

MyHRDM

Malaysian Health Reference Data Model

Organised by: Health Informatics Centre, Planning Division, MOH Malaysia

Invited consultant: Mr. Mark Fuller, MOH Consultant

What is MyHRDM

- a high level documentation
- a reference for the development of MyHDW
- it documents the high level conceptual data model required for individual subject areas within MyHDW
- To allow precise and consistent definition of healthcare data concepts for the creation of MyHDW
- and in the future, the Malaysian Healthcare System as a whole.

Workshop's Objective

- To develop the initial version of MyHRDM document for:
 - Clinical component
 - Non-clinical component (Cost & Human Resource)
- And align with components / requirements in (SMRP):
 - Inpatient
 - Daycare
 - Clinical Support
 - Outpatient

Workshop's Agenda

- To establish the initial working groups for MyHRDM;
- To educate the working group in their respective subject areas as the Subject Matter Experts (SME) in developing MyHRDM;
- To discuss and develop an initial reference data model based on required reports by Stakeholders.

About Data Modeling

Advantages & Importance of Data Model

- To make sure that all data objects provided by the functional team are completely and accurately represented
- Data model is detailed enough to be used by the technical team for building the physical database.
- The Information contained in the data model will be used to define the significance of business, relational tables, primary and foreign keys, sorted procedures, and triggers
- Data Model can be used to communicate the business within and across businesses

Data Modeling Development Cycle

1. Gathering Business Requirements – First phase
2. Conceptual Data Modeling – Second phase
 - a) Includes all major entities, relationships and it will not contain much detail about attributes and is often used in the initial planning phase
3. Logical Data Modeling – Third Phase
 - a) This is the actual implementation of a conceptual model. It represents all of the business requirements of an organisation
4. Physical Data Modeling – Fourth Phase
 - a) This is a complete model that includes all required tables, columns, relationship, database properties for the physical implementation of the database
5. Database – Fifth Phase
 - a) DBAs instruct the data modeling tool to create the SQL code from physical data model. Then the SQL code is executed in server to create databases.

Conceptual Data Modeling (CDM)

- CDM includes all major entities and relationships and does not contain much detailed level of information about attributes and is often used in the initial planning phase.
- CDM is created by gathering business requirements from various sources like business documents, discussion with functional teams, business analysts, smart management experts and end users who do the reporting on the database. Data modelers create conceptual data model and forward that model to functional team for their review.

Secretariat Briefing

“If you think you can do it, or you think you can’t do it, you are right.”

– Henry Ford

Tentative Programme: 3-5 June 2013

Time	Programme	Notes
3 June 2013		
3.00 pm – 5.00 pm	Introduction	
8.30 pm – 10.00 pm	Preliminary Workshop	
4 June 2013		
8.30 am – 10.00 pm	Preliminary Workshop	
5 June 2013		
8.30 am – 12.00 pm	Workshop preparation	

Tentative Programme: 5-7 June 2013

Time	Programme	Notes
5 June 2013		
3.00 pm – 5.00 pm	Introduction	
8.30 pm – 10.00 pm	Workshop	
6 June 2013		
8.30 am – 10.00 pm	Workshop <ul style="list-style-type: none">• 2.00 pm: Harmonisation session• 8.30 pm: Preliminary presentation	
7 June 2013		
8.30 am – 10.00 am	Workshop	
11.00 am – 12.00 pm	Finalized presentation Document to be endorsed during NHIC on 27 th June 2013	

Tentative Programme: 10-12 June 2013

Time	Programme	Notes
10 June 2013		
3.00 pm – 5.00 pm	Introduction	
8.30 pm – 10.00 pm	Workshop	
11 June 2013		
8.30 am – 10.00 pm	Workshop <ul style="list-style-type: none">• 2.00 pm: Harmonisation session• 8.30 pm: Preliminary presentation	
12 June 2013		
8.30 am – 10.00 am	Workshop	
11.00 am – 12.00 pm	Finalized presentation Document to be endorsed during NHIC on 27 th June 2013	

Tentative Programme: 12-14 June 2013

Time	Programme	Notes
12 June 2013		
3.00 pm – 5.00 pm	Introduction	
8.30 pm – 10.00 pm	Documentation Workshop	
13 June 2013		
8.30 am – 10.00 pm	Documentation Workshop	
14 June 2013		
8.30 am – 10.00 am	Documentation Workshop	
11.00 am – 12.00 pm	Finalized Documentation	

Core Team (3-5 & 12-14 June 2013)

Mark Fuller	Dr. Md. Khadzir bin Sheikh Ahmad	Lim Hui Kuin
BPM	BPM	BPM
BPM	BPM	BPM
MIMOS	MIMOS	MIMOS
MIMOS	MIMOS	MIMOS
Dr. Maizura binti Musa	En. Zainuddin bin Ahmad	Dr. 'Ismat binti Mohd Sulaiman
Dr. Azrulreezal Azanee bin Abdul Wahab	Dr. Fathullah Iqbal bin Ab Rahim	Dr. Nur Shaema Bt Darus
Dr. Azman bin Johari	Dr. Mustaffar bin Jaapar	En. N. Rajkumar a/l V. Nagarethinam
En. Jamalul Rijal bin Abd. Aziz	Cik Norsuhada binti Sulaiman	En. Ku Aznal Shahri bin Ku Abd Hamid
En. Wan Mohd Nasrun bin Wan Sulaiman	Cik Nurul Jannah binti Mat Ali	Cik Nur Azlin bt. Rashiddy Wong

Working Groups I (5-7 June 2013)

GROUP 1	GROUP 2	GROUP 3
Mark Fuller	Dr. Md. Khadzir bin Sheikh Ahmad	Lim Hui Kuin
Bahagian Telekesihatan	Bahagian Amalan Perubatan	Bahagian Perkembangan Perubatan
Bahagian Sains Kesihatan Bersekutu	Bahagian Kejururawatan	Bahagian Pembangunan Kesihatan Keluarga
Unit MNHA	Unit NHF	Unit Perancangan Dasar & Pelan Kesihatan
BPM	BPM	BPM
BPM	BPM	BPM
MIMOS	MIMOS	MIMOS
MIMOS	MIMOS	MIMOS
Dr. Maizura binti Musa	En. Zainuddin bin Ahmad	Dr. 'Ismat binti Mohd Sulaiman
Dr. Azrulreezal Azannee bin Abdul Wahab	Dr. Fathullah Iqbal bin Ab Rahim	Dr. Nur Shaema Bt Darus
Dr. Azman bin Johari	Dr. Mustaffar bin Jaapar	En. N. Rajkumar a/l V. Nagarethinam
En. Jamalul Rijal bin Abd. Aziz	Cik Norsuhada binti Sulaiman	
En. Wan Mohd Nasrun	Cik Nurul Jannah binti Mat Ali	Cik Nur Azlin bt. Rashiddy Wong

Working Groups II (10-12 June 2013)

GROUP 1	GROUP 2	GROUP 3
Mark Fuller	Dr. Md. Khadzir bin Sheikh Ahmad	Lim Hui Kuin
Bahagian Telekesihatan	Bahagian Amalan Perubatan	Bahagian Perkembangan Perubatan
Bahagian Sains Kesihatan Bersekutu	Bahagian Kejururawatan	Bahagian Pembangunan Kesihatan Keluarga
Unit MNHA	Unit NHF	Unit Perancangan Dasar & Pelan Kesihatan
BPM	BPM	BPM
BPM	BPM	BPM
MIMOS	MIMOS	MIMOS
MIMOS	MIMOS	MIMOS
Dr. Maizura binti Musa	En. Zainuddin bin Ahmad	Dr. 'Ismat binti Mohd Sulaiman
Dr. Azrulreezal Azannee bin Abdul Wahab	Dr. Fathullah Iqbal bin Ab Rahim	Dr. Nur Shaema Bt Darus
Dr. Azman bin Johari	Dr. Mustaffar bin Jaapar	En. N. Rajkumar a/l V. Nagarethinam
En. Jamalul Rijal bin Abd. Aziz	Cik Norsuhada binti Sulaiman	
En. Wan Mohd Nasrun	Cik Nurul Jannah binti Mat Ali	Cik Nur Azlin bt. Rashiddy Wong

Documents & References

- Buku Panduan SMRP

Thank you

“The truth of the matter is that there’s nothing you can’t accomplish if:

- (1) You clearly decide what it is that you’re absolutely committed to achieving,*
- (2) You’re willing to take massive action,*
- (3) You notice what’s working or not, and*
- (4) You continue to change your approach until you achieve what you want, using whatever life gives you along the way.”*

-Tony Robbins