E-health Finland - national and cross-border developments

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National Institute for Health and Welfare
Check Point 2015

- Health care in Finland is extensively digitalized; 100% coverage of EPRs.
- Information management in social welfare has advanced lately and will be one of the key areas in coming years.
- Cross-border:
  - Mature national infrastructure; nationwide coverage of eP and eD
  - Robust standards-based national system with well-structured data
  - Roles of competent actors in cross-border deployment regulated (by law).

https://www.julkari.fi/handle/10024/129709
Electronic prescription

Prescription that is always safe and can be collected from any pharmacy in Finland.
More about Electronic prescription

My Kanta pages

electronic prescriptions and medical records.
More about My Kanta pages

Patient Data Repository

With Patient Data Repository you can examine your health records on the internet, easily and regardless of time and place. And if you want, healthcare specialists can have all information they need for your treatment no matter where you go.
More about Patient Data Repository

Latest

17.9.2014 - 14:46
Submission of electronic medical certificates to Kela is tested in Lahti

The emergency duty departments of the Lahti health centre are testing electronic submission of medical certificates to Kela for the rest of the year. The...
Electronic prescriptions dispensed by pharmacies compared with prescriptions reimbursed from sickness insurance scheme by month 01.01.2009–31.12.2015
(3-month rolling average presented as bold line)
Logins to My Kanta pages and number of visitors by month 01/2010–04/2016

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Log-ins</td>
<td>749,317</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of visitors</td>
<td>376,445</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
411 196 136 documents stored in the Patient Data Repository concerning medical data on 5 092 538 persons (31.05.2016)
Standardization for Interoperability in Finnish Health Care

- **First national HL7 v2 profiles** (1995)
- **HL7 Finland founded** (1996)
- **ICD-10 adopted in Finland** (1997)
- **First national HL7 v2 profiles** (1998)
- **PikaXML definition for electronic referral process** (1999)
- **National code server founded** (2000)
- **National health project starts** (2001)
- **Regional hospital information systems starting** (2002)
- **National core datasets defined** (2003)
- **Legislation about the national Kanta system and supporting services** (2004)
- **Kela appointed as a national actor in national healthcare ICT services** (2005)
- **Finnish IHE SIG founded** (2006)
- **HL7 Medical records specifications for ePrescription and Patient Data Repository** (2007)
- **National Kanta architecture defined** (2008)
- **Revised legislation on consent management and patient summary service** (2009)
- **Patient Data Repository production phase** (2010)
- **epSOS pilot work started in FIN** (2011)
- **National pharmaceutical database founded** (2012)
- **All public healthcare uses the Patient Data Repository** (2013)
- **epSOS NCP in production** (2014)
- **IHE FI founded** (2015)
- **All private healthcare uses the Patient Data Repository** (2016)

**Events and Milestones:**
- 1995: HL7 Finland founded
- 1996: First national HL7 v2 profiles
- 1997: ICD-10 adopted in Finland
- 1998: PikaXML definition for electronic referral process
- 1999: National code server founded
- 2000: National health project starts
- 2001: Regional hospital information systems starting
- 2002: National core datasets defined
- 2003: Legislation about the national Kanta system and supporting services
- 2004: Kela appointed as a national actor in national healthcare ICT services
- 2005: Finnish IHE SIG founded
- 2006: HL7 Medical records specifications for ePrescription and Patient Data Repository
- 2007: National Kanta architecture defined
- 2008: Revised legislation on consent management and patient summary service
- 2009: Patient Data Repository production phase
- 2010: epSOS pilot work started in FIN
- 2011: National pharmaceutical database founded
- 2012: All public healthcare uses the Patient Data Repository
- 2013: epSOS NCP in production
- 2014: IHE FI founded
- 2015: All private healthcare uses the Patient Data Repository
- 2016: Oral and dental healthcare structured documentation specifications

**Timeline:**
- 1995-2016
## Prescriptions ”out of scope” - Case Finland

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Reason</th>
<th>Suggestion with regards to pivot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>central nervous system drugs</td>
<td>Difference in classification (what is a CNS drug and what is not) in different countries</td>
<td>No change</td>
</tr>
<tr>
<td>2</td>
<td>drugs with potential for recreational use (narcotics)</td>
<td>Out of scope of epSOS in general</td>
<td>No change</td>
</tr>
<tr>
<td>3</td>
<td>drugs to be prepared in the pharmacy</td>
<td>Preparation instructions only in Finnish/Swedish</td>
<td>No change</td>
</tr>
<tr>
<td>4</td>
<td>base creams</td>
<td>No ATC code or strength, which are mandatory in pivot</td>
<td>Include → make ATC code and strength optional in pivot</td>
</tr>
<tr>
<td>5</td>
<td>clinical nutritional preparations</td>
<td>No ATC code or strength, which are mandatory in pivot</td>
<td>Include → make ATC code and strength optional in pivot</td>
</tr>
<tr>
<td>6</td>
<td>care accessories, dietary supplements and bandages</td>
<td>No ATC code and some other information which is mandatory in pivot</td>
<td>No change</td>
</tr>
<tr>
<td>7</td>
<td>prescriptions valid for defined time periods</td>
<td>No information on package size and number of packages</td>
<td>No change. Some countries are able to send suitable info (amount to be dispensed at once).</td>
</tr>
<tr>
<td>8</td>
<td>iterated prescriptions</td>
<td>Difficult to calculate the remaining amount. Iteration rules vary among countries.</td>
<td>No change. Some countries are able to send suitable info (amount to be dispensed at once).</td>
</tr>
<tr>
<td>9</td>
<td>combination medications</td>
<td>ATC code system not designed for this use case. Text-based strength not allowed.</td>
<td>Allow providing non-structured strength information (text)</td>
</tr>
<tr>
<td>10</td>
<td>combination packages</td>
<td>Package size is difficult to structure.</td>
<td>No change</td>
</tr>
<tr>
<td>11</td>
<td>the prescription is in held state</td>
<td>National rules</td>
<td>No change</td>
</tr>
<tr>
<td>12</td>
<td>the prescription is in reservation state</td>
<td>National rules</td>
<td>No change</td>
</tr>
<tr>
<td>13</td>
<td>package size is not in structured form</td>
<td>Package size is difficult to structure.</td>
<td>No change</td>
</tr>
</tbody>
</table>
Lessons learned as a starting point for the CEF process aiming at the eHDSI

- National level deployment requires mature services. If we introduce cross-border services significantly sub-optimal to the national standards > unmet expectations jeopardizing trust among professionals and clients.
- The optimal solution for pharmacies is an integrated cross-border dispensation functionality not interfering with the normal work flows > need for client orientation in service design.
- Stepwise scaling-up needed
- The national solutions should be in line with jointly approved requirements even if governed by national legal frameworks
- Data controller’s responsibility > data protection and security requirements need to be met > proper auditing mechanism
Thank you!

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