# Introducing FHIR

FHIR – **F**ast **H**ealth **I**nteroperable **R**esources (<http://www.hl7.org/fhir/>) – is a new framework for standards under development by HL7. FHIR is based on the latest web standards, and has a very strong focus on implementability.

FHIR uses a simple structural design based on modular components called “Resources” that can easily be assembled into working systems that solve real world clinical and administrative problems at a fraction of the price of existing alternatives.

FHIR is suitable for use in a wide variety of contexts, from social media on mobile phones through to server communication in large institutional healthcare providers.

## Example Resource: Patient

This simple example shows the two important parts of a resource: the standard defined data content, and a human readable HTML presentation that is most useful with more complex clinical content.



Standard Data   
Content:

* MRN
* Name
* Gender
* Date of Birth
* Provider

Human Readable Summary

FHIR has resources for administrative concepts such as Patient, Provider, Organization, and Device, and a wide variety of clinical concepts covering Problems, Medications, Diagnostics, Care plans, financial concerns, and more.

## Why FHIR is better

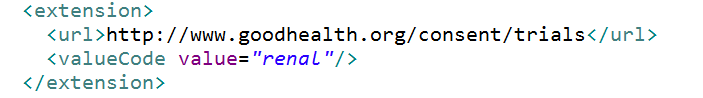
FHIR offers many improvements over the existing standards:

* Strong focus on implementation – fast and easy to implement (multiple developers have had simple interfaces working in a single day)
* Multiple implementation libraries, many examples available to kick-start development
* Specification is free for use with no restrictions
* Evolutionary development from HL7 v2 and CDA – standards can co-exist and leverage each other
* Leverage Web standards – XML, JSON, HTTP, Atom, OAuth etc
* Specifications can easily by understood, including by clinicians
* Backed by solid ontologies and rigorous formal mapping for correctness

## Extensions

A central challenge for healthcare standards is how to handle variability – health care processes are very diverse. When standards are developed, more and more fields and optionality are added to the specification, gradually adding cost and complexity to the resulting implementations. The alternative is rely on extensions, but traditionally these have been associated with implementation problems too.

FHIR solves this challenge by defining a simple framework for extensions. All that is needed is a reference to the definition of the extension:



All systems, no matter how they are developed, can easily read these extensions.

## The FHIR development process

FHIR is still undergoing development as an HL7 standard. By the end of 2013, FHIR should be available as a Draft Standard for Trial Use. After a period of trial use to bed the specification, HL7 will develop FHIR as a full normative specification, most likely through 2015.

Due to the many advantages FHIR offers, trial use Is already beginning right now.

FHIR. [C:\workspace\projects\org.hl7.fhir\publish\flame16.png](http://hl7.org/fhir) <http://www.hl7.org/fhir/>. Follow us on #FHIR