



# Management Development Programme

IIHMR, New Delhi

30 to 31 October, 2008

## HL7 Standard for Health Care in India

### Programme Report

A two days program on “HL7 Standard for Health Care in India” was conducted at IIHMR, Dwarka, New Delhi on October 30<sup>th</sup> and 31<sup>st</sup> 2008. A brief overview of the program is as follows:

#### Day One (30<sup>th</sup> October, 2008)

The first day was planned to cover the Introduction to HL7 and in depth orientation of HL7 2.x. There were four sessions planned for the day and they were as follows:

- Introduction to HL7
- Usage of HL7 in Healthcare Industry
- Basics of HL7 2.x
- Advanced HL7 2.x

During the “Introduction to HL7” some of the basic concepts like “what is HL7?” and “why it is required” etc were discussed. There was brief comparison of various HL7 Messaging standards like HL7 2.x, 3.0 and CDA R2. Examples of these HL7 Messaging standards were also shown during this part of the program.



The “Usage of HL7 in Healthcare Industry” session covered Usage and Applications of HL7 in Healthcare Industry. The applications discussed during the program included Building of Integrated Healthcare Enterprise, Integrating Healthcare entities like Hospitals with clinics, Laboratories etc, implementing Electronic Health Record, Bringing Regional Health Information Organizations (RHIOs) together to form NHIN.

The case studies of Canada Health Infoway and RHIOs in US were discussed to understand the methodology adopted in these two regions to implement HER and their advantages/disadvantages. The case studies were presented to educate the audience about how HL7 was used in those regions to implement EHR and also to make audience to think about using HL7 in Indian Healthcare Industry. The session was very interactive and lots of questions, answers and suggestions were exchanged.



In the next session i.e. “Basics of HL7 2.x” basics of HL7 2.x like HL7 message structure, delimiters used, HL7 message segments, fields and their components were discussed. Some of the segments like MSH, PID, PV1, ORC, OBR etc. were explained in detail. This session also included some more basics of HL7 2.x like trigger events, data Types.

The basic session on HL7 was followed by “Advanced HL7 2.x”. This session included different types of HL7 acknowledgements like Original mode and enhanced mode. An explanation about various special HL7 protocols was given. Various HL7 message control segments were also listed and brief explanation about each of the message control segments was given.

The advanced session on HL7 further included a details orientation of all the HL7 domains. During the orientation all fifteen different domains were discussed along with the examples. The session also included advantages/disadvantages of using HL7 and its future.

During the Basics as well as advanced sessions attendees posed lots of questions seeking clarification on course contents like message structure, acknowledgements etc. Even some of them brought up the issues they are facing while implementing HL7 in their organization.



## **Day Two (31<sup>st</sup> October, 2008)**

Second day of the program was concentrated exclusively on HL7 V3. There were four sessions planned for the day. They were as follows:

- Basics of HL7 V3
- HL7 V3 Message Development Methodology

- HL7 V3 Message Development Tools
- Walkthrough of HL7 V3 Message Development Process

“Basics of HL7 V3” session covered the topics like Why HL7 V3? Goals of HL7 V3, RIM and RIM back bone classes (Act, Entity, Role etc).The location path of RIM on the HL7.org was shown so that attendees can download the RIM artifacts later for the further analysis.

The end to end coverage was given on “HL7 V3 Message Development Methodology”. This was based on HL7 V3 Message Development Framework (mdf).A deep dive into four stages of HL7 V3 message development methodology was made. Examples and actual artifacts were shown during the session to give better understanding of the RIM to the attendees.

A details session was conducted on “HL7 V3 Message Development Tools”. The tools discussed during the session included RMIM designer, RoseTree, HL7 Test Harness, HL7 V3 generator etc. The location details at which these tools are available for free download were also given.

A demonstration on how HL7 V3 messages are designed and how the different HL7 V3 messaging artifacts are developed was given in the “Walkthrough of HL7 V3 Message Development Process” session. A sample HL7 V3 message was designed using RMIM designer and then it was saved to the RIM Repository. Further HMD was generated using RoseTree and later HMD was fed to the HL7 V3 generator to generate schema, mif files etc.

The presentations used during the presentation were distributed as Handouts and apart from that following handouts were given to the attendees.

1. Healthcare 2015 and Personal Health Records - A Standards Framework
2. Journal Paper on CGL7
3. A write up on HL7 CDA, R2 from Journal of the American Medical Informatics Association
4. The Eclipse Open Health Framework
5. Creating CDA R2 Laboratory Reports to meet Public Health Surveillance Requirements

## FEED BACK FROM THE PARTICIPANTS

Please tick in the columns A-E (A=Very Good, B=Good, C=Fair, D=Poor, E=Very Poor)

	A	B	C	D	E	Remarks
<b>Basics of HL7 2.x</b>						
1. Content of the module	3	6				
2. Presentation	5	4				

<b>Advanced HL7 2.x</b>						
1. Content of the module	1	6	2			
2. Presentation	5	2	2			

<b>Basics of HL7 V3</b>						
1. Content of the module	4	5				
2. Presentation	5	4				

<b>HL7 V3 Message Development Methodology</b>						
1. Content of the module	5	3	1			
2. Presentation	4	4	1			

<b>HL7 V3 Message Development Tools</b>						
1. Content of the module	6	3				
2. Presentation	5	3	1			

### 1. Additional topics required to be added to the programme.

1. More practical topics related to hospitals can be added.
2. Brief mention about other handouts and their relationship with HL7
3. Implementation strategies of HL7
4. Implementation case studies
5. Technicalities of the programme must be backed-up by good and illustrative examples.

## **2. Topics irrelevant to the programme.**

1. Technical details and programme language details can be curtailed.
2. Technical details of HL7 needs to be pruned keeping in mind the participation of non IT personnel as well.

## **3. Further need to increase the time allotted for class room sessions?**

1. For medical professionals/administrators course can be deduced to one day and simplified.
2. Three days session would be better.
3. HL7 V3 need more time and practical sessions
4. Sufficient time is being provided.

## ***Your comments about the overall programme***

1. Overall programme is very good, however the programme should be more clinical based and less technicalities.
2. Very good response to HL7
3. Despite being a non IT person, the course contents were understandable and interesting
4. Served my objectives
5. There is a scope for collaboration with IIMR for training needs GNCTD for health personnel regarding HIMS Project implementation.
6. The programme has been designed well keeping in mind the requirements of the participants.
7. The presentations were excellent and so was the hospitality
8. Similar programmes may please be organized in future.
9. Well managed
10. Very well presented
11. Viru and Naveen are good presenters and are well versed with HL7. We have gained a lot. Hope we can deal with HL7 in future in a clear way

## LIST OF PARTICIPANTS

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