MedInsight
Data Confidence Model Summary

The MedInsight Data Confidence Model (DCM) is a structured process that ensures the healthcare data collected for a client is accurate, reliable, and understood. This process incorporates formal steps, tools, and peer review based upon Milliman's experience with healthcare data.

The MedInsight DCM is an online tool designed to provide feedback to data suppliers that allows them to identify and resolve data quality issues in a short period of time. The DCM sends audit results via email reports that outline the outcomes of all phases of the data checking process. This process is intended to be participative and to be used as a communication tool among data submitters, builders of decision support systems, and analytic end users.

The MedInsight DCM approach to data integrity is to monitor and assess data quality throughout data acquisition, loading, and processing. Any common formatting errors are identified and resolved early in the data loading process, which speeds up overall processing. Any exceptions are automatically captured and stored in detail. Data are not transferred into the client-accessible MedInsight server until Milliman's peer review process is complete.

The MedInsight DCM is a comprehensive data quality audit system comprised of five related components, which are as follows:

1. File Sniffer

2. File Checker

3. File Field and Quality Checks

4. MedInsight Audits

5. Reasonableness, Longitudinal, and Relational Audits

The five components are individually scalable to best meet the needs of the client. For example, some of the File Field and Quality Checks in the system may or may not be applied based on the data being collected for each client. Alternatively, checks can be created for data fields that are unique to a specific client. The same flexibility exists with the MedInsight Audits and Reasonableness, Longitudinal, and Relational Audits.

The MedInsight DCM is composed of a three-tiered process. First, as the data files are submitted, the DCM's automated file intake function provides immediate online feedback to the data suppliers regarding data file structure. Second, as the files are received, automated File Field and Quality Checks are run to identify possible data issues. Third, after the data has been accepted, additional data integrity tests are conducted. These tests, which include data submission comparisons over time, identify issues with the data that cannot be seen at an individual data file or field level.

The DCM searches for industry standard coding, compares results against benchmarks, and confirms that key business criteria are present and accurate. The DCM ensures that business intelligence metrics, such as risk scores, episodes, evidence-based measures, and benchmarks, are credible to use throughout an organization.

Additionally, Milliman supports the DCM through its standard Client Services programs. Client-specific ticketing systems are managed by MedInsight Client Services to allow data submitters to present questions or issues that may arise during the DCM process. Clients, as participants in the ticketing system, will be informed of the discussions between the data submitters and MedInsight Client Services.

The DCM also includes an important management component. A Processing Manager is assigned to each client to:

1. Facilitate the MedInsight processing

2. Manage the longitudinal reconciliation process

3. Coordinate the publishing of the refreshed data to client facing servers

The MedInsight DCM does not create high-quality healthcare data. It is instead a rigorous process toward that end.

To learn more about our new product, please contact milliman.medinsight@milliman.com.