CEN/TC EN 13940-2: Clinical Process & workflow

- **EN 13940-2** describes the following types of processes:
  - **Healthcare Process** (Core clinical process)
    - Consists of **clinical**, **resource management, and clinical management processes**.
  - **Healthcare Provider Research Process**
    - Improving **clinical knowledge of healthcare professionals**
  - **Healthcare Provider Educational Process:**
    - Improving **skills** of healthcare professionals
    - Enabling healthcare professionals to learn the **practical implementation** of the **clinical knowledge** related to patient's care
  - **Healthcare Administrative Process**
    - Used to **control and support** the healthcare process

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CEN/TC EN 13940-2: Clinical Process & workflow

- **Healthcare Process workflow**
  - A clinical process is started through a **demand of care** and go through the following steps:
    - **Initial contact of the patient**
      - The first encounter for **health issue** showing the process for demand of care
    - **Change of Health Conditions**
      - The **activities** that contribute to any change in health condition of the patient.
    - **Program of Care**
      - Healthcare **workflow** with healthcare resources for multiple health issues and health issue threads.
    - **Healthcare activities**
      - Decision, diagnostic activities, plans, etc., and their relationship with other objects such as, *mandate, health condition*, etc.

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Concepts/Coding Standards
CEN/TC EN 13940 - Online

ISO 13940:2015(en) Health informatics — System of concepts to support continuity of care

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Available in: en fr

0 Introduction

0.1 General

The purpose of this International Standard is to define the generic concepts needed to achieve continuity of care. Continuity of care is an important aspect of quality and safety in healthcare and semantic interoperability is a basic requirement for continuity of care. The concepts that are needed for these should represent both the content and context of the healthcare services.

Healthcare is provided through activities in healthcare and clinical processes. These types of processes reflect the interaction between a subject of care and healthcare professionals. A clinical process provides continuity from the subject of care's perspective. To complete the concepts representing continuity of care, a number of basic premises for management, resource handling and administration are also needed.

The system of concepts for continuity of care defined in this International Standard is based upon the clinical perspective with the clinical process as focus, it defines its component concepts and their descriptive terms regarding all types of healthcare and especially considering patient-centred continuity of care. This International Standard will establish a common conceptual framework across national, cultural and professional barriers.

0.2 Aims for this International Standard

The general aim for this International Standard is to provide a comprehensive, conceptual basis for content and context in healthcare services. It should be the foundation for interoperability at all levels in healthcare organizations and for development of information systems in healthcare.

The concepts aim to support the continuity of care in healthcare with clinical processes as the focus, enabling the use of healthcare information for other purposes such as secondary use for follow-up and knowledge management. The core business in healthcare is the interaction between subjects of care and healthcare professionals, such interactions occur in healthcare and clinical processes and are the justification for the process approach of this International Standard. To be able to represent both clinical content and clinical context, this International Standard is based upon the clinical perspective and has focus upon the clinical process as a main concept for achieving continuity of care.

EHR Information Model Standards

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EHR Key Aims

- To create a shared EHR that provides a **central point** of shared health data

- To support the process of **continuity of care**

- To support a **longitudinal** patient record

- To support a real world health **environment**

- To provide targeted **decision** support

- To support the functions of **clinical research** to improving medical knowledge

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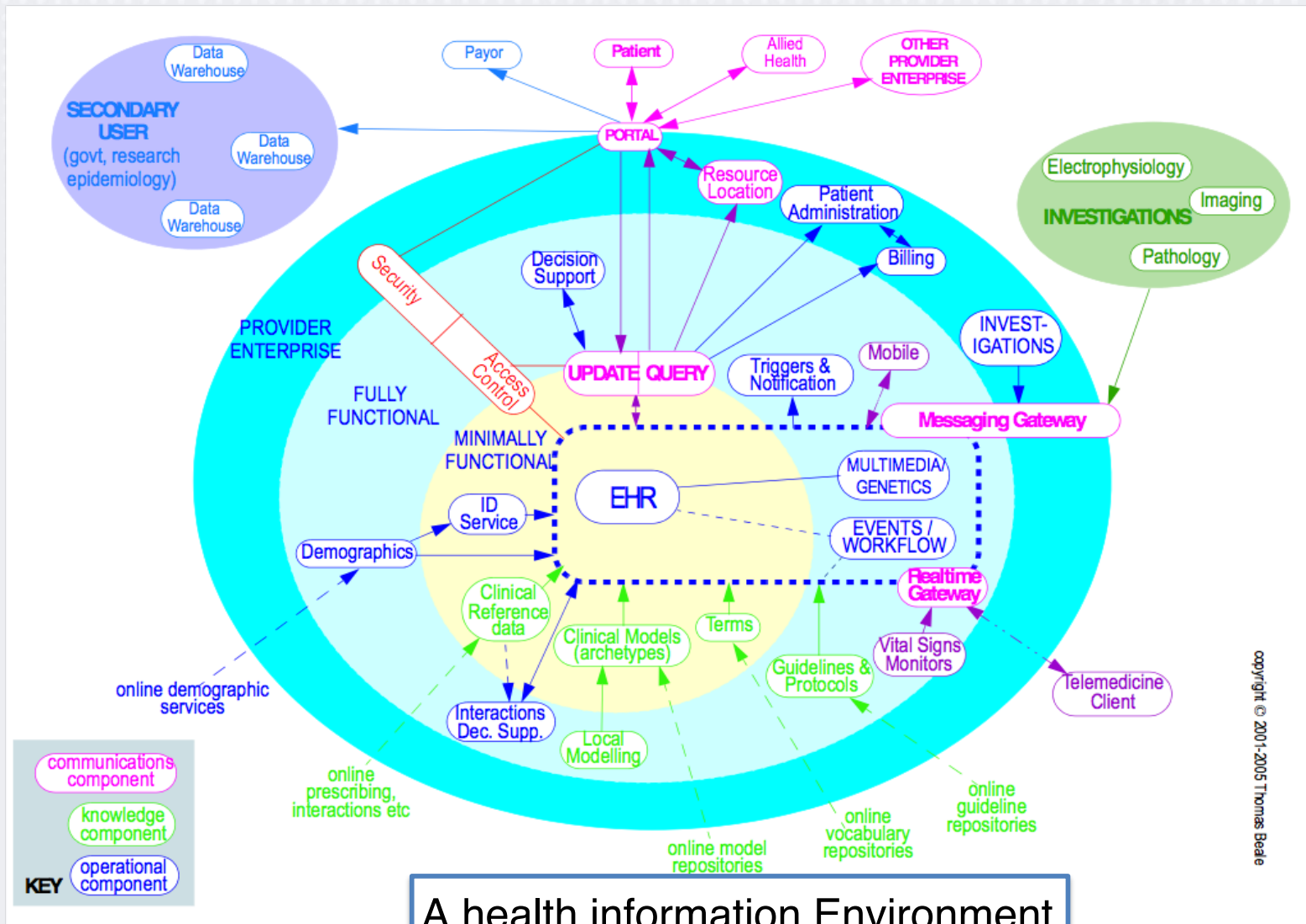Excellence in Health Informatics Integrated Curricula

A view of the healthcare world

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Clinical Information Models: aims

- Formally models **clinical domain concepts**
  - e.g. "smoking history", "discharge summary"

- Encapsulate **evidence** and **professional consensus** on how clinical data should be represented
  - published and shared within a clinical community, or globally
  - imported by vendors into EHR system data dictionaries

- Support **consistent** data capture, adherence to guidelines

- Enable use of **longitudinal** EHRs for individuals and populations

- Define a systematic EHR target for **queries**: for decision support and for research

=> Archetypes (openEHR and ISO 13606-2)

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Health Information Environment

A health information Environment

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Clinical Information and Processes

record structure and context
- EHR reference model
- data types
- near-patient device interoperability
- archetypes
- templates

privacy
- architecture
- identifiers for people
- policy models
- structural roles
- functional roles
- purposes of use
- care settings
- pseudonymisation

Consistent representation, access and interpretation

workflow
- guidelines
- care pathways
- continuity of care

terminology systems
- clinical terminology systems
- terminology sub-sets
- value sets and micro-vocabularies
- term selection constraints
- post-co-ordination
- terminology binding to archetypes
- semantic context model
- categorial structures

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