

Data Integration Checklist

1. You may need to consider data integration when:

- a. homeless provider(s) cannot use your continuum's HMIS, yet still wish to participate.
- b. mainstream services such as hospitals, law enforcement, and schools have useful homeless services data to contribute to an HMIS.
- c. reporting across many continua, each with their own separate systems, is required.
- d. counties comprising a continuum each must use their own systems, yet a continuum-wide roll-up is needed.
- e. statewide HMIS reporting is needed, though there is more than one HMIS system in the state.
- f. multi-state/regional HMIS reporting is needed.

2. Steps in a data integration process:

(your answers above will affect the choices below)

- a. Establish the initial requirements for the data integration project.
 - Will the central system be a data warehouse, or another HMIS, or ...?
 - Will agencies be able to receive data from a central system or just send to it?
 - Who will implement and when? A pilot with a limited number of your most capable agencies is a good idea.
 - Will the client release of information be closed off when sent to the central system, or be kept intact?
 - How will new data be merged into/unduplicated with existing data?
- b. Establish a basic plan for the data integration project.
 - establish budget/funding sources
 - basic roles
 - project phases (with the most simplest features first). Who will implement and when? A pilot with a limited number of your most capable agencies is safer. It is often best to start with agencies sending data in one phase and add receiving data to a later phase.
- c. Determine a common data format contributing agencies will use.

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- HUD HMIS XML (CSV not yet released) – good for uniformity, portability of standard across different vendors and states/regions
 - extended HUD XML format: take HUD's format plus add your own elements – a good compromise of standardization and customization, plus you can always convert back to HUD format if necessary
 - proprietary vendor data formats – good for getting all the functionality out of your HMIS capabilities, but the uniqueness of the format may defeat the data integration portability and may need to be reworked if you change vendors
 - some other non-HUD standardized format, such as HL-7 XML, those used by Health and Human Services, etc.
 - obtain/create documentation and sample data for whichever format you choose
- d. Draft and negotiate interagency data sharing agreements. Specify:
- data format, transmission frequency, messaging type
 - security guidelines
 - whether only changed data are sent or all prior data as well (usually the former)
- e. Set up server-side data receiving mechanism for warehouse/HMIS (an HMIS or 3rd party vendor may be able to handle this for you). This includes:
- unduplication/matching
 - “shredding” received data into database
 - user and/or agency authentication/authorization
 - connection security (SSL, SSH, VPN, TLS, etc.)
 - messaging protocol implementation (HTTP POST, SOAP, FTP, etc.) so agencies can send data in a predictable fashion with predetermined error codes
- f. Pilot agencies begin sending data. Expand the number of agencies as funding and system limits permit.

**Items to put in RFP when procuring HMIS software, even if you aren't ready for data integration right now:*

- *Support for both transmitting and receiving HUD XML v. 2.7*
- *Support for batched or real-time messaging of this XML (HTTP POST is a good baseline)*
- *References from past data integration projects/compatible systems.*