# Data Quality and the MIS Standards

## *Fact Sheet*

**May 2020**

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                    │   MIS Standards     │
                    │    Statistical      │
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| Earned Hours | Service Activity | Workload Measurement | Caseload Status Statistics | Data Quality & Indicators |
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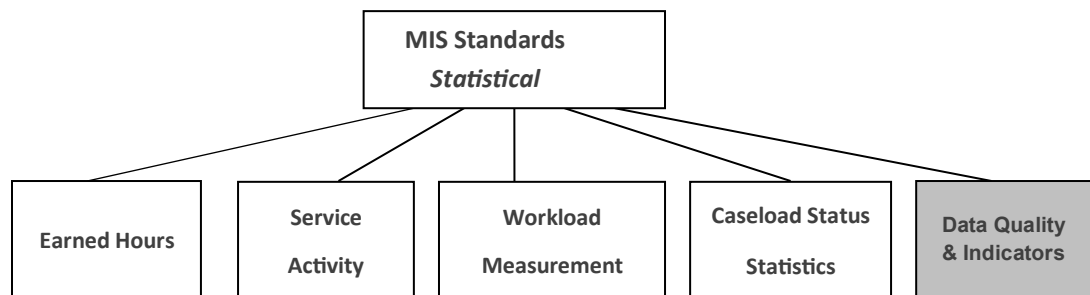
## Data Quality

Information is the foundation of an effective and efficient health care system and requires data that is of high quality. Decision-making based on information that is standardized and of high quality results in better outcomes and, ultimately, improved health and well-being for the people of the province.

Information is a product itself and not just a by-product of providing patient care. As such it needs to:

• be managed and valued.

• meet the needs of users.

• be supported by a well-defined process.

• have a recognized life-cycle.

The creation, collection and maintenance of high quality information is a shared responsibility; everyone has a role to play.

## Characteristics of Data Quality

Data quality is made up of five dimensions with the following characteristics:

• Accuracy

• Timeliness

• Relevance

• Usability

• Comparability

## Accuracy:

**How well does the data reflect reality?**

• Is the data valid; does it measure what it's supposed to measure?

• Is the data reliable; does it measure the same things consistently?

### Timeliness:

- Is the data available within an acceptable timeframe?
- Is the information submitted on time and can reports be prepared and distributed promptly?

### Comparability:

- Can the data be compared over time?
- Are reports consistent and comparable month to month or year to year?
- Are consistent data elements with standard definitions used?
- Are the time periods for reports the same, i.e. every month?
- Are data elements comparable to other databases?

### Usability:

- Is the data accessible and easy to understand?
- Are the reports applicable to the functional centre or organization?
- Are they easily understood and do the right people receive them?
- Are managers and staff using the information?

### Relevance:

- Is the data of value to the users?
- Is there too little or too much detail?
- Is the right information being collected?
- Does the information meet the needs of users?

### What is the impact of data quality?

Each of the five dimensions of quality is important to the overall value of the data to users. Small issues with data quality in any of these dimensions can have a significant impact due to the cumulative effect and can result in data that does not meet its potential value to users.

**Accuracy –** When data is being collected, even a small amount of inaccuracy will reduce quality (e.g. statistics assigned to an incorrect functional centre or not collected using the correct definition).

**Timeliness –** When data is collected on time but submitted late, the value of the information to the user is reduced.

**Comparability –** When a department uses definitions for workload components or statistics that differ from those used in other functional centres, data cannot be accurately compared and quality is reduced.

**Usability –** When information is collected but not provided in a useable format, it has little value to staff or managers and quality is reduced.

**Relevance –** When information does not meet the users' needs, quality is reduced.

**It is important to remember that even small problems with the quality of data**

**will have a significant impact!**

**Data quality can be improved and maintained by:**

- providing regular feedback to staff involved in data collection;.

- providing education to new staff during orientation.

- providing education to all staff regularly and when problems arise.

- ensuring that managers understand the value of the data and how to use and interpret the information.

## The Facts about the MIS Standards

**They are:**

- a national framework for collecting, processing, analyzing and using information within a health service organization.

- a framework for developing information systems.

**They specify:**

- what data to collect (data standards).

- how to group and process data.

- how to analyze and use the data to support management functions such as evaluation, control, budgeting, planning and quality initiatives (turning data into information).

**Their purpose is:**

- to improve the quality and comparability of data collected by Canadian health service organizations for management planning, evaluating, reimbursement and research purposes.

- to better measure resource utilization and activity by integrating financial and statistical data.

## The Canadian MIS Database:

- houses financial and statistical data related to the day-to-day operations of Canadian health service organizations.

- receives data submissions electronically from provincial/territorial ministries of health annually.

- contains data used when determining Canada's health expenditures, meeting international reporting requirements, populating Statistics Canada's national accounts, calculating the Gross Domestic Product and conducting health related studies.

## The Provincial MIS Database:

- houses financial and statistical data related to the day-to-day operations of the Regional Health Authorities (RHA).

- is maintained at the Department of Health and Community Services (DHCS).

- receives data submissions electronically from the finance department of each RHA, on a monthly and annual basis.

- is used by the MIS staff of Newfoundland and Labrador Centre for Health Information (NLCHI or 'the Centre') and by Financial Information Services at the DHCS to answer requests from the RHAs and other divisions within the DHCS, to verify report results from the CIHI and to provide indicator reports and data quality reports to provincial users.

## Did you know?

- The weakest part of the process for collecting data is the day-to-day practice of data entry. Regular education and ongoing monitoring helps to improve the quality of the data collected.

- One of the biggest factors underlying poor data quality is the lack of understanding among frontline staff of the reasons for and benefits of the information they are collecting.

- Feedback to data collectors is critical to maintaining data quality.

- A Provincial Data Quality and Reporting MIS Committee exists to address application of the MIS Standards, data quality issues, and monitoring of reporting within the province. Each region is represented, as well as the DHCS and the Centre.

- A Provincial Health Information Services MIS Committee exists to address application of the MIS Standards, data quality issues, and monitoring of reporting of coding, registration and health records services within the province. Each region is represented, as well as the Centre.

- A provincial discipline-specific MIS contact list is maintained by the Centre to facilitate education and information sharing regarding MIS Standards. It is comprised of regional representatives and MIS Standards Consultants from the Centre.

- Performance Indicator Reports linking the financial and statistical information can be produced from this data. All reports must be requested either through the Information Request at the Centre (Information Requests @ *InfoRequests@nlchi.nl.ca*) or the Financial Information Services division at the DHCS.

- The MIS Standards Consultants at the Centre provide MIS educational workshops, consultation and assistance with information analysis. Further information is available on the Centre's website at www.nlchi.nl.ca.

- CIHI supports and maintains the MIS Standards and offers educational support for the MIS Standards through e-learning programs and instructor-led workshops. Further information is available on CIHI's website at www.cihi.ca.

## Help us help you

Has this Fact Sheet been helpful in raising your awareness of the MIS Standards? Do you have other suggestions as to how we can increase your knowledge of the MIS Standards and/or utilization of financial and statistical information? Please send your comments and/or questions to Kathy Stein at katherine.stein@nlchi.nl.ca or Marie Strang at marie.strang@nlchi.nl.ca.

## Future Editions

Future editions of discipline-specific MIS Standards Fact Sheets will be released and each edition will focus on a different aspect of the MIS Standards relevant to that discipline.

## About the Centre for Health Information

The Centre was established to provide quality information to health professionals, the public, researchers and health system decision-makers. Through collaboration with the health system, the Centre supports the development of data and technical standards, maintains key health databases, prepares and distributes health reports, and supports and carries out applied health research and benefits evaluations. The Centre's mandate also includes the development and implementation of a confidential and secure provincial electronic health record, including the change management required to support adoption by end user clinician.