



HL7 Personal Health Record System Functional Model and Standard & Industry Update

Presented by:

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Agenda

- Personal Health Record (PHR) Value Proposition
- HL7 PHR Model – Ambassador Briefing
- Plans for Next Release
- Industry Update on PHR Initiatives
- Samples from Around the Globe
- Update on PHR Standards



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PHR Value Proposition for Quality & Safety

1. Improve quality of information on patient's medical history
2. Strengthen patient-provider relationship
3. Encourage informed patients who are engaged in their health and healthcare
4. Extend the care delivery organization's reach for proactive care management



PHR Value Proposition for Quality & Safety (continued)

5. Make clinical encounters more productive
6. Promote early detection of possible drug interactions and post-market safety issues
7. Improve health outcomes via feedback and reinforcement of patients' regarding health activities and self-monitoring



PHR Ambassador Briefing: Executive Summary

- HL7 builds on its solid foundation of international healthcare information technology standards by offering the Personal Health Record System Functional Model (PHR-S FM) as a draft reference standard for Personal Health Record System functionality



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Executive Summary (con't)

The PHR-S FM:

- Is consumer-oriented
- Lists the functions that PHR systems are required to, should, or may, do
- Provides a certification framework
- Serves as an anchor point for system interoperability



PHR vs. PHR-System

■ PHR

- The underlying single, logical patient record
- The data elements comprising the record

■ PHR-S: Software that provides functionality to:

- Manage and maintain the record
- Accomplish the various purposes of the record
 - Consumers & caregivers make health decisions
 - Administrative: provider, financial management
 - Health education, wellness, research, public health

PHR - EHR: What Are the Differences?

■ EHR

- Clinician-centered functionality
- Can be a legal record
- Primarily episodic; could be longitudinal
- Administrative, financial, clinical data

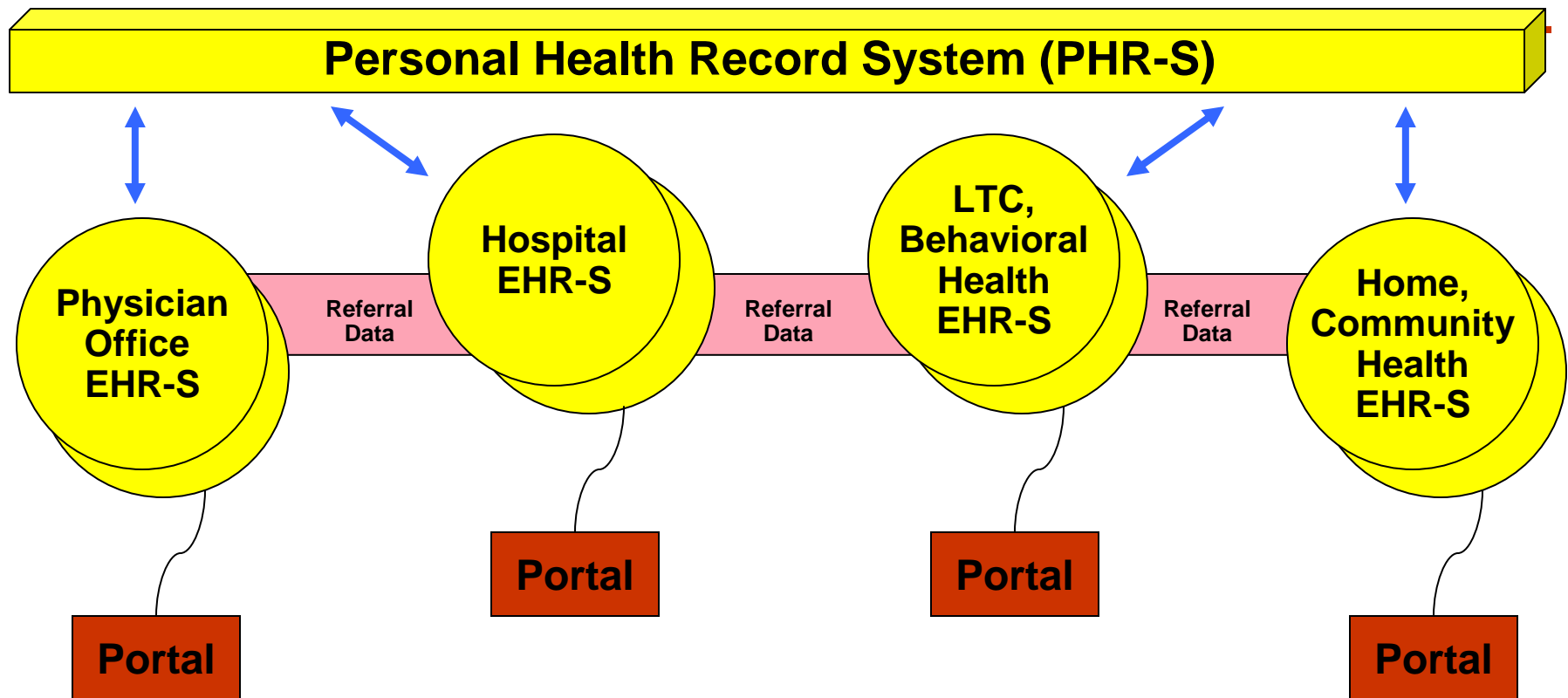
■ PHR

- Individual-centered functionality
- Is not a legal record
- Could be cradle-to-grave
- Critical Question: How much clinical data to store?

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Stand-alone vs. "Linked" PHR-S



Pros:

- Pre-populated data
- Convenience
- Lower maintenance

Cons:

- Episodic, not lifelong
- Which one to use?



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Current Status: PHR-S as a DSTU

- Approved May, 2008 as a Draft Standard for Trial Use (DSTU)
 - Two-year period to continuously improve DSTU, become an ANSI accredited standard
 - Core, not perfect or exhaustive, functionality
 - Enough to begin using as a standard today
 - Enhancement over compatibility with previous versions
 - Ok to leave less essential functions in, but make sure essential functions are not left out



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The Functional Model

Is Not...

- A messaging specification
- An PHR specification
- An implementation specification (not the “how”)
 - Does not prescribe technology, data content
 - Does not dictate how functions must be implemented (e.g., via the user interface, database design)

Is...

- A system specification
- An PHR system specification
- A reference list of functions that may be present in an PHR-S (the “what”)
 - Enables consistent expression of functionality
 - Provides flexibility for innovation and product differentiation
 - Gold standard, sensitive to what can practically be done and future systems 11



Overview of the Standard

Personal Health	PH.1 Account Holder Profile
	PH.2 Manage Historical Clinical Data And Current State Data
	PH.3 Wellness, Preventive Medicine, and Self Care
	PH.4 Manage Health Education
	PH.5 Account Holder Decision Support
	PH.6 Manage Encounters with Providers
Supportive	S.1 Provider Management
	S.2 Financial Management
	S.3 Administrative Management
	S.4 Other Resource Management
Information Infrastructure	IN.1 Health Record Information Management
	IN.2 Standards Based Interoperability
	IN.3 Security
	IN.4 Auditable Records

Functions are categorized and listed hierarchically. *(The highest level functions are shown.)*

Each function has an ID, Name, Statement, Description, Examples, “See Also” and Conformance Criteria.



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PH.2.5 Manage Current State Data Set

PH.2.5.3 Manage Test Results

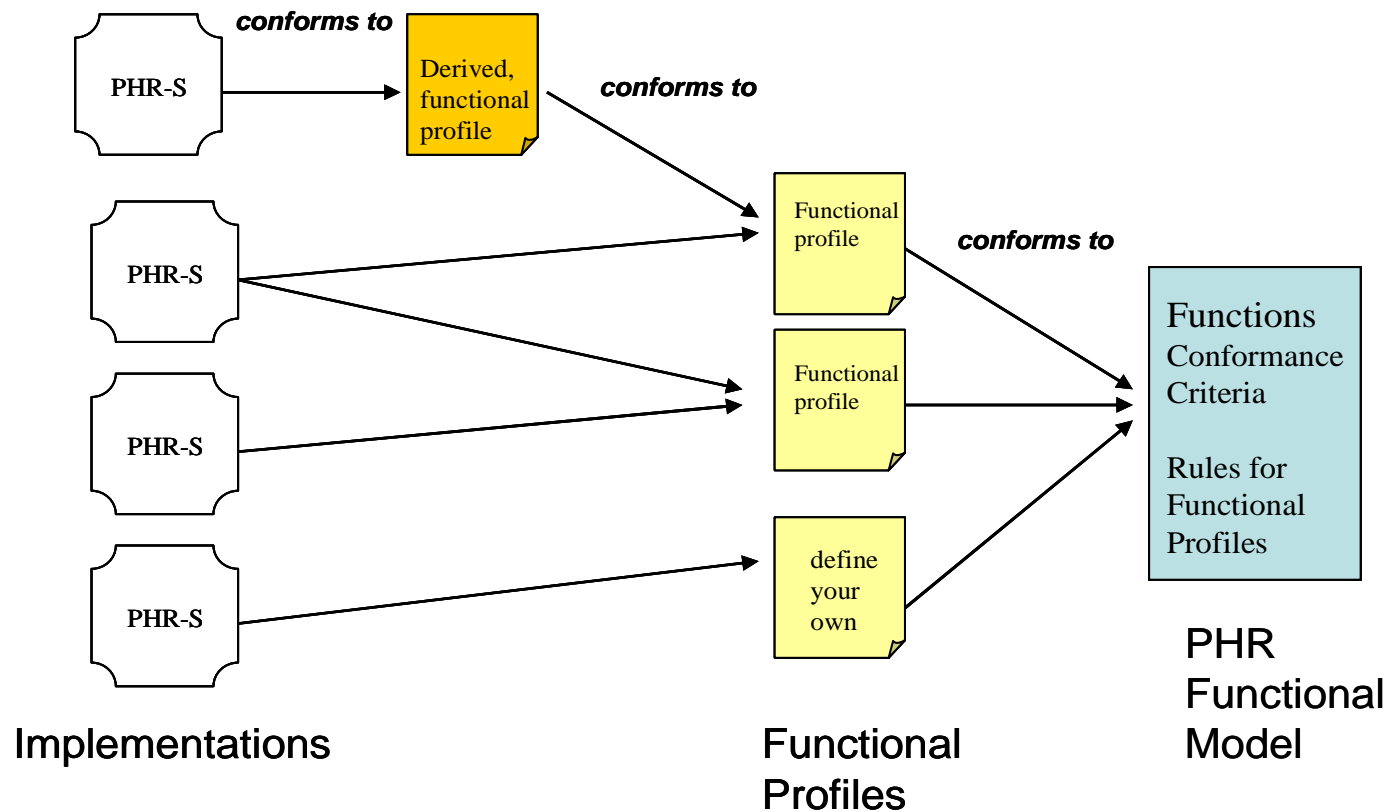
Statement/Description: Capture, maintain and present the results of diagnostic tests including inpatient, ambulatory and home-monitoring tests.

Example: The results reporting list will display when the most recent EKG was done or

1. The system SHALL provide the ability to filter results by factors that supports results management, such as type of test and date range.
2. The system SHOULD indicate normal and abnormal results depending on the data source.
3. The system SHOULD provide the ability to filter lab results by range ...
4. The system SHOULD display numerical results in graphical form and allow
5. The system SHALL provide the ability to group tests done on the same day.
6. The system SHOULD trigger decision support algorithms from the results
7. IF the system contains the electronic order, THEN the results SHOULD be linked to a specific order.



Conformance to Profiles



For More Information

- Visit the HL7 web site and download the standard:

www.HL7.org/ehr

- Subscribe to HL7 PHR List server

www.HL7.org/special/committees/list_sub.cfm?list=ehrwgphr

- Contact the co-facilitators:

- Gary.Dickinson@Centrihealth.com
- Lorraine.Doo@cms.hhs.gov
- Don.Mon@AHIMA.org
- JohnRitter1@verizon.net



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HL7 PHR System Functional Model and Standard

Q & A

R. Lenel James, CPHIT, CPEHR



Agenda

- PHR Value Proposition
- HL7 PHR Model – Ambassador Briefing
- **Plans for Next Release**
- **Industry Update on PHR Initiatives**
- **Samples from Around the Globe**
- Update on PHR Standards



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Next Generation

- EHR-PHR health information exchange
- PHR system's role in RHIOs/HIEs
- Data content, data definitions, data standards
- How the PHR-S FM informs updating of the EHR-S FM
- **Full ANSI (normative) accreditation status**
- Promote internationally



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Next Generation: PHR-S FM

New Issues, Functions and Criteria

- **Medical Device information** might either be collected into the PHR or into the EHR, might then need to be exchanged between the EHR and PHR systems, might also need to be summarized, filtered, staged, and translated into an alert message, etc. before being exchanged
- **Remote Monitoring information exchange** between PHR and EHR systems. For example, Dr. Jones says, “Since my patient is currently recovering from heart surgery, I want the PHR system to monitor his blood pressure every 30 minutes and report to my EHR System immediately if the blood pressure is out-of-range twice within 60 consecutive minutes”
- **Exchange/Synchronization of corrections/updates** to either the EHR or PHR information (perhaps broadcasted to multiple sites/systems). Changes include: home address, care management, medications.
- **Proposed Function - Name:** Medication Adherence **Statement:** Assist the PHR Account Holder to manage his or her compliance with medications and to facilitate communication of his or her adherence to designated individuals



Next Generation: PHR-S FM

New Functions and Criteria

New PHR “consent management” system capabilities:

- The system **SHOULD** provide the ability for the PHR-Account-Holder to authorize access to all or parts of the PHR for the PHR-Account-Holder - specified period of time according to user role, organizational policy, and/or jurisdictional law
- The system **MAY** provide the ability to present an indicator that a designee has the authority to grant others (e.g., a provider-designate or another provider) the authority to access the PHR system according to user role, organizational policy, or jurisdictional law.
- The system **SHOULD** provide the ability to manage consents that were received from external systems (e.g., from an EHR system, a Health Information Exchange, or another PHR system).
- The system **MAY** provide the ability to locate, harmonize, and synchronize (possibly multiple) consents based on user-role, organizational policy, and/or jurisdictional law.

Public and private PHR Projects and Activities

- PHR initiatives:
 - Australia, Brazil, Canada, China, Denmark, Japan, New Zealand, Spain, South Africa, Taiwan, U.K., U.S.A.
- U.S. Centers for Medicare and Medicaid Services (CMS) demonstration projects
- The Dossia Consortium - a non-profit organization of large private employers that seek to empower their employees to make more informed healthcare decisions
- “Project Health Design”
 - Nine, 18-month projects that fund innovative, pioneering aspects of PHR systems www.projecthealthdesign.org



"My Health Summary" Denmark

← → ↻ <https://www.sundhed.dk/Artikel.aspx?id=68872.1060>

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About My Health Overview

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Overview

view, log on sundhed.dk with [NemID or digital signature](#) .
Click on 'Sign on sundhed.dk' button in the upper right corner.
On sundhed.dk, you receive your personalized page called My sundhed.dk.
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How to view?

My health overview and access to your registered health data at sundhed.dk shows:
Information on your doctor)
Prescriptions (sygehusbesøg and excerpts of electronic medical records)
Medicines bought without a prescription and dispensed in a pharmacy)
Your last test answers sent to your doctor from the country's
Registration and registration of living wills)

There is an opportunity to watch your recorded health data sorted by date and you can select the period you would like to view.

Who can get access to My health overview?

Oldest of the tethered PHRs, 'My Health summary' allows authenticated users to obtain an overview of their own patient data.

The available data includes:

- Summary of hospital admissions (back to 1995);
- Recent notes from hospital charts;
- Summary of medication prescribed over the last two years;
- Overview of personal wishes in relation to organ donation and receiving life-prolonging treatment (living wills);
- Status of laboratory tests ordered by physicians;
- Contact information for the personal General Practitioner (GP).

"Patient-Controlled EHR" Australia

www.theaustralian.com.au/australian-it/government/e-health-record-to-contain-basic-patient-details/story-fn4htb9o-1225960772058

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E-health record to contain basic patient details

Karen Dearne | Australian IT | November 25, 2010 11:32AM | 4 comments

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THE Gillard government's much-vaunted \$467 million personally due by July 2012 will in the first instance be a modest patient health existing data sources.

There are no details about summary record information but basic health data includes medications, allergies and any chronic health conditions.

Health Minister Nicola Roxon yesterday put **\$55m in grant funding** on the table for healthcare organisations that want to develop PCEHR systems and become lead sites for the nation's e-health rollout.

Grant application documents reveal the headline \$467m over two years will "provide the capability to produce nationally consistent patient health summaries from compliant information sources" for patients who choose to participate.

RELATED COVERAGE

- Feds search for e-health partner *The Australian, 16 Dec 2010*
- Draft leak raises privacy concerns *The Australian, 7 Dec 2010*
- \$55m funding spurs e-health progress *The Australian, 6 Dec 2010*
- Roxon must act on e-health by

But a fully developed e-health record is still some way off.

"PCEHRs will over time be capable of incorporating a range of health information, such as a patient's general history, pathology and radiology summaries and prescription information," the Health department says.

"This will support more informed clinical assessments and decision-making, improve continuity of care and introduce efficiencies in service delivery."

November 25, 2010,

"THE Gillard government's much-vaunted \$467 million personally-controlled e-health record due by July 2012 will in the first instance be a modest patient health summary drawn from existing data sources. "

"PCEHRs will over time be capable of incorporating a range of health information, such as a patient's general history, pathology and radiology summaries and prescription information," the Health department says.

"This will support more informed clinical assessments and decision-making, improve continuity of care and introduce efficiencies in service delivery."

"Pocket Chart" Japan

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 **Pocket Karte** ポケットカルテ

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知る Information

Management of individual health information to those persons who register. Data that can respond to specific cancer insurance leaders, health care services for individuals.

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letter to browse information and history for your specific cancer.

▶ List of charts

いつでも、どこでも、
あなたの健康情報管理をサポート。

「ヘルスケア家計簿」サービスを活用し、e-Taxで医療費控除を申請しよう。

医療機関の「デジタル領収書」管理サービスを追加しました。

▶ 詳しくはこちらをクリック

Important Notices [List](#)

- This service "MCPC award 2009" in Mobairukonshuma awarded the prize .
- November 27, 2009 (Fri)] [Mobairusoryushonfea MCPC 2009 is being held, NPO we have a lecture Sustainable Community Center Advisory Kitaoka of Japan. ([more](#))
- Your promotional materials we post.

"'Pocket chart' is using the mobile, medical care and safe aim to achieve a safer environment for both users and reduce medical costs is a national problem, preventive care, telemedicine promote community health and medical fields such as playing to promote ICT."

“MediBook” South Africa

“Medibook services are built around a repository of health information that enables people to manage their personal health records while maintaining security, privacy and confidentiality. MediBook repository can provide critical medical information between patients, providers, payers, and emergency services 24 hours a day.

www.medibook.co.za/Microsite/MicroDefault.aspx

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HL7 Plan to Plan PHR Implementation Guide

CDAR2_IG_P2PPHRDATATRANS_R1_I1_2008MAY



HL7 Implementation Guide for CDA Release 2:
Plan-to-Plan Personal Health Record (PHR) Data
Transfer, Release 1 (1st Informative Ballot)

**Levels 1, 2 and 3
P2PPHR (U.S. Realm)**

Based on HL7 CDA Release 2.0

Informative Ballot
First Ballot
May 2008



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