

HL7.ch TC Meeting

06.11.2018, eHealthSuisse, Bern
Oliver Egger, HL7.ch, Technical Manager

Agenda

- Intro
 - TC Update, eHealth Activities related to HL7.ch in Switzerland
 - HL7 Work Group Meeting Baltimore, Oliver Egger
- Rückblick Projectathon Bern sowie Ausblick, David Mössner, eHealth Suisse
- SAML v2 Artifact Binding Demo, Roeland Luykx
- Kickoff, Koordination FHIR Profil CH Entwicklung (siehe auch <https://fhir.ch>)



HL7 Switzerland Activities Update

- Stable Membership (57 companies, 30 personal members)
- President: Roeland Luykx, vice president: Helen Loosli
- Technical Committee (TC): meets twice a year
- Workgroups for
 - **Radiology** (Joint venture project with IHE Switzerland and the Swiss Society of Radiology (SGR))
 - **Electronic Patient Record (EPR)**
 - **FHIR**
 - **Lab** (Joint venture project with IHE Switzerland, the Medical Laboratories of Switzerland (FAMH) and the Swiss Union of Laboratory Medicine (SULM))
- **Activities 2018 in Switzerland**
 - Update CDA-CH V2.0 with modelling in Art-Décor and derived content profiles (Medication, Immunization, Lab)
 - First FHIR Implementation Guide (CH:ATC) for AuditEvents in the Swiss EPR
 - Updating ORF (Order and Referral by Form) to a HL7 R4 FHIR Implementation Guide
 - Lab: eHealth Connector with support CDA-CH-LREP
 - Radiology: Terminology project with the German Radiological Society (DRG)
 - FHIR: Exchange activities and initiating Swiss FHIR core profiles



HL7 Switzerland Save The Dates !!!

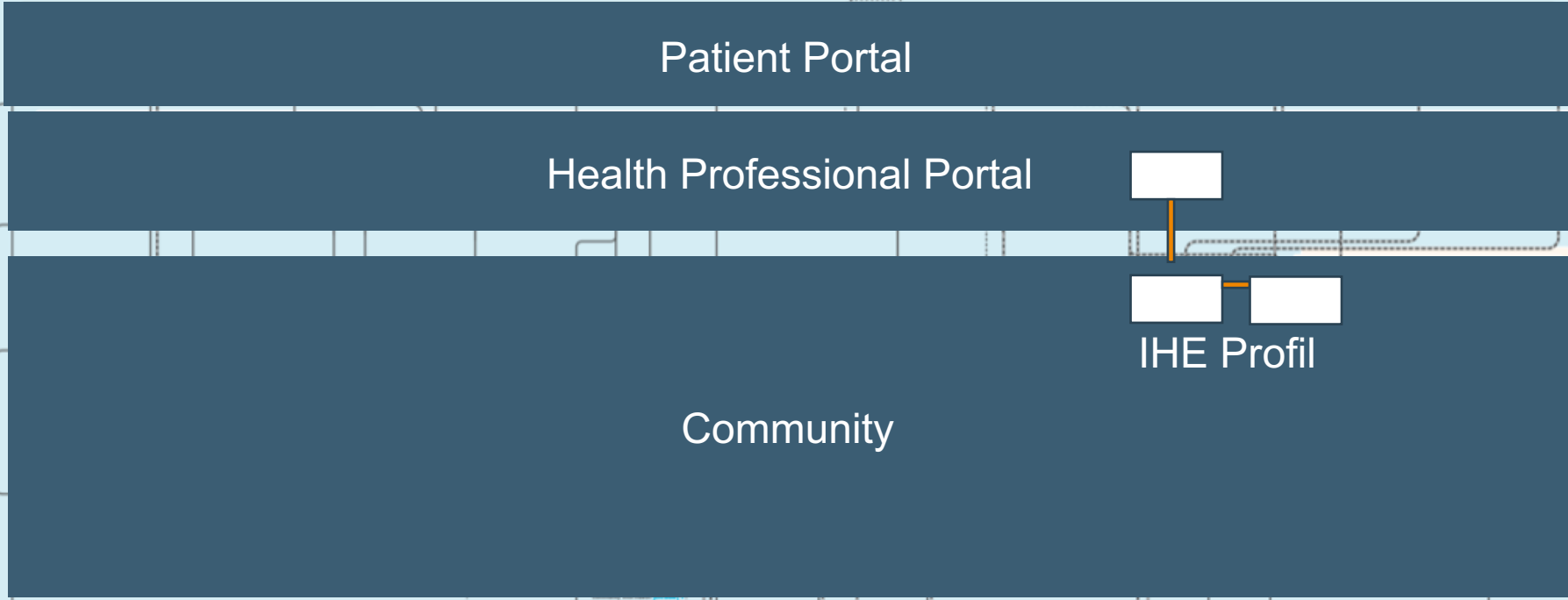
4.4.2019 Jahrestagung HL7 Benutzergruppe Schweiz, Olten

2.1 - 19.1.2019	HL7 Workgroup Meeting San Antonio, TX, USA
8.4 - 12.4.2019	IHE Connectathon + Swiss EPR Projectathon, Rennes, FR
4.5. - 10.5.2019	HL7 Workgroup Meeting, Montreal
14.9 - 20.9.2019	HL7 Workgroup Meeting, Atlanta
23.9 - 27.9.2019	Swiss EPR Projectathon, Bern



eHealth Activities in Switzerland (Selection)

- Electronic Patient Record (EPR)
- eHealth Suisse: mHealth recommendations
- HL7 Switzerland activities



Community A as a XDS Affinity Domain

IHE Profiles (Annex 5), CH-Extension (Annex 5, Extension 1)

CH-ATNA	Audit Trail and Node Authentication	██████████
CH-CT	Consistent Time (basic functionality)	██████████
CH-HPD	Health Provider Directory	██████████
CH-PDOV3	Patient Demographics Query HL7 V3	██████████
CH-PDXV3	Patient Identifier Cross-referencing HL7 V3	██████████
RMU	Restricted Metadata Update	██████████
SVS	Sharing Value Sets	██████████
XCA	Cross-Community Access	██████████
XCA-I	Cross-Community Access for Imaging	██████████
CH-XCPD	Cross-Community Patient Discovery	██████████
XDM	Cross-Enterprise Document Media Interchange	██████████
XDS	Cross-Enterprise Document Sharing	██████████
XDS-I	Cross-Enterprise Document Sharing for Imaging	██████████
XDS-MU	Document Metadata Update	██████████
XDS-SD	Scanned Documents	██████████
CH-XUA	Cross-Enterprise User Assertion	██████████

Swiss XDS Metadata (Annex 3)

National Integration Profiles (Annex 5, Extension 2)

CH-ADR	Authorization Decision Request	██████████
CH-ATC	Audit Trail Consumption	██████████
CH-CPI	Community Portal Index	██████████
CH-PPQ	Privacy Policy Query	██████████

eCH

213, 214, 215	Unique Person Identification Service	██████████
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Electronic Authentication Means and Their Issuers (Annex 8)

PP	Protection Profile for Authentication Means	██████████
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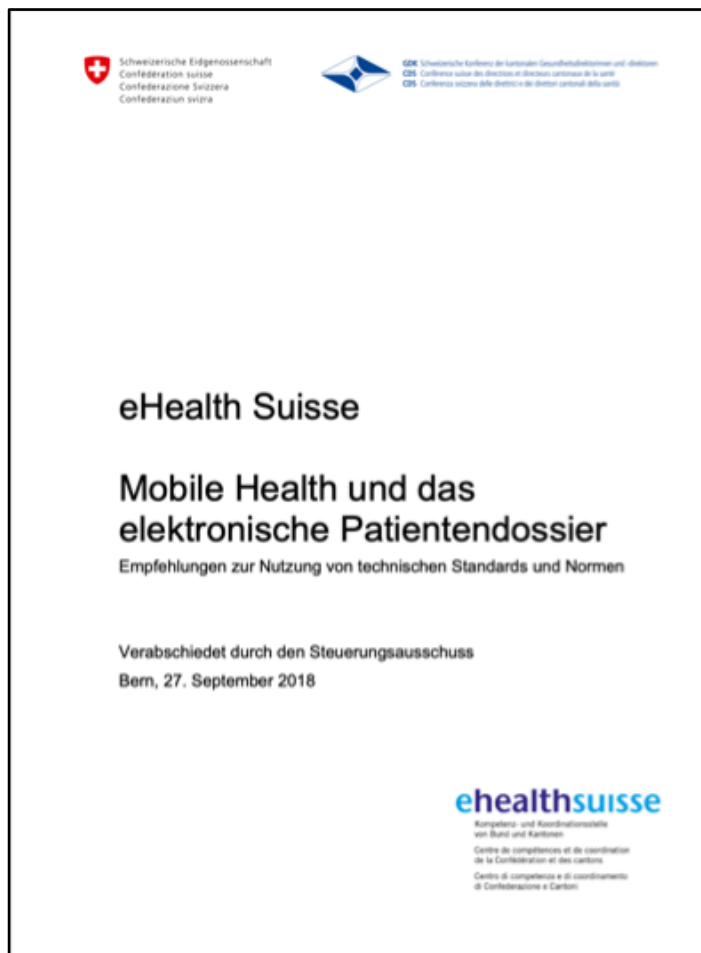
Exchange Formats (Annex 4)


CDA-CH EMED	eMedication	██████████
CDA-CH LREP	Laboratory Report	██████████
CDA-CH VACD	eVACDOC	██████████




- Maturity Level (09/2018)**
- Specification/Revision started
 - Specification/Revision in progress
 - Specification/Revision completed (or close to completion); ready for verification
 - Verified at projectionathon with peer-to-peer or simulator tests
 - Verified at projectionathon additionally with group tests or verified twice at projectionathon if group testing is not applicable

mHealth Recommendations



 Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

 GDK Schweizerische Konferenz der kantonalen Gesundheitsdirektoren und -delegierten
GDS Confédération suisse des directeurs et délégués cantonaux de la santé
GDS Conferenza svizzera delle direttrici e dei direttori cantonali della sanità

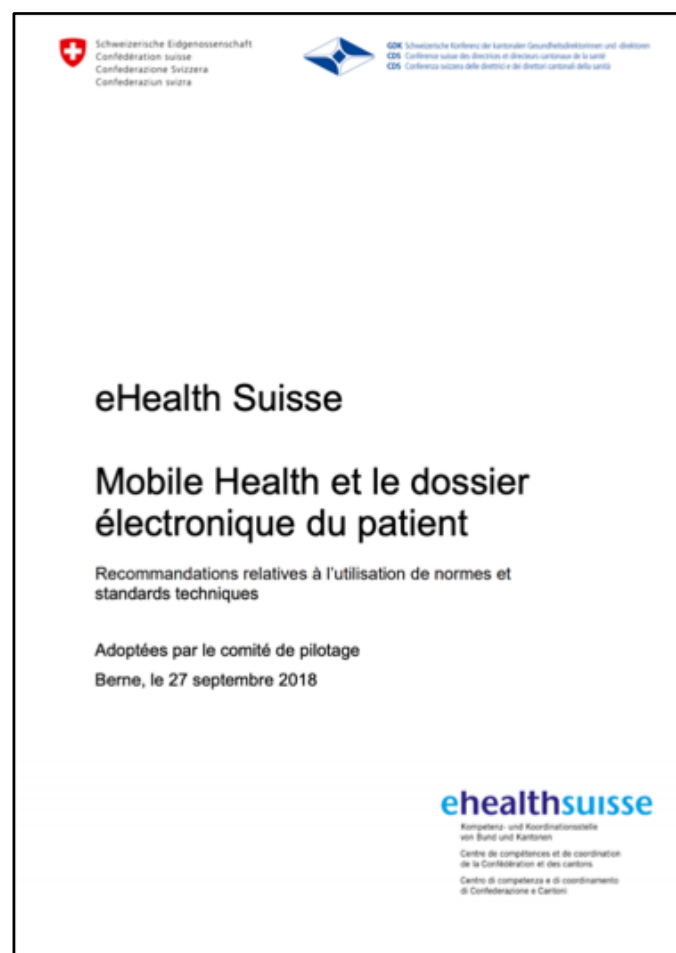
eHealth Suisse


Mobile Health und das elektronische Patientendossier


Empfehlungen zur Nutzung von technischen Standards und Normen

Verabschiedet durch den Steuerungsausschuss
Bern, 27. September 2018

ehealthsuisse
Kompetenz- und Koordinationsstelle
von Bund und Kantonen
Centre de compétences et de coordination
de la Confédération et des cantons
Centro di competenza e di coordinamento
di Confederazione e Cantoni



 Schweizerische Eidgenossenschaft
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eHealth Suisse

Mobile Health et le dossier électronique du patient

Recommandations relatives à l'utilisation de normes et standards techniques

Adoptées par le comité de pilotage
Berne, le 27 septembre 2018

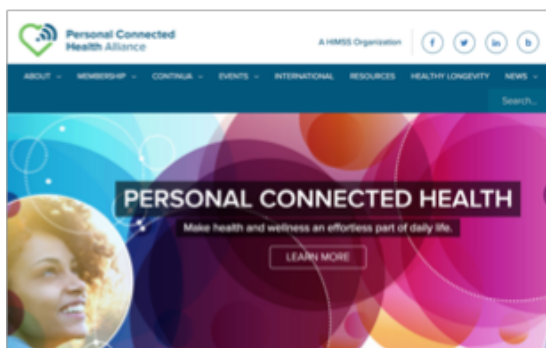
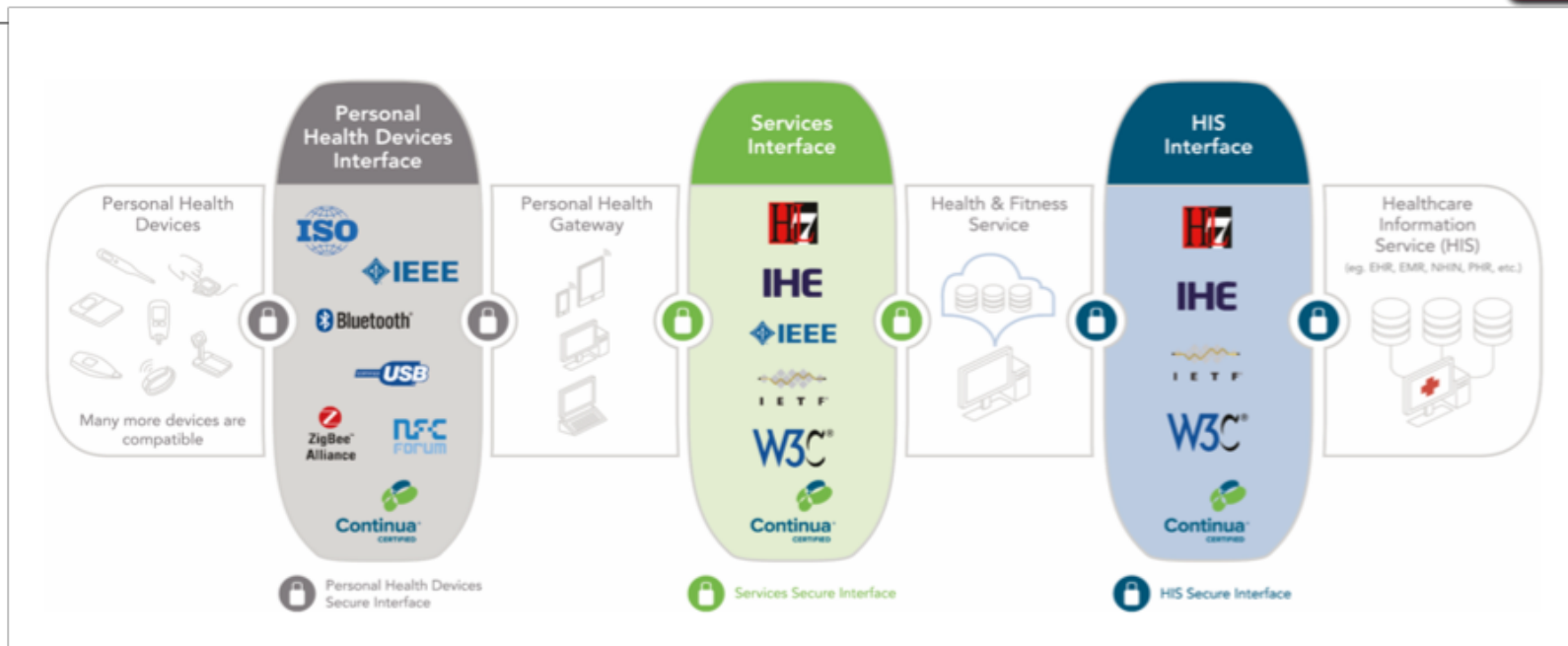
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Recommendations

1. Continua Guidelines
2. SMART-on-FHIR
3. Extend ordonnance EPR with the ability to use mobile Web-Technology (mobile IHE Profiles, OpenID Connect)

Recommendation 1: Continua Guidelines





1.2 Service Interface: FHIR Observation upload

- FHIR currently provides the lowest entry barriers to app and service development.
- FHIR is actively developed and maintained by HL7.
- Observation upload in the cloud with IHE PCD-01 (HL7 V2) not suitable.
- Other standards (e.g. hData) are currently not used/known in Switzerland.



1.4 Form technology based on FHIR

- CDA based form technologies are not yet widespread and seem to be too complex, especially in the mHealth area.
- 3 of the 4 nordic countries follow forms based on FHIR questionnaire.
- Potential synergy with the ORF (Order and Referral) Profile Proposal from Switzerland which is currently updated to an Implementation Guide for FHIR R4.



2. SMART-ON-FHIR

- Specification and Reference - Implementation for Web and mobile health Apps
- OpenID Connect/OAuth
- Interoperability: define FHIR Swiss Core profiles

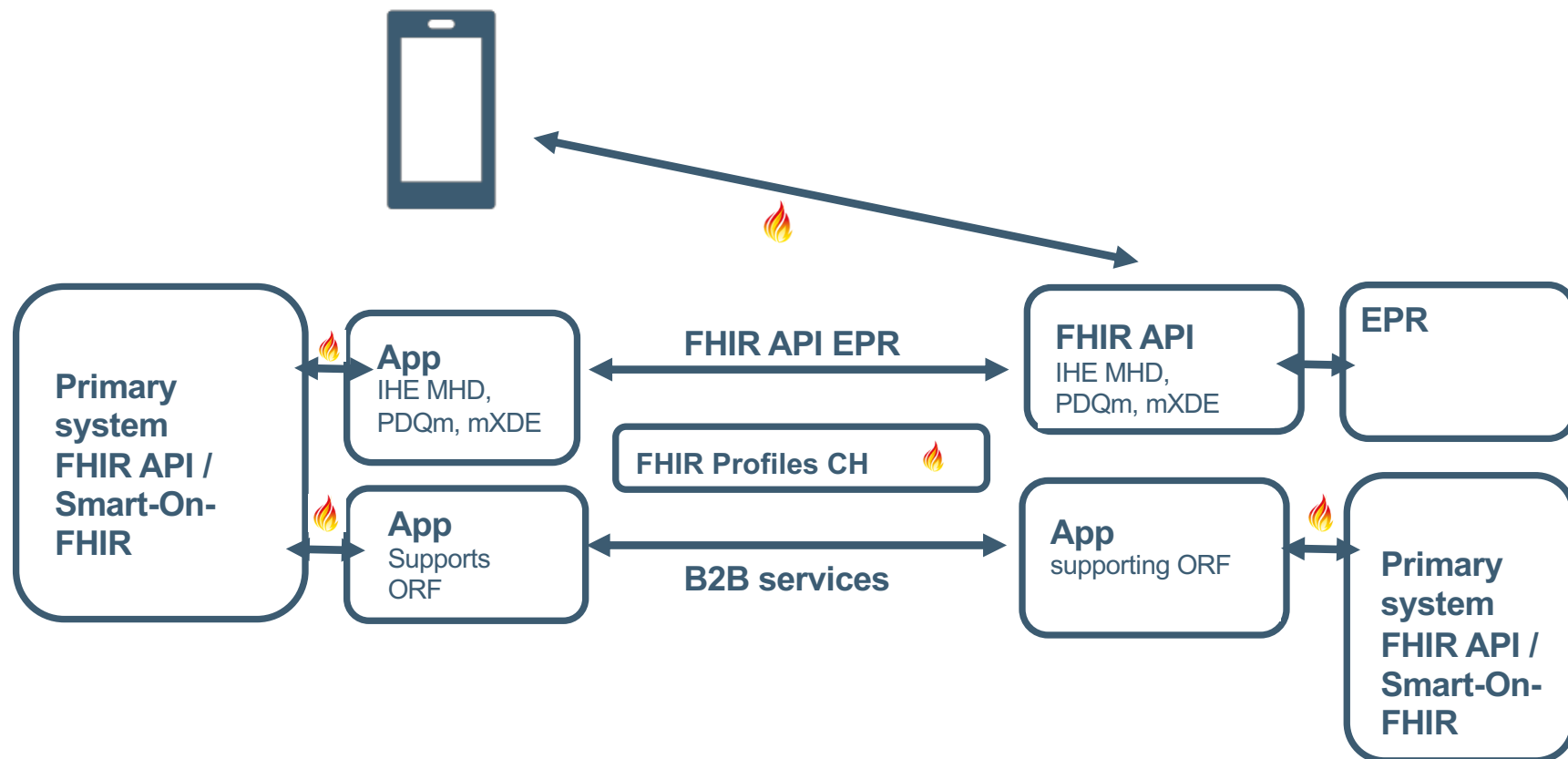


3. Extend ordonnance EPR with Web technology

- For developers of mobile apps, with integrated service, the IHE profiles of the EPR represent a large hurdle for implementation.
- In order to achieve a greater impact, the opening of the EPR to modern web technologies is recommended
 - OpenID Connect as an alternative to SAML IdP
 - Support of the mHealth IHE Profiles
 - JWT as alternative to XUA++.



eHealth and mHealth convergence





HL7 WGM Baltimore Rückblick

- 286 Teilnehmer am FHIR Connectathon (grösste Teilnehmerzahl)
- Siehe Bericht von Grahame <https://onfhir.hl7.org/2018/10/05/report-from-2018-september-working-group-meeting/>
- International Council
 - Vorstellung der eHealth Aktivitäten aus der Schweiz (siehe [http://www.hl7.org/documentcenter/public/wg/intl/HL7%20Around%20the%20World%20-%20September%202018%20WGM%20\(Baltimore\).zip](http://www.hl7.org/documentcenter/public/wg/intl/HL7%20Around%20the%20World%20-%20September%202018%20WGM%20(Baltimore).zip))
- Board
 - Immer noch Membership Schwund bei HL7 International
 - Relation zwischen FHIR Foundation und HL7 International
- ONC plant, dass in 3 Jahren in Amerika API's für Patienten (nicht zwischen Healthcare Organisationen) gratis sein müssen (via Verordnung, fair use, siehe dazu auch der Artikel von Josh Mandel: <http://thehealthcareblog.com/blog/2018/10/16/ensuring-that-the-21st-century-cures-act-health-it-provisions-promote-interoperability-and-data-exchange/>)



Rückblick Projectathon Bern sowie Ausblick

- David Mössner, eHealth Suisse



SAML v2 Artifact Binding Demo

- Roeland Luykx



Kickoff, Koordination FHIR Profil CH Entwicklung

- Release R4 steht vor der Tür, erste normative FHIR Version
- CH:ORF Weiterentwicklung braucht spezifische Patientenangaben
- Für die Austauschformate EPD wurden erste strukturierte Daten im Kontext von CDA-CH definiert (Impfungen, Medikation, Labor, Metadaten XDS). Seitens HL7 Schweiz sollte ein Mapping/Definition auf die entsprechenden FHIR Ressourcen anbieten.
- SMART-on-FHIR gewinnt an Bedeutung in der Schweiz (mHealth Empfehlungen Standards, Midata, Elexis, meine-impfungen.ch sowie weitere)
- DACH Kollegen/Kolleginnen sind auch aktiv dran.
- **Community in der Schweiz rund um FHIR aufbauen, es gibt immer mehr Projekte, auch mit entsprechenden Beispielen und Implementation Guides.**



FHIR Schweiz Implementation Guides

FHIR in Switzerland

FHIR® – Fast Healthcare Interoperability Resources (hl7.org/fhir) – is a next generation standards framework created by HL7. You find here implementation guides and information specific for Switzerland.



Swiss Implementation Guides

Implementation Guide are in development for the following projects:

CH Core (R4)

Core FHIR profiles for Switzerland, tbd

Implementation Guide | [Source](#) | [CI Build](#)

CH:ATC (R3)

The profile [CH:ATC](#) defines the audit trail consumption requirements for the EPR in Switzerland which a community has to provide for a patients audit trail. See [eHealth Suisse](#) for more information about the Electronic Patient Record in Switzerland.

Implementation Guide | [Source](#) | [CI Build](#)

CH:ORF (R4)

The [Order & Referral by Form \(CH-ORF\) Profile](#) describes how forms for eReferrals, requests for information (such as diagnostic imaging results, lab results, discharge reports etc.) can be defined, deployed and used in order to achieve a syntactical and semantically consistent cross enterprise information exchange. The profile supports creation and domain wide deployment of forms for structured and coded information exchange as well as exchange of such forms for referral, orders etc. The profile relies on FHIR e.g. the questionnaire resource. Because the profile relies heavily on the FHIR Resources Questionnaire and QuestionnaireResponse, forms are addressed here as Questionnaires.

Implementation Guide | [Source](#) | [CI Build](#)

CHMED16AF (R3)

CHMED16AF is a FHIR based definition for the eMediplan CHMED16A format.

Implementation Guide | [Source](#) | [CI Build](#)

HL7.ch Switzerland

[HL7 Switzerland](#) is the Swiss Affiliate of [HL7 International](#). The technical comitte has a FHIR work group which meets twice a year. For further information do not hesitate to [contact us](#).

HL7 International

- the FHIR standard is maintained by [HL7](#), ([get involved](#))
- [HL7® FHIR® Foundation](#), the home for FHIR Implementers
- [FHIR Chat Channels](#)

October 2018. If you know of any other published swiss implementation guides please send an [e-mail](#).



FHIR Demo Implementation Guides mit Patient

- Source auf GitHub von hl7.ch
- Commit triggert den Continuous Integration Build vom IG Publisher
- Resultat sofort verfügbar auf Online Build
- Eine fertige Version kann anschliessend auf fhir.ch publiziert werden (manuell).



Core FHIR profiles for Switzerland

- Basis Profile für FHIR in der Schweiz
- Falls notwendig Einschränkungen gegenüber dem allgemeinen Standard (e.g. auch für Tiere gültig?) auf einzelnen Ressourcen
- Falls notwendig Definition von Erweiterungen (Extensions) die nicht in 80% von FHIR fallen und schweizspezifisch sind (z.B. Heimatort, Zivilstand)
- 1. Phase Fokus Harmonisierung mit CDA-CH V2 Austauschformaten im EPD sowie eCH Standards



FHIR geplante nächste Schritte, Diskussion

- Ableiten eines Basis HL7.ch Implementation Guide vom internationalen Template (ein international Basistemplate ist am entstehen)
- Fertigstellen CH Patient mit Beispielen und Mappings.
- Für welche Ressourcen brauchen wir FHIR-Core Profile, auf was können wir schon aufbauen? An was hat die Community schon gearbeitet?
- Wer hat Interesse daran etwas beizutragen in der Arbeitsgruppe FHIR?
- Vorschlag wöchentliche Telcos (e.g jeweils Dienstag 16 Uhr oder je nach Teilnehmer finden eines Slots)
- Dokumentation auf HL7 Confluence Wiki? (falls möglich bezüglich Governance), Änderungen via GitHub Issues.
- Idee: Miniconnectathon an der nächsten Jahrestagung von HL7 am morgen?

Questions?



oliver egger

+41 76 579 50 05

oliver.egger@ahdis.ch

@oliveregger

www.ahdis.ch