1. FHIM values sets shall be implementable.
   1. Publication shall be extensional. Intensional definitions may be used for authoring.
   2. They shall be provided to implementers via an open and accessible interface.
      1. This was PHIN VADS (phinvads.cdc.gov/)
      2. It is now VSAC (vsac.nlm.nih.gov).
      3. We still need a way to share VSAC drafts with stakeholders.
2. FHIM values sets shall follow standards where possible.
   1. The authors shall document preferred systems for domains, starting with HITSP C-80.
   2. Clinical concepts shall be taken from SNOMED CT, or a SNOMED CT extension.
      1. Where we modify an existing value set that does not use SCT, we will migrate the included contents into SCT.
   3. We will harmonize with HL7 Value Set Definition standard once it is complete.
3. FHIM values sets shall be versioned.
   1. Scheme tbd\*
4. FHIM may use externally defined value sets, but they will be managed as external value sets.
   1. Sets maintained by other organizations may meet our requirements. We may choose to bind to these value sets statically, in order to avoid uncontrolled change, or dynamically, in order to leave the burden of maintenance to the external group.[not yet indicated]
   2. Externally maintained sets that partially meet our requirements may be leveraged in the authoring process, but the resulting set is a FHIM value set. No linkage to its source is required, except as a historical record of the authoring process.
   3. Externally maintained value sets must be published in PHIN VADS or VSAC.
5. Completeness
   1. Some value sets may not be complete. These will be useful as examples, or as “starter sets.” They will be clearly identified.
      1. Example sets will be supported by implementers; i.e., an example set is simply a value set designed to be bound with extensibility.
6. Relationships
   1. Properties may require different subsets of the value domain in different use cases. If there are no structural differences in a property in the different cases, the information model will represent a single property, which will have a single value set. This value set will contain values for all contexts or use cases.
      1. There may be cases (e.g., microbiology labs requiring "microorganisms" not "species") where a new class is desirable despite a lack of structural difference.
      2. For supersets, subsequent modeling efforts (e.g., messaging guides) may further constrain these value sets.
      3. We will investigate the possibility of subsetting value sets in an MDHT formalism that recognizes context or use.
         1. Candidate: concept domains
         2. Candidate: simply allowing additional bindings, checking for subsumption at runtime
   2. Other relationships (other than subsets) are delegated to the source system.
7. Stewardship
   1. As steward, FHIM will prepend “FHA,” for “Federal Health Architecture,” to PHIN VADS “code” property for a value set
      1. This is not a requirement for VSAC-published value sets.
   2. FHIM value sets will be given OIDs from the FHA root.
8. Backward compatibility
   1. Backward compatibility is a valuable property, but the FHIM is modeling the future state, and will not be constrained to current patterns where those patterns don’t meet requirements.
   2. Where backward compatibility can be achieved without compromising other design principles, it will be supported.
      1. Discuss CLIA use cases
9. Mixing systems
   1. A value set shall draw concepts from a single code system.
   2. In cases where values from different systems are required in different use cases, a “grouping” value set will include value sets constructed from the respective systems. Use cases may constrain the binding to a specific member value set.
10. Null values
    1. Null values are values from the Null values system, and will not be included as proper values in FHIM value sets.
    2. "Nullable" is a property of the information model, to be captured during IM analysis.
       1. In some cases, a “null” value will be sufficiently significant to merit a separate question.
       2. In cases where null values are deemed appropriately part of the valid value domain, whether they should be handled as nullFlavor values or members of a grouping value set will depend on the modeling assumptions of the implementation platform for the use case.
11. New values
    1. FHIMS will use the NLM (US) Extension of SCT as the preferred venue for requesting new clinical concept codes, where the domain is appropriate.
12. Status
    1. Unless otherwise indicated, status shall follow the HL7 V3 state machine. Refinements may be supported in a domain-appropriate status modifier.
13. Extensibility
    1. Extensibility (the option to use values not enumerated in a value set) is a model binding property, not a value set property.
    2. We prefer to model the value sets broadly, and have implementers map to the standards, than to allow locally defined codes.
14. Value set names
    1. Value set names shall represent the semantics of their content. Names of applications or programs will only be used when the rationale for selection is unknown, or when the application is the only distinguishing dimension.
    2. When a FHIM value set is based on another value set, the existing name will be preserved in the new name if it doesn’t break other policies
15. Dates (not actually terminology)
    1. We go beyond the HITSP recommendation and adopt the ISO 8061 specification, recording dates as text strings of the form "YYYY-MM-DDThhmmss,ff” (see <http://en.wikipedia.org/wiki/ISO_8601> for more information).