Board Report: IHE Pharmacy Domain

Sponsors:

* European Association of Hospital Pharmacists (EAHP), Brussels, Belgium
* Association Réseau Phast, Paris, France
* Nictiz Nationaal ICT Instituut in de Zorg (National IT Institute for Healthcare), Den Haag, Netherlands

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Membership Rosters:

* <https://docs.google.com/spreadsheet/ccc?key=0ArqJz8E3oKHodHpSVThZUXNhM3dYdzNaLTZTbUVvZGc>

Activity:

* Domain Scope: **IHE Pharmacy** addresses information sharing, workflow and patient care in both community and hospital pharmacies.
* Current Cycle Timeline/Milestones: <http://wiki.ihe.net/index.php?title=Pharmacy>
* Background: IHE Pharmacy was founded 2008 and created its first profiles for Hospital- and Community Pharmacy in 2010.

**Most Significant Profiles:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Title** | **# vendor (Cthon)** | **# product (Registry)** | **Description** | **Notes** |
| **Community Medication Prescription and Dispense (CMPD)** | **0** | **0** | **Community Medication Prescription and Dispense integrates prescription, validation and dispense of medication in the ambulatory sector.** | **The CMPD profile is significant because it is currently used as basis for the specification of national/regional cross-organization prescribing/dispensing projects. Involvement of vendors in this area is driven by such national/regional programs only, therefore it is expected that these specifications will have a strong impact on vendors within the next years.**  **Its importance is confirmed by the fact that it is already used as basis for the interoperability specifications of national/regional programs, e.g. Austrian e-Medication project, Saudi e-Health Exchange, etc.** |
| **Hospital Medication Workflow (HMW)** | **3** | **1** | **Hospital Medication Workflow integrates prescription, validation, dispensation, distribution and administration of medication inside healthcare institutions.** | **It’s the essential profile for the clinical part of medication workflow within hospitals. All “in-house” clinical medication workflows project onto this profile.** |
| **Pharmacy Prescription (PRE)** | **12** | **2** | **Content definition of the Pharmacy Prescription Document recording prescription.** | **It is significant because it provides the essential content definition of a prescription used in context of the CMPD integration profile.**  **Its importance is confirmed by the fact that it is already used as basis for the prescription specifications of national/regional programs, e.g. Austrian e-Medication project, epSOS, Saudi e-Health Exchange, Swiss e-Medication project, Polish e-Prescription project, etc.** |
| **Pharmacy Dispense (DIS)** | **13** | **2** | **Content definition of the Pharmacy Dispense Document recording the dispense of a medication to a patient.** | **It is significant because it provides the essential content definition of a dispense used in context of the CMPD integration profile.**  **Its importance is confirmed by the fact that it is already used as basis for the dispense specifications of national/regional programs, e.g. Austrian e-Medication project, epSOS, Saudi e-Health Exchange, Swiss e-Medication project, Polish e-Prescription project, etc.** |
| **Pharmaceutical Advice**  **(PADV)** | **10** | **2** | **Pharmaceutical Advice recording changes to medication treatment** | **It is significant because it provides the essential content definition for the prescription and dispense workflow used in context of the CMPD integration profile.**  **Its importance is confirmed by the fact that it is already used as basis for the specifications of national/regional programs, e.g. Austrian e-Medication project, Saudi e-Health Exchange, Swiss e-Medication project, etc.** |
| **Pharmacy Medication List (PML)** | **0** | **0** | **Content definition of a Pharmacy Medication List, containing a list of a patient’s medication.** | **It is significant due to the need for a medication list which contains not only a summary, but the details of a patient’s medication history (prescribed medication, dispensed medication, etc.).**  **It’s importance is confirmed by the fact that it is taken up by the Austrian e-Medication project, Swiss e-Medication project, etc.** |
| **Medication Treatment Plan**  **(MTP)** | **0** | **0** | **Content definition of a Medication Treatment Plan Document recording a Planned Medication Treatment Item to the medication treatment plan of a patient.** | **It is significant because it provides an additional layer of “planned medication” above the current logistical layer of Prescription to Dispense or Administration.**  **Its importance is confirmed by the fact that it is taken up by Swiss e-Medication project, etc.** |
| **Medication Administration (ADM)**  **(NEW)** | **0** | **0** | **Content definition of a Medication Administration Document recording a medication administration of a patient in a community setting and in the context of CMPD .** | **It is significant because this profile completes the medication loop in community setting.**  **Its importance is confirmed by the fact that it will be taken up by Swiss e-Medication project** |
| **Mobile Medication Administration**  **(MMA)**  **(NEW)** | **0** | **0** | **Medication workflow for medication requests and confirmation of the administration using mobile devices.** | **Mobile health is growing in importance. This profile is essential for patient centered self-care in PHR’s. It is the first profile using FHIR standard in Pharmacy.** |

# vendor @CThon is a total count of successful vendors from Connectathon-results.ihe.net for all years  
# product @Registry is a count of registered Statements from Product-registry.ihe.net  
Counts from prior report are in parentheses to show recent growth.  
<**Don’t list every profile**. If all are equally significant, it likely means none of them are.>

Significant Deployment Activity:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Region** | **Organization Name** | **Profiles** | **Project Status (planning, installation, operational)** | **Contact** |
| EC | **European Large scale pilot project “epSOS”**, |  | pilot phase, using a specification 90% similar to PRE and DIS profiles. The epSOS project has finished in June 2014, but assets were maintained with EXPAND project (endind December 2015). epSOS/EXPAND test infrastructures are still in use in some countries. The infrastructure, including eP/eD services developed during epSOS, will be part of the future Connecting Europe Facility (2017). | <email, person name, or URL to get more info> |
| Austria | **Austrian National Health Record (ELGA)**: | CMPD, PRE, DIS, PADV, PML | The specification of the nation-wide Austrian e-Medication project is currently set to be fully based on IHE Pharmacy profiles: CMPD, PRE, DIS, PADV and PML. Specification has been started 2013 and shall be finished in end of 2014. Implementation planned for 2015. Nation-wide rollout starts Jan 2016 |  |
| Saudi Arabia | **Saudi e-Health Exchange platform (SeHE)**: | CMPD, PRE, DIS, PADV. | The specification of the nation-wide Saudi-Arabian e-Prescription/e-Dispensation project is currently set to be fully based on IHE Pharmacy profiles: CMPD, PRE, DIS, PADV. Specification has been started 2013 and shall be finished in end of 2014 |  |
| Geneva | **MTPS** | PML, MTP, DIS, CMPD, PRE, PADV | project in Geneva/Switzerland (“medication treatment plan sharing”) leveraging the Pharmacy Medication List profile |  |
| Switzerland | **e-Medication** | MTP, PRE, DIS, PADV PML, ADM | Technical specification for exchanges of medication related information (MTPS) has been released in June 2015. Work is in progress for moving it to a national standard (CDA-CH-MTPS). Full implementation in regional HIE, hospitals, GPs and pharmacies is planned to go live in Autumn 2016 in Geneva (based on profiles). |  |
| Germany | **Personal Medication List:** | PML | A content definition of a list of the patient's current medication was developed and published. This CDA implementation guide reuses elements of published IHE PHARM and IHE PCC specifications, especially the medication template 1.3.6.1.4.1.19376.1.5.3.1.4.7. This specification is used in pilot projects in regional networks in North-Rhine-Westfalia and is considered as one candidate for a future national implementation of the Personal Medication List. The specification was balloted by the membership of HL7 Germany (Affiliate of HL7 International), see <http://wiki.hl7.de/index.php/IG:Patientenbezogener_Medikationsplan> comment reconciliation is in progress |  |
| Poland | **e-Prescription** | PRE, DIS | The specification of the nation-wide Polish e-Prescription project, with focus on reimbursement has been set on the basis of PRE and DIS profiles for recording prescriptions and dispenses. Local extensions are used to cover additional data-elements needed for reimbursement. |  |

Connectathons, Demonstrations and Other Events:

* No demonstrations
* Presentations
  + **2016-07-06: IHE Pharmacy Domain Update Webinar**
  + **2017-04-03: Presentation of posters of the Austrian and Geneva** e-Medication projects at the European Connectathon in Venice, including IHE Pharmacy profiles
  + **2017-04-27.30: “IHE\_Pharmacy Falsified Medication Directive FMD Educational Article”** Annual Congress of the Panhellenic Association of Hospital Pharmacists, (PEFNI), Chania Greece
  + **2017-06-13: IHE Pharmacy presentation for IHE Finland**, June 13th, 2017
  + **2016-06-27: NI'2016**: Presentation of e-medication projects @NI'2016 (CH, Austria, US)
* **Whitepaper “Medication Distribution and Supply”**
  + This whitepaper exposes the aspects of the Supply of items which is an intrinsic part of the pharmacy workflows. Current status: Contains enough information to be closed. Sufficient for starting the profile development intended. Some open issues (e.g. blood derived products, etc.) could be delivered in later versions. The Whitepaper will be finalized to an internal version.
* **Profiles for Supply of Products for Healthcare**
  + These profiles will provide the interoperability mechanisms for the supply of items, not only inside Pharmacy flows, but also for / from other domains.

* + - [Vision of proposal and background, Slides shown](ftp://ftp.ihe.net/Pharmacy/yr6_2014-2015/Technical_Committee/Profiles/Supply/IHE%20Supply%20-%20starting%20line_v1.pptx)
  + **Order and Delivery Management**
    - Handles the mechanisms for ordering and delivery of Healthcare products in the context of the supply chain, such as “Order placement”, “Product delivery”, “Product recall”, etc.
  + **Inventory Management**
    - Handles the interoperability mechanisms for the control and management of inventory of Healthcare products, such as “Inventory count”, “Consumption”, “Consignment items”, etc.
  + **Uniform Barcode Processing**
    - In several transactions the element “Uniform Barcode Processing” is crucial to make sure the standardized information from the barcode is used by the actors in the transactions we designed. We distinguish three organizations that deliver this standardized information on product Id, batch number, expiry date, serial number, location number, patient and staff identification: GS1, HIBC en ICCBBA. By incorporating the ‘uniform barcode processing’ element in the defined transactions we support inventory management, order, administration of pharmaceuticals and use of medical devices on patients.

New Profiles:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
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Trends:

* Mobile Health is moving onwards requiring optimal data solutions like the use of FHIR standards. We need to analyze the need of using these standards in existing Pharmacy profiles.
* The use of FHIR resources challenges IHE Pharmacy as it is likely to result in multiple competing incompatible implementations in Pharmacy domain (e.g. e-health projects and IT vendors), while the FHIR standard is still developing. How is IHE addressing these issues? This trend is similar to the situation 20 years ago.

Summary of Future Plans:

* Strategic
  + **Promote widespread adoption and implementation of IHE PHARM-developed profiles**
  + Improve information exchange between healthcare providers and organizations that depend on Pharmacy related workflows and processes
  + Develop ways to automate collaborative workflow between physicians and pharmacists in both community and hospital pharmacy environment
  + Marketing and promoting the profiles in regions outside of Europe (US, Canada, Asia, Latin America, etc.)
  + Reaching out for national Pharmacy programs in order to learn requirements and demands which lead to developments within IHE Pharmacy
  + Establishing and maintaining collaboration to other IHE domains
  + **Maintaining collaboration to HL7 Pharmacy**
  + **Maintaining collaboration to ISO TC215 WG6 Pharmacy**
  + Establishing communication channel to NCPDP
* Technical Frameworks
  + Further refinement of existing profiles, consolidation (enhance existing use-cases, identifying missing use-cases)
  + **Upcoming profiles for**
    - **Supply of Products for Healthcare**
    - **Common Functional Model (Next generation Common Profile based on FHIR)**
      * **Including Administration in Community Area and Medication Statement**
    - **Healthcare Products Catalog Interoperability**
    - **Medication administration in the context of CMPD.**
* Whitepapers and other
  + **Whitepaper on “Medication Data Collection”**
  + Joint work with PCD concerning perfusion administration devices

See the detailed strategic planning at <http://wiki.ihe.net/index.php?title=PHARM_Strategic_Planning>

See the detailed roadmap at <http://wiki.ihe.net/index.php?title=PHARM_Roadmap>