## Background

## In June 2009, FHA created the FHIM project. In October 2009 FHA published a standards engagement strategy to guide the activities of the FHIM project. This strategy included a vision, goal, objectives, guiding principles, an engagement approach and a high-level action plan. Since then the FHIM project has been executing the high-level action plan to achieve the goal and objectives described in the strategy document.

The high-level action plan identified work to be completed in the following five strategic areas:

* Information models
* Terminology Models
* Security/Trust Framework
* Information Exchange Framework
* Standards Engagement Methodology

Work has been substantially completed (through the FHIM project, Office of the National Coordinator (ONC) initiatives and other efforts) on the first four strategic areas and work on the fifth strategic area is underway. The remaining work in these five strategic areas will be accomplished under the HL7 Integration of Information Models & Tools (IIM&T) initiative. The primary focus of this work will be supporting full semantic interoperability by harmonizing the FHIM work on terminologies and value sets with other work in this area, including the HL7 CIMI (Clinical Information Modeling Initiative) work and the VA work on SOLOR (SNOMED with LOINC and RxNorm extensions). In addition to working with HL7, the FHIM team will also work with groups such as the Health Services Platform Consortium (HSPC) to achieve the goal of full semantic interoperability.

This document updates the strategy for the FHIM project to address the next phase of the project. This next phase will leverage and enhance the work that has been completed under the FHIM project (models, tools and processes) to implement health information standards and Model Driven Development (MDD) tools that support the FHIM strategy to achieve full health interoperability. It will focus on achieving computable semantic interoperability and on improving the efficiency and quality of health information exchange implementations, required by knowledge based systems, (e.g., learning health systems, precision medicine, etc.).

## Vision, Goal, Principles and Objectives

## As restated below, the vision and goal for the FHIM project remain essentially unchanged from the previous strategy document. The principles and objectives are updated to support the new focus of achieving computable semantic interoperability with MDD tools to implement efficient, high quality, fully interoperable health information exchanges.

## Vision

The vision is to effectively use information technology to improve the safety, quality and efficiency of health and healthcare for all Americans, at lowest possible cost to maximize patient value (safety, quality, cost).

## Goal

The primary goal of the FHIM project is to promote and contribute to the development of a comprehensive, integrated set of standards that fully support health information interoperability, including semantic interoperability.

##### *General Principles*

* Promote standards activities that benefit the health community as a whole.
* Promote a common classification/categorization framework of standards and standards activities to support coordination and harmonization of standards development activities across all health-related Standards Development Organizations (SDOs).
* Promote a common process for coordination, harmonization and collaboration of standards development activities across all health-related SDOs.
* Coordinate and collaborate with federal partners and other organizations on standards activities.

##### *Principles Related to the Standards Development Process*

* Consensus: Decisions are reached through consensus among those affected.
* Openness: Participation is open to all affected interests and all inter-SDO activities follow open practices.
* Balance: Balance is maintained among competing interests.
* Transparency: The process is transparent - information on the process and progress is directly available.
* Due Process: Due process assures that all views will be considered and that appeals are possible.
* Flexibility: The process is flexible, allowing the use of different methodologies to meet the needs of different technology and product users.
* Timeliness: The process is timely; purely administrative matters do not slow down the work.
* Coherent: Standards activities avoid overlap or conflict.

##### *Principles for Standards Development*

* Relevant: Standards meet agreed criteria and satisfying real needs by providing added value.
* Responsive: Standards are useful in the real world; the standards use available, current technology and do not unnecessarily invalidate existing products or processes.
* Performance-based: Standards specify essential characteristics rather than detailed design.
* Logical: Standards are neutral in regards to implementation technology platform.
* Applicable: Standards meet all regulatory requirements concerning security and confidentiality.
* Universal: Standards should be developed collaboratively, with those organizations that have responsibility for and expertise in the relevant domain areas.
* Real Life: Standards should be developed based upon health scenarios, models and requirements.
* Testable: Standards developed will include conformance testing statements.

## Objectives

* Work with SDOs to adopt the standards processes, frameworks and principles in accordance with criteria established by the American National Standards Institute (ANSI).
* Work with SDOs to create an organizing framework for SDOs to use in categorizing standards and standards activities.
* Work within the standards community to effect changes beneficial to the health community at-large.
* Reduce the information modeling overlap among health-related SDOs.
* Reduce the messaging overlap among health-related SDOs.
* Increase the utilization of common vocabularies among health-related SDOs.
* Ensure, to the extent possible, consistent organizational positions by federal partners regarding standards activities and ballots.

## Engagement Approach

Implementing fully interoperable information exchanges leveraging the models, tools and processes developed under the FHIM project will require active engagement of federal partners in numerous activities. These activities have been grouped into the strategic areas and major supporting tasks listed in the high-level action plan section below.

Federal partners must ensure that the information exchange implementations can satisfy organizational needs. Hence, business requirements-oriented participants should be present at appropriate meetings to speak on behalf of the business stakeholder community. Their involvement will help ensure that business practices are being supported. Collaboration must be conducted both internally and with external partners to ensure that appropriate implementations are produced.

Additionally, engagement at the architecture and MDD tool level is needed to ensure long-term, strategic alignment across the health community. The goal of health information interoperability will drive this participation, with priorities determined based upon the role of each activity in the overall strategy.

## High-Level Action Plan

Achieving the goal identified above has been decomposed into the strategic areas and major supporting tasks listed below. To achieve the goal, the FHIM project will need to implement initiatives that address each of the strategic areas. This section provides a high-level action plan and additional details describing major initiatives for each of the strategic areas and major supporting tasks. As major initiatives are approved for the FHIM project, detailed action plans and terms of reference will need to be developed for each initiative. Federal partners will be asked to coordinate their activities and collaborate with one another on these initiatives.

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| **Strategic Area** | **Initiative Description** |
| Semantic Harmonization/Interoperability | Co-lead and participate in the HL7 IIM&T initiative to align FHIM, CIMI and SOLOR semantics to support generation of US realm FHIR profiles. |
| Information Exchange Framework | Help lead efforts to minimize and standardize the number of information exchange formats used to exchange health information. |
| Access to Value Sets | Help lead efforts to standardize APIs for accessing information related to terminologies and value sets in repositories such as VSAC (Value Set Authority Center). |
| Tooling | Help lead efforts to provide open source tooling to support all aspects of fully interoperable information exchange, from the generation of information exchange standards to the implementation of those standards by health organizations. |
| Pilot Testing | Help lead efforts to pilot test:   1. Semantic harmonization/interoperability 2. APIs for accessing terminology/value set information 3. Tooling to support fully interoperable information exchange |
| Major Supporting Tasks | |
| Transition Planning and Execution | Analyze options for transitioning the FHIM project to a new organization, identify the best option and plan/accomplish the transition. |
| Governance and Communication | Establish a new governance structure and develop a new communication plan for the FHIM project once an organization is identified as the new home for the project. |
| Maintaining the FHIM (and enhance per contract requirements) | Maintain the models, tools and processes already developed and complete information and terminology modeling on one domain per contract year. |