

The IHE logo consists of the letters 'IHE' in a bold, dark blue, sans-serif font. A vertical line is positioned to the right of the letters, separating them from the tagline.

IHE

Integrating
the Healthcare
Enterprise

IHE on FHIR

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By Light Professional IT Services LLC

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IHE Domains

- Cardiology
- Dental
- Devices
- Endoscopy
- Eye Care
- IT Infrastructure
- Pathology and Laboratory Med
- Patient Care Coordination
- Pharmacy
- Quality, Research and Public Health
- Radiation Oncology
- Radiology

* Marked in red are domains using FHIR

IHE Resources

- IHE International web site - for General IHE information
<https://www.ihe.net/>
- IHE Technical Frameworks and Supplements - for publications
<https://profiles.ihe.net/>
- IHE Wiki - informal collaboration. Process and Minutes
<https://wiki.ihe.net/>
- IHE Process
<https://profiles.ihe.net/GeneralIntro/>
<https://wiki.ihe.net/index.php/Process>
- IHE Github - Publication source (and IT-Infrastructure administration)
<https://github.com/IHE>
- Formal documentation of the IHE Profile Development Process and Management
ISO/TR 28380 - Health Informatics - IHE Global Standards Adoption
- IHE Implementation Materials
<https://profiles.ihe.net/GeneralIntro/ch-G.html>
- IHE Connectathon
<https://www.ihe.net/testing/connectathon/>
- IHE Youtube – webinars, releases, explanations
<https://www.youtube.com/@IHEIntl>

IHE Process

- Use-case analysis: based on need
- Standards selection
 - Any standard can be selected
 - Selection: based on the best-fit to the use-case / limits
- Actors/Transactions/Content
 - Transaction: 1..* (Trigger/Encoding/Actions)
 - Constraints: must never undo existing constraints
- Security / Privacy Considerations
- Grouping Behaviors
- Public-Comment, Trial-Implementation, Final-Text

Mobile

- Fallacy - All profiles from IHE that leverage FHIR have the word “Mobile” in their title.
- Usually only used when historic use-case is re-evaluated using FHIR (PDQ vs PDQ3 vs PDQm)
- Mobile - Does NOT restrict the use to only Mobile
 - Server to server can use Mobile and FHIR
 - Big systems can be FHIR clients and servers

<https://wiki.ihe.net/index.php/Category:FHIR>

Pages in category "FHIR"

The following 47 pages are in this category, out of 47 total.

A

- [Assessment Curation and Data Collection \(ACDC\)](#)
- [Audit Trail and Node Authentication](#)

B

- [Basic AuditEvent Log Patterns \(BALP\)](#)
- [Birth and Fetal Death Reporting -v2.6 Messaging Profile](#)
- [Birth and Fetal Death Reporting Enhanced Profile](#)
- [Birth and Fetal Death Reporting-Labor and Delivery Summary for Vital Records Profile](#)

C

- [Computable Care Guidelines](#)

D

- [Document Metadata Subscription for Mobile \(DSUBm\)](#)
- [Dynamic Care Planning \(DCP\)](#)
- [Dynamic Care Team Management \(DCTM\)](#)

E

- [Exchange of Radiotherapy Summaries](#)

F

- [Finance and Insurance Services \(FAIS\)](#)

G

- [Guideline Appropriate Ordering \(GAO\)](#)

I

- [Integrated Reporting Applications \(IRA\)](#)
- [Interactive Multimedia Reporting](#)
- [International Patient Summary \(IPS\)](#)
- [Internet User Authorization](#)

M

- [Mobile access to Health Documents \(MHD\)](#)
- [Mobile Aggregate Data Exchange \(mADX\)](#)
- [Mobile Alert Communication Management\(mACM\)](#)
- [Mobile Care Services Discovery \(mCSD\)](#)
- [Mobile Cross-Enterprise Document Data Element Extraction](#)
- [Mobile Health Document Sharing \(MHDS\)](#)
- [Mobile Medication Administration](#)
- [Mobile Retrieve Form for Data Capture](#)

N

- [Non-patient File Sharing \(NPFS\)](#)

P

- [Paramedicine Care Summary \(PCS\)](#)
- [Patient Demographics Query for Mobile \(PDQm\)](#)
- [Patient Identifier Cross-Reference for Mobile \(PIXm\)](#)
- [Patient Master Identity Registry \(PMIR\)](#)
- [Personal Health Device Observation Upload](#)
- [Point-of-Care Medical Device Tracking \(PMDT\)](#)

- [Prescription Repository Query](#)
- [Privacy Consent on FHIR \(PCF\)](#)

Q

- [Quality Measures for Occupational Data](#)
- [Quality Outcome Reporting for EMS](#)
- [Query for Existing Data for Mobile \(QEDm\)](#)

R

- [Radiology Pathology Concordance](#)
- [Reconciliation of Clinical Content and Care Providers \(RECON\)](#)
- [Routine Interfacility Patient Transport \(RIPT\)](#)

S

- [Scheduling](#)
- [Sharing of IPS \(sIPS\)](#)
- [Sharing Valuesets, Codes and Maps \(SVCM\)](#)
- [Standardized Operational Log of Events](#)

T

- [Transfer of Radiation Therapy Summary](#)

U

- [Uniform Barcode Processing](#)

V

- [Vital Records Death Reporting](#)

All are Registered on fhir.org

Navigation

- Implementation Guides
- Application Registry
- Calendar
- Monthly Product Reports
- Conformance Testing
- FHIR Community Process
- About fhir.org

Implementation Guide Registry

The base **FHIR Specification** is a platform specification - a specification on which all sorts of different solutions are built. The specification focuses on defining capabilities, and creating an ecosystem. National standards, vendor consortiums, clinical societies, etc publish "implementation guides" that define how the capabilities defined by the FHIR specification are used in particular data exchanges, or to solve particular problems. Here is a list of some of the implementation guides defined by the FHIR community.

Search Category Authority Country Release View Hide Descriptions

Specification	Category	Authority	Editions
Mobile access to Health Documents (MHD) : Defines a simple HTTP interface to a Document Sharing environment, including XDS/XCA (XDS-on-FHIR)	Clinical Documents	IHE/uv	R4 Trial-Implementation (0.3.1)
Patient Demographics Query for Mobile (PDQm) : Defines a lightweight RESTful interface to a patient demographics supplier leveraging technologies readily available to mobile applications and lightweight browser based applications	Administration	IHE/uv	R4 Trial-Implementation (0.2.1)
Patient Identifier Cross-Reference for Mobile (PIXm) : Defines a lightweight RESTful interface to a Patient Identifier Cross-reference Manager, leveraging technologies readily available to mobile applications and lightweight browser based applications	Administration	IHE/uv	STU3 Trial-Implementation (0.1.0)

Many are published as Implementation Guides

- [Comprehensive FormatCode Vocabulary](#)
- [Basic Audit Log Patterns \(BALP\)](#)
- [Mobile Care Services Discovery \(mCSD\)](#)
- [Mobile Access to Health Documents \(MHD\)](#)
- [Mobile Health Document Sharing \(MHDS\)](#)
- [Patient Demographics Query for Mobile \(PDQm\)](#)
- [Patient Master Identity Registry \(PMIR\)](#)
- [Patient Identifier Cross-reference for Mobile \(PIXm\)](#)
- [Sharing Valuesets, Codes, and Maps \(SVCm\)](#)
- [Interactive Multimedia Report \(IMR\)](#)

IT Infrastructure Profiles

- Audit Trail and Node Authentication (ATNA) – Feed & Query
- Basic AuditEvent Log Patterns (BALP) 🌐 – AuditEvent content
- Mobile Access to Health Documents (MHD) 🌐 – API
- Mobile Health Document Sharing (MHDS) 🌐 - System
- Mobile Care Services Discovery (mCSD) 🌐 - Provider Directory
- Mobile Cross-Enterprise Doc Data Element Extraction (mXDE) 🌐
- Non-patient File Sharing (NPFS) 🌐
- Patient Identifier Cross-reference for Mobile (PIXm) 🌐 - API
- Patient Demographic Query for Mobile (PDQm) 🌐 - API
- Patient Master Identity Registry (PMIR) 🌐 – Patient Directory
- Sharing Valuesets, Codes, and Maps (SVCM) 🌐 - Terminology
- Mobile Alert Communication Management (mACM)
- Document Subscription for Mobile (DSUBm) 🌐
- Finance and Insurance Services (FAIS) 🌐
- Scheduling (S) 🌐
- Privacy Consent on FHIR (PCF) 🌐
- Sharing of IPS (sIPS) 🌐
- Internet User Authentication (IUA) – Special Mention

Appendix Z on FHIR

- Common text for all IHE Domains to re-use
- Introduction to FHIR profiling concepts
- Common query parameter clarifications
- Relationship between CapabilityStatement and IHE Integration Statement
- Pointer to library of conformance resources
- Mapping of FHIR Identifier datatype to HL7 v3 root, and XDS Cxi
- Security Considerations

Patient Care Coordination

- *Assessment Curation and Data Collection (ACDC)*
- Dynamic Care Planning (DCP)
- *Dynamic Care Team Management (DCTM)*
- Guideline Appropriate Ordering (GAO)
- International Patient Summary (IPS)
- Paramedicine Care Summary (PCS)
- Point of Care Medical Device Tracking (PMDT)
- Query for Existing Data for Mobile (QEDm) 🌐
- Reconciliation of Clinical Content and Care Providers (RECON)
- Routine Interfacility Patient Transport (RIPT)
- Mobile Antepartum Summary (mAPS) and US realm 🌐
- Occupational Data for Health (ODH) 🌐


Devices

- *Personal Health Device Observation Upload (POU)*

Pathology and Laboratory Medicine

- Radiology Pathology Concordance (RPC)

Pharmacy Profiles on FHIR

- Mobile Medication Administration (MMA)
- Uniform Barcode Processing (UBP)
- Medication Prescription and Dispense (MPD) 

QRPH Profiles on FHIR

- Birth and Fetal Death Reporting – Enhanced (BFDE)
- Computable Care Guidelines (CCG) 🌐
- Mobile Aggregate Data Exchange (mADX) 🌐
- Mobile Retrieve Form for Data Capture (mRFD)
- Prescription Repository Query (PRQ)
- Quality Outcome Reporting for EMS (QORE)
- Vital Records Death Reporting (VRDR)

Radiology Profiles on FHIR

- Standardized Operational Log of Events (SOLE)
- Interactive Multimedia Report (IMR) 🌐
- Integrated Reporting Application (IRA) 🌐
- Imaging Diagnostic Report (IDR)

- Special mention as these use compatible DICOM web
 - Web Image Capture (WIC)
 - Web Image Access (WIA) formerly called MHD-I
 - Invoke Image Display (IID) - Special mention

Radiation Oncology

- Exchange of Radiotherapy Summaries (XRTS)

Move to FHIR R5/6

- Per-Domain and IG decision
 - Generally, not profiling FHIR R5.
- All profiles will continue to be revised until the resources they use are Normative.
 - Candidate for Final Text: PDQm, PIXm, and Appendix Z
- IHE Governance prevents normative until underlying standard is normative

IHE on FHIR

- 48 Profiles and growing
 - Devices (formerly PCD) - 1
 - IT Infrastructure (ITI) – 17 + 1
 - Pathology and Lab (PaLM) - 1
 - Patient Care Coordination (PCC) – 12
 - Pharmacy (Pharm) - 3
 - Quality, Research and Public Health (QRPH) – 7
 - Radiation Oncology (RO) 1
 - Radiology (RAD) – 4 + 3

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QUESTIONS?