



# EHR-S Functional model en Standaard

TC EHR-S FM 21-09-2010

# Documentatie m.b.t. het EHR/PHR -S FM

- Zie website:  
EHR: <http://www.hl7.org/EHR/>  
PHR: <http://wiki.hl7.org/index.php?title=EHR>
- Informatie over ontwikkelingen, ballot, etc.
- Documenten, presentaties en downloads, waaronder het generieke EHR/PHR-S FM.



# Hoofdstuk 1: Overzicht (Februari 2007)

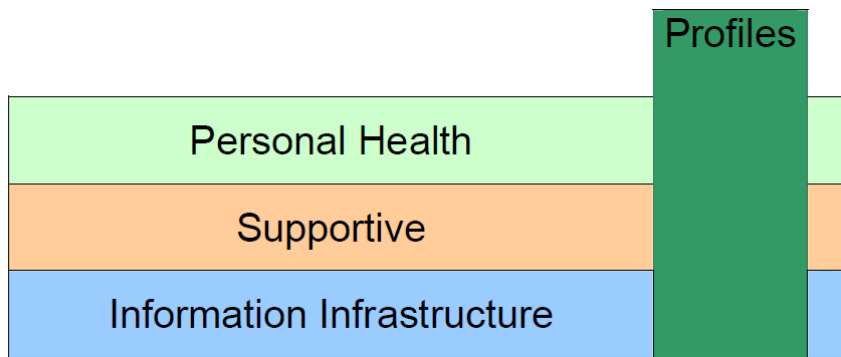
- Geeft inzicht in de
  - ontwikkeling van het EHR/PHR-S FM,
  - scope, doel, definitie van het Functional Model,
  - verondersteld gebruik
  - scenario' s voor gebruik.

# Hoofdstuk 2: Conformiteitsclausules

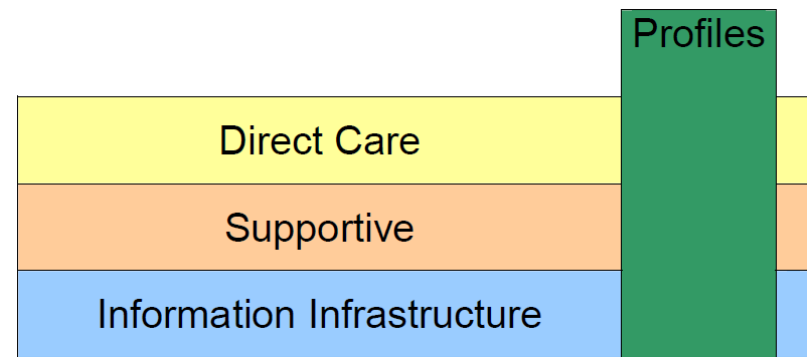
- Bewering van conformiteiten over:
  - Normatief taalgebruik in een profiel
  - Criteria in een functional profile
  - Structuur in het profiel
  - Regels voor het profiel
  - Use cases en voorbeelden
  - Definities

# Overeenkomsten PHR-S en EHR-S

- Functies zoals bepaald in HL7 PHR-S en EHR-S concept



Indeling PHR-S FM



Indeling EHR-S FM

# Functional Model in Vogelvlucht

## EHR

## PHR

<b>Direct Care</b>	DC.1	Care Management
	DC.2	Clinical Decision Support
	DC.3	Operations Management and Communication
<b>Supportive</b>	S.1	Clinical Support
	S.2	Measurement, Analysis, Research and Reports
	S.3	Administrative and Financial
<b>Information Infrastructure</b>	IN.1	Security
	IN.2	Health Record Information and Management
	IN.3	Registry and Directory Services
	IN.4	Standard Terminologies & Terminology Services
	IN.5	Standards-based Interoperability
	IN.6	Business Rules Management
	IN.7	Workflow Management

<b>Personal Health</b>	PH.1.0	Account Holder Profile
	PH.2.0	Manage Historical Clinical Data And Current State Data
	PH.3.0	Wellness, Preventive Medicine, and Self Care
	PH.4.0	Manage Health Education
	PH.5.0	Account Holder Decision Support
	PH.6.0	Manage Encounters with Providers
<b>Supportive</b>	S.1.0	Provider Management
	S.2.0	Financial Management
	S.3.0	Administrative Management
	S.4.0	Other Resource Management
<b>Information Infrastructure</b>	IN.1.0	Health Record Information Management
	IN.2.0	Standards Based Interoperability
	IN.3.0	Security
	IN.4.0	Auditable Records

# Hfst 3: Personal Health Functions PHR

ID#	Type	Name	Statement/Description	See Also in EHR-S FM	See Also in PHR-S FM	Conformance Criteria	Row
			flag).  <b>Examples:</b> Produce a summary record of care and present ad hoc views of the health record such as the same unambiguous list of medications that is referenced by all providers, pharmacists, and the PHR Account Holder him/her self.			1. If the jurisdiction provides individuals with an option to indicate or not indicate that information has been withheld, the system <b>SHALL</b> provide the ability for the PHR Account Holder to exercise that option.	7
PH.1	H	PHR Account Holder Profile	<b>Statement:</b> Manage PHR Account Holder demographics, preferences, Advance Directives, consent directives and authorizations.  <b>Description:</b> The person that is the subject of the personal health record is referred to as the PHR Account Holder. The PHR Account Holder may also be represented by the parent/guardian, or a designated representative (proxy) assigned by the PHR Account Holder or otherwise authorized entity. The PHR includes relevant demographic information and other administrative statements necessary to provide care such as Advance Directives or consents for care.  <b>Examples:</b> Display and maintain demographics or preferences such as the PHR Account Holder's preferred first or religious preferences.	S.1.4.1 S.2.2.1 S.3.1.2 S.3.1.5 IN.2.1 IN.2.3			8
PH.1.1	F	Identify and Maintain a Patient Record	<b>Statement:</b> Unambiguously identify the PHR Account Holder; correctly link the information with the PHR Account Holder and vice-versa.  <b>Description:</b> The PHR Account Holder must be confident that the system can reliably and uniquely identify them and provide access to their health record. Nothing precludes the PHR Account Holder from having more than one PHR such as a tethered PHR-S with	S.1.4.1 S.2.2.1 S.3.1.2 S.3.1.5 IN.2.1 IN.2.3		1. The system <b>MAY</b> provide a user guide to assist the PHR Account Holder in installing, initializing, registering, or operating their PHR.	9
						2. The system <b>SHALL</b> provide the ability to store more than one unique identifier for each PHR Account Holder's record.	10
						3. The system <b>SHOULD</b> provide the ability to capture, store and utilize the PHR Account Holder's unique identifiers from multiple external sources	11
						4. The system <b>SHALL</b> associate key identifier information (e.g., medical record number, insurance account number, and voluntary unique identifiers) with each PHR Account Holder.	12

# Hfst 3: Direct Care Functions EHR

ID#	Type	Name	Statement/Description	See Also	Conformance Criteria	Row #
			clinical category, or by consultant, depending on need. Jurisdictional laws and organizational policies that prohibit certain users from accessing certain patient information must be supported.	IN.5.1 IN.5.2 IN.5.4 IN.6	5. The system <b>SHALL</b> conform to function IN.2.2 (Auditable Records).	80
DC.1.2	F	Manage Patient History	<p><b>Statement:</b> Capture and maintain medical, procedural/surgical, social and family history including the capture of pertinent positive and negative histories, patient-reported or externally available patient clinical history.</p> <p><b>Description:</b> The history of the current illness and patient historical data related to previous medical diagnoses, surgeries and other procedures performed on the patient, and relevant health conditions of family members is captured through such methods as patient reporting (for example interview, medical alert band) or electronic or non-electronic historical data. This data may take the form of a pertinent positive such as: "The patient/family member has had..." or a pertinent negative such as "The patient/family member has not had..."</p> <p>When first seen by a health care provider, patients typically bring with them clinical information from past encounters. This and similar information is captured and presented alongside locally captured documentation and notes wherever appropriate.</p>	S.2.2.1 S.3.5 IN.1.7 IN.2.5.1 IN.2.5.2 IN.4.1 IN.4.2 IN.4.3 IN.5.1 IN.5.2 IN.5.4	1. The system <b>SHALL</b> provide the ability to capture, update and present current patient history including pertinent positive and negative elements.	81
					2. The system <b>SHOULD</b> provide the ability to capture and present previous external patient histories.	82
					3. The system <b>MAY</b> provide the ability to capture the relationship between patient and others.	83
					4. The system <b>SHALL</b> capture the complaint, presenting problem or other reason(s) for the visit or encounter.	84
					5. The system <b>SHOULD</b> capture the reason for visit/encounter from the patient's perspective.	85
					6. The system <b>SHOULD</b> conform to function IN.1.4 (Patient Access Management).	86
					7. The system <b>SHALL</b> conform to function IN.2.2 (Auditable Records).	87
DC.1.3	H	Preferences, Directives, Consents and Authorizations			1. The system <b>SHOULD</b> conform to function IN.1.4 (Patient Access Management).	88
					2. The system <b>SHALL</b> conform to function IN.2.2 (Auditable Records).	89
DC.1.3.1	F	Manage Patient and Family Preferences	<p><b>Statement:</b> Capture and maintain patient and family preferences.</p> <p><b>Description:</b> Patient and family preferences regarding issues such as</p>	DC.2.1.4 S.3.7.1	1. The system <b>SHALL</b> provide the ability to capture, present, maintain and make available for clinical decisions patient preferences such as language, religion, spiritual practices and culture.	90



# Hfst 4: Supportive Functions

ID#	Type	Name	Statement/Description	See Also	Conformance Criteria	Row #
S.1	H	Clinical Support			1. The system <b>SHALL</b> conform to function IN.1.1 (Entity Authentication).	1
					2. The system <b>SHALL</b> conform to function IN.1.2 (Entity Authorization).	2
					3. The system <b>SHALL</b> conform to function IN.1.3 (Entity Access Control).	3
S.1.1	F	Registry Notification	<p><b>Statement:</b> Enable the automated transfer of formatted demographic and clinical information to and from local disease specific registries (and other notifiable registries) for patient monitoring and subsequent epidemiological analysis.</p> <p><b>Description:</b> The user can export personal health information to disease specific registries, other notifiable registries such as immunization registries, through standard data transfer protocols or messages. The user can update and configure communication for new registries.</p>	IN.2.4, IN.4.1, IN.4.2, IN.5.1, IN.5.2, IN.5.4	1. The system <b>SHOULD</b> automatically transfer formatted demographic and clinical information to local disease specific registries (and other notifiable registries).	4
					2. The system <b>MAY</b> provide the ability to automate the retrieval of formatted demographic and clinical information from local disease specific registries (and other notifiable registries).	5
					3. The system <b>SHOULD</b> provide the ability to add, change, or remove access to registries.	6
S.1.2	F	Donor Management Support	<p><b>Statement:</b> Provide capability to capture or receive, and share needed information on potential donors and recipients.</p> <p><b>Description:</b> The user is able to capture or receive information on potential donors and recipients (for products such as blood, organs, eggs, sperm, or stem cells). The user can make this information available to internal and external donor matching agencies.</p>	IN.1.7 IN.2.4	1. The system <b>MAY</b> provide the ability to document demographic and clinical information needed for the donation.	7
					2. The system <b>MAY</b> receive demographic and clinical information about potential donors.	8
					3. The system <b>MAY</b> receive demographic and clinical information about the donation.	9
					4. The system <b>MAY</b> share documented demographic and clinical information about potential donors with appropriate outside parties.	10
					5. The system <b>MAY</b> share documented demographic and clinical information about the donation with appropriate outside parties.	11
S.1.3	H	Provider Information	<p><b>Statement:</b> Maintain, or provide access to, current provider information.</p>	IN.1.3 IN.4		12
S.1.3.1	F	Provider Access Levels	<p><b>Statement:</b> Provide a current registry or directory of practitioners that contains data needed to determine levels of access required by the system.</p>	IN.2.3 IN.3	1. The system <b>SHOULD</b> provide a registry or directory of all personnel who currently use or access the system.	13
					2. The system <b>SHOULD</b> contain, in the directory, the realm-specific legal identifiers required for care delivery such as	14

# Hfst 5: Information Infrastructure Functions

ID#	Type	Name	Statement/Description	See Also	Conformance Criteria	Row #
IN.1.9	F	Patient Privacy and Confidentiality	<p><b>Statement:</b> Enable the enforcement of the applicable jurisdictional and organizational patient privacy rules as they apply to various parts of an EHR-S through the implementation of security mechanisms.</p> <p><b>Description:</b> Patients' privacy and the confidentiality of EHRs are violated if access to EHRs occurs without authorization. Violations or potential violations can impose tangible economic or social losses on affected patients, as well as less tangible feelings of vulnerability and pain. Fear of potential violations discourages patients from revealing sensitive personal information that may be relevant to diagnostic and treatment services. Rules for the protection of privacy and confidentiality may vary depending upon the vulnerability of patients and the sensitivity of records. Strongest protections should apply to the records of minors and the records of patients with stigmatized conditions. Authorization to access the most sensitive parts of an EHR is most definitive if made by the explicit and specific consent of the patient. Please see the definition of masking in the glossary.</p>	IN.6	1. The system <b>SHALL</b> provide the ability to fully comply with the requirements for patient privacy and confidentiality in accordance with a user's scope of practice, organizational policy, or jurisdictional law.	37
					2. The system <b>SHALL</b> conform to function IN.1.1 (Entity Authentication).	38
					3. The system <b>SHALL</b> conform to function IN.1.2 (Entity Authorization).	39
					4. The system <b>SHALL</b> conform to function IN.1.3 (Entity Access Control).	40
					5. The system <b>SHOULD</b> conform to function IN.1.5 (Non-Repudiation).	41
					6. The system <b>SHOULD</b> conform to function IN.1.6 (Secure Data Exchange).	42
					7. The system <b>SHOULD</b> conform to function IN.2.2 (Auditable Records).	43
					8. The system <b>SHALL</b> provide the ability to maintain varying levels of confidentiality in accordance with users' scope of practice, organizational policy, or jurisdictional law.	44
					9. The system <b>SHALL</b> provide the ability to mask parts of the electronic health record (e.g. medications, conditions, sensitive documents) from disclosure according to scope of practice, organizational policy or jurisdictional law.	45
					10. The system <b>SHALL</b> provide the ability to override a mask in emergency or other specific situations according to scope of practice, organizational policy or jurisdictional law.	46
IN.2	H	Health Record Information and Management	<p><b>Statement:</b> Manage EHR information across EHR-S applications by ensuring that clinical information entered by providers is a valid representation of clinical notes; and is accurate and complete according to clinical rules and tracking amendments to clinical documents. Ensure that information entered by or on behalf of the patient is</p>			47



# **HL7 EHR TC**

## **Electronic Health Record-System Functional Model, Release 1 February 2007**

# Glossary



# **HL7 EHR TC**

## **Electronic Health Record-System Functional Model, Release 1 February 2007**

### **How-To Guide for Creating Functional Profiles**

# Andere profielen in ontwikkeling

- PHR System Functional Model
- EHR Behavioral Health Functional Profile, R1
- EHR Child Health Functional Profile, R1
- Oncology EHR Functional Profile
- EHR Vital Records Functional Profile
- EHR NCPDP Pharmacy/Pharmacist Provider Functional Profile
- EHR NCPDP Standalone E-Prescribing Functional Profile P
- For Public Health
- For Diabetes





WACHT MAAR!  
ER KOMT EEN DAG  
DAT HET GRANIETEN  
PATIENTEN DOSSIER  
VERVANGEN WORDT  
DOOR EEN BETER,  
GEBRUIKSURIENDE-  
LIJKER SYSTEEM!

UTOPIST!

POK!  
POK!

POK!

