Newfoundland & Labrador
Centre for Health Information

The MIS Standards

Fact Sheet for

Diagnostic Imaging, Clinical Laboratory,

Electrodiagnostic, Cardiac, and Vascular

Laboratories

(Medical Imaging Nursing will be addressed separately)

March 2023

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              MIS Standards
               Statistical
   ┌────────┬────────┬────────┬────────┐
 Earned   Service   Workload  Caseload   Data Quality
 Hours    Activity  Measurement Status    & Indicators
          Statistics Systems   Statistics
```
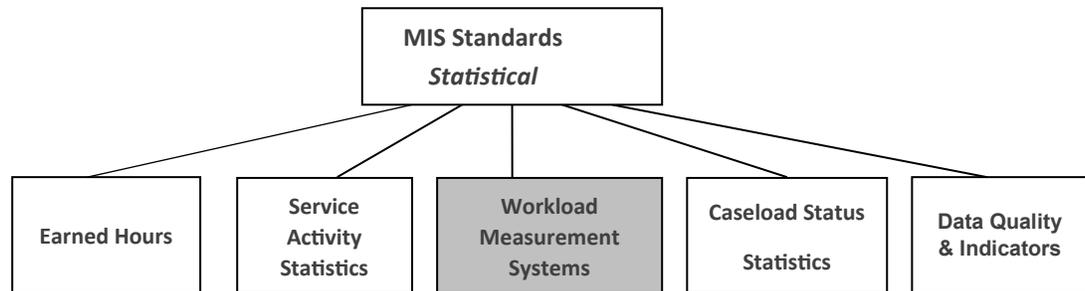
Workload Measurement Systems (WMS)

Diagnostic services are responsible for a significant portion of a health care organization's operating expenses. Each organization requires evidence to support its use of these resources.

A WMS is a management tool that can be used to reflect resource utilization. The requirements for the collection of workload are based on the Standards for Management Information Systems in Canadian Health Service Organizations (The MIS Standards, ©2022, the Canadian Institute for Health Information, Ottawa, Canada). These national standards tell us what data to collect, how to group and process the data and how to analyze and use the data to support decision making and accountability.

The Facts

- The WMS has a conceptual model which divides workload into two categories:

  - service recipient activity (direct patient care or service)

  - non-service recipient activity (all other activities)

Service recipient activity for diagnostics is divided into the activity category of diagnostic/ therapeutic interventions. Clinical Laboratory, for example, divides service recipient activity into 3 activity categories:

- specimen collection

- specimen testing

- technical support

Non-service recipient activity is further divided into four categories:

- Functional Centre Activities

- Organization/ Professional

- Teaching/In-service

- Research

- The WMS records workload retrospectively (care you actually provided, not what you predict your patient will need).

- All staff providing care are considered Unit-Producing Personnel (UPP). All UPP staff are required to collect and report workload during paid working hours.

- The effectiveness of any WMS depends on the knowledge and understanding of the system by both management and frontline staff.

- A WMS does not measure the quality of care or service provided. It measures the amount of time spent providing the service and time spent in various related activities, such as committee meetings and in-service.

- A WMS is not designed to capture 100% of a staff member's time; 80-85 percent is realistic (no workload is collected for coffee breaks, lost time, etc.).

- **Worked productivity** includes the portion of worked time spent providing service recipient activities (patient care). **Total productivity** includes the portion of worked time spent in providing both service and non service recipient activities (non patient care). Total Productivity of greater than 100% is indicative of skewed data, e.g. workload recorded for non-paid hours.

- Workload data is used for staffing, planning, budgeting, monitoring and evaluating services provided.

- There are several ways time spent in various activities can be measured. Diagnostic services usually use standard times that have been developed nationally. These times may be generated in the background in the computer system for example diagnostic imaging. Therapeutic services record the actual time spent, usually rounded to the nearest 5 minute mark.

- Workload can be collected manually, electronically, or a combination of both.

- Workload can be collected on a provider-specific or patient-specific basis.

Successful implementation, maintenance and use of a WMS is a shared responsibility.

Manager's responsibilities:

- provide leadership for implementation

- ensure data quality

- investigate sources of inconsistent data

- ensure that ongoing maintenance/monitoring is taking place

- use the data to support decision-making

- liaise with workload coordinators/IT support

Unit Producing Staff responsibilities:

- record/capture data accurately to quantify services provided

- accurately measure the resource requirements of their patients/clients

- understand the WMS–both recording and interpreting of results

- share knowledge with new staff

Troubleshooting Tips

Problem: The workload recorded by staff member A is different than that recorded by staff member B.

Probable Causes:

This may not be a problem; all workload will not look the same. All staff will not work at the same pace or provide service to the same types of service recipients i.e. typically inpatients generate more workload than clients.

Solution: Educate the staff and manager about workload measurement.

Problem: The workload recorded does not appear to be accurate.

Probable Causes:

- under recording workload time

- over recording workload time

- changes in service provided (acuity) i.e. patients require less care and staff have some "downtime"

- increased travel time between regional sites reduces time available for service recipient workload

- increased waiting time (waiting time is lost time) reduces overall workload

Solution: Ensure complete and timely recording of workload data. Ongoing monitoring is important to maintain quality and consistency.

Did you know?

- Lack of feedback is cited by frontline staff as the number one reason why they do not value the collection of workload statistics.

- Collection and reporting of workload statistics is both a provincial and national requirement.

- Diagnostic services workload data has been collected for many years and the volume of workload data being reported to the Provincial MIS Database has steadily increased.

- NLs largest regional health authority (RHA) has a workload coordinator responsible for development and implementation of WMS. They provide assistance with interpretation and analysis of data as well as education to staff.

- 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 Newfoundland and Labrador Centre for Health Information (NLCHI or the Centre) to facilitate education and information sharing regarding MIS Standards. It is comprised of regional representatives and MIS Standards Consultants from the Centre.

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

- 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 educational workshops, consultation and assistance with information analysis. Further information is available on the Centre's website, www.nlchi.ca.

- The Canadian Institute for Health Information (CIHI) supports and maintains the MIS Standards. It offers educational support for the MIS Standards and WMS through e-learning programs and instructor-led workshops. Further information is available on CIHI's website, 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 Jennifer Guy at jenniferl.guy@nlchi.nl.ca or Marie Strang at marie.strang@nlchi.nl.ca.

Future Editions

Future editions of "Diagnostic Services and the MIS Standards Fact Sheet " will be released and each edition will focus on a different aspect of the MIS Standards as they relate to Diagnostic Services

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.