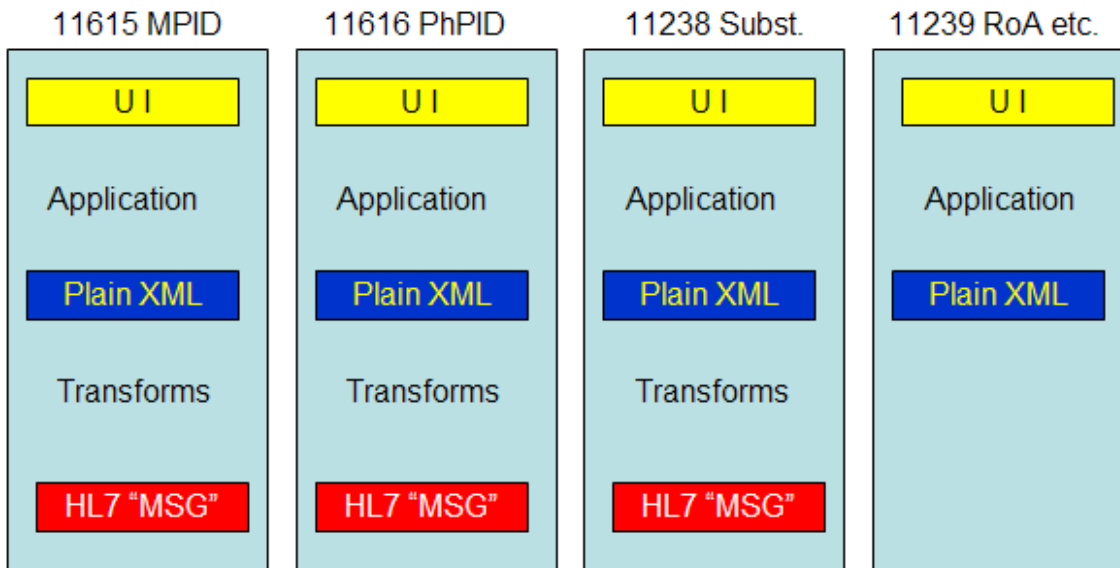
The ISO TC215 IDMP projects comprise of:

- prEN ISO 11238 Health Informatics – Identification of Medicinal Products – Data elements and structures for the unique identification and exchange of regulated information on Substances
- prEN ISO 11239 Health informatics – Identification of medicinal products – Data elements and structures for the unique identification and exchange of regulated information on pharmaceutical dose forms, units of presentation, routes of administration and packaging
- prEN ISO 11240 Health informatics – Identification of medicinal products – Data elements and structures for the unique identification and exchange of Units of Measurement
- prEN ISO 11616 Health informatics – Identification of Medicinal Products – Data elements and structures for the unique identification and exchange of regulated pharmaceutical product information
- prEN ISO 11615 Health informatics – Identification of Medicinal Products – Data elements and structures for the unique identification and exchange of regulated medicinal product information

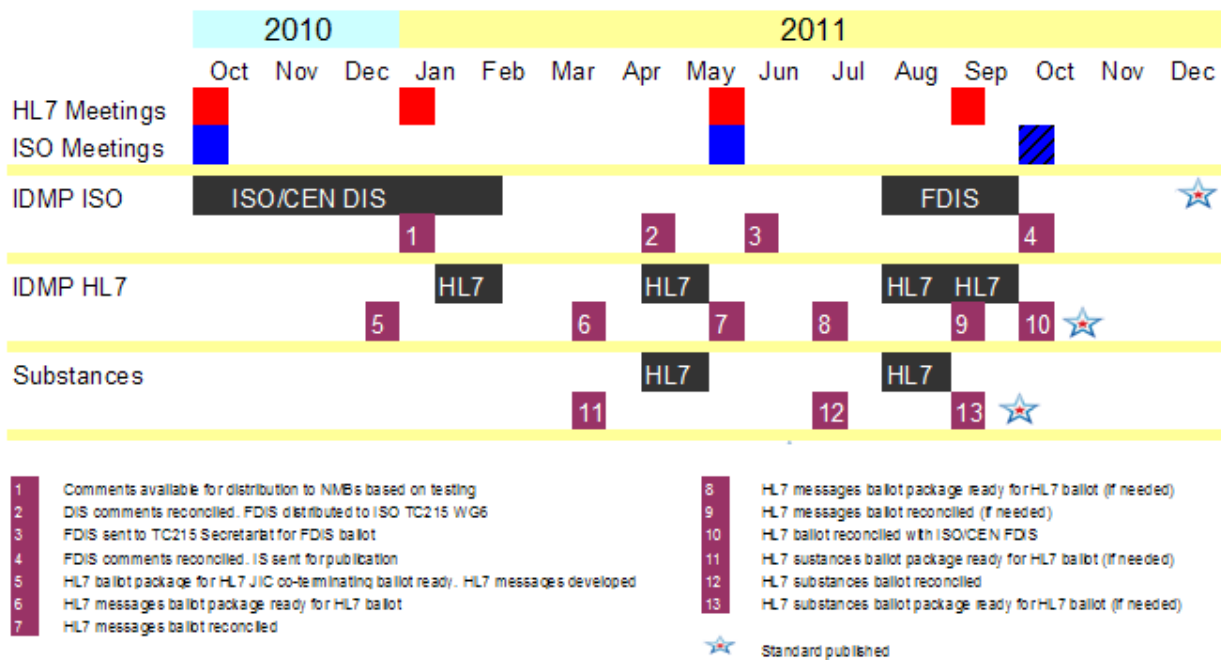
Status of the projects:

- Five ISO Draft International Standards
 - entered ballot (ISO joint with CEN) on 23 September 2010
 - To close on 23 February 2011
- HL7 and CDISC will ballot (co-terminating)
- Testing
 - Test tool developed
 - Near completion in multiple jurisdictions
 - Based on draft Implementation Guides

A set of test tools are being developed to facilitate adoption of the project outputs:



Project schedule is projected as follows:



Next steps of the project:

- Open parallel ballots of DIS in HL7 and CDISC
- Analyse test results, documents and comments
- Refine messaging requirements
- Refine/develop messages
- Prepare next ballots

It is anticipated that the IDMP will provide the framework and the structure for identification of medicinal products. It is also acknowledged that harmonization of contents required for population of the models represent significant challenges. Content harmonization work planning will be conducted in May 2011.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Mapping HL7 pharmacy content	Benchmark current Australian development in e-Prescribing to HL7 pharmacy domain documentation. Action: Map current e-Prescribing solutions architecture to the HL7 Pharmacy domain documents.	IT-014-06

25 PROCESS IMPROVEMENT COMMITTEE

25.1 Committee Description

"PIC" is a Board-appointed committee that collects member input, concerns and complaints on the HL7 International processes. It feeds into various areas, including the committee "Decision Making Practices" (DMP) documents and the GOM.

Committee Overview, Minutes & Documents: www.HL7.org/Special/committees/pi/index.cfm

25.2 Committee Work History

PIC was established to improve the HL7 International committee and balloting processes. In particular, it created the "Decisions Making Practices" document that outlines the formal working of each committee, who can either adopt the general DMP or modify it to suit their needs.

PIC has also recently recommended that committees appoint "interim Co-chairs" when it is unsure if the regular co-chairs cannot attend the WGM which has helped solve the problem of Work Groups not attending non-US meetings due to the inability of co-chairs to travel.

25.3 Committee Progress at this Meeting

The deliberations at the meeting in Sydney were slowed due to an (unexpected) lack of quorum. A number of Standards Australia project staff were able to observe and participate in HL7 International committee and were so able to the PIC's Decision Making Procedures in action!

Actions for Australia

Topic	Issue/Action/Recommendations	Owners
Process Improvement Committee	The Decision Making Practices document is of interest to Australia as it reflects many years of standards development experience and displays a high level of governance sophistication. Action: Distribution of the DMP V3 to inform local organisations in standards and specification development.	IT-014 HL7 Australia NEHTA

26 RIMBAA WORKING GROUP

26.1 Committee Description

The mission of the RIM Based Application Architecture (RIMBAA) Work Group is to facilitate the adoption and implementation of the HL7 version 3 RIM. The focus lies particularly on the use of the RIM for application and database design; and to a lesser degree on the implementation of serializations for the purpose of interoperability (e.g. messages, services, documents).

26.2 Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/java/index.cfm>

Wiki: <http://wiki.hl7.org/index.php?title=RIMBAA>

26.3 Committee Progress at this Meeting

As the committee was meeting in Sydney for the first time, an invitation was sent to the openEHR community to take part in a discussion around shared issues relating to implementation of Reference models in the real world. This discussion occurred over two quarters of the meeting and was well attended. Detailed notes can be seen in the minutes here at:

http://wiki.hl7.org/index.php?title=RIMBAA_201101_Minutes

The importance of this meeting lies in the two groups getting together to share and discuss commonalities which is a first step in working together.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
RIMBAA /openEHR meeting	A follow-up meeting is scheduled for Orlando in Florida. Action: Australia should make sure that this meeting is attended.	IT-014 HL7 Australia

27 SECURITY WG

27.1 Committee Description

This group supports the HL7 mission to create and promote its standards by publishing standards for trustworthy communication among all applications and services in HL7's scope. The Security WG also will lead the convergence and harmonization of standards for identity and access management among healthcare standards development organizations.

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/secure/index.cfm>

Wiki: <http://wiki.hl7.org/index.php?title=Security>

27.2 Committee Work History

The Security WG has produced a number of key artefacts over the last 18 months that form the ongoing architectural foundation of the ongoing Security work in HL7. Three key items are the:

- Security Domain Analysis Model
- Security Ontology
- Security Risk Assessment Framework

A number of the work items within the WG are based on industry standards that come externally from the Security Realm and it is generally accepted that it is ideal for HL7 to adopt recognised Security standards rather than create unless there is a specific health industry context that needs to be applied.

Currently the Security WG is the owner of the PASS (Privacy, Access and Security Services) project that it is developing with input from the SOA WG and is a SAIF Alpha project. There are several streams of work within PASS and currently only the Audit services have been successfully balloted and therefore are a HL7 DSTU. This Audit services project was heavily informed by the IHE DICOM specification which contained the Audit functions which were adopted in the SFM.

27.3 Committee Progress at this Meeting

The progress at this meeting focussed on education of other work groups, an update on the progress of the Security and Privacy Ontology project and updates on linkage with the relevant industry, standards making and government agencies.

27.3.1 Joint Meeting with CBCC

The joint meeting with the CBCC focussed on discussion of three project proposal updates, led by the CBCC.

- Privacy Policy Reference Catalogue Project: Bernd Blobel reiterated that access control systems need to have policies but they are expansive and consuming. We need an authoring environment to allow those responsible for those creating them to have access them. This project is being developed now and has been to TSC. Bernd also pointed out that the Security WG usually develops the policies outline and then the specific domain

group can amend it for themselves. This request should be part of the Security WG not a specific project for this domain. The problem is policy authoring (formalizing policy architecture) and the ownership of this project is a key question. Discussion on the fact that Security should be primary sponsor of project and CBCC second to ensure all security / privacy issues are correctly and consistently underpinned. No outcome was reached on this matter whilst the project scope was reviewed.

- Update on PASS project (Conceptual platform specific and independent model). There is still a need for an architectural framework. This project went to SAIF but it was outside what was envisaged.
- Semantic Health Info Performance and Privacy Standards (SHIPPS) – review of project scope and membership. The project includes two differing aspects of meta data use and data quality. The group agreed the proposed project needs some revision due to ambitious nature and lack of clarity in scope. It also appears to be very specific for one domain. Whilst there are some positive aspects of the proposal, the actual possibility of undertaking it in the timeframe proposed is infeasible. From an Australian perspective, assigning sensitivity of information cannot be globally applied as it is dependent on the individual and context, and thus has been approached by creating a personally controlled health record. The recommendation by the group was that this project be revised considerably before being considered again.
- Security & Ontology Project update:
 - There was an update from Bernd on situation in Germany on security projects. Ontology still a major focus at top level to enable mapping. The empowerment of the citizen/patient is a focus because the issues of privacy and confidentiality are too hard. Some regions though are putting in legislation. The health record project- security/privacy is very expensive 50% of project money to security /privacy and 50% to rest of project functionality.
 - Japan (Hideyuki) – 3 year ontology project (end March) to try to define a small scale target to create Japanese ontology. Project has shown that the ontology is not sufficient to cover all environments and all the concepts. An approach to an EHR/PCHR from scratch rather than developing from a legacy system is being adopted. Japan is making a common interface and terminology set using HL7 (i.e. have legislative framework).
 - Australia has framework but no legislative basis
 - The US is still looking at Meaningful Use.

There followed a discussion on the re-use of information and how it is an issue in regard to controlling it from a security perspective, as many resources are put into this area whilst after 1 year less than 5% of information is re-used. In Australia PCEHR record means that re-use will be even less by medical practitioner if patient controlled. However, in reality the actual control by patients will be very small.

- Max Walker Aus HSD (Healthcare Community Services Directories) - A services directory has already been developed by Victoria. It has been agreed that it will be available on a national basis in principle but as yet no agreement has been reached. The project forms the centre piece of the SMD project based in .NET over Sequel. It appears that directo-

ries and registries are becoming a topic of interest in HL7 (via SOA) and therefore the project is timely and appropriate.

27.3.2 Joint Meeting with EHR:

The joint meeting with the EHR WG focussed on the basic concepts behind security ontology and how this will be integrated into the security work required for R2. From the security perspective we have definitions but not the interpretation for each domain (in this case the EHR). This will be required for R2 of EHR. The EHR WG requested to prototype some examples for the interpretation, so the EHR work group can get a handle on the work involved and how it would be presented to the users of the EHR R2. The knowledge needs to come from a top level of the ontology (defined as Sec Policy A) and each domain then has to define this for their respective domains, say X & Y. See Figure 1 below. If X wants to communicate with Y then they need to have a bridging relationship – which is Sec Policy A.

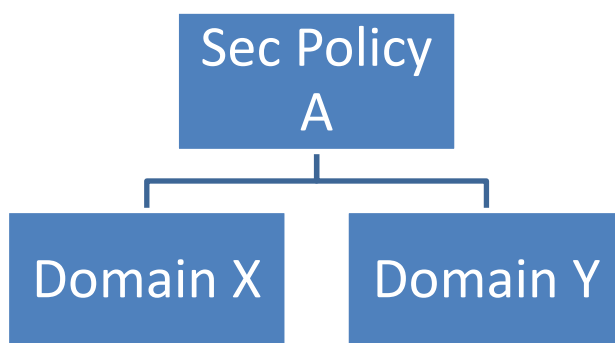


Figure 1: Representation of domain communication bridging relationship.

The work group took time to understand the mapping and suggested that some exemplars are created. Bernd Blobel explained that the rules are required first so we can have services (SAIF) in order to put the knowledge together (vocabulary) and then we can formalize the rules. The complexity of interrelations means it requires classes as well as associations. This is relevant because of the invasion of mobile devices. The integration of the technical aspects and of technology we do not yet have the legislative and therefore guiding rules on what to do when something for instance fails to work. What happens if the medical device communication fails? The device is not 'punished' but the patient is.

The outcome from this meeting was that the HER WG needs to look at its domain specific requirements upon which the Security WG can then assist with defining the requirements for R2. This was decided to be worked on after the release of R2.

27.3.3 PASS (Privacy, Access and Security Services)

This meeting discussed how does the past work like access control fit in to the overall solution on privacy. It was explained that the generic component framework is being used by security to place different projects into the framework in the security and privacy domain. For instance:

- PASS project (security-privacy services) has 14 'de-identified data' projects identified. The next step is access control – developed a conceptual level and next is platform independent level. Discussion focussed on the interface between the policy decisions services engine to the enforcement component. This should be a generic basis so that both the technical and behavioural aspects can use it without bridging. In the coming year this will look at the specifics of access control. Bernd suggested that given the OASIS work (product and open source) on the services specifications and implementation guide, which if we are going to the more specific route then why not use existing product (e.g. WSTrust is specified and can be used). The outcome is that a set of services specified by SOA can be compiled and it just requires the ontology completed to be able to be used in this standard.

The Work Group are currently determining the project to undertake next – an architecture overview project. They are looking at privacy and security components that are available to examine gaps and standards that may apply.

PASS was a SAIF alpha project and the alpha program is winding down. They intend to use some of the SAIF principles going forward and there have been a number of lessons learned:

- SAIF materials were too detailed
- Interpreting SAIF stack very difficult
- Understanding simple tables to clarify modelling intent
- Hard to zero in on what was relevant.

Early next year the WG will build upon it and decide what specifications they want to develop in the second phase of PASS although this is likely to be Authentication models. The WG is also watching closely the work of SOA and Patient Administration regarding interdependent registries to understand the requirements from a Security perspective.

27.3.4 Semantic Health Information Performance and Privacy Standard (SHIPPS)

The CBCC Work Group recently approved a new project that intends to identify and define the metadata and data quality (structured encoded data) necessary to:

1. Segment and manage sensitive health information (in support of privacy protection) and
2. Enable real-time performance evaluation: the ability to automate the use of EHR systems data for the purposes of quality outcomes measurement and performance

The US HITECH Act of 2009 adds new requirements concerning privacy and security for health information. To meet these requirements there is a need to be able to automatically protect specific and sensitive individually identifiable health information from disclosure. While there are promising technologies to accomplish this goal, unless the data are structured and encoded, it is less likely to be automatically processed. For example, an unstructured dictated progress note cannot be seg-

mented whereas structured information that uses standard terminology systems may be segmented.

Similarly, the performance of healthcare providers may be evaluated if the information is available to decision makers and can be evaluated in real-time if the information meets certain level of quality (i.e. structure, standard encoding). However, we first need to understand what information is necessary to evaluate the quality of healthcare across a population to determine their access to care and to evaluate the performance of different programs and approaches in addressing their needs.

The ONC and HHS are currently trying to define what sensitive individually identifiable health information is and how that data can be segmented in order to protect this data. But these definitions do not currently exist. This project hopes to address these basic needs to specify an approach that can be leveraged across domains.

The Security WG raised some concerns about the scope of this project and also the ability to specify such standards as the notion of sensitive information is dynamic from individual to individual and segmentation at a technical level could be difficult. It was also raised that this project may not be of relevance outside the US realm (the project scope was proposed as Universal). There were also serious concerns raised about the timelines proposed in the project scope (to be balloted by June 2011) and this feedback was to be taken back to the CBCC working group.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Semantic Health Information Performance and Privacy Standard (SHIPPS)	<p>Project scope is currently unclear and also it is slated for the Universal realm whilst the requirement is a legislative US requirement. Timelines are also aggressive which raises concerns on the quality and also the understanding of the true impact of the standard.</p> <p>Action: Recommend that HL7 Australia monitor the project progress to ensure that there is no International or specific impact to Australia unless relevant.</p>	HL7 Australia

The work on the **DMAG_Contribution_to_HL7_S&P_Ontology** provided by HL7 Spain was presented and a date set for discussion in January proposed. This work provides background information on the research group (DMAG) at the Universitat Politècnica de Catalunya (UPC) in Barcelona (Spain) that could contribute to the Security and Privacy Ontology project.

The majority of the meeting involved educational session on the ontology project for new HL7 security members and updates on the progress of ISO security working group specifications for work items (WG4). In summary these are:-

- ISO
 - ISO 21091 Directory Services project finished
 - 14265 Classification of Purposes for processing personal health information
 - 14441 Security and privacy requirements for compliance testing of EHR's

- ISO CD 27789 Audit Trails for EHR
 - Health professional Cards (20301 Scope), 21549-1, 21549-2.3, 4
 - Risk management 25238
 - Migration (Technical report on EHR migration).
 - Trans Border ISO & CEN is already defined. ISO/CEN presented that they already have another standard and want to revise this. The 3 year review time expired and they want to present this as a new work item proposal by CEN. Previously was based on European directive – the issue is that if you communicate outside this realm, and therefore how to interpret the European directive and how to implement this outside the EU. Outside – a particular problem for the US in terms of legal restrictions and templates for different expressions of documents. How to communicate with non-European countries. Outcome is that we should just have one standard and not just revise the current standard as it is linked to the EU realm. In future there will be just one ISO standard.
 - TS22600-1.2
 - Potential new work items- can go to ISO meeting immediately after next HL7 meeting in Florida. But you need 5 countries presenting a new work item for it to be considered by ISO.
 - PMark part 1 and 2 revisions discussed to keep in line – part 3 should be done at the same time as well
 - Certification of EHR systems launched by Brazil (and Canada) for government requirements to certify systems in GP offices and ambulances. Intention to set up principles on EHR requirements. And then specific requirements for individual smaller systems. The first 2 parts have been drafted.
 - One small problem with the standard 14265 as there have been negative votes – we have a simple spec of security rights based on a series of attributes but this is not sufficient for an access regime (final note says this is a simple solution and if larger granulation required then you should use PMark because you cannot describe context with simple attributes only.
 - Potential Education guidance (from Korea) to want to create patient, doctor or staff educational guide and create a template for educational program. But this is not suitable but there are standards for e-learning (however ISO TC215 is not the right place for this).
 - Interest has been expressed for a standard for patient consent specification.
 - Privacy standard project (all fields not just health) TMB PSC01 (TC215 liaison on this) Alessandra Elaine.
 - Next meeting Kuopio 2011
 - ISO 13131 spec as a draft technical specification (launched by Netherlands) on Telehealth on security and privacy services. Currently it is in WG2 Communications but should be in WG4 Security and WG7 Medical devices.
- HITSP (US government driven organisation) Health Information Technology
 - PCASS document strategic paper of advisory council of the President of USA for development of IT in health. Suggested we need extended interoperability between providers and a standard XML based language for this, but we have this already.

<http://www.whitehouse.gov/ostp/pcast>. There is official statement from HL7 Sec WG in response to this on our security wiki.

- ASTM E1986 2009 Coded value role codes passed ballot which included extensions to current values and mapping to SNOMED CT.
- OASIS Review of work on Personal Health System (Bernd Blobel) ontology.
- IHE – no one in group aware of what work is going on
- DICOM – Supp 142 balloted - SHA2 hash been introduced to be adopted internationally.

Country reports on Patient Controlled Electronic Health Records – in the context of security:

- Australia: reported on NEHTA work and security SAF.
- Japan described its progression and objective of providing a free access system in healthcare – similar to the Australian public system. Currently their health organisations are not connected and not transferring information. The intention is to set up a Japanese PHL system using central database architecture and in 2011 create standards formats. It is intended the system will be functional by 2014
- Austria does not have the concept of a family doctor and is not intending to have a PCEHR
- Finland uses a patient summary.

There ensued a lively discussion regarding the patient rights based on various models.

There was significant discussion on the issues raised in relation to a PCEHR and its impact for security education for patients. Currently, the European Science Foundation is creating a project on Health informatics and social informatics to address this issue. In Australia there will be a need to address this issue also and how it is best approached.

The only open project for this Security WG is the Ontology for Security and Privacy. Everyone is invited to participate in this project. Linked with this is the Generic Component Model (GCM) – system deconstruction into components for multiple domains (functions and interrelations of the components form the architecture) –then terminology comes in, in order to transformation of component into representation of real world – into ontology and behaviour and structure of architecture. Interrelations are how they behave. In each concept space (within a domain) an association to the next domain is required to be defined. This is the basis for the use of the ontology for all other HL7 domains.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Trans Border ISO & CEN standard.	The development of this standard to be international and not EU centric would be relevant to the Australian context. It is essential that Australia contribute to this given the differences in geographical trans-border information exchange for Australia and its near neighbours. Action: Review and input from Australia.	IT-014, IT-014-06 and NEHTA

Topic	Issue/Action/Recommendations	Recommended for action by
ISO 13131 Specification	ISO13131 is a telehealth draft specification on security and privacy services. Since Australia is a potentially large user of telehealth it should be reviewing and contributing to this standard. Action: Review and feedback on ISO13131.	IT-014, IT-014-12
Adoption of SHA2 hash	In light of DICOM adoption of SHA2 hash internationally, Australia needs to ensure it is consistent with this wherever possible. Action: Notification of relevant bodies of its adoption.	IT-014
Patient education of PCEHR security	In light of Australia's adoption of a PCEHR, the issue of security education for patients, and what educational approach will be used/is required. Action: Discussion of patient education on security of PCEHR needs to initiated and projects created if required	NEHTA, AHIEC

28 SERVICES ORIENTED ARCHITECTURE (SOA)

28.1 Committee Description

The Services Oriented Architecture (SOA) WG supports the HL7 mission to promote and create standards by identifying common architectural "services" and their behaviours and establishing an industry position on the form these services take. The SOA WG produces Service Functional Models (SFM) which will be balloted HL7 standards declaring the functions and information appropriate to them.

These services will promote the interoperability of healthcare systems, including but not limited to EHR systems for inter-product, intra-organization, inter-organization, regional, and national efforts.

The SOA WG works jointly with the Object Management Group (OMG) Healthcare Domain Task Force through the Healthcare Services Specification Project (HSSP) develop healthcare middle-ware standards addressing interoperability challenges. Under the HSSP the OMG take HL7 balloted SFM's and continue the standards development process by issuing RFP's to the industry to implement a SFM. As an outcome of this process the OMG is able to produce normative technical specifications for the SFM's that are bound to specific technologies, transport protocols; technical conformance criteria.

Not all SOA WG projects pass through the HSSP process, some groups may choose to develop technical specifications within HL7 or adopt existing industry standards that meet the SFM requirements and are already a widely adopted standard.

Committee Overview, Minutes & Documents: <http://hssp.wikispaces.com/Agendas+and+Minutes>

Wiki: <http://hssp.wikispaces.com/>

28.2 Committee Work History

A core component of the SOA WG is the Services Functional Model (SFM) and a standard boiler plate template of a SFM is available on the wiki (<http://hssp.wikispaces.com/sfm>). There is currently an active work project looking to refresh this SFM to incorporate more recent architectural changes to HL7. A full list of projects can be found on the HSSP wiki, however some key projects that have been initiated to date include:

- CTS2 (Common Terminology Services 2) covered in Vocabulary section.
- DSS (Decision Support Service):

A commonly accepted standard for the DSS would make it more attractive for service consumers to invest in the infrastructure required for using the DSS to meet its patient evaluation needs, as they would be able to use the same interface to interact with multiple service vendors.

DSS is a DSTU and it is over 3 years in this status an OMG beta specification was released in December 2009. SEBASTIAN tool set (on the openclinical.org) is the first implementation and is available; also an open-source DSS implementation is being actively developed through the OpenCDS initiative (www.opencds.org).

- HCPDS (Healthcare Community Services and Provider Directory Service)

HCPDS provides a facility that will enable Practitioners, via a set of parameters, to locate other practitioners, to assist in the continuum of care via a directory. The HCPDS was published as an HL7 standard in February 2010. However, the OMG RFP is yet to be published and it is expected the OMG will issue this in May. This work is led by Max Walker of the Department of Health Victoria which currently the only major implementation of the specification.

In Victoria the Department of Health (DH) and Department of Human Services (DHS) have invested in the Human Services Directory (HSD) with a view to creating a single repository as a source of reliable, current and relevant information for all users and providers of human services. It has been developed over the last six years in an ongoing process of stakeholder engagement, end user feedback, and forward planning.

- IXS (Identity Cross-Reference Service)

Identity Cross Reference service (IXS) is (formerly known as the Entity Identification Service) a set of service interfaces to uniquely identify various kinds of entities (e.g. people, patients, providers, devices etc.) within disparate IT systems either within a single enterprise or across a set of collaborating enterprises.

IXS is now a HL7 normative specification (available in the V3 catalogue) and OMG spec is in the FTF (Finalisation Task Force) stage, the main implementation is the Italian (Europe-

an) epSOS project which architecturally is using IXS to wrapper an IHE PIX/PDQ implementation. There is also a MIRTH (open source) implementation which is being used by the NHIN.

Of interest to Australia is that the implementation of the national IHI and HPI operated by Medicare does not conform to this standard at this time.

- PASS (Privacy, Access and Security Services)

The goal of PASS is to define a suite of services that will provide a simple interface for all privacy, access control, consent, identity management and other security services that are needed in a service-oriented health information architecture. PASS (Privacy, Access and Security Services) is a SAIF Alpha project and there are several streams of work and currently only the Audit services have been successfully balloted and therefore are a HL7 DSTU.

There is already implementation of the Audit work in the OHT that leverages Misys tools from OpenATNA (which implements an Audit Record Repository of the IHE Audit Trail Node Authentication (ATNA) profile) and there are plans to have orchestrated solutions of PASS services with other service specifications available in OHT in the future.

The Audit services project was heavily informed by the IHE DICOM specification which contained the Audit functions which were adopted in the SFM. As such PASS is not part of the HSSP project and has not followed the OMG process to develop this specification.

An Authentication model is also being worked on using SAML 2.0. In the future an Access control and an identity resolution interface that will provide a common trust model between parties will also be developed. There are currently no plans for an Implementation Guide to orchestrate services with PASS services in HL7 however this is acknowledged in the long term as a necessary body of work to be conducted.

- RLUS (Retrieve, Locate and Update Service)

The Retrieve, Location, and Updating Service (RLUS) provide a set of interfaces through which information systems can access and manage information. RLUS allows health data to be located, accessed and updated regardless of underlying data structures, security concerns, or delivery mechanisms.

RLUS SFM has advanced to a normative HL7 and is currently a beta specification under the OMG. The primary implementation of RLUS is run by INVITALIA. INVATALIA is the government agency for inward investment promotion and enterprise development in Italy and in regards to healthcare holds a similar position to NEHTA in Australia.

Due to the broad nature of the RLUS specification with defined operations such as Get, List, Put etc., RLUS (like IXS and PASS) forms an important cornerstone of any future services work to be conducted by the SOA WG and HL7 as many “domain” specific SFM’s are

likely to use (with binding to a domain semantic signifier) and/or extend the RLUS specification to realise their requirements. For example a current discussion in the working group is the application of RLUS to the Patient Administration WG directories project.

- SOA Services Ontology

The purpose of the SOA Ontology is to provide sufficient information (VISIBILITY) to enable potential consumers to identify services that will meet their needs and capabilities and to expose the conditions required to establish a willingness to interact on the part of all participants.

The scope of this project is to develop a Health Interoperability Service Ontology encompassing the description and classification of healthcare-oriented SOA services into a single, formal vocabulary. The concepts identified in this ontology will be derived from several sources, including but not limited to the SAIF, the SOA WG Roadmap, and service capabilities identified in the HL7 EHR Functional Model. The concepts in this ontology will be extended to bridge standard ontologies in associated domains such as enterprise architecture, clinical care, and biomedicine.

The project will:

- identify where reference value sets are needed
- collect and/or develop use cases to define the objectives of the Healthcare SOA Terminology work
- assess existing SOA ontologies for applicability to meet the needs of the healthcare domain, and recommend the best-fit for HL7
- enhance/extend, or create a taxonomy for healthcare SOA services in the event that an existing body-of-work is incomplete or insufficient

This project is joint with the HL7 Vocabulary WG and was first proposed in early 2010 and a draft of the Ontology is currently under development.

28.3 Committee Progress at this Meeting

Attendance at the SOA Committee meetings was at an all-time high during this meeting with all three Co-chairs present and a number of standing room only sessions. Australian industry and National program representation at these sessions was especially strong. This represents a combination of more general realization of the benefits to be derived from the SOA approach and the increasing maturity of the Committee's work items.

The SOA framework is required to support the explicit model of service consumers, beyond the existing focus on service providers. The PASS specification has identified a need to use a number of ODP engineering concepts such as interceptor to support interaction across a federation of domains as well as to leverage the security functions from ODP (covering concepts such as authentication, access control, confidentiality, key management and other functions). The US, Canada, and Australia all recognised the importance of the provider directory work as it relates to their program investments. Kaiser Permanente, the Mayo clinic, USA Veterans Administration (VA) and the National Cancer Institute (NCI) are all implementing HL7 SOA standards.

28.3.1 Registries Project

The Healthcare, Community Services and Provider Directory, Release 1 artefact passed ballot and is now a normative standard. See the HL7 website for the document:

http://www.hl7.org/documentcenter/private/standards/v3/HL7_V3_HCSPDIR_R1_2010FEB.pdf

During this working group much of the new work focused on the Interdependent Registries Project. The Human Services Directory Service (HSDS) has been renamed the Healthcare Services Directory (HSDir) Service. A day was spent completing the OMG RFP documentation for this service which allowed the strong Australian contingent to agree the final content. This service completed Normative ballot at HL7 at the last ballot cycle. This current proposal is for a joint project with SOA WG with Patient Administration. The project recently received Steering Division Approval in December 2010 and is ready for TSC approval at this WG.

It is led primarily from requirements stemming from Infoway in Canada and looks to explore the experience that real world applications require different types of registries work together. The challenge for HL7 is to revise and extend the following existing standards to support this interdependency such as:

- Person topic (DSTU in Patient Administration domain)
- Patient topic (DSTU in Patient Administration domain)
- Service Delivery Location (DSTU in Patient Administration domain)
- Provider topic (Normative R1 in Personnel Management domain)
- Organization topic (Normative R1 in Personnel Management domain)
- Healthcare, Community Services and Provider Directory (Normative R1 in Services domain)
- Identity Cross Reference Service or Entity Identification Service (Normative R1 in Services domain)
- Real Time Location System topic (Normative R1 in Registries domain)

Current HL7 registry standards follow somewhat different design patterns and implement incomplete dynamic models. In addition, the project needs to consider industry requirements for new registry standards such as Health Service Registry, Health Program Registry and Application/Device Registry.

It was also identified that significant bodies of work exist outside the auspices of HL7 that are also relevant including:

- ASC X12 274 Health Care Provider Directory (x109 implementation guide)
- HITSP Identify Communication Recipients Transaction (HITSP/T64)
- ISO 21091: Health informatics - Directory services for security, communications and identification of professionals and patients (referenced by IHE profile referenced by HITSP Identify Communication Recipients Transaction (HITSP/T64))
- Medbiquitous Healthcare Professional Profile Schema

One of the key points of discussion was to clarify what exactly classified an item to be a registry. One clear denotation was that clinical registries such as Trauma, Cancer and Immunisation Registries are not in the scope of the discussion as they serve a more extended purpose. It can therefore be scoped that registries of an Administrative nature that support health information exchange are the subject matter of interest. These include but are not necessarily limited to Client, Provider, User, Organization, Location, Health Service and Program registries.

Another item for clarification during the working group was a discussion on the relationship between Registries and Directories. Significant differing opinions were held by members of the committee as to the role and function of a Directory as opposed to Registries. This discussion whilst at first glance seems trivial, could have significant ramification on the future architecture and orchestration of services and is therefore important to monitor. A summary of the discussion is as follows:

- A Directory Service is a service that exposes reference information from an authoritative source for the purposes of facilitating further activities in relation to that information. The directory service maintains any associative information that may exist between the different authoritative sources it accesses.
- A Registry is a source of information which has some claim to been a valid source of truth for the information that it holds. A Registry may provide access to some or all of the information it contains to a Directory Service (or via another service) to enable users to search and query certain aspects of that information based on policy constraints.
- For example a Medical Board of Registration can be considered a Registry. It collects all manner of information on the Providers that a registered with that board. It may supply information to a directory of Medical service providers for reference purposes. This information is a constrained subset however of the information held by the board. For example the Board would not release the clinician's home phone number.
- Similarly in another context a Telephone company may have a large amount of information in its registry about a telephone number. The customer details, address number, billing information, date provisioned, contract information etc. However in the telephone directory it releases only a constrained subset consisting of the name of the holder of the number, the address it is provisioned and the telephone number.
- The Provider Directory project of the Patient Administration (PA) has identified a need to agree on the terminology for describing repositories, registries and directories. The repository functions defined in the ODP engineering viewpoint can provide a starting point for this conversation (including storage function, information organisation function, type repository function etc.). In addition, RLUS was seen as a potential bridge across this space.

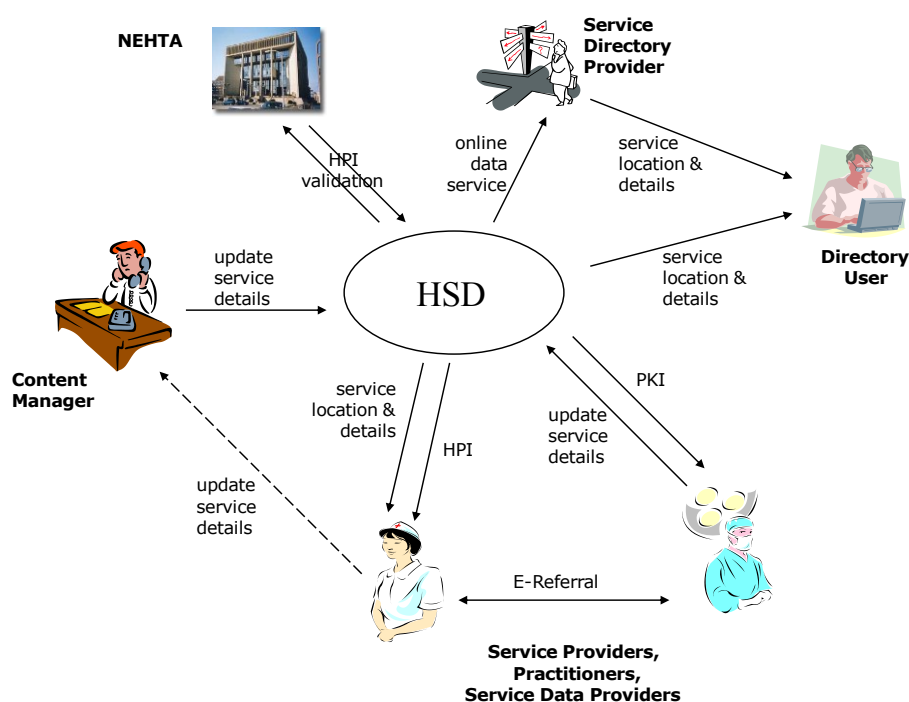
This service was originally name the Human Services Directory Service and has been implemented by the Department of Health Victoria. There is currently a proposal within Australia for it to be adopted as the National architecture for a health services Directory and to form the core of an eRe-

ferral platform. At HL7, the specification passed ballot as a Normative standard at the last cycle (Cambridge) and the OMG request for Proposal (RFP) documentation was completed at this working group meeting.

It is anticipated that responders to the RFP will be selected at the Next OMG meeting to be held in Washington DC in April. Responders that use existing Service standards such as RLUS, IXS and CTS2 will be given preference.

Given the existing implementation experience from the Australian community it is anticipated that the OMG work will be able to progress rapidly. In addition, it became clear during this meeting, that this specification is a common requirement across a number of National programs including Canada, the USA and the UK.

This scope of this service is summarized in the diagram below:



Human Services Directory provides key capabilities to enable practitioners, via a set of parameters, to locate other practitioners to assist in the continuum of care. Effective referral is an integral part of patient/client care. This enables the right treatment and/or diagnosis to be given at the right place at the right time. To date many attempts have been made, by many organizations throughout the world, to create effective Service (as in Healthcare Services) Directories, with very little success.

Ensuring effective referral takes place means medical errors and unnecessary complications can be avoided. This creates better outcomes for the client, practitioner and the Health/Welfare System.

During a consultation/examination, the practitioner decides assistance is required to ensure the optimum care for the patient/client. In accessing the patient/client's record via the patient/client administration system, the practitioner requests a referral according to expertise, availability and location. A list of entities that represent the specified criteria is presented to the practitioner. Upon se-

lection of a suitable provider, the appropriate detail is supplied to assist in the creation of a Referral.

Similarly, during the process of discharging a patient from hospital, the designated physician will describe a list of services to be provided to assist in rehabilitation. The hospital PAS can then access online details of suitable services providers for selection for referral.

There are currently no standards in existence for Healthcare Service or Provider Directories. As a result each project mounted to date to create such a service has started from scratch and developed its own model, all of which have been flawed in some way and hence not fully realised their potential value. However much has been learnt during this time and valuable contributions can be made to establishing such standards.

A Healthcare Service Directory is an integral component of true e-Referral (i.e. Client/Patient Management System to Client/Patient Management System). Not only does it allow the practitioner to expediently find an appropriate and available provider to whom to refer his client, but it can also provide many other benefits, such as system address and security profiles, all at the finger-tip or push of a button.

Vendors of client and patient management systems will merely have to include simple functionality to access HSDir instances rather than build in their own functionality, which includes searching algorithms and data management.

Customers will ultimately see improved levels of service and hence better care. Imagine walking out of the GP's surgery, not only with the referral information but a confirmed appointment as well!

HSDir will provide look up capabilities for healthcare services and providers that may be used, or provide support for, many functions in addition to practitioner referral. There are the requirements for public access (self-referral), call centre support, and non-direct healthcare services to name a few.

At this working group meeting the HSDir RFP was finalized and the following decisions were agreed:

- (a) The RFP would not include the HSDir requirements for scheduling

This was a pragmatic decision to reduce complexity and permit a faster turnaround time. It was felt that the scheduling components could best be dealt with as a separate service that would be specified in parallel and would likely attract a different set of OMG responders from outside the eHealth developer community.

- (b) Responders would be encouraged to not intrinsically limit their responses to the Health Domain.

The Committee felt that this service had general utility outside of the Health Domain and wider implementer interest would be attracted by making this explicit

- (c) Preference would be given to responders based on their intention to use existing service building blocks such as RLUS, IXS and CTS2
- (d) Preference will be given to submissions using SoaML to specify the service
- (e) Shall have a MDA-capable platform independent model (PIM) – MDA = Model Document architecture. This should be expressed in UML
- (f) Shall include a platform specific model in the form of a Web service endpoint (WSDL with SOAP/HTML binding)

The updated final RFP will be available on the SOA wiki by the end of January, 2011.

28.3.2 The Practical Guide for SOA in Healthcare

- This completed document (Volumes I, II and III) can be accessed at <http://hssp.wikispaces.com/practicalguide>
- This document has now been significantly enhanced with a complete implementation guide for an immunization service in volume II and the SAIF Executive Summary and Implementation guide in volume III. See Appendix C for details
- It documents the HSSP process and the Service Development Framework (SDF) used by HSSP. It is a remarkably accessible document and recommended reading.
- The document has been revised to include information learnt from the first full HSSP cycle and to incorporate the relationship with HL7's Service Aware Interoperability Framework (SAIF).
- The revised document contains more detail about how a platform independent service can be developed into a particular service instance implementation including how to specify conformance criteria, service behaviour and shared terminology. It has been extended to include analysis of HITSP, HSSP, HL7 SAIF, US Federal Enterprise Architecture, and other industry reference sources to elaborate a mature healthcare SOA Reference Architecture.

Previous educational efforts by the SOA committee have led to a much greater general understanding of SOA principles and an acceptance of the process. All Committees are now considering SOA initiatives.

28.3.3 RLUS

RLUS represents a common service infrastructure for locating and updating data across enterprises. The service has completed Normative ballot at OMG and the DSTU standard at HL7 will be updated to a Normative standard at the next ballot cycle.

Considerable implementation experience has now been gained from developers and many major USA institutions have implemented this service including Kaiser.

One major piece of feedback from the Italian implementation of RLUS was that the Update function is often better implemented as a delete followed by insert rather than an in-place update in large implementations due to potential record locking issues and scalability. The Service side code of the Italian implementation will be made public when completed (June 2011).

There was also some lengthy debate between the crossover of RLUS functionality and the needs of the Interdependent Registries project. Information was shared from the experience of INVATA-LIA in Italy when implementing RLUS over IHE profiles.

The general comment was that the Interdependent Registries project touched on a broader concern regarding the need for an overarching and consistent Service Inventory. Each Service cannot be generated in Isolation otherwise it becomes messaging using Web services and not SOA.

From service orientation design viewpoint the requirements for Interdependent Registries have similarity to that of a Service Inventory in that the goal is to avoid functional overlaps (service normalisation) among service specifications and to minimise overhead related to service data transformation.

The issue of service data transformation relates back to a need to have semantic signifier standardization between services of HL7 data structure (e.g. the data representation of a patient in a RLUS service instance should be consistent with the data representation in an IXS instance).

Regarding services normalization the goal is to avoid duplicate capabilities/operations in services inventory. If there is a unique behavioural model among registries there could be a single service structure with different semantic signifiers (e.g. for patients, providers, organizations etc.). If this is the case then RLUS (with some extension) could be a likely candidate to realise a specification of this type. There is however a need for the scope of the Interdependent Registry project to be finalised so that it can be ascertained whether a unique SFM for Interdependent Registries can be specified. It may however be the case that specific behavioural models exist across these registries and multiple SFM's are required due to the distinct separation of these behaviours. In this case RLUS may still be a rational option for one or more of these models.

The clear outcome is that the scope of the Interdependent Registries project needs to be finalised as soon as possible and that key consideration is also given to how architecturally these services "work" with other services specified by HL7 to ensure service normalisation and utilise standard semantic signifiers.

Actions for Australia

Topic	Issue/Action/Recommendations	Owners
RLUS	This should be assessed as a common Healthcare Registry implementation which can be deployed with registry specific metadata and a Standards based common service interface.	NEHTA
	Explore the relationship between RLUS as a National EHR Indexing Service and the IHE XDS Architecture.	NEHTA, DOHA

28.3.4 Decision Support Service

The Decision Support Service (DSS) OMG implementation, after some delays late last year, is now progressing well and is expected to be completed by the May 2011 HL7 WG meeting. It was announced that in December at the OMG Technical Meeting in Santa Clara, the OMG Architecture Board unanimously recommended that the DSS specification be adopted as a normative OMG standard. This recommendation follows an OMG finalization process (roughly equivalent to an HL7 DSTU process) that was completed this year. Following technical editing and several other administrative steps, the specification is expected to be available as a public OMG standard by mid-2011.

The following are the expected next steps for the DSS specification within the HL7 and OMG communities:

Commission OMG Revision Task Force to incorporate any issues identified by ongoing implementation of the standard.

Revise HL7 DSS DSTU to match OMG specification, with aim of balloting normative HL7 DSS specification in May 2011. This process is expected to be fairly straightforward, as feedback from the HL7 CDS Work Group was explicitly solicited and incorporated in developing the OMG DSS specification.

Request extension of DSTU status for HL7 DSS specification (currently set to expire in April 2011), so as to enable completion of the HL7 DSS normative standard

It is uncertain how this will then permeate into the Australian industry however the subject matter should be of interest to the Medications Management team at NEHTA and IT-014 in general.

Considerable interest has been expressed in this service by a wide range of HL7 Committees who wish to see application of Decision Support in their Domain. The flexibility of the service design should enable implementation in many Domains including some outside Health. In addition this service has been specified as the basis of the IHE Clinical Guidance Profile.

Duke University are the lead organization for the OMG implementation task force for the DSS and have stated their intention to make their code for the service publically available, once completed.

28.3.5 HSSP Other

The SOA Committee is to establish a portal focusing on implementation experience with IXS, RLUS, DSS, CTS2 and PASS.

The implementation of the VA Immunization service uses the standards for the Identity Service IXS (former EIS), the Record Locate and Update Service (RLUS) and the Common Terminology Service (CTS2), demonstrating the use of an aggregation of HL7 services to produce a highly functional EHR environment.

This work was carried out at the US VA and of particular note is the conclusion:

One of the most difficult challenges facing healthcare organizations making IT investments today comes from deciding whether to go all-in with a particular vendor, or whether to self-integrate components from multiple vendors. The appeal of the single-vendor solution is strong – no finger-pointing, out-of-the-box integration, [US-based] EHR certification via the Certification Commission for Healthcare IT (CCHIT), and so on. This is contrasted with seemingly increased risk and work involved in a multi-vendor solution involving integration. A multi-vendor SOA solution can offer compelling best-of-breed options; where, a SOA promotes an easier integration and alignment across suppliers into a cohesive, testable and certifiable architecture. We demonstrated an approach that can build and present consistent Interoperability Specifications (IS) and conformance criteria for both best-of-suite and best-of-breed components and their exchange architecture. Having these ISs, exchange architectures, certification criteria and associated business cases is the appropriate due diligence needed to help justify a best-of-suite vs. best-of-breed decision.

28.3.6 Current HSSP component services and status

Identity Cross reference Service (IXS – formerly the Entity Identity Service – EIS)

This Services passed final Normative ballot in September 2009 at OMG and in 2010 at HL7 and has now been published.

The UK NHS, The Netherlands, Italy, Canada Infoway and the European Community are considering implementations. USA implementations are in progress at the Veteran's Administration (VA), National Cancer Institute (NCI), Kaiser Permanente and the Mayo Clinic.

Australia has chosen not to use this International Standard for its Health Identity service. The reasons for this remain unclear and a previous request to NeHTA to inform the HL7 SOA Committee of the reasons behind that decision remains unaddressed.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Interdependent Registries	<p>There is still appears to be some confusion as to the scope also the greater ramifications that this project could have on the design and orchestration of services. An initial analysis of how easy/hard it might be to come up with a harmonized standard for exchanging information via these standards is still to be done. It will be important to ensure there is a clear scope and the outcomes and effect this project could have on others is understood.</p> <p>Action: NEHTA and IT-014 should investigate any potential cross over between this project and current initiatives such as Provider and Services Directories, PCEHR Index Services or Patient Administration</p>	IT-014, NEHTA
RLUS	<p>The work by Steffano Lotti of INVATALIA to orchestrate resource sharing services around an RLUS instance appears to have relevance to the distributed model of the PCEHR.</p> <p>Action: NEHTA should investigate the relevance and experience of INVATALIA's implementation of RLUS to assess the relevance of the work to the PCEHR program.</p>	NEHTA
IXS	<p>Currently the implementation of IHI and HPI by Medicare does not conform to the IXS specification. This is largely due to the timing of the Medicare work and the availability of the specification.</p> <p>Action: IT-014 Patient Administration to inquire of Medicare as to the Roadmap towards a IHI or HPI service that is compliant with this standard.</p>	IT-014
Healthcare Provider Service Directory	<p>Look at the Healthcare Provider Service Directory work as well as the Provider Directory to utilise within its work program. Also consider the data defined in ISO/TS 27527:2010 Provider identification and the Australian adaption.</p>	NEHTA
	<p>Suggestion: Work with other National Programs to move the Common Registries Service and Health Services Directory Service rapidly forward in the next few months.</p>	NEHTA
SOA Capability / requirements register	<p>Action: A register should be developed as part of the national eHealth Model that includes a map of requirements to existing international work.</p>	NEHTA
RLUS	<p>The USA National Health Information Network (NHIN) should be considered as a possible architecture for the Australian PCEHR based on standards (IHE XDS) and an incremental approach.</p>	NEHTA

29 SOA IN HEALTHCARE CONFERENCE DAY

The day provided an excellent introduction to Service-Oriented Architecture as practised across a number of large scale organisations and national programs. This included Infoway from Canada, U.S. Indian Health Service (IHS), US National Cancer Institute, and Department of Veteran Affairs. These presentations, along with the prominent keynotes given by Ivar Jacobson and Richard Soley, highlight the following key SOA benefits as key underpinnings of interoperability.

- Promote business oriented approach to defining (business) services and the way they support business processes
- Need for separation of business policies, business processes and technical services.

The event also identified key remaining challenges including protecting privacy, supporting cross-organisational processes and policies, and the harmonisation of data models and vocabulary.

30 STRUCTURED DOCUMENTS (SD)

30.1 Committee Description

The SD committee is responsible for design and implementation issues around documents, particularly CDA. The current release of CDA is R2, which is in the implementation phase, and a new release (R3) is under preparation.

Committee Overview, Minutes & Documents: <http://www.hl7.org/Special/committees/structure/index.cfm>

Wiki: http://wiki.hl7.org/index.php?title=Structured_Documents

30.2 Committee Work History

In the past, the committee has balloted and published CDA R1 and R2. Now the committee focus is threefold:

Balloting and Publication of Implementation Guides that represent consensus on how to use CDA. These implementation guides are mostly joint development with other HL7 working groups, or with external agencies including IHE and Professional bodies

Work in CDA R2 implementation issues such as greenCDA, and Self-displaying CDA

Developing CDA R3

30.3 Committee Progress at this Meeting

The most obvious focus of the committee at this meeting was educational: the co-chairs contributed considerably to the educational focus of the meeting on CDA.

Other actions of interest:

- Joint meeting with MnM to describe what makes a model suitable for use with CDA R3
- Joint meeting with ITS to discuss new ITS initiatives

Structured Documents also held a joint meeting with Templates and Patient Care and other work groups (Thurs Q2; many Australians were present) to discuss the current state of templates. This meeting primarily focused on DCMs, and there were many more non-Australians present. The meeting asked the Patient Care/MnM project to draft a whitepaper explaining the relationship between openEHR archetypes and Templates. This will be done as a necessary part of the DCM/Archetypes project.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
GreenCDA	Action: Continue to track the relationship between international implementation efforts (principally greenCDA) and NEHTA CDA implementation work practices.	NEHTA

31 STEERING DIVISION - DOMAIN EXPERTS

31.1 Committee Description

This Steering Division is also known as "DESD" coordinates the work of the following Work Groups:

- Anatomic Pathology
- Anaesthesiology
- Attachments
- Child Health
- Clinical Interoperability Council
- Community Based Collaborative Care
- Emergency Care
- Government Projects
- Health Care Devices
- Imaging Integration
- Patient Care
- Patient Safety
- Public Health Emergency Response (PHER)
- Pharmacy
- Regulated Clinical Research Information Management (RCRIM)

The DESD reports to the Technical Steering Committee (TSC).

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/desd/index.cfm>

Wiki: http://hl7t3f.org/wiki/index.php?title=Domain_Experts_Steering_Division_Home

31.2 Committee Work History

The DESD was set up a part of the 2007 restructure of HL7 International. It has a purely management and governance function; it does not produce any standards.

31.3 Committee Progress at this Meeting

The committee work consisted mainly of routine management and governance issues. The only item that was voted on was the new DMP for DESD, which was approved with minor amendments. There is no need for specific follow up actions in Australia on this work.

32 STEERING DIVISION- TECHNOLOGY AND SUPPORT SERVICES

32.1 Committee Description

This Steering Division is also known as "T3SD" coordinates the work of the following Work Groups:

- Education
- Electronic Services
- Process Improvement
- Project Services
- V2.x & V3 Publishing
- Tooling

The T3SD reports to the Technical Steering Committee (TSC).

Committee Overview, Minutes & Documents: www.HL7.org/Special/committees/t3sd/index.cfm
Wiki:

http://hl7t3f.org/wiki/index.php?title=Technical_%26_Support_Services_Steering_Division_Home

32.2 Committee Work History

The T3SD was set up a part of the 2007 restructure of HL7 International. It has a purely management and governance function; it does not produce any standards.

32.3 Committee Progress at this Meeting

The committee work consisted mainly of routine management and governance issues. The committee discussed the request from the TSC regarding the function and value of the Steering Divisions. The T3SD committee discussed this at some length, but some felt that the outcome was inconclusive and not unanimous. The core question is about the value of the Steering Division management layer, as there are very little traditional resource allocation and work priority management decisions to be made by the T3SD. The feeling was expressed that in the area of support services, the Steering Division committee functions may be streamlined and delegated up or down.

There is no specific action required on this work in Australia.

33 TECHNICAL STEERING COMMITTEE (TSC)

33.1 Committee Description

The Technical Steering Committee is the highest technical authority within HL7 International. Four Steering Divisions report to the TSC

(http://hl7t3f.org/wiki/index.php?title=TSC_Steering_Divisions):

- Domain Experts (DE),
- Foundation & Technology (FT)
- Structure & Semantic Design (SSD)
- Technical & Support Services (T3SD)

The TSC has a purely management and governance function; it does not produce any standards.

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/tsc/index.cfm>

Committee Wiki: http://hl7t3f.org/wiki/index.php?title=Main_Page

33.2 Committee Work History

The TSC has been in existence for many years and governed the technical direction of the HL7 Standards. It has approved the creation and dissolution of the then Technical Committees ("TCs"), Special Interest Groups ("SIGs") and now the Work Groups. In 2007, a more hierarchal structure outlined above was created.

33.3 Committee Progress at this Meeting

The focus of the meeting is mainly on reporting, project management and governance. Apart from the routine CEO & CTO reports covered elsewhere, one report of interest was of a project to improve the "marketing" definition of the HL7 Projects. The resignation of Charlie McKay as TSC Chair and the handover to the newly elected Austin Kreisler was noted.

34 V2.X PUBLISHING COMMITTEE

34.1 Committee Description

"V2.x Publishing" is a Board-appointed committee that collates, coordinates, reviews, prepares and issues V2.x artefacts for publishing in hardcopy and/or electronic form. The V2.x Publishing committee does not create normative content, but ensures that the HL7 V2.x Standards are published in a consistent and useable form and format.

The only documents that the V2.x Publishing committee creates are the [V2.x](#) Style Guides.

V2.x Publishing committee is constituted from the V2.x Editors of each domain committee and is led by two elected co-chairs - visitors are always welcome.

Committee Overview, Minutes & Documents:

[www.Hl7.org/Special/committees/publishing/index.cfm](http://www.hl7.org/Special/committees/publishing/index.cfm)

Wiki:

http://wiki.hl7.org/index.php?title=Publishing_Committee#HL7_V2.x_Publishing_Work_Group

34.2 Committee Work History

V2.x Publishing committee has guided the publication of the HL V2.x standards for many years. It has harmonised the appearance and style of the V2.x chapters and set has moved forward the readability of the documents. It facilitates the publication the HL7 V2.x chapters in PDF, HTML, MS Word and database formats.

34.3 Committee Progress at this Meeting

The deliberations at the meeting in Sydney were routine with the closing of the current V2,8 agreed after the May WGM.

Outcomes for Australia

Topic	Issue/Action/Recommendations	Owners
V2.x Publishing Committee	The V2.x Publishing Committee ensure that the additions and enhancements that Australia gets included into the V2.x standards are formally published. Action: Australia to continue to support the work of the V2.x Publishing Committee to ensure that our V2.x investment is supported.	IT-014 HL7 Australia NEHTA

35 VOCABULARY

35.1 Committee Description

The Vocabulary Work Group provides an organization and repository for maintaining a coded vocabulary that, when used in conjunction with HL7 and related standards, will enable the exchange of clinical data and information so that sending and receiving systems have a shared, well defined, and unambiguous knowledge of the meaning of the data transferred. The purpose of the exchange of clinical data includes, but is not limited to: provision of clinical care, support of clinical and administrative research, execution of automated transaction oriented decision logic (medical logic modules), support of outcomes research, support of clinical trials, and to support data reporting to government and other authorized third parties.

To achieve this goal, they work cooperatively with all other groups that have an interest in coded vocabularies used in clinical computing. Some of the groups that we will seek to work closely with include: standards development organizations, creators and maintainers of vocabularies, government agencies and regulatory bodies, clinical professional specialty groups, vocabulary content providers, and vocabulary tool vendors.

Committee Overview, Minutes & Documents:

<http://www.hl7.org/Special/committees/Vocab/docs.cfm>

Wiki: <http://wiki.hl7.org/index.php?title=Vocabulary>

35.2 Committee Work History

The Vocabulary Work Group activities include:

- Document HL7 vocabulary design and maintain the documentation guidelines on the principles of vocabulary message content and structure over time – the Core Principles project defining the principles of how this should be done is a current major work item nearing completion.
- Maintain OID Registry with approval for new OID requests – including current consideration of ISO OID registry metadata standardization.
- Maintain the V3 Vocab repository – Currently considering how IHTSDO and other organisations activities might manage more of the vocabulary registration processes, i.e. that HL7 will ‘use’ existing repositories where possible rather than maintain their own.
- Maintain table 0396 (V2 content for registered coding systems) including new requests, changes to existing entries, publishing on HL7 website
- Educate stakeholders via tutorials and improved documentation.

35.3 Committee Progress at this Meeting

35.3.1 Core Principles

The Core Principles document is intended to provide important background information for implementers trying to implement Terminology whether in Messages, Documents or Service Payloads. The meeting resolved many ballot comments and will complete the modifications required for the document to go to ballot in the next Ballot cycle (April), at which time it is envisaged it will pass ballot.

35.3.2 Glossary Project

HL7 are actively contributing to the glossary work. This meeting has requested information on glossary structure with a view to development of guidelines for HL7 glossary best practice.

35.3.3 Maintenance of HL7 Vocabulary

A detailed review of IHTSDO workbench has been undertaken to identify whether HL7 vocabulary could be maintained through that tool. There are still a number of issues. Consideration is being given to investigation of other tools for the purpose, and the need for a phased approach, given the limited resources to support this activity. Proposed phases are:

- Phase 1 – Import/Export MIF representation of HL7 vocabulary. This is an extension to the work bench to support importing of vocabulary content from the MIF representation of vocabulary and then export out of the workbench back into the MIF.

- Phase 2 - Develop HL7 specific business processes for vocabulary maintenance. A phase 2 project would entail evolving HL7 specific business processes to enable more effective maintenance activities in HL7 for vocabulary artefacts. This would allow extension of the number of people who could author in the system and share information.
- Phase 3 - Develop quality control/quality assurance processes
- Phase 4 – Ongoing maintenance and enhancements

Another issue related to this is the desire to use existing code systems and maintenance processes where possible. One of the opportunities here is to use SNOMED-CT. Issues include that HL7 is international with membership beyond that of IHTSDO. The meeting resolved that the following should be discussed with IHTSDO:

- Licensing of the workbench tooling (which currently has the tool bundled with the terminology)
- Licensing of a parsimonious discrete number of elements within value sets (currently < 50). This would increase if the HL7 desire to migrate from HL7 maintained value sets to value sets maintained by other appropriate organizations. How many could be incorporated under this licensing agreement. Potentially use the vision for HL7 to incorporate more extensive use of SNOMED CT.
- Whole content within the content of HL7 authoring (not HL7 use)
- There are software components (icons) that are not part of the product. If HL7 are going to use this OHT should require as would HL7 that standard icons be used so that there is no requirement to pay for icons (or create your own as an additional activity).

35.3.4 OID metadata

The ISO project for OID registration metadata is progressing. This is likely to identify needs for mapping and potentially changes to Australia's existing HL7 OID registry. We have active engagement in this project at ISO. This engagement needs to continue in order to prepare for relevant changes required here.

35.3.5 Common Terminology Services 2

CTS 2 will be a commonly accepted standard for terminology services that enhances the capabilities of the initial CTS specification for sub-setting and mapping, and extends the specification into domains such as terminology distribution, versioning, and classification.

Following some refinement of the HL7/OMG process at the September 2009 meeting, CTS2 completed DSTU ballot and the OMG RFP was issued in December 2009. The HSSP process has been modified for this service to allow HL7 individual members to take part as supporters (members of the OMG task force without a vote) or reviewers. Supporters agree to perform timely and regular review of artifacts when requested. Reviewers may review artifacts when requested – all HL7 members are automatically eligible to be reviewers.

The original three responders have now coalesced into a single implementation being led by the Mayo Clinic. This work was due for completion in four weeks to allow finalisation at the OMG meet-

ing in April 2011. Feedback from IHTSDO and CDISC has been received which will now be incorporated and lead to endorsement by both groups. This will push back final implementation at OMG to June 2011. Feedback from OMG and incorporation into the CTS2 DSTU standard will then be undertaken with a view to Normative Ballot at the October HL7 meeting.

The responses are being harmonised to achieve a single vision. Additional drivers and requirements have been identified including the:

- Need for Semantic Web/Ontology community buy in to the project? This must be a general service specification not just supporting healthcare if it is to achieve the desired outcomes. This means that the requirements must be holistic enough to be able to meet the needs of a variety of communities. In OMG this is not seen as a health initiative, but a general one in the OMG Ontology committee.
- Recognition of existing investment such as:
 - NCI/Mayo LexEVS compatibility – significant existing investment that it is best not to invalidate
 - BioPortal compatibility
 - RESTful compatible architecture. The REST interface has some difficulties with some of the signatures as they are not always well constructed semantically.
 - II4SM Model
 - Reasoning
 - Z representation
 - OMV alignment – offers a semi-formal standard, and CTS2 has been asked to pay attention to and accommodate this requirement
 - API4KB Alignment – there are many interfaces used at the moment, protégé has an API for this, protégé 4 has the Manchester Owl interface. Each has certain limitations. There is a proposal in the OMG to come up with a standard API for ontologies. One would use API4KB and CTS2 is a higher level of abstraction, and
 - Others

The approach requires that the specification include a platform independent model, mapped to multiple platform specific models (PSMS) services. These responses are being harmonised to achieve a single vision.

Actions for Australia

Topic	Issue/Action/Recommendations	Recommended for action by
Implementation of Terminology (Core Principles)	All those involved in the implementation to terminology (not just in messages) should become familiar with this document. Action: Consider how we should inform the Australian community about this piece of work and its relevance to eHealth and EHR, and the skills we need in this area.	IT-014 HL7 Australia and NEHTA
IHTSDO Workbench	Result of ITSDO workbench review identified licensing and workbench component issues. Action: Consider the issues related to the workbench and whether they A) Impact Australia, and B) What our position regarding these issues should be at IHTSDO.	NEHTA
Glossary Process	Glossary development and best practice material to be developed Action: This is additional workload for IT-014-02, but it is work that we can leverage for our own use.	IT-014 IT-014-02
Terminology Implementation	Understanding of the requirements and principles of common terminology services is a core skill for any person implementing terminology into systems in Australia. There is little knowledge at the moment. Action: Consideration of the priority and requirements for (at least) development of sufficient knowledge and skill to assess risks and opportunities related to terminology introduction in Australia.	IT-014 NEHTA
OID Registry Metadata	Ongoing participation in the ISO work in this area is required, including understanding of the approach to be taken by HL7 (who are actively liaising in this process) in order to prepare changes required to Australia's HL7 OID registry where appropriate. Action: Ongoing support of OID registry project participation at ISO.	IT-014 HL7 Australia
Common terminology services (2)	This service supports safe, longitudinal use of terminology features to support healthcare. There were no NEHTA staff in attendance at the vocabulary work group at this meeting. Action: Investigate the need for a CTS and the governance required. A national approach would seem vital. Action: Active engagement and development of knowledge of the terminology issues addressed at HL7 should be encouraged.	NEHTA

End of Report

APPENDIX A

ACRONYMNS

ArB	Architecture Review Board
CDA	Clinical Document Architecture
CDS	Clinical Decision Support Workgroup
CIC	Clinical Interoperability Council Workgroup
CBCC	Community Based Collaborative Care Workgroup
conHIT2011	European Health Informatics Conference 2011
DAM	Domain Analysis Model
DCM	Detailed Clinical Models
DICOM	Digital Imaging and Communication in Medicine
DTSU	Draft Standard for Trial Use
ECCF	Enterprise Compliance and Conformance Framework
ELGA	Austrian CDA Implementation Guide in Development
EFMI	European Federation of Medical Informatics
EHR	Electronic Health Record Workgroup
HITSP	Health Information Standards Panel
HL7	Health Level 7 International
(HL7) ELC	HL7 E-Learning Course
IHE	Integrating the Health Enterprise
IC	Implementation/Conformance Workgroup
InM	Infrastructure and Messaging Workgroup
ITS	Implementable Technology Specifications
IHTSDO	International Health Terminology Standards Development Organisation
IXS	Identity Cross-Reference Service
LOINC	Logical Observation Identifiers Names and Codes dataset
MDA	Model Driven Architecture
MnM	Modeling and Methodology Workgroup
NHIN	(The USA) National Health Information Network
NIST	National Institute of Standards and Testing
OID	Object Identifier

O&O	Orders and Observations Workgroup
OMG	Object Management Group
PA	Patient Administration Workgroup
PC	Patient Care Workgroup
PHER	Public Health and Emergency Response Workgroup
PIM	Platform Independent Model
PSM	Platform Specific Model
RIMBAA	RIM Based Application Architecture
RLUS	Retrieve Locate and Update Service
RM-ODP	Reference Model of Open Distributed Processing
SAIF	Services Aware Interoperability Framework
SDO	Standards Development Organization
SNOMED	Systematized Nomenclature of Medicine
SOA	Services Oriented Architecture
STC	Technical Steering Committee
T3SD	Technical and Support Services Steering Division
vMR	Virtual Medical Record