

# How the DDI-Lifecycle Represents Reusable Data Elements in Longitudinal Studies

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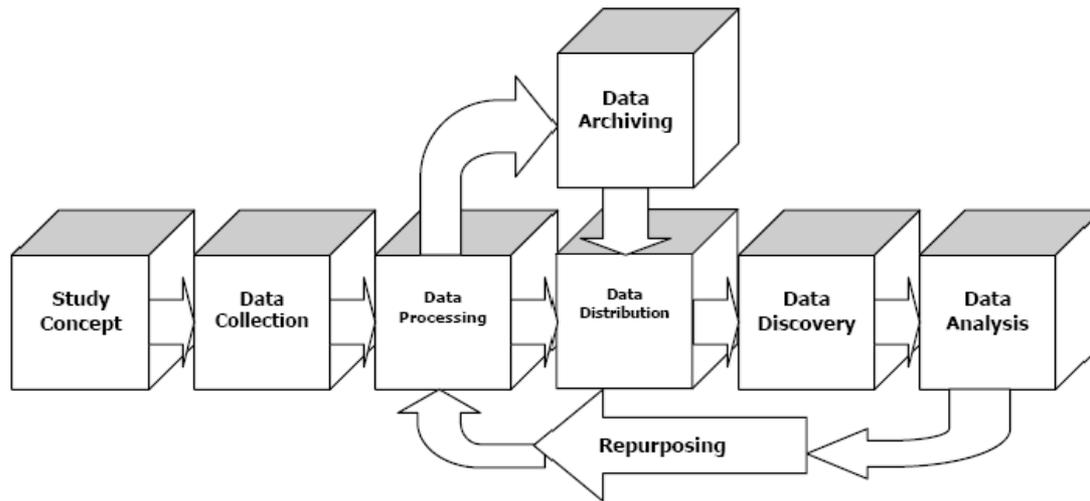
# 3 Features of DDI-Lifecycle

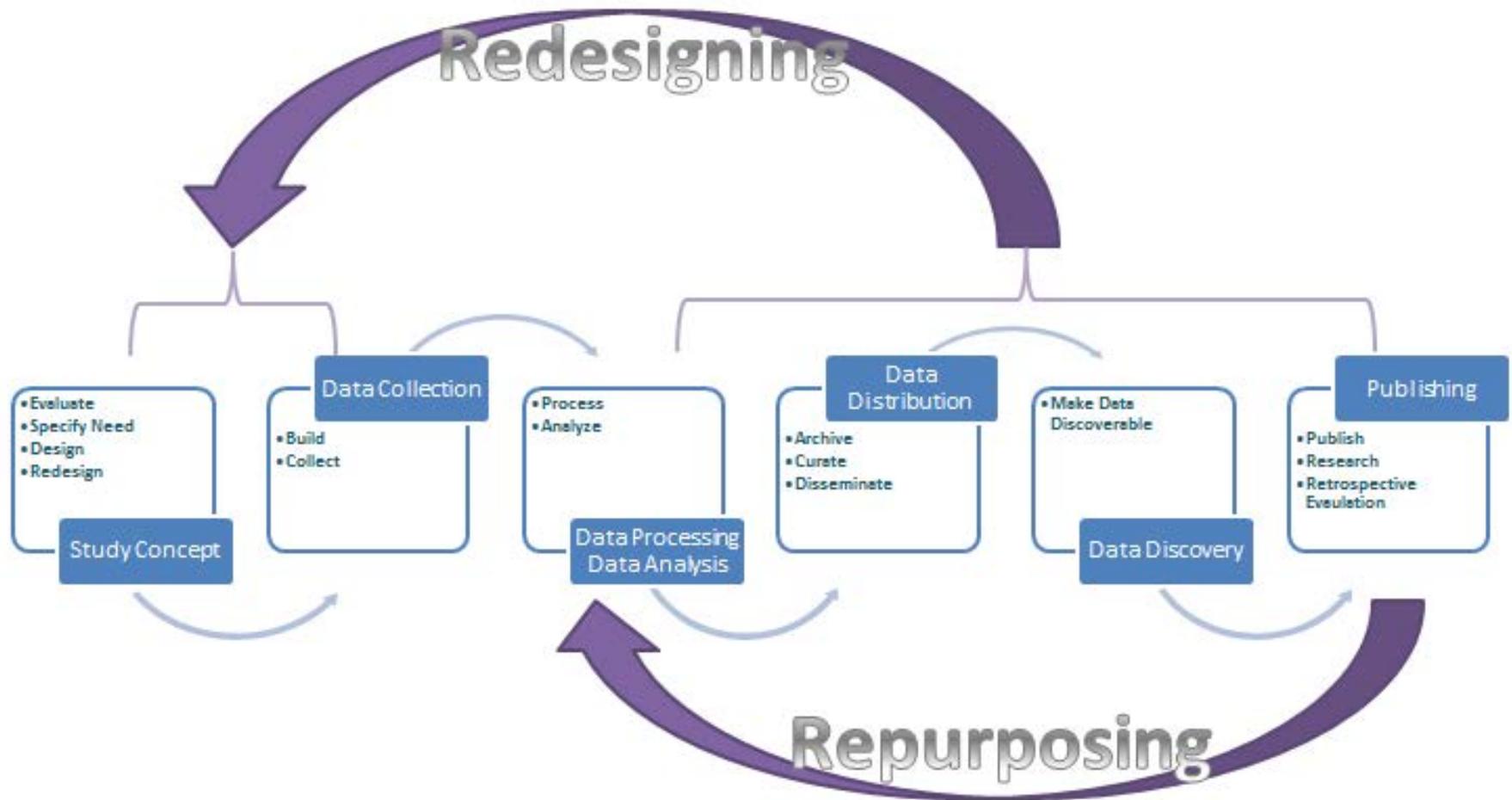
- Overall lifecycle of a longitudinal study
  - Managing equivalency and change
  - Managing reusable metadata over time
- Packaging metadata for reuse
  - Schemes (tables of reusable metadata)
  - Reflecting reuse within a study
- Managing change

# Issues raised in conference call

- Coordination
- Consistency
- Quality
- Speed of processing
- Integration of metadata between data sources/coverage types
- Change over time
- Learning system

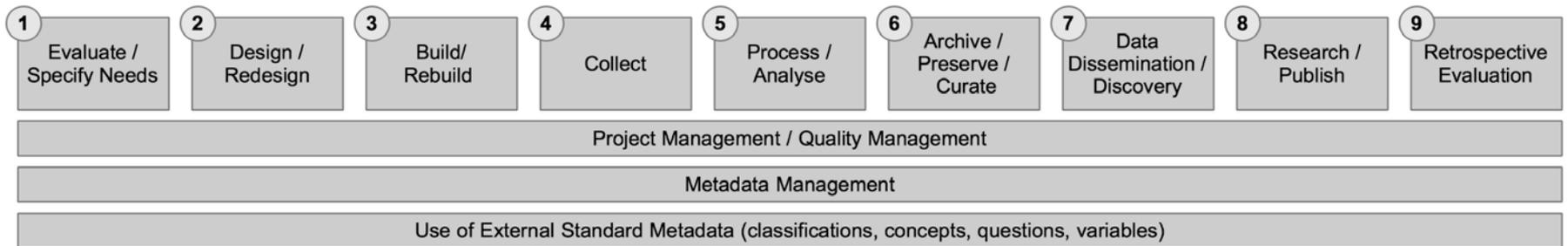
# Standard DDI Lifecycle Model





Source: Generic Longitudinal Business Process Model [draft DDI Best Practices Paper]

Generic Longitudinal Business Process Model: **High Level View**



# Metadata

- Metadata exists outside and “above/below” the flow of data
- Describes object, actions, and relationships
- Supports consistency, quality, process control, and change management

# Schemes

- Lists of like objects (like a database table)
- Maintainable outside of a specific project
- Contains versionable objects of specific type
- Allows structured organization of objects

# Scheme types

- Organization
- Concept
- Universe
- Geographic Structure
- Geographic Location
- Question
- Interviewer Instruction
- Category
- Code
- Physical Structure
- Record Layout
- Variable
- NCube (tabular data/statistics)
- Instrument
- Other forms of representation / response
- Sampling method
- Sampling frame
- Data Item

# Managing Change

- Versioning at the object level
- Recognition of versioning for packaging and organizing elements
- Version management objects
  - Version number
  - Version date
  - Version responsibility
  - Version reason

# Integrating Use of DDI Structures

- Manage objects used by multiple processes or actors centrally
- Reuse by reference rather than replication
- Capture difference from managed object in comparison description
- Feed back review and paradata analysis results in object updates – Version change
- Capture change between versioned object in comparison description

# Metadata driven research

- Capture the who, what, why and when
- Capture the process and interactions
- Reuse objects such as data items, variables, questions, etc.
- Feed evaluation information back into the metadata store allowing it to learn and capture change over time
- Capture comparisons of change