

# One of the IDMA Special Reports – DATA QUALITY CERTIFICATION MODEL FOR INSURANCE DATA MANAGEMENT

## PREAMBLE

1. Purpose and Scope
  1. **Purpose:** The purpose of the Data Quality Certification Model is to provide:
    1. A framework for use in attesting to the quality of an organization's data. It is not intended to be a manual of detailed procedures.
    2. Guidelines for the data manager to use in controlling, monitoring and measuring the validity, accuracy, reasonability and completeness of data
  2. **Scope:** The certification process applies to statistical data. Statistical data are data that are derived from an insurance company's business transactions. They contain information about insurance coverages and the associated premium and loss experiences for the coverages.

## FRAMEWORK AND GUIDELINES

1. **Guidelines for Developing the Data Quality Certification Model Commentary**
  1. The data manager is responsible for developing a commentary on the quality of the data. The commentary should include:
    - Disclosure of performance results of checks for validity, accuracy, reasonability, and completeness of data, and a summary of the results
    - List of performance reports and/or monitoring tools used in ascertaining validity, accuracy, reasonability, and completeness of data
    - Review and analysis of significant data problems identified using the data quality tools
    - Plan of action to correct data problems including follow-up to verify completion
    - Statement that certifies that the commentary is true, accurate, and complete to the best of his/her knowledge
  2. The commentary should include the assessment of the materiality of the data elements. In determining materiality, the data manager considers the intended use of the data, and the importance of the data element to that use. The quality of the data as well as its presence or absence on individual transactions may be considered.

The commentary should include:

    - Identification of material data elements
    - Error ratios for material data elements
    - An assessment of the impact (e.g., dollars, exposures, number of claims) of errors for material data elements
  3. The data manager uses standards in developing the commentary for the data quality certification model. The data manager is accountable for:
    - Recognizing that it is the user's responsibility to develop standards

- Knowing that standards exist
  - Prompting the establishment of standards when they do not exist
2. **Guidelines for Ascertaining the Validity of Data**
1. The data manager is responsible for ascertaining the validity of data. Validity means that a given data element is one of all allowable ones. The principal means of determining validity is through editing.
  2. The principal tools for ascertaining validity of data may include but are not limited to:
    - Internal company edit packages, external company edit packages, and performance reports
    - Review of the results of editing
    - Analysis of data problems identified in the performance reports and the results of editing
3. **Guidelines for Ascertaining Accuracy of Data**
1. The data manager is responsible for verifying that the reported data are a true and accurate reflection of the source records of the organization to the best of his/her knowledge. The source is defined as the first recorded evidence retained by the company.
  2. The types of monitoring tools for ascertaining accuracy of data may include but are not limited to:
    - Checks that independently compare the reported data to the source data
    - Periodic tests to guarantee the accuracy of any encoding process
    - Premium and claim matches to verify the consistency of the reported data
    - Results of functional audits such as premium audits, market conduct examinations, claims audits
4. **Guidelines for Ascertaining Reasonability of Data**
1. The data manager is responsible for verifying the reasonability of the data.
    - The data manager is directly responsible for performing preliminary reasonability tests.
    - The data manager should ask the users of the data for an assessment of reasonability.
    - The data manager will act upon any significant discrepancies identified through testing or disclosed through user assessments.
  2. The types of tools for ascertaining reasonability of data may include but are not limited to:
    - Distributional analysis
    - Profiles of expected results
    - Trend analysis
    - Average rate checks
    - Loss ratio analysis
5. **Guidelines for Ascertaining Completeness of Data**
1. The data manager is responsible for ascertaining that statistical data are complete. Completeness means that each transaction contains the necessary data for the business needs of the transaction, that the transaction has been

processed through the necessary portions of the system, and that the transaction has been processed once and only once.

2. The tools for ascertaining completeness of data may include but are not limited to:
  - Identification of the significant discrepancies in the reconciliation results and monitoring of the corrective actions
  - Documentation that compares statistical data with financial data and explains the differences

NOTE: The Data Quality Certification Model has been developed to be used only as guidelines for data managers in monitoring and measuring various aspects of data. The Insurance Data Management Association, Inc. (IDMA) makes no warranties of any kind with regard to the use of these Model guidelines for any purpose. In no event shall IDMA be liable or responsible for any damages arising out of, or in connection with, the use of these guidelines by any person or organization.

