

Guidelines: Transactions Mapping & Data Elements Gap Analysis (Outgoing)

This is broken into two main phases. The first phase is a high-level analysis designed to solicit basic knowledge about your system and organization such that some calculations and estimates can be made, and some business and strategic decisions can be made prior to investing a significant amount of work.

In order to properly complete the conversion to the X12N standards, there is a considerable effort involved in a) determining your current status regarding data elements and content and b) mapping or creating the X12N formats. Even if your organization will use a clearinghouse, these steps are necessary as only your organization can provide the required data content to fulfill the standards. In order to accomplish this, you must know what and where the data content is. Both your physical data systems and your business processes will be impacted in order to collect this data.

High-Level Analysis

- ♦ Generate list of all data elements from ANSI data dictionary, along with definition, minimum and maximum lengths (a list can be obtained through the EDI Workgroup, NMCHILI).
- ♦ Gather the EDI project team(s) and walk through each element and ascertain, based strictly on their knowledge, which data elements currently reside in your system, which do not or are not captured, and which they aren't sure of.
- ♦ You can do this with or without the "transaction type" indicated for each element.

- ♦ You now have a very high-level list of all data elements and broad estimate of whether your system is capturing these or not. This process should take between 4-8 hours to complete.
- ♦ From this you can estimate how many additional (new) data elements you will need to accommodate in the conversion, and an estimate of how many bytes this may represent.

- ♦ Determine what mapping is available from the vendor.
- ♦ Determine which fields are hard-coded, derived or calculated (from other existing elements) and flag as such.

Detailed Analysis

- ♦ Determine what X12N data elements are already in your system. Use claims logic or documentation, etc. to do this. Cross-map your current system data for these transactions to the HCFA forms (1500 & UB's) and then to the X12N standards. (There are cross-walk maps available on the internet for these latter steps.)
- ♦ Minimally include the application name, data element name, file or database name, field type, minimum and maximum length, current usage (required, optional).
- ♦ Also consider including record or data-set name, screen where data is collected, source, application definition of field, and any notes.

- ♦ Assign or find someone as the "expert" in the ANSI standards, and have them provide training using visual mapping techniques to other staff involved in mapping and supporting these transactions and data.
- ♦ This person can also facilitate sessions where data elements and situational circumstances are identified and mapped.

- ♦ At this point you can generate a report showing the additional data required in the X12N standards.
- ♦ Also identify the "situational" parts of the standards which apply to your organization, and list out the data elements for those. These become part of the total data set you will need.

- ♦ Now trace these data elements back to your systems and identify the ones which exist or don't exist.
- ♦ Once done, you have a data content gap analysis.

MISCELLANEOUS NOTES:

Perform a “high-level” analysis early. This means walking through the ANSI X12N list of data elements from the data dictionary, and identifying (with little or no research, and based on the analysts knowledge) whether each data element is currently present or not in the legacy system.

Inventory what transactions your organization has that are “covered transactions”. Also determine if your organization is doing paper transactions that could be moved to electronic via these standardizations. A guide sheet summarizing these transactions is available through NMCHILI.

Build or use a tool to help you hold the information you are collecting for further analysis. A database listing data elements and what transactions use them is available through NMCHILI. This database also will house information about your system applications and data elements for queries and analysis.

Have those doing the detailed research and analysis use an easy and quick method to record their findings (such as a spreadsheet or pencil in a printout list) , and turn over entry of that into the database to a temp or support staff person.

Are there multiple modules in an application family, and knowing where a data element will need to be pulled from for a particular transaction type?

How do you minimize and manage the time investment for this analysis?

Who has the expertise about a) the transactions and b) the systems at your facility?

Can a programmer help you extract info about data elements (map where it is being pulled from) currently being sent?

Determine vendor involvement and/or vendor tools available for this first phase analysis work, and what mapping is available from your vendor.

Import the data you are collecting into a database and print mapping reports by transaction type.

Determine if there are needed data elements in your current electronic transactions that are not included in the ANSI X12N transactions or that are not in the correct format type and length.

Work with your vendor to determine what additional data will be included in upgrades for HIPAA readiness.

Include in your gap analysis report: data not currently collected but required, data currently necessary but not included in the ANSI standards, estimate of increased record size for both outgoing transactions and for patient records within your system, and estimate of how much additional system capacity you may need.

Determine if it will be necessary to accept transactions that are not currently electronic from any business partner (e.g., eligibility or auth/referral via paper for or claim status via phone).

From all of the above, develop a phased plan to fill in the gaps identified. How missing data will be collected (business and clinical processes affected), use of clearinghouses, transmission to business partners, and how electronic transactions will be processed.

Guidelines: Incoming Transactions Mapping & Data Element Gap Analysis

The process for mapping **incoming transactions** differs from the effort for outgoing transactions.

For outgoing transactions, the data maps document which data elements in the processing systems map to the data elements in the outgoing transactions. The purpose is to be sure all data elements are collected in the processing systems that are needed in the outgoing standard electronic transactions. For example, data needed for the 837 claim transactions must be gathered in billing systems and output into claims transactions, even if the non-standard claims transactions are sent to a clearinghouse or translator for reformatting. Likewise, data needed for the 835 remittance advice transactions must be gathered in the payer systems and output into advice transactions.

For incoming transactions, the data maps document which data elements contained in the incoming standard transactions map to the data elements needed in the (probably proprietary) transactions that are input to the processing system. The purpose is to be sure all data elements needed by internal processing systems are contained in the standard electronic transactions. It is likely the processing system will not need all the data in the standard transactions. However, the systems will need to store data elements that are required for turn-around transactions (e.g., 837 claims turned around to 837 COB transactions and/or turned around to remittance advices).

High-Level Analysis (Incoming)

- ♦ Generate a list of the data elements in the proprietary transactions. This could be done from system technical documentation such as copybooks or database tables.
- ♦ Generate a list of all data elements from the ANSI data dictionary. This documentation will soon be available on the NM CHILI web site. It is also available until it is posted on the web site from Deanna Rains - drains@phs.org.
- ♦ Gather the EDI project team(s) and walk through each element and ascertain at a high level, based on the team members' knowledge, which data elements are in the incoming standard transactions, which are not there, and which are undetermined.

- ♦ You now have a very high-level list of the data needed for processing the incoming transactions and data elements which may be missing.
- ♦ From this you will have an idea on what would need to be stored for turn-around transactions and if there are missing data elements that may require changes in the processing system.

- ♦ If applicable, determine what mapping is available from the vendor.
- ♦ Determine what data in the incoming transactions can be used instead of the missing data.

Detailed Analysis (Incoming)

- ♦ Do further analysis to determine that the needed data elements in the incoming transactions have the same format (alpha, numeric, date, etc.), the same data length, and the same meaning.
- ♦ Be aware of data content that is changing (e.g., home grown medical codes, local medical codes, physician specialty codes, etc.)
- ♦ Print a list of the standard electronic transaction map. A workbook containing a spreadsheet for each transaction will soon be available on the NM CHILI web site or from drains@phs.org.

- ♦ Develop a cross-walk between the incoming transactions and the proprietary transactions data element by data element. Minimally include the application name (one time) and the following information for the proprietary transaction that is input to the application name (one time), the data element name in the proprietary transaction, minimum and maximum field lengths in the proprietary transaction, and current usage in the proprietary transaction (required, optional).

- ♦ You are now ready to determine the gaps between what is incoming and what is needed, what processing changes are required, and what data must be stored for turn-around transactions.

- ♦ Now trace these data elements back to your systems and identify the ones which exist or don't exist.
- ♦ Once done, you have a data content gap analysis.