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CDC NCIPC DOP / Linkages to Care Indicators Data Flow Diagram Draft

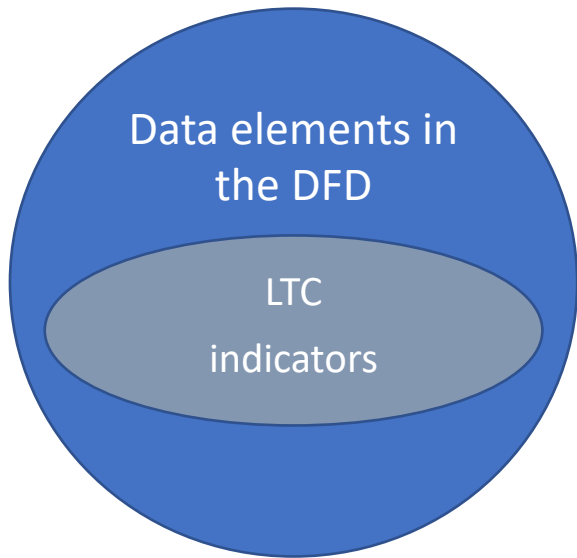
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Data Flow Diagram Introduction and Draft

Contents:

1. Purpose of drafting and using a data flow diagram (DFD)
2. Components and construction of a DFD
3. Types of DFDs
4. Draft substance use disorder (SUD) continuum of care DFD

Purpose and Considerations of a DFD

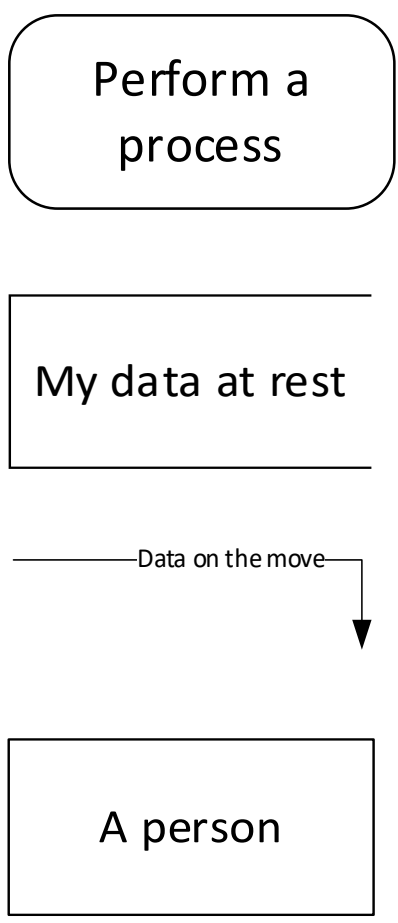


A DFD describes the flow of data through a system. Illustrating the SUD continuum of care data flow helps identify where and how to collect the data.

- All LTC indicators should appear in the data flow diagram. The data defining each indicator is represented in transactions between entities, acted on or manipulated by processes, and stored in data stores.
- Mapping the entire data flow may uncover additional indicators for consideration.
- The presented DFD does not include systemic indicators (e.g. capacity). Systemic activities or investments support the ability to accomplish SUD continuum of care.

Components of a Data Flow Diagram

Only four symbols in a data flow diagram:



Perform a
process

The diagram illustrates the four symbols of a Data Flow Diagram. It consists of four vertically stacked elements. The first is a rounded rectangle containing the text 'Perform a process'. The second is a rectangle containing the text 'My data at rest'. The third is a horizontal line with the text 'Data on the move' above it, ending in a downward-pointing arrow. The fourth is a rectangle containing the text 'A person'.

My data at rest

Data on the move

A person

- Process – A way of acting on the data
- Data store – Any kind of “storage”, including paper files. A place a process might pick up, or leave data
- Data flow – Data moving from into or out of a process
- Entity – A person or group (organization) of people

Logical vs Physical DFDs

A logical data flow diagram focuses on the business and how the business operates. It is not concerned with how the system will be constructed. Instead, it describes the business events that take place and the data required and produced by each event. Conversely, a physical data flow diagram shows how the system will be implemented, including the hardware, software, files, and people involved in the system. The chart shown below contrasts the features of logical and physical models. Notice that the logical model reflects the business, whereas the physical model depicts the system.

Design Feature	Logical	Physical
What the model depicts	How the business operates.	How the system will be implemented (or how the current system operates).
What the processes represent	Business activities.	Programs, program modules, and manual procedures.
What the data stores represent	Collections of data regardless of how the data are stored.	Physical files and databases, manual files.
Type of data stores	Show data stores representing permanent data collections.	Master files, transition files. Any processes that operate at two different times must be connected by a data store.
System controls	Show business controls.	Show controls for validating input data, for obtaining a record (record found status), for ensuring successful completion of a process, and for system security (example: journal records).

DFDs have “levels” which you use to drill down into the details

- Context
 - Level 0
 - Level 1
 - Level ... – stopping when you are at an “atomic” level, no more to add

