MIS STANDARDS and WORKLOAD MEASUREMENT REFERENCE GUIDE v1.1

HEALTH INFORMATION MANAGEMENT and REGISTRATION SERVICES

May 2016

Table of Contents

Introduction to the MIS Standards

The Standards for Management Information Systems in Canadian Health Service Organizations*, the MIS Standards*, are published by the Canadian Institute for Health Information (CIHI). They are the national data standard for the collection and reporting of financial and statistical information from health service organizations. Originally developed for hospitals, the Standards have been expanded over the years to include all types and sizes of health organizations.

The primary goal of the MIS Standards is to provide comparable operational management information to front line managers as well as administrators throughout the health system. Implementation of the MIS Standards enables organizations to have standardized financial information and related statistics (such as workload and patient activity) for the many clinical services they provide. This data can then be used to calculate key performance indicators, providing a useful tool to measure and monitor performance.

The MIS Standards were adopted by the Newfoundland and Labrador Department of Health and Community Services in 1992. Provincial reporting requirements were developed based on the national reporting requirements, with customization as required to meet local information needs.
The Workload Measurement System (WMS) for Health Information Management (HIM)/Registration Services was originally developed by Health Canada. Since the formation of the MIS Group, and subsequently the Canadian Institute for Health Information in 1994, the WMS was incorporated into the MIS Standards. It provides key workload and related statistics for inclusion in indicator analysis. CIHI periodically updates the MIS Standards, and related WMS, but does not plan to continue to support the WMS for Health Information Management at this time.

In January 1997, the Provincial Health Information Services/Registration MIS Committee was formed. The group's membership is comprised of directors and managers of the full scope of HIM and registration functions within the regional health authorities (RHAs) and an MIS Consultant from the NL Centre for Health Information. Its mandate was to facilitate implementation and use of the MIS Standards by health information management and registration services in our province, particularly the workload measurement system. It recognized the need to revise the Health Records WMS to reflect expanded roles of staff and the modern technical environment in which they worked. No WMS existed in the MIS Standards for Registration Services, instead key staff activity statistics were recorded. Therefore, to achieve a comprehensive and standardized WMS for health information services in the province, the national Health Records WMS was adapted in 1999 to meet local needs, yet be consistent with national reporting guidelines. In 2002, a significant revision was undertaken to improve the accuracy and comprehensiveness of the WMS which was published in 2005. In addition, common principles were applied and a new WMS was developed for registration services.

Despite efforts to develop and implement a workload measurement system since 2005, little progress was made due to resource constraints, competing priorities and frequent organizational changes. The need for this information has not diminished over the past decade. The Committee continues, as outlined in the terms of reference found in Appendix A, and undertook an initiative to update the WMS for relevance today. As a result, a review and update of the HIM and Registration WMSs was undertaken in 2013 and completed in 2015.This reference guide has been developed to assist health information services and registration staff implement the MIS Standards within their facilities, including the WMS, in accordance with the MIS Standards principles, yet customized for provincial use. By doing so, health
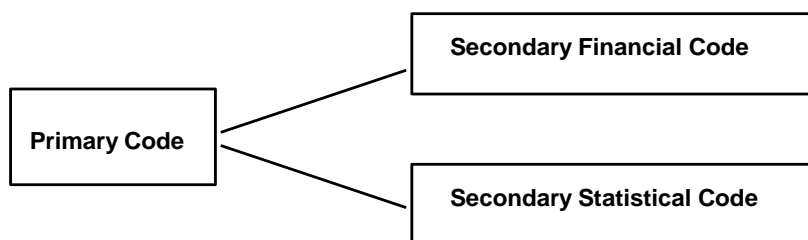
information management and registration services will improve the accuracy and comparability of data available for internal and external use.

Health information management and registration services recording WMS data currently are expected to make necessary revisions to their data collection processes for April 1, 2016. Other services are expected to begin the implementation process by that date, recognizing completion will take many months.

Functional Centres/Primary Accounts

The **Functional Centre** framework is a five level hierarchical arrangement of departments or functional centres that recognizes the diversity in size and specialization of health service organizations. This framework provides a method for organizing financial and statistical information for both internal and external reporting purposes. The hierarchical arrangement allows varying sizes of health service organizations to use the structure and yet also permits information to be "rolled-up" or consolidated for external comparative reporting.

The MIS Standards Chart of Accounts coding structure consists of the following code blocks.

```
                                    ┌─────────────────────────────┐
                                    │  Secondary Financial Code    │
                                    └─────────────────────────────┘
        ┌──────────────────┐      ╱
        │   Primary Code   │─────
        └──────────────────┘      ╲
                                    ┌─────────────────────────────┐
                                    │  Secondary Statistical Code  │
                                    └─────────────────────────────┘
```

The primary code refers to a functional centre or accounting centre. The secondary codes identify specific types of information about the functional centre, either financial or statistical in nature. Each secondary code is associated with an appropriate primary code. Each digit of an account code identifies specific information.

Many organizations use additional numbers either before or after the MIS accounts to designate a facility, site, or program. The MIS Coordinator in your organization can provide additional information on the accounts used for your particular service. The creation of primary and secondary accounts should be discussed with the individual responsible for MIS reporting within your organization to ensure that accounts correctly reflect the activity which occurs and that the secondary accounts are correctly linked with the primary account or functional centre.

Each department or service that is a cost centre (has a designated budget) is assigned a primary account code within the functional centre framework. These primary account codes contain 9 digits and are structured in a specific manner, as described below.

ACCOUNT TYPE
7

The account number will always start with a 7 to indicate that this account represents a functional centre.

FUND TYPE
71
The second digit indicates the primary source of funding for this activity. The Finance department will designate this digit. In most cases this will be a 1 to indicate global/operating funding.

FRAMEWORK (Level 2)
71 1
The third digit indicates the framework section to which the service belongs. This is the Administration and Support Services framework (section 1) for Health Information Management and Registration. Reporting at this level is referred to as level two reporting.

FUNCTIONAL CENTRE (Level 3)
71 1 **
The next two digits indicate the type of service provided. This is referred to as level three reporting. The ** indicates that there are options for this section of the account code.

FUNCTIONAL CENTRE (Level 4)
71 1 ** ++
The next two digits indicate further breakdown of functions for some level three functional centres, and are known as level four functional centres.

FUNCTIONAL CENTRE (Level 5)
71 1 ** ++ xx
The last two digits indicate further breakdown of functions for some level four functional centres, and are referred to as level five functional centres.

The table below illustrates the composition of the primary account code for a Medical Transcription functional centre.

Functional/Accounting Centre Account Code Structure

Account Type	Fund Type	Framework Section Level 2	Functional Centre Level 3	Functional Centre Level 4	Functional Centre Level 5
7	1	1	90	++	xx
1. to 6. Balance Sheet accounts **7. Functional Centres for Revenue, Expense and Statistics** 8. Accounting centres	1. **Operating Fund** 2. Other DHCS funding 3. Other funding 4. Board Designated 5. Capital 6. Special Purpose 7. Inactive 8. Endowment (Unrestricted) 9. Endowment	1. Administration and Support Services 2. Nursing Inpatient/ Resident Services 3. Ambulatory Care Services 4. Diagnostic and Therapeutic Services 5. Community and Social Services 7. Research 8. Education	. . 30 Communications . 45 Housekeeping 50 Laundry/Linen 53 Plant Administration (c) 55 Plant Operations . . 75 Biomedical Eng. 79 Interpretation /Translation Services 80 Registration 82 Admission/ Discharge Coordination 85 Pt. Transport **90 Health Records** 95 Food Services . . .	There may be level four accounts which are components of a level three account. e.g. **20 Transcription**	There may be level five accounts related to specific level three accounts e.g. **10 Medical Transcription**

The **Matching Principle** in accounting associates both revenues and expenses to a defined time period. The MIS Standards expand this matching principle to the reporting of statistics within the same period as the associated revenues and expenses to enable the calculation of accurate cost indicators. **All workload** and activity statistics must be reported in the same functional centre as the resources consumed to produce the activity. This includes human, financial and capital resources.

The following primary accounts are available for use by Health Information Management and Registration services. Each organization should use only those applicable to the size and specialization of their service. The decision to set up separate functional centres for various services should be made in consultation with your finance department staff. 'CMDB' means this

level of detail is required for national reporting to the Canadian MIS Database.

71 1   Administrative and Support Services Framework Section

71 1 80 Registration   (CMDB)
         71 1 80 20 **   Service Recipient Registration
         71 1 80 40 **   Client Registration
         71 1 80 60 **   Emergency Registration
         711 80 77 **   Wait List Management
         71 1 80 80 **   Centralized Booking
                71 1 80 80 20   Operating Room Booking
                71 1 80 80 40   Outpatient/Client Booking

71 1 90 Health Records (CMDB)
(If no dedicated resources exist and the facility is designated as a 'small facility', may include
Registration functions in this functional centre.)
         71 1 90 05   Health Records Administration
         71 1 90 20   Transcription
                71 1 90 20 10   Medical Transcription
                71 1 90 20 20   Non-Medical Transcription
         71 1 90 40   Health Record Processing
                71 1 90 40 10   Clerical Health Record Processing
                71 1 90 40 20   Health Record Data Collection
                71 1 90 40 30   Release of Patient Information
         71 1 90 60   Health Data and Information Services
         711 90 70   Provincial Registries
                711 90 70 10 Provincial Cancer Registry
                711 90 70 20 Provincial Cervical Cytology Registry
                711 90 70 30 Cancer Registry-Special Projects
                711 90 70 0 Provincial Cardiac Registry
         711 90 97 Health Records Residual

Each of the above functional centres are defined in the paragraphs below.

71 1 80 Registration   (CMDB)
The Functional Centre pertaining to the receiving, collecting, and documenting of registration
information, and the assignment of inpatients, residents and clients to health services in accordance with
the bylaws, regulations and policies of the health service organization. Excludes service recipient
transport services and decentralized registration.

71 1 80 20   Service Recipient Registration
The functional centre pertaining to the provision of the service that schedules the admission of service
recipients; receives, collects and documents service recipient information and assigns service recipient to
the appropriate service. Includes preparation of daily census summary and recording of
inpatient/resident/client movement statistics. Excludes service recipient transport services and
decentralized registration (ambulatory care services), when registration is carried out by ambulatory care
services personnel.

71 1 80 40   Client Registration

The Functional Centre pertaining to the provision of the service which schedules the registration of clients attending any of the health organization services; receives, collects and documents client information, and assigns clients to appropriate services. Excludes service recipient transport services and decentralized client registration.

71 1 80 60   Emergency Registration

The Functional Centre pertaining to the provision of the service which completes the registration of emergency clients; receives, collects and documents emergency client information; and assigns clients to appropriate emergency services. Excludes service recipient transport service.

711 80 77   Wait List Management

The functional centre pertaining to the development and provision of wait list management initiatives.

71 1 80 80   Centralized Booking

The Functional Centre pertaining to the provision of the service which schedules and coordinates the booking of service recipients for health services.

71 1 80 80 20   Operating Room Booking

The Functional Centre pertaining to the provision of the service which schedules and co-ordinates the booking of patients for surgical procedures.

71 1 80 80 40   Client Booking

The Functional Centre pertaining to the provision of the service which schedules and co-ordinates the booking of clients for health services.

71 1 90   Health Records (CMDB)

The Functional Centre pertaining to the accurate and complete collection, transcription, preservation, and dissemination of health-related data. Excludes admitting, registration or library functions. Sites designated as small facilities may include Registration if there are no dedicated resources as per designated small facility rule.

71 1 90 05   Health Records Administration

The Functional Centre pertaining to the provision of the overall management and operational support of the entire health record department.

71 1 90 20   Transcription

The Functional Centre pertaining to the transcription of dictated reports designated for the health record as well as all non-medical transcription and transcription-related duties.

71 1 90 20 10   Medical Transcription

The Functional Centre pertaining to the transcription of dictated reports designated for the health record. Includes associated transcription-related duties.

71 1 90 20 20   Non-Medical Transcription

The Functional Centre pertaining to all non-medical transcription and associated transcription-related duties.

71 1 90 40   Health Record Processing
The Functional Centre pertaining to the accurate and complete collection and preservation of all patient health information. Includes all clerical record processing and data collection duties.

71 1 90 40 10   Clerical Health Record Processing
The Functional Centre pertaining to the provision of record processing for inpatients/clients/residents/clients; assembly record documentation review; clerical functions (e.g. record and report filing, retrieving and imaging); and the maintenance of the health record and record systems.

71 1 90 40 20   Health Record Data Collection
The Functional Centre pertaining to the assigning of codes to the diagnosis and procedures according to a recognized nomenclature or classification methodology, and the abstraction of demographic and clinical data from the health record.

71 1 90 40 30   Release of Patient Information
The Functional Centre pertaining to the answering of telephone/in-person requests and written requests (including court orders) for the release of patient/resident/client information.

71 1 90 60   Health Data and Information Services
The Functional Centre pertaining to the health data extraction, compilation, analysis and interpretation; and information preparation, presentation, distribution and dissemination.

711 90 70   Provincial Registries
The functional centre pertaining to the management of the provincial registries. Activities include data, compilation, extraction, analysis and interpretation as well as information preparation, presentation, distribution and dissemination.

711 90 70 10   Provincial Cancer Registry
The functional centre pertaining to the management of the Provincial Cancer Registry. Activities include data, compilation, extraction, analysis and interpretation as well as information preparation, presentation, distribution and dissemination.

711 90 70 20   Provincial Cervical Cytology Registry
The functional centre pertaining to the management of the Provincial Cervical Cytology Registry. Activities include data, compilation, extraction, analysis and interpretation as well as information preparation, presentation, distribution and dissemination.

711 90 70 30   Cancer Registry-Special Projects
The functional centre pertaining to special projects of cancer care data extraction, compilation, analysis and interpretation; and information preparation, presentation, distribution and dissemination.

711 90 70 40   Provincial Cardiac Registry
The functional centre pertaining to the management of the Provincial Cardiac Registry. Activities include data, compilation, extraction, analysis and interpretation as well as information preparation, presentation, distribution and dissemination.

711 90 97   Health Records Residual

The functional centre pertaining to the provision of other Health Records services required by the health service organization not reported separately at level 4.

Secondary Accounts

The Secondary Account Codes provide for recording of either financial or statistical information. In a similar format to the primary codes, broad groups have been established with subcategories for greater detail. These codes are linked to primary codes to identify financial or statistical performance indicators for a specific functional centre. Secondary financial accounts are designed to provide additional information on the nature of revenues and expenses in an organization. Financial accounts can then be linked to the secondary statistical accounts within the same functional centre to produce financial performance indicators for the functional centre. For example: Cost per Workload Unit or Cost per Registration.

Secondary Financial Statistics

The code structure for secondary financial accounts consists of 5 digits as illustrated below:

Example:

4

1	0

1	0

Broad Group	**Nature of Revenue** **or Expense**	**Capture of Further Detail**
1. Revenues		
2. Inactive	**10 Print/Stationary/Office**	**10 Printed Forms**
3. Compensation	15 Supplies-Housekeeping	20 Paper Stocks
4. Supplies	20 Supplies-Laundry	30 Printing Supplies
5. Traceable Supplies	•	40 Duplicating Supplies
& Other Expenses	•	50 Photocopying Supplies
6. Sundry	60 Medical Surgical	60 Microfilm
7. Equipment Expense	65 Drugs	70 Computer Supplies
8. Contracted Out	66 Medical Gases	90 General Office Supplies
Services	70 Supplies – Lab	
9. Buildings and	•	
Grounds	•	
Expense	•	

The above figure illustrates the account used to record the expense related to Supplies – Print/Stationary/Office Supplies – Printed Forms. Such secondary financial accounts are used as EOC's (Expense Object Codes) in Meditech Systems and are used throughout the organization to identify the specific expenses and revenues for each functional centre.

The broad groups of secondary financial accounts are:

Revenue
Revenues are income earned by the health service organization from all sources, including payments for services provided to service recipients, recoveries, contributed services, donations, grants, investment revenue, etc. When revenue is generated in relation to clinical services for facility patients/residents/clients, this revenue is recorded as a recovery in the functional centre incurring the expense. This reduces the cost of providing service to these patients.

Compensation
Compensation is defined as the sum of gross salaries/fees (worked, benefit and purchased) plus benefit contribution expenses. Compensation costs are linked to the functional center. Compensation costs are reported according to three broad occupational groups: Management and Operational Support, Unit-Producing Personnel and Medical Personnel.

Supplies
Supplies are consumable products used by a functional centre. Accounts exist for items ranging from paper, computer supplies, test manuals and forms, to medications, and other clinical products.

Traceable Supplies and other expenses
These are consumable supplies or other expenses that
• can be directly associated with a particular service such as an operative procedure or drug intervention;
• can be traced to a particular service recipient;
• vary according to the clinical needs of the service recipient; and
• usually do not behave linearly with workload.

Sundry
Sundry expense items cannot readily or usefully be categorized as related to compensation, supplies, equipment or contracted-out services; and may involve the provision of services from one functional centre within the organization to another. It includes items such as long distance telephone charges, courier charges, travel expenses, etc.

Most sundry expenses and some supply expenses are intended for Administrative and Support functional centres and are actually overhead costs for the organization as a whole. Some organizations have elected to distribute these costs to functional centres. The primary purpose for distribution is stronger accountability for expenditures.

Example of an overhead supply cost is laundry.
Example of an overhead sundry expense cost is long distance telephone charges.

Equipment Expense
Equipment expenses are the cost of all functional centre operating expenses associated with provision of major equipment and software, and the purchase of minor equipment. Depreciation costs for all equipment and preventative and repair costs for all clinical equipment are to be expensed to functional centres. This will improve the comparability of costs across organizations.

Contracted-Out Services

The expense related to one or a group of services performed for the health service organization by a contracted-out third party provider using their personnel and often their supplies, equipment and premises. The fee charged may include a cost for these items as well as a mark-up for employee benefits and administrative and support expenses.

Buildings and Grounds Expense
Buildings and Grounds expenses are those that are associated with the building, its service equipment and the grounds, and are usually charged to an accounting centre because it is not reasonable or practical to distribute to all functional centres in the organization.

Select Secondary Financial Accounts Applicable to Health Information Management /Registration Services

(For a full listing of the Secondary Financial Accounts, please refer to the 2016MIS Standards or to the Provincial User Guide, 2016/2017)

Broad Group No. 1:   Revenues
1 10   Service Recipient Services by Payment Source
1 20   Recoveries -External
1 21   Recoveries –Within Legal Entity
1 22   Recoveries –Between Functional Centres
1 25   Ambulance Revenues and Recoveries
1 30   Contributed Services
1 40   Donations
1 50   Grants
1 60   Investment Income
1 70   Revenue from Other Funds
1 90   Other Revenue

Broad Group No. 3:   Compensation
3 11   MOS Employee Worked Salaries
3 13   MOS Employee Benefit Salaries
3 14   MOS Employee Benefit Contributions-Third Party
3 15   MOS Employee Benefit Contributions-Individual
3 19   MOS Purchased Salaries/Fees

3 51   UPP Employee Worked Salaries
3 53   UPP Employee Benefit Salaries
3 54   UPP Employee Benefit Contributions-Third Party
3 55   UPP Employee Benefit Contributions-Individual
3 59   UPP Purchased Salaries

3 91   MP Employee Worked Salaries
3 93   MP Employee Benefit Salaries
3 94   MP Employee Benefit Contributions-Third Party
3 95   MP Employee Benefit Contributions-Individual

3 99   MP Purchased Salaries/Fees

Broad Group No. 4:   Supplies
4 10   Supplies - Printing, Stationery and Office Supplies
4 10 10   Printed Forms
4 10 20   Paper Stocks
4 10 30   Printing Supplies
4 10 40   Duplicating Supplies
4 10 50   Photocopying Supplies
4 10 60   Microfilm
4 10 70   Computer Supplies
4 10 90   General Office Supplies
4 95   Supplies - General
4 95 10   Department Supplies – General

Broad Group No. 5: Traceable Supplies and Other Expenses – NOT APPLICABLE to Health Records and Registration functional centres.

Broad Group No. 6:   Sundry
6 10   Departmental Sundry
6 10 10   Postage
6 10 15   Delivery and Courier
6 10 40   Tuition, Students
6 20   Travel Expense - Service Recipient
6 20 10   Local Travel
6 20 12   Provincial/Territorial Travel
6 20 14   Out of Province/Territory Travel

6 22   Travel Expense - Board
6 22 10   Local Travel
6 22 12   Provincial/Territorial Travel
6 22 14   Out of Province/Territory Travel

6 24   Travel Expense - Staff
6 24 10   Local Travel
6 24 12   Provincial/Territorial Travel
6 24 14   Out of Province/Territory Travel

6 26   Travel Expense - Recruitment and Relocation
6 26 10   Recruitment
6 26 20   Relocation

6 50   Professional Fees

6 60   Other Fees
6 60 10   License Fees
6 60 20   Membership Fees

6 60 30   Accreditation Fees
6 60 40   Subscription Fees

6 70   Advertising

6 95   Sundry Expenses - Not Elsewhere Classified
6 96   Meeting Expense
6 97   Interdepartmental Services

Broad Group No. 7:   Equipment Expense
7 10   Equipment Maintenance - External
7 10 22   Software Maintenance - Contract
7 10 24   Equipment Maintenance - Contract
7 10 42   Software Maintenance – Other
7 10 44   Equipment Maintenance - Other
7 10 45   Other

7 20   Equipment Maintenance - Interdepartmental
7 30   Replacement of Major Equipment Parts
7 50   Amortization on Major Equipment - Distributed
7 51   Net Gain or Loss on Disposal of Major Equipment
7 55   Interest on Major Equipment Loans

7 60   Rental/Lease of Major Equipment and Telephone
7 65   Minor Equipment Purchases
7 80   Amortization - Software Licenses and Fees
7 90   Equipment Expense - Not Elsewhere Classified

Broad Group No. 8:   Contracted -Out Services
8 05   Contracted from a Non-Affiliated Health Service Organization
8 15   Contracted from an Affiliated Health Service Organization
8 25   Contracted from a Privately Owned Company

Broad Group No. 9:   Building, Grounds & Equipment Expense

Secondary Statistical Accounts (Non-Financial Accounts)

Secondary statistical accounts are designed to provide additional information on the nature of activities that occur within an organization. The statistical code block is made up of four distinct segments, totaling seven coding positions. Each code block provides specific information for the reader.

These Secondary Statistical Accounts form the structure of the organization's Chart of Statistics, which is held within the Statistical General Ledger of the Meditech System. These accounts are often referred to as SOC's or Statistical Object Codes.

Secondary Statistical Code Structure
The first segment is a single character, which identifies the secondary statistical broad group as listed above. The second segment, which consists of two characters, identifies the nature of the statistic (e.g. workload units). The fourth and fifth digits are used to capture further detail regarding the category and type of service recipient, or activity category. The sixth and seventh digits can be used for additional detail.

Example 1:
Account 1 14 00 10 is the secondary statistical account code for reporting Workload Units– Health Records – Total Record Processing.

1		1	4		0	0		1	0

Broad Group	Workload	Category of Service Recipient	Activity Category
1 Workload	02 Workload Units- Retrospective: Serv. Rec. Act.	**00 No Applicable Category**	**10 Record Processing**
2 Staff Activity		10 Inpatient	20 Transcription
3 Earned Hours		20 Client -Hospital	30 Record Imaging
4 Service Acts & Caseload Status	03 Serv. Rec. Act- Drug Distribution	40 Resident	40 Release of Info.
	07 Serv. Rec. Act. -Diag/Ther	50 Facility/Organization	50 Health Data/Info.
7 Functional Support Centre Operation		60 Service Recipient, Not Uniquely Identified	60 Records Maintenance
		80 Client-Community	70 Functional Centre Support
	13 Patient Food Services	90 Client-Home Care	
8 Health Services Organization Operation	**14 Health Records**		
	15 Diagnostic		
	16 Therapeutic		

Example 2: The following example shows the account code used to report Account 2 55 20 00 Staff Activity-Service Recipient Registrations Completed-Client-Hospital-Other.

2		5	5		2	0		*	*

Broad Group   **Workload Units**   **Activity Category**

1 Workload   **55 Service**   10 Inpatient
2 Staff Activity   **Recipient**   **20 Client- Hospital -Other**
3 Earned Hours   **Registrations**   30 Client-Hospital-SDC
4 Service Activity &   **Completed**   40 Resident
  Caseload Status
7 Functional Centre
  Operation
8 Health Service
  Organization Operation

The Broad Groups of Secondary Non-Financial Statistics are:

Workload
The workload units (measured in minutes) for the various clinical services are reported under this series of accounts. The workload units for reporting are calculated through use of workload measurement systems.

Staff Activity
These statistics include 'surrogate' measures of workload such as counts of services provided, eg. number of registrations completed, number of meal days served, number of records filed, etc.

Earned Hours
These accounts are used to report the number of worked, benefit and purchased hours for staff of the functional centre.

Service Activity and Caseload Status
This series of accounts are used to report statistics related to the volume of services provided. E.g. inpatient days, visits, procedures, etc.

Functional Centre Operation
Statistics which describe something about the functional centre are found in this broad group. E.g. number of FTE's

Health Service Organization Operation
This account grouping is used to report information about the organization as a whole. E.g. Total Days Stay.

Statistical accounts are not standard across all functional centres, but each is appropriate for one or more defined functional or accounting centres. These are identified in the MIS Standards Chart of Secondary Statistical Accounts.

Secondary Statistical accounts can only be reported at the level defined by the Department of Health and Community Services, unless specified in the account code listing.   If lower level accounts have been created for internal use, these must be "rolled-up" to the DHCS account prior to data submission.

Health Information Management and Registration Statistics

The following statistics should be collected and reported by Health Information Management and Registration functional centres.

WORKLOAD

1 14   Workload Units Health Information Management
The standardized units of time used to express the workload of a service as measured by the appropriate workload measurement system. In Health Information Management, one workload unit is equivalent to one minute of unit -producing personnel time spent performing the primary service mandate of the functional centre.

1 14 ** XX - Health Information Management Workload Units
By Category of Service Recipient
        ** 00   No applicable Category

        By Activity Category
                XX 10   Record Processing
                    20   Transcription
                    30   Record Imaging
                    40   Release of Information
                    50   Health Data Reporting
                    60   Records Maintenance
                    70   Support Activities (Provincial account)

1 70   Registration/Appointments Workload Units (Provincial Account)
By Service Recipient
The standardized units of time used to express the workload of a service as measured by the appropriate workload measurement system. In Registration functional centres, one workload unit is equivalent to one minute of unit-producing personnel time spent performing the primary service mandate of the functional centre.

1 70 ** XX Registration/Appointments Workload Units
By Category of Service Recipient
        ** 00   No applicable Category

        By Activity Category

XX 05 Admissions
      10 Registration
      20 Appointments and Scheduling
      30 Support Activities

STAFF ACTIVITY

Staff Activity Statistics measure the **volume of activities** that staff are engaged in. Staff Activity Statistics are surrogate measures for workload statistics. They are intended to be used alone or with other workload statistics to measure functional centre productivity and the resource consumption of specific activities. The same categories of service recipients can be applied, where applicable, to staff activity statistics as are used with workload statistics in order to identify the resource consumption of specific service recipient types, i.e. inpatient, resident, client, etc.

These statistics should then be reported for both internal and external use.

2 55   Service Recipient Registrations Completed by HIM or Registration Functional Centres
To be reported by Health Information Management and Registration Functional Centres
By Category of Service Recipient
The service recipients officially accepted by the health service organization either through the capture of person identifiable data and/or the assignment of a unique identifier, the confirmation of an existing unique identifier, or the opening of a unique file or record for the service recipient; includes registrations done by Registration/Health Information Management Functional Centres for ambulatory services such as clinics, DI, lab, etc. Excludes registrations done by staff of other departments.

     2 55 10   Inpatient
     2 55 20   Client - Other
     2 55 30   Client - Surgical Day/Night Care
     2 55 40   Resident

2 56   Service Recipient Appointments Scheduled
To be reported by Health Information Management and Registration Functional Centres
The appointments booked in advance for service recipients to undergo diagnostic testing, and/or receive health services from a functional centre.

     2 56 10 Operating Room
     2 56 20 Client

2 59   Health Records Abstracted (national account-provincially defined)
To be reported by Health Information Management Functional Centres
The service recipient health record abstracts completed in the reporting period for the purpose of data submission to national health databases. A sub-category of Staff Activity, Broad Group 2. The statistic will be collected for abstracts completed by health information management staff for the Discharge Abstract Database (DAD) inpatient acute and day surgery, National Rehabilitation System (NRS), National Ambulatory Care Reporting System (NACRS) and Ontario Mental Health Reporting System (OMHRS) abstracts. NOTE: This is NOT intended to reflect the number of abstracts submitted; rather it counts the number of abstracts completed for submission.

2 59 ** XX Health Records Abstracted
By Category of Service Recipient
    ** 10 Inpatient
       20 Client Hospital
       40 Resident

By Abstract Type
XX 10 DAD (Provincial account)
    20 NRS (Provincial account)
    30 OMHRS (Provincial account)
    40 NACRS (Provincial account)

2 60   Requests for Release of Information Processed
To be reported by Health Information Management Functional Centres
The occasions where there is controlled access to and/or release of service recipient-specific health information at the request of a third party.

    2 60 10 Routine (Provincial account)
    2 60 20 Complex (Provincial account)

2 61   Transcription Lines Typed/Produced
To be reported by Health Information Management or specific Transcription Functional Centres
The lines typed/produced to transcribe dictated medical and/or diagnostic test results into the service recipient's health record or for other dictated/written reports; comprised of 55 (ITS) - 60 (Fusion) characters per line. Regions must convert the number of characters from own transcription system to lines as defined above. Headers and footers are excluded. Canned text is measured by strokes.

By Type of Transcription (optional)
    2 61 10   Medical Transcription
    2 61 20   Non-medical Transcription

2 62   Images Processed
To be reported by Health Information Management or specific Clerical Health Record Processing Functional Centres
The sheets of paper imaged. Double sided papers are counted as two images.

EARNED HOURS

3 10   Earned Hours - Management and Operational Support Personnel
The earned hours for which the management and operational support personnel of the functional centre have received or will receive salaries.

    3 11   MOS Worked Hours
    3 13   MOS Benefit Hours
    3 19   MOS Purchased Hours

3 50   Earned Hours - Unit-Producing Personnel
The earned hours for which the unit-producing personnel of the functional centre have received or will receive salaries.

      3 51   UPP Worked Hours
      3 53   UPP Benefit Hours
      3 59   UPP Purchased Hours

OTHER KEY FUNCTIONAL CENTRE & ORGANIZATIONAL STATISTICS

The definitions of other statistics that Health Information Management staff are often involved in reporting on behalf of **other** functional centres or the organization as a whole, are outlined below. **It is important to verify that the counts taken from registration systems are actually counting the statistic desired, as per the MIS Standards definition. The correct use of various Meditech dictionaries and admission categories is necessary to ensure the registration processes properly support accurate MIS statistics.**

Readers should refer to the Provincial DHCS Reporting Requirements User Guide (Appendix L) for a listing of functional centres which report these statistics.

4 01   Inpatient Admissions
The official acceptance into the health service organization of an adult/child/newborn/postnatal newborn, who requires medical and/or health services on a time limited basis.

The admission procedure involves the assignment of a bed, bassinet or incubator. Admission of a newborn is deemed to occur at the time of birth, or in the case of postnatal newborns, at the time of admission of the mother to the health service organization.

4 03   Inpatient Days
The days during which services are provided to an inpatient, between the census taking hours on successive days. The day of admission is counted as an inpatient day but the day of separation is not an inpatient day. When the service recipient is admitted and separated (discharged or died) on the same day, one inpatient day is counted.

4 04   Resident Days
The days on which services are provided to a resident, between the census taking hours on two successive days. The day of admission is counted as a resident day, but the day of separation is not a resident day. When the service recipient is admitted and separated on the same day (discharged or died), one resident day is counted. Includes leave days (e.g. social leave, extended leave, and hospital leave) when the resident is absent from the health service organization.

4 10   Inpatient Discharges
The official departure of live inpatients from the health service organization. Discharge of a newborn is deemed to occur at the time of official release from the health service organization.

4 11   Inpatient Deaths
The official separation of inpatients deemed deceased after admission and before discharge from a health service organization. Inpatient deaths do not include stillbirths.

4 12   Inpatient Transfers
The transfer of inpatients within a health service organization from the care and responsibility of one functional centre to that of another functional centre subsequent to admission and prior to discharge.

4 14   Deaths after Arrival (DAA)
The death of service recipients who were formally accepted as clients and died before being separated from the health service organization. Also includes clients with a written order for inpatient admission, who died before admission occurred.

4 22   Deaths on Arrival (DOA)
The death of service recipients who died before arriving at the ER of the health service organization.

4 37   Surgical Visits
The occasions during which a service recipient had a surgical intervention performed in an operating or procedure room. Such cases are often, but not always, abstracted. If an individual returns to the operating or procedure room for further surgery during the same calendar day, this intervention will be counted as another surgical visit. A surgical visit is recorded for surgical cases that are started and then fail or have to abandoned, but are not recorded for cancelled surgical cases. A service activity statistic, a sub-category of: Service Activity and Caseload Status, Broad Group 4 (provincially defined).

4 38   Obstetric Visits
The visits, related to the care of women in the ante-, intra-, and postpartum stages of pregnancy.

4 39   Post Anesthesia Recovery Room Visits
The occasions during which a service recipient received post-anesthetic recovery room services after a surgical intervention in an operating room or procedure room. If an individual receives post-anesthetic services on more than one occasion during the same calendar day, each occasion will be recorded as another post-anesthetic recovery room visit. A service activity statistic, a sub-category of: Service Activity and Caseload Status, Broad Group 4 (provincially defined).

4 50   Visits - Face-to-Face
The occasions during which service recipient activities are provided face-to-face or by videoconference on an individual or group basis. These services are documented according to the health service organization's policy and are provided for longer than five minutes.

4 51   Visits - Telephone
The occasions when service recipient activities are provided by telephone in lieu of a face-to-face visit. These services are documented according to the health service organization's policy and are provided for longer than five minutes.

4 52   Resident Admissions
The official acceptance into a health service organization of an individual who requires medical, health and/or residential services on a longer-term basis. The admission process involves the assignment of a bed and a unique identifier to record and track services.

4 53   Resident Discharges
The official discharge of live residents from a health service organization.

4 54   Resident Deaths
The official separation of residents deemed deceased, after admission and before discharge, from a health service organization.

4 55   Resident Transfers
The transfer of residents within a health service organization from the care and responsibility of one functional centre to that of another functional centre subsequent to admission and prior to discharge.

7 34   Operating Days
The calendar days, in a reporting period, during which the functional centre provided services.

8 29   Service Days (Provincial Account)
The number of Inpatient Days generated based on the type of medical service provided to the patient, based on the Main Patient Service Summary types of the Discharge Abstract Database.

8 25   Beds Staffed and in Operation
The beds and cribs available and staffed to provide services to inpatient/residents at the required type and level of service, at the beginning of the fiscal year. Includes bassinets set up outside the nursery and used for infants other than newborns.

8 26   Bassinets Staffed and in Operation
The bassinets available and staffed to provide services to newborns at the required type and level of service at the beginning of the fiscal year. Excludes bassinets set up outside the nursery and used for infants other than newborns.

8 27   Beds Days Staffed and in Operation
The calendar days that beds and cribs were available and staffed to provide services to inpatients/residents at the required type and level of service during the reporting period. Includes bassinets set up outside the nursery and used for infants other than newborns.

8 28   Bassinet Days Staffed and in Operation
The calendar days that bassinets were available and staffed to provide services to newborns at the required type and level of service during the reporting period. Excludes bassinets set up outside the nursery and normally used for infants other than newborns.

8 61   Total Days' Stay
The accumulated inpatient/resident days since admission, of inpatients/residents who were discharged from the health service organization or who died in the health service organization during the reporting period. Includes service recipients admitted in a previous reporting period. The day of admission is counted as an inpatient/resident day but the day of separation is not counted as an inpatient/resident day. When the inpatient/resident is admitted and separated on the same day, one inpatient/resident day is counted.

Categorization of Personnel

The MIS Standards recommend all staff be assigned to one (or more) of three Broad **Occupational Groups. By doing so, it improves the accuracy of productivity analysis and identifies the** degree of overhead or support associated with the service.

Management and Operational Support (MOS) are the personnel**,** including purchased consultant services, whose primary function is the management or support of the operation of the functional center, although at times they may occasionally carry out unit-producing activities. This group includes directors, managers and supervisors, secretaries, clerical support staff etc.

Unit-producing Personnel (UPP) are those personnel whose primary function is to carry out the activities that contribute directly to the fulfillment of the mandate of the service for the Health Information Management/Registration Service. UPP include registration clerks, transcriptionists, health records technicians, file clerks, etc.   These personnel are credited with workload units. It is recognized that UPP staff may, at times, perform activities that are not unit-producing.

Volunteers are not unit-producers and do not collect and report workload or service activity statistics.

Remember that staff who are primarily involved in Research or Staff Education are charged to the Education and Research functional centres, not the Diagnostic and/or Therapeutic Dept.

Students are not considered unit-producing personnel unless they contribute significantly to the provision of care and function at a reasonably independent level.

Only unit-producing staff report workload. The allocation of individual staff members to broad occupational groups should be reviewed to determine the appropriate identification of unit-producing staff to ensure that worked hours and workload are matched. Management staff who routinely participate in unit-producing work should record workload for those clinical activities. If such activity consumes more than 20% of their time, the manager should have his/her compensation and worked hours split between the Management and Support and Unit-Producing Personnel Broad Groups accordingly. Failure to link workload with unit-producing worked hours will skew certain performance indicators.

Note: The designation of broad group category is based on function**. Job category and Union category are not to be considered.** Job category is not appropriate because one job category in an institution can be management and support in one functional centre and yet the same job category can be unit-producing in another functional centre. i.e. Clerical staff in most clinical departments are MOS but in Registration they are UPP. Union category does not apply as staff performing the same job may be unionized in some organizations and not in others.

If an UPP staff member is responsible for management activities on an occasional basis, this activity is recorded as Support Activity workload (Functional Centre Activities) within UPP worked hours. However if an individual is responsible for management activity for greater than 20% of their time, the worked hours of these staff should be split between MOS and UPP categories**. No workload is recorded for the management portion of their time.**

Medical Personnel (MP) are physicians who are compensated for their professional services either on a fee for service or salary basis, including interns and residents.

Categorization of Hours

The MIS Standards categorize the earned hours of staff (hours for which staff will be paid) into three categories: Worked, Benefit and Purchased Hours.

> Earned Hours = Worked Hours + Benefit Hours + Purchased Service Hours.

Earned hour statistics measure the use of labour in fulfilling the mandate of the service. The cost of a worked hour may vary from one period to another and from one shift to another. Overtime and standby compensation expenses are attached to only the actual hours that are worked. e.g. An hour of overtime is recorded as only one hour but the expenses may be at time and half.

Worked Hours
Worked hours are those hours that are spent carrying out the mandate of the service. Staff are physically present and available to provide service. Worked Hours include:
- Regular worked hours, including paid coffee breaks
- Worked statutory holidays
- Relief staff hours, such as vacation relief and sick relief
- Overtime (actual hours worked)
- Callback hours paid and banked (actual hours worked)

Callback hours are a component of worked hours, recorded as the **actual hours worked, rather than the minimum number of hours paid.** Standby hours are not included in the count of worked hours, but the associated expenses are a component of worked salaries.

Costs are intended to link with activities and workload and therefore banked hours should be recorded in the payroll system during the period they are earned and not when they are taken.

Benefit Hours
Benefit hours are those hours when staff are not present at work but receive pay. Benefit Hours include:
- Statutory holidays and vacation
- Sick and bereavement leave
- Workers Compensation leave
- Attendance at facility orientation,
- Formal education and training sessions
- Union leave with pay
- Any other paid leave of absence
- Lunch breaks when they are compensated

Education Hours
Staff time spent in education can fall into both worked and benefit categories. The MIS Standards describe education recorded as benefit hours as formal planned events for self-development and education

recorded as worked hours as informal, short duration inservice sessions. When education occurs during worked hours, "Functional Centre Support" workload is reported.

Purchased Service Hours
Purchased Service Hours are the hours spent carrying out the mandate of the service by personnel hired from an external agency. They have no benefit hour component. Purchased service hours are treated as worked hours. When contracting for external services, the costs related to management and support compensation, unit-producing compensation and supply costs should be differentiated within the contract.

Unpaid Worked Hours
Only paid hours can be recorded as worked hours. If staff work additional hours and record workload for that time, the comparison of worked hours to workload could demonstrate productivity greater than 100%. Submission of unpaid worked time as worked hours will have a negative effect, as performance indicators will not provide an accurate picture of the real situation. Ideally worked hours should be generated from the payroll system to ensure accuracy.

Staff working unpaid hours should record this information for internal purposes.

Categories of Service Recipients

A service recipient is the consumer of service activities of one or more functional centres of the health service organization. Service recipients include individuals (e.g. inpatients, residents, clients), their significant others and others as defined by the health service organization.

Significant others are individuals who are acting on behalf or in the interest of the service recipient such as parent, spouse/partner, child, legal guardian or substitute decision-maker. Excluded from this definition are professionals such as teachers, lawyers or other health care professionals.

The MIS Standards recognize and define eight categories of service recipients. They are detailed below:

Inpatient
An individual who has been officially accepted by a hospital for the purpose of receiving one or more health services; who has been assigned a bed, bassinet or incubator; and whose person identifiable data is recorded in the registration or information system of the organization and to whom a unique identifier is assigned to record and track services. This category includes individuals receiving acute, physical rehabilitation, mental health and addiction services in a hospital setting and those admitted to emergency while awaiting a bed on a nursing inpatient unit.

Note: Also includes services provided by a contracted out third party provider that provides inpatient services typically provided by a hospital.

This category excludes hospital clients receiving services of a specialty day/night care or specialty clinic nature on a nursing inpatient unit, as well as residents receiving services on a residential care unit, community hospice unit, mental health residential care unit, addiction services residential care unit and stillbirths.

Client Hospital

An individual who has been officially accepted by a hospital and receives one or more health services without being admitted as an inpatient; whose person identifiable data is recorded in the registration or information system of the Regional Health Authority and to whom a unique identifier is assigned to record and track services. Examples include individuals who receive hospital-based emergency day surgery, specialty day/night care, specialty clinic, outreach, mental health, rehabilitation and independent diagnostic and therapeutic services (provincially defined).

This category excludes clients receiving services from a public health organization or community health service organization including those dedicated to providing home care services.

Client Community

An individual who has been officially accepted by a Regional Health Authority to receive one or more health services (other than home care), without being admitted as a resident or inpatient; and, whose person identifiable data is recorded in the registration or information system of the Regional Health Authority and to whom a unique identifier is assigned to record and track services. Examples include individuals receiving community-based mental health and/or addictions counselling, public health nursing, health promotion and wellness services, etc. (provincially defined).

In the context of Intervention Services, this category also includes service recipients living in alternate living arrangements (ALAs), individualized living arrangements (ILAs), co-op living arrangements, alternate family care homes, (AFCs), relative/non-relative homes and own home/apartment.

Client Home Care

An individual who has been officially accepted by a Regional Health Authority to receive one or more home health or home support services in his/her place of residence (e.g. private residence, assisted living residence), at an alternative health delivery location (e.g. community health office) or at a location that meets the client's needs (e.g. school, public place); and whose person identifiable data is recorded in the registration or information system of the Regional Health Authority and to whom a unique identifier is assigned to record and track services. Examples include individuals receiving home health services such as the treatment of acute conditions, maintenance of chronic health conditions, rehabilitation to improve functional abilities, etc. and/or home support services such as homemaking, home maintenance, personal care and respite services (provincially defined).

This category excludes outreach services provided by hospital or community-services-based health professionals (e.g. home dialysis services provided by hospital staff, mental health services provided by the staff of a mental health outreach program).

Referred-In

A hospital client or specimen that has been referred for hospital services from another health service organization; and whose person-identifiable data is recorded in the registration or information system of the organization and to whom a unique identifier is assigned to record and track services. Examples include individuals referred from a health service organization for an MRI exam, respiratory services such as hyperbaric chamber and specimens to be tested by the clinical laboratory.

Note: This category is not used in the Newfoundland and Labrador master chart of statistical accounts.

Resident

An individual who has been officially accepted into a designated long-term care bed for the purpose of receiving one or more health services; and whose person-identifiable data is recorded in the registration or information system of the organization and to whom a unique identifier is assigned to record and track services. This category includes individuals admitted to long term care facilities, group homes, personal care homes, community hospice or residential facilities providing mental health or addiction services in a community setting (provincially defined).

Note: In NL, service recipients admitted into designated long term care beds within acute care facilities will be considered **"residents"** for provincial reporting.

Facility/Organization/Citizen Partnership

A facility or organization that has been officially accepted by a health service organization to receive one or more health services; and whose encounter is recorded in the registration or information system of the organization and to whom a unique identifier is assigned to record and track services; or whose encounter is recorded within a uniquely-identifiable, hard-copy file or record (rather than in the organization's registration or information system) that is used to record and track services. Examples include restaurants, swimming pools and day care centres to which environmental health and licensing services are provided and schools, businesses or community organizations to which consultative services are provided regarding concerns such as policy development, food safety or healthy living.

A citizen partnership that has been established to address an identified health issue and whose membership consists of citizens or citizen groups and other key stakeholders (e.g. health care providers, community agencies) that have knowledge of the concern and/or could influence change; and, whose encounter may be recorded within a uniquely-identifiable hard copy file or record rather than in the registration or information system of the organization. Examples include a "farm safety coalition" that was formed to discuss ways to prevent tractor accidents amongst teenagers; a "food security coalition" organized to advance the concept of a food charter to support local agriculture products and a "playground partnership" established to discuss ways to build a safe new play area that will meet the needs of the children in a low-income community.

Service Recipient, Not Uniquely Identified

An individual who receives one or more services from a health service organization when not currently registered as an inpatient, resident, client hospital, client community, client home care, facility/organization/citizen partnership; and whose encounter is not recorded in the registration or information system of the organization and who has no unique identifier assigned to record and track services. Examples include individuals calling hotlines for counselling services, individuals attending drop-in centres and participants attending a general forum on smoking cessation that is aimed at educating the community as a whole.

Note:
Workload, service activity and caseload status statistics must be recorded separately for each category of service recipient. This separation supports more detailed analysis of the data, providing an understanding of different resource needs, as well as supporting external reporting requirements.

The following categories of service recipients are applicable to Health Information Management and

Registration services:
- Inpatient
- Client Hospital
- Client Community
- Client Home Care
- Resident
- Facility/Organization/Citizen Partnership

Workload Measurement Systems

A workload measurement system (WMS) is defined as a tool for measuring the volume of services provided in terms of a standardized unit of productive personnel time. A WMS serves two purposes. First, as a department management tool to provide systematic quantification of workload to assist in staffing, planning, budgeting and performance monitoring. Secondly, as a standardized method for recording workload that will yield uniform data for internal and external reporting, permitting historical trending, and selective national and peer group comparisons.

Conceptual models provide a framework for the collection of workload data. Such models are intended to be inclusive of all the significant activities with which staff are involved. The basic unit of measure is one minute (one workload unit). Through the use of standard or actual time recording, staff can record how the majority of their time is spent during the workday. This workload measurement system is not designed to capture 100% of the workday. Rather, a target of 80-85% is a realistic expectation, which can be further refined within a specific facility/service over time.

Due to the shared nature of health information management, registration and switchboard responsibilities in some facilities, the conceptual models for Health Information Management and Registration services reflect and capture the time spent in support of the other services.

*The provincial standard times provided in this document were derived through time studies conducted by staff within many regional health boards, at a variety of sites throughout the province. **They are intended to be used as guidelines only.** Given the varied business processes, technology available, staffing profiles, etc. it is not reasonable to assume the one standard time is an accurate reflection of the time it takes to complete a specified task at all sites. Therefore, to improve the accuracy of the WMS, use of facility specific standard times are encouraged. This approach is consistent with recent WMS redevelopment projects undertaken on the national level by CIHI. However, such values **must** be derived through the use of standardized timing protocols, as outlined in the following section of this reference guide or through expert consensus. When facility specific unit values are determined, it is recommended that all supporting documentation be retained for future reference. Such studies should be repeated at regular intervals to ensure the unit value remains reflective of the average time to complete the given task over time.*

See Appendix B for a summary listing of the provincial standard time unit values developed to support implementation of the HIM and Registration WMSs.

HEALTH INFORMATION MANAGEMENT WMS

HEALTH INFORMATION MANAGEMENT WMS CONCEPTUAL MODEL

(Adapted from the Health Records WMS conceptual model published by the
Canadian Institute for Health Information, 2016 MIS Standards)

HEALTH INFORMATION MANAGEMENT						
Record Processing	Transcription	Record Imaging	Release Of Information	Health Data Reporting	Records Maintenance	Support Activities
Assembly & Analysis Coding/ Abstracting Incomplete Record Management Record Retrieval/ Filing External Collection and Distribution Related Record Processing Procedures	Transcription Transcription Related Procedures	Scanning De/Re-Indexing Scanning Related Procedures	Routine Complex	Internal Reporting External Reporting Research	Record Purging Record Destruction Maintenance of Records Information Systems Support	Functional Centre Activities Organizational / Professional Teaching/ In-service Support to Registration Support to Switchboard

Definitions, timing protocols and recommended time methodologies for each WMS activity are provided below.

RECORD PROCESSING

ASSEMBLY AND ANALYSIS

ASSEMBLY	

Definition	The process of arranging documents in a pre-established order in the health record. The unit value includes:
	START TIME: Initiation of securing separated record.
	    -secure separated records;
	    -combine with previous records;
	    -verify identification on each record document;
	    -sort and retain permanent record documents;
	    -verify the prescribed arrangement of documents in the record; and,
	    -general record repair and preparation.
	
	NOTE: This time does not include going to the inpatient/resident to retrieve the separated records. Refer to External Collection and Distribution under Record Processing.
	
	STOP TIME: Completion of assembling record

Time Recording Methodology	Inpatient - Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Client-SDC/MDC – Not applicable Client ER/Clinics – Not applicable Resident- Not applicable
Item for Count	Number of records assembled, by inpatient, client (SDC/MDC), Emergency/Clinic) and Resident (*NOTE: This count may not equal the number of discharges per month.*)

ANALYSIS	

Definition	The process of reviewing the paper or electronic documents in the health record for completeness, adequacy and accuracy. The unit value includes time to:
	
	START TIME: Initiation of chart review.
	      -analyze the records for completeness, adequacy and accuracy;
	      -check and secure for missing documents; and,
	      -complete deficiency slips (manually or electronically);
	      -search and identify data elements requested for special programs or studies; and, search dictation system for missing report(s).
	
	STOP TIME: Completion of review of a chart.

Time Recording Methodology	Inpatient – Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Client-SDC/MDC – Not applicable Client ER/Clinics – Not applicable Resident- Not applicable
Item for Count	Number of records analyzed, for inpatient and client

ASSEMBLY AND ANALYSIS Combined	
Definition	The process of arranging documents in a pre-established order in the health record and reviewing the paper or electronic documents in the health record for completeness, adequacy and accuracy. This process can be considered two separate processes if desired for the purpose of data collection and analysis, as described below.
Time Recording Methodology	Inpatient – Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Client-SDC/MDC - Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Client ER/Clinics - Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Resident-Actual time
Item for Count	Number of records assembled and analyzed, by inpatient, client (SDC/MDC), Emergency/Clinic) and Resident

CODING AND ABSTRACTING	
CODING AND ABSTRACTING	
Definition	Definition of Coding and Abstracting: The process of assigning codes to diagnoses and procedures, according to a recognized classification and extracting demographic and clinical data from the health record to provide information for internal and external reporting, research and statistical purposes.

START TIME: Health record accessed and coding/abstracting initiated.

STOP TIME: Completion of abstract, including generation of coding sheets |
| **Time Recording Methodology** | Inpatient – Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.

Client (Surgical Day Care) – Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.

Client ER/Clinics – Not applicable

Resident- Not applicable |
| **Item for Count** | Number of records coded and abstracted, by inpatient and client.

Productivity targets have been set at three inpatient charts per coder worked hour or seven SDC charts per coder worked hour. |
CODING AND ABSTRACTING RELATED PROCEDURES	
Definition	The processes used to support coding and abstracting services such as month end procedures such as edits, reports, batching and submission management, ADT/abstracting reconciliation, maintenance of system integrity, data quality issue identification and management, etc.
Time Recording Methodology	Actual Time
Item for Count	N/A

	INCOMPLETE RECORD MANAGEMENT		
	INCOMPLETE RECORD PROCESSING		
Definition	The processing of incomplete records. The unit value may include: 　　　-retrieve files for completion; 　　　-final check on completion, removal of deficiency slip, and physical/electronic reassignment as necessary. 　　　-Generation of a patient care profile/master summary. (This is an additional step done by some facilities.)		
Time Recording Methodology	Actual Time		
Item for Count	N/A		
	INCOMPLETE RECORD NOTIFICATION		
Definition	The process of determining those providers with incomplete service recipient charts past the cut-off date and preparing the necessary notices and reports. Included is the time to retrieve the chart, determine status, re-file and prepare the notices and reports. START TIME: Initiation of determining health care personnel with incomplete service recipient charts past cut-off date. STOP TIME: Completion of preparing reports and notices.		
Time Recording Methodology	Actual Time		
Item for Count	N/A		
	RECORD RETRIEVAL AND FILING		
	ROUTINE RECORD RETRIEVAL		
Definition	The process of extracting a health record or portion thereof from a specific order in an allocated area. Includes all types of records, i.e. incomplete, deceased, inactive, volumes, etc. START TIME: Initiation of numerically listing records to be retrieved, e.g. sorting clinic lists. 　　　-make and insert outguide, or sign out in computer tracking system, and, 　　　-remove record. STOP TIME: Completion of retrieving last record on list.		
Time Recording Methodology	Inpatient – Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.		

	Client-SDC/MDC - Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
	Client ER/Clinics - Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
	Resident-Not applicable
	(NOTE: Charts requiring more than 30 minutes to retrieve will be counted as Non-Routine 'MIA' Record Retrieval)
Item for Count	Number of Records Retrieved by inpatient, client-MDC/SDC, and client-ER/clinics.

NON-ROUTINE 'MIA' RECORD RETRIEVAL	
Definition	The process of locating and extracting a health record that is missing (i.e. has not been located in the usual places and within the 30 minute timeframe).
Time Recording Methodology	Actual Time for Non-Routine Records Retrieved, by Inpatient, client-MDC/SDC, and client-ER/clinics, and Resident
Item for Count	N/A

RECORD FILING	
Definition	The process of inserting a health record into a specific order in an allocated area. The unit value includes time to:

	START TIME: Initiation of grouping of records to be filed.
	    -sort into numerical order,
	    -insert record,
	    -remove outguide if necessary, and
	    -update on computer if necessary.

	STOP TIME: Completion of inserting last record to be filed.
Time Recording Methodology	Inpatient – Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
	Client-SDC/MDC - Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
	Client ER/Clinics - Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
Item for Count	Number of Records filed, by Inpatient, client-MDC/SDC, and client-ER/clinics, *NOTE: Time is counted at the point of final filing.*

LOOSE REPORT FILING	
Definition	The process of filing loose reports that are received independent of the actual health record, e.g. client reports, ECG reports, radiology reports. Includes time to verify identification information on the report, determine location of the health record and insert the document(s) in the appropriate order. START TIME: Initiation of grouping loose reports. STOP TIME: Completion of inserting last loose report into the record either in front or in order; includes sorting and filing; and records set aside.
Time Recording Methodology	Inpatient – Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Client-SDC/MDC - Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Client ER/Clinics - Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Resident-Not applicable
Item for Count	Number of reports of loose filing filed by Inpatient, client-MDC/SDC, and client-ER/clinics, *Note: One report may be comprised of several sheets.*

EXTERNAL COLLECTION AND DISTRIBUTION	
EXTERNAL COLLECTION AND DISTRIBUTION	
Definition	The process of distributing records and/or reports upon request to various functional centres within the health service organization. E.g. This includes time for distributing and collecting charts from wards, clinics, Emergency Department, Surgical & Medical Day Cares, etc. START TIME: Departure time from Health Records department. STOP TIME: Arrival time upon return to the Health Records department.
Time Recording Methodology	Actual time
Item for Count	N/A

RELATED RECORD PROCESSING PROCEDURES	
RELATED RECORD PROCESSING PROCEDURES	
Definition	All other activities undertaken in support of or related to the above noted Records Processing functions. START TIME: Initiation of activity STOP TIME: Completion of activity.
Time Recording Methodology	Actual time
Item for Count	N/A

TRANSCRIPTION

TRANSCRIPTION	
Definition	The process of transcribing and assuring the quality and completeness of dictated/written reports that are designated for the health record (e.g. separation summaries, histories, physicals). Also includes transcription of documentation unrelated to the health record, such as administrative correspondence, research reports, etc. where this is required of transcription staff.
	To measure the output of transcription completed in the FUSION system, a standardized 60 character line with three section/line formats will be used as the basic of measure for output. In the case of voice recognition, a minimum accuracy rate of 75% should be achieved before moving users from TEST to LIVE environments. Back-end weighting setting should be 35% (meaning the transcriptionist is credited with 65% of the character line count. Auto-text routines will be credited with 50% of the character line count.
	To measure the output of transcription completed in the ITS module of Meditech, a standardized 55 character line with three section/line formats will be used as the basic of measure for output.
	RHAs using both systems must add the ITS lines and FUSION lines together for a total line count.
	START TIME: Initiation of processing a report including dictating and word processor machines switched on, headphones on, printer set up and patient selected.
	STOP TIME: Completion of report and sending output to the printer.
Time Recording Methodology	Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
Item for Count	# of lines transcribed/produced Productivity target has been set at 125 lines per transcriptionist hour typed. For regional use, may measure non-medical and medical transcription separately.
TRANSCRIPTION RELATED PROCEDURES	
Definition	The procedures associated directly or indirectly with transcription. They include preparing equipment and work area, printing reports, prioritizing and proof reading dictation, distributing material and/or photocopying, separating and distributing reports, creating new user accounts and orienting new users to the dictation/transcription system, etc.
	START TIME: Initiation of the activity. STOP TIME: Completion of the activity.
Time Recording Methodology	Actual time
Item for Count	N/A

RECORD IMAGING	

SCANNING	
Definition	The process of reproducing health records into an electronic format which includes preparation of document, scanning and verification for legibility, completeness, quality, etc. START TIME: Initiation of obtaining records for scanning from permanent file. 　　　　-obtain health record for scanning; 　　　　-ensure patient is positively identified 　　　　-prepare each record; 　　　　-scan each record; 　　　　-index record documents; 　　　　-check digitized record; 　　　　-verify legibility and completeness, and 　　　　-electronically file record. STOP TIME: Records are set aside.
Time Recording Methodology	Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
Item for Count	Number of sheets scanned, double sided sheets count as 2.

DE/RE INDEXING	
Definition	The process of correcting the association of an electronic document with a specific patient record. This involves removing documents inappropriately assigned and reassigning them to the correct patient record, removing duplicate/unnecessary documents as well as replacing incomplete documents with complete documents on the same patient record.
Time Recording Methodology	Actual time
Item for Count	N/A

SCANNING RELATED PROCEDURES	
Definition	Any procedure performed prior to or after the actual indexing and scanning of information. This activity would include verification of patient identification, removal of non-legal documentation and staples, taping of prescriptions and blood bank cards, imprinting of documents, sorting like information into groups, confirmation of documents via highlighting from lists, preparation and boxing of information for storage, or other tasks as required.
Time Recording Methodology	Actual time
Item for Count	N/A

RELEASE OF INFORMATION	

ROUTINE REQUESTS FOR RELEASE OF INFORMATION	

Definition	The process of responding to requests for release of service recipient information which take on average 20 minutes or less to complete. Information requested may include demographic, admission or visit history or other information available through computer system or paper records. Included is the time to verify authorization for release of service recipient information and fully answer request (e.g. obtain record, log request).
	START TIME: Read and verify request received (by phone, fax, e-mail, letter, etc.).
	        -request logged;
	        -request actioned;
	STOP TIME: Request completed.

Time Recording Methodology	Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
Item for Count	Number of Routine Requests processed
COMPLEX REQUESTS FOR RELEASE OF INFORMATION	

Definition	The process of responding to requests for release of service recipient information which take on average greater than 20 minutes to complete. Information requested may include demographic, admission or visit history or other information available through computer system or paper records. Included is the time to verify authorization for release of service recipient information and fully answer request (e.g. obtain record, log request).
	
	START TIME: Read and verify request received (by phone, fax, e-mail, letter, etc.).
	        -determine valid authorization;
	        -determine service recipient identification;
	        -retrieve the record;
	        -extract desired information;
	        -photocopy/or transmit by facsimile;
	        -record re-assembly;
	        -re-file record;
	        -complete the necessary documentation for financial services;
	        -log the request;
	        -prepare accompanying letter; and
	        -notify health practitioner of release, if applicable.
	        -letter inserted into record.
	
	STOP TIME: Completion of the above noted process. Excludes transport time of record between sites.

Time Recording Methodology	Facility Specific Standard Time or Actual time
Item for Count	N/A

HEALTH DATA REPORTING

Health Data and Information Services encompasses the time required for the extracting, compiling, analyzing and interpreting, preparing, presenting, and distributing or disseminating of health data and information for study, review and reporting. Includes time spent on:
-         quality management program reports (e.g. quality, utilization and risk indicators and   reports);
-         health information statistics;
-         research and committee studies; and
-         clinical/financial information reports.

Health Data and Information Services are comprised of three categories of activities:

INTERNAL REPORTING	

Definition	The process of extracting, compiling, analyzing, interpreting, preparing, presenting, and disseminating clinical and/or financial information. Examples include medical audits, morbidity reports, internal audits, quality management reports, wait list reports, etc.
	 START TIME: Determine nature of report to be generated
	       - Initiation of data extraction
	       - Compile desired report
	       - Complete required analysis
	       - Distribute/present report as required
	 STOP TIME: Report presentation/dissemination is completed

Time Recording Methodology	Actual Time
Item for Count	N/A
EXTERNAL REPORTING	

Definition	The process of extracting, compiling, analyzing, interpreting, preparing, presenting, and disseminating clinical and/or financial information to meet external reporting requirements/requests. Examples include reports prepared for the Canadian Institute for Health Information, Department of Health and Community Services, Statistics Canada, School Boards, etc.
	 START TIME: Determine nature of report to be generated and validation of approval source
	       -Initiation of data extraction
	       -Compile desired report
	       -Complete required analysis
	       -Distribute/present report as required
	
	 STOP TIME: Report presentation/dissemination is completed

Time Recording Methodology	Actual Time
Item for Count	N/A
RESEARCH	
Definition	The process of extracting, compiling, and reporting information in support of formalized research projects. Such research is formally designed and approved clinical investigations directed towards advancing knowledge in the field of health, and the

	delivery of health services, using recognized methodologies and procedures.
	
	START TIME: Determine nature of data to be reported and validate approval source/consents
	     -Initiation of data extraction
	     -Compile desired report
	     -Distribute/present report as required
	STOP TIME: Report presentation/dissemination is completed

Time Recording Methodology	Actual TIme
Item for Count	N/A

RECORDS MAINTENANCE

RECORD PURGING	

Definition	The designated and planned process of identifying and removing records or portions of records for the purpose of storage or destruction after the required retention period from permanent filing.
	
	START TIME: Determine records to be purged
	     -Retrieve records
	     -Remove desired records or portions thereof for storage or destruction
	     -Complete storage or destruction
	
	STOP TIME: Complete required documentation

Time Recording Methodology	Actual Time
Item for Count	N/A
RECORD DESTRUCTION	

Definition	The process of preparing documents/electronic records for destruction including retrieval, logging of data (electronically or manually), boxing/bagging documents, transporting and witnessing the destruction of records where applicable,
	
	START TIME: Determine records to be destroyed
	     -Retrieve records
	     -Prepare records for destruction
	     -Destroy the records/witness the destruction of the records
	
	STOP TIME: Complete required documentation

Time Recording Methodology	Actual Time
Item for Count	N/A

MAINTENANCE OF RECORDS	
Definition	The process of maintaining an active and inactive filing system(s), as well as the process of maintaining information systems (databases, etc.) including: -Creation of volumes -Permanent file -Incomplete records -Merging/Overlay management -Client Registry data quality report reconciliation
Time Recording Methodology	Actual Time
Item for Count	N/A
INFORMATION SYSTEMS SUPPORT	
Definition	Activities undertaken to maintain the integrity of data within the electronic records systems and ongoing maintenance of that system. Examples include: -Maintain system dictionaries -Maintenance of system integrity with updates (e.g. software, Meditech updates, etc.) -Testing of system updates
Time Recording Methodology	Actual Time
Item for Count	N/A

SUPPORT ACTIVITIES

FUNCTIONAL CENTRE ACTIVITIES	

Definition	Activities required for the operation/maintenance of the functional centre and for the benefit of staff. This category includes, but is not limited to:
	-Functional Centre Management
	    -Clerical Activities
	    -Orienting staff and students
	    -Recording and calculating workload and other statistical data
	    -Preparing documentation for meetings
	    -Collecting and compiling departmental statistics
	    -Administrative activities for Health Information Management/Registration services
	-Employee meetings (both formal and informal)
	-Assigning of work, organizing employees, updating procedures, etc.
	-Maintaining a safe and tidy work environment, equipment maintenance, ordering supplies, inventory control
	-Participating in functional centre quality improvement activities
	-Travel (internal and external) related to any of the above activities and patient portering.

Time Recording Methodology	Actual Time
Item for Count	N/A

ORGANIZATIONAL/PROFESSIONAL	

Definition	Activities that are performed for the general functioning and direct benefit of the organization, community or profession. Includes, but is not limited to:
	    -Board/committee functions
	    -Activities performed during worked hours related to preparation, attendance and follow-up of health service organization board/committee functions. e.g. Accreditation teams, Occupational Health and Safety Committees, etc.
	    -Public relations
	    -Activities directly associated with the public relations function of the health service organization. E.g. planning, meetings and participation in the event, e.g. media events, information programs, preparing articles for publications, etc.
	    -Court Appearances and Discoveries
	    -Professional activities such as services provided to the professional, scientific and local communities, agencies, and service groups during worked hours. E.g. participation in professional association committees
	    -Advocacy on behalf of one's profession
	    -Travel (internal and external) related to the above activities.

Time Recording Methodology	Actual Time
Item for Count	N/A

TEACHING/INSERVICE	

Definition	Activities devoted to the dissemination of knowledge by staff, through lectures, presentations, observations or direct participation as well as in-service education received by staff. It includes, but is not limited to placements of HIS students, information sessions for other staff, and formal lectures to university/college students.
	    -Students: Activities associated with the preparation, orientation, instruction, supervision, and/or evaluation of students prior to, during, or immediately following their placements.
	    -Professionals: Activities associated with the preparation, orientation, presentation, and/or instruction of other professional staff such as nurses, physicians, medical students, etc.
	    -Academic: Activities involved in the preparation and presentation of course/lecture material to students and evaluation of students as part of the academic curriculum.
	    -Inservice Education: Activities such as brief, in-house education sessions presented by other staff, orientation to new procedures or equipment, grand rounds, reading of professional journals, etc.
	    -Travel (internal and external) related to the above activities
	
	NOTE: Professional Development requiring Education Leave is excluded from this category as the time is considered 'benefit hours', not part of 'worked hours'. Professional development activities are longer, more formal, discipline-specific

	and are usually greater than ½ day in duration. Professional association annual conferences, courses, symposiums, seminars and workshops are examples of typical professional development activities.
Time Recording Methodology	Actual Time
Item for Count	N/A
SUPPORT TO REGISTRATION	
Definition	Time spent in support of the Registration functional Centre, registering inpatients, resident or clients as required, usually during evenings or nights when registration staff are not on duty. Includes travel (internal and external) related to the this activity.
Time Recording Methodology	Actual Time
Item for Count	N/A
SUPPORT TO SWITCHBOARD	
Definition	Time spent manning facility switchboard, answering and directing telephone calls, paging, and responding to emergencies as required. Includes travel (internal and external) related to this activity.
Time Recording Methodology	Actual Time
Item for Count	N/A

REGISTRATION WMS

REGISTRATION WMS CONCEPTUAL MODEL

REGISTRATION/APPOINTMENTS			
Admissions	**Registrations**	**Appointments and Scheduling**	**Support Activities**
Inpatient/Resident Admissions	Client Registrations	Individual Appointments Booked	Functional Centre Activities
Transfer/Separation Procedures	Other Registration Related Procedures	Block Bookings	Organizational/ Professional
Bed Management		External Bookings/Referrals	Teaching/In-Service
Other Admission Related Procedures		Other Appointment Related Procedures	Support to Health Information Management
			Support to Switchboard

ADMISSIONS

INPATIENT ADMISSIONS	

Definition	Admission Procedure - Inpatients/Newborns
	
	The official acceptance into the health service organization of an adult/child/newborn/postnatal newborn that requires medical and/or health services on a time limited basis. The admission procedure involves the assignment of a bed, bassinet or incubator and a unique identifier to record and track services. Admission of a newborn is deemed to occur at the time of birth, or in the case of postnatal newborns, at the time of admission of the mother to the health service organization.
	
	START TIME: Notification of admission;
	    - time spent checking bed availability and off services as appropriate;
	    - input/update patient information;
	    - completion of applicable forms;
	    - request/retrieve record or create record as necessary;
	    - initiate arrangements for patient transport, if required;
	    - transport admission documents to patient location, if required.
	
	STOP TIME: Completed records ready to be distributed (face sheet completed) when no further distribution required. When additional time is needed to distribute the admission chart to the patient location, additional time should be added.

Time Recording Methodology	Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Additional time for delivery of patient chart and/or patient to the inpatient location.
Item for Count	Number of Inpatient Admissions
RESIDENT ADMISSIONS	

Definition	Admission Procedure -Residents
	The official acceptance into a health service organization of an individual who requires medical, health and/or residential services on a longer-term basis. The admission process involves the assignment of a bed and a unique identifier to record and track services.
	
	START TIME: Notification of admission;
	    - time spent checking bed availability and off services as appropriate;
	    - input/update resident information;
	    - completion of applicable forms;
	    - request/retrieve record or create record as necessary;
	    - initiate arrangements for resident transport if required;
	    - transport record to patient location, if required.
	
	STOP TIME: Completed records ready to be distributed (face sheet completed) when

	no further distribution required. When additional time is needed to distribute the admission chart to the patient location, additional time should be added.
Time Recording Methodology	Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
Item for Count	Number of Resident Admissions
TRANSFER/SEPERATION PROCEDURES

Definition	The process of recording a transfer/separation of a patient/resident within a health service organization into the information system. (e.g., transfers of doctor to doctor, service to service, bed to bed, discharges and deaths). Excludes time to arrange an external transfer.
	
	START TIME: Notification of patient separation or transfer;
	        -confirm bed availability as required;
	        -update service recipient information in MPI; and,
	
	STOP TIME: Completion of transfer/separation transaction.

Time Recording Methodology	Inpatient – Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Client ER - Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Resident-- Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
Item for Count	Number of transfer/separation transactions completed
BED MANAGEMENT
Definition	Activities undertaken to ensure facility bed use is optimized for maximum efficiency and the determining of overall bed availability, e.g. ward rounds, bed coordination/reassignment, etc. Excludes time spent assigning an available bed for a specific patient (included in the admission process). START TIME: Initiation of activity STOP TIME: Completion of activity
Time Recording Methodology	Actual Time
Item for Count	N/A
OTHER ADMISSION RELATED PROCEDURES
Definition	Activities undertaken related to admissions such as generation of census statistics and reports, completing hostel bookings, OR bookings, pre-admission processes, time to arrange an external transfer, etc.

	START TIME: Initiation of activity STOP TIME: Completion of activity
Time Recording Methodology	Actual time or Facility Specific Standard Time could be developed over time if consistency is demonstrated.
Item for Count	N/A

REGISTRATIONS

	CLIENT REGISTRATIONS

Definition	The procedures necessary for the acceptance into a health service organization of a client who requires medical and other health services. The client is not assigned to a bed, bassinet or incubator since the services are provided in one day (usually within hours). Included is the registration of individuals seen through ambulatory services such as emergency, surgical day care, medical day care, cardiac cath lab, ambulatory clinics, etc. The unit value includes time to:
	
	START TIME: Presentation of Client for Registration
	      -Validate client's appointment;
	      -Search MPI and Client Registry for patient match;
	      -create / update client information;
	      -print ID card if applicable;
	      -print and apply armband if applicable;
	      -request/retrieve records or create new record;
	      -generate/complete all necessary forms;
	      -direct client to appropriate area;
	      -distribute record to client location, if required.
	STOP TIME: Registration completed and records ready to be distributed (face sheet completed) when no further distribution required. When additional time is needed to distribute the chart to the client location, additional time should be added.

Time Recording Methodology	Client SDC/MDC-Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained. Separate Client ER and Clinic-Provincial standard times if applicable; otherwise a facility specific standard time must be developed and maintained.
Item for Count	Number of Client registrations processed

OTHER REGISTRATION RELATED PROCEDURES	
Definition	Activities undertaken related to registration such as generation of ER departure statistics reports, OR bookings, etc. START TIME: Initiation of activity STOP TIME: Completion of activity
Time Recording Methodology	Actual time / Facility Specific Standard Time could be developed if consistency is demonstrated over time.
Item for Count	N/A

APPOINTMENTS & SCHEDULING

INDIVIDUAL APPOINTMENTS BOOKED	

Definition	The process of booking and/or rebooking individual appointments for various ambulatory services within the facility/program. Includes OR bookings when performed by Health Information Management/Registration staff.
	
	START TIME: Point in time when the staff start to action the notification or request (person presents, telephone, referral received);
	    -identify patient
	    -set time slot/ schedule or reschedule
	
	STOP TIME: Completion of the **initial** attempt to notify the patient or referral source by phone, letter or in-person.

Time Recording Methodology	Provincial standard time if applicable; otherwise a facility specific standard time must be developed and maintained.
Item for Count	N/A
BLOCK BOOKINGS	
Definition	The process of booking and/or rebooking a block of appointments for various ambulatory services within the facility/program, e.g. cancelled clinics rebooked. START TIME: Point in time when the staff initiate the booking/rebooking process STOP TIME: Completion of the **initial** attempt to notify the patient or referral source by phone, letter or in-person. NOTE: This could include the Meditech booking process and notification. If notification is done as a separate activity, record time for the notification process in *Other Appointment Related Procedures.*

Time Recording Methodology	Actual Time
Item for Count	N/A

EXTERNAL BOOKINGS/REFERRALS	

Definition	The process of booking and/or rebooking appointments with external agencies/service providers external to the facility/program on behalf of clients of the health service organization.
	
	START TIME: Request for appointment received;
	     -identify client
	     -determine client documentation
	     -arrange the needed appointment via telephone, fax or in-person
	     -send documentation via mail or fax
	
	STOP TIME: notify client or referral source.

Time Recording Methodology	Actual Time
Item for Count	N/A

OTHER APPOINTMENT RELATED PROCEDURES	
Definition	Activities undertaken related to appointment scheduling such as travel arrangements and clinic room bookings for traveling clinics, maintenance of dictionaries within the Community Wide Scheduling module, etc. **Includes time to attempt additional recall notifications to patients regarding appointments.** START TIME: Initiation of activity STOP TIME: Completion of activity
Time Recording Methodology	Actual Time
Item for Count	N/A

SUPPORT ACTIVITIES

	FUNCTIONAL CENTRE ACTIVITIES

Definition	Activities required for the operation/maintenance of the functional centre and for the benefit of staff. This category includes, but is not limited to:
	    -Functional Centre Management
	        -Clerical Activities
	        -Orienting staff and students
	        -Recording and calculating workload and other statistical data
	        -Preparing documentation for meetings
	        -Collecting and compiling departmental statistics
	        -Administrative activities for Health Information Management/Registration services
	    -Employee meetings (both formal and informal)
	    -Assigning of work, organizing employees, updating procedures, etc.
	    -Maintaining a safe and tidy work environment, equipment maintenance, ordering supplies, inventory control
	    -Participating in functional centre quality improvement activities
	    -Travel (internal and external) related to any of the above activities and patient portering.

Time Recording Methodology	Actual Time
Item for Count	N/A

	ORGANIZATIONAL/PROFESSIONAL

Definition	Activities that are performed for the general functioning and direct benefit of the organization, community or profession. Includes, but is not limited to:
	    -Board/committee functions
	    -Activities performed during worked hours related to preparation, attendance and follow-up of health service organization board/committee functions. e.g. Accreditation teams, Occupational Health and Safety Committees, etc.
	    -Public relations
	    -Activities directly associated with the public relations function of the health service organization. E.g. planning, meetings and participation in the event, e.g. media events, information programs, preparing articles for publications, etc.
	    -Court Appearances and Discoveries
	    -Professional activities such as services provided to the professional, scientific and local communities, agencies, and service groups during worked hours. E.g. participation in professional association committees
	    -Advocacy on behalf of one's profession
	    -Travel (internal and external) related to the above activities.

Time Recording Methodology	Actual Time
Item for Count	N/A

	TEACHING/INSERVICE
Definition	Activities devoted to the dissemination of knowledge by staff, through lectures, presentations, observations or direct participation as well as in-service education received by staff. It includes, but is not limited to placements for students, information sessions for other staff, and formal lectures to university/college students. -Students: Activities associated with the preparation, orientation, instruction, supervision, and/or evaluation of students prior to, during, or immediately following their placements. -Professionals: Activities associated with the preparation, orientation, presentation, and/or instruction of other professional staff such as nurses, physicians, medical students, etc. -Academic: Activities involved in the preparation and presentation of course/lecture material to students and evaluation of students as part of the academic curriculum. -Inservice Education: Activities such as brief, in-house education sessions presented by other staff, orientation to new procedures or equipment, grand rounds, reading of professional journals, etc. -Travel related to the above activities NOTE: Professional Development requiring Education Leave is excluded from this category as the time is considered 'benefit hours', not part of 'worked hours'. Professional development activities are longer, more formal, discipline-specific and are usually greater than ½ day in duration. Professional association annual conferences, courses, symposiums, seminars and workshops are examples of typical professional development activities.
Time Recording Methodology	Actual Time
Item for Count	N/A

	SUPPORT TO HEALTH INFORMATION MANAGEMENT
Definition	Time spent in support of the Health Information Management functional Centre, retrieving health records, filing, and other duties as required, usually during evenings or nights when Health Information Management staff are not on duty. Includes travel (internal and external) related to this activity.
Time Recording Methodology	Actual Time
Item for Count	N/A

SUPPORT TO SWITCHBOARD	
Definition	Time spent manning facility switchboard, answering and directing telephone calls, paging, and responding to emergencies as required. Includes travel (internal and external) related to this activity.
Time Recording Methodology	Actual Time
Item for Count	N/A

Time Recording Methodology

The Health Information Management/Registration WMS employs two time-recording methodologies to measure the time used to perform functional centre activities. They are the Standard Time-Recording Methodology and the Actual Time-Recording Methodology. For both methodologies a standard unit of measure has been established. The unit of measure is the workload unit, where one workload unit is equivalent to one minute of unit-producing time spent on provision of services.

For activities that are repetitive and consistent in time requirements, the Standard Time-Recording Methodology is recommended. This methodology requires the organization to determine a site-specific unit value for each of the activities that are performed by the health record functional centre. Each unit value represents the standard, or site-specific time, required to perform an activity. To calculate workload, unit-producing personnel record the number of times that a defined activity is performed and multiply this frequency by the assigned unit value. This determines the total workload units for that activity. Where possible, the Provincial Health Information Management /Registration MIS Committee has identified provincial standard times. Only when the provincial standard is deemed inappropriate should a facility develop its own facility-specific standard time.
Health Service Organizations can develop standard times using a variety of methods. They include predetermined engineering standards, published standards, activity time studies, work sampling, consensus approach, or a combination of several methods. Each standard time should represent a desirable and achievable goal for personnel, and should not merely reflect actual practices.

For activities that take an unpredictable amount of time to complete, the Actual Time-Recording Methodology is recommended. This methodology requires that the actual time required to perform an activity be recorded retrospectively (preferably daily) by staff of the functional centre.

Each of the standard workload categories in the CIHI Health Information Management WMS and the Registration WMS were reviewed, identifying additional activities within each category if needed and a standard or actual time recording was assigned to each activity. This is summarized below.

HEALTH INFORMATION MANAGEMENT
WMS Activity and Time Recording Methodology Summary

Workload Category	Activity Category	Component Activities	Time Recording
Record Processing	Assembly & Analysis	Assembly	Standard
		Analysis	Standard
		Assembly & Analysis	Standard/Actual
	Coding & Abstracting	Coding/Abstracting	Standard
		Coding and Abstracting Related Procedures	Actual
	Incomplete Record Management	Incomplete Record Processing	Standard
		Incomplete Record Notification	Actual
	Record Retrieval/Filing	Routine Record Retrieval	Standard
		Non-Routine "MIA" Record Retrieval	Actual
		Record Filing	Standard
		Loose Report Filing	Standard
	External Collection/ and Distribution		Actual
	Related Record Processing Procedures		Actual
Transcription	Transcription		Standard
	Transcription Related Procedures		Actual
Record Imaging	Scanning		Standard
	De/Re-Indexing		Actual
	Scanning Related Procedures		Actual
Release of Information	Routine Requests		Standard
	Complex Requests		Standard or Actual
Health Data Reporting	Internal Reporting		Actual
	External Reporting		Actual
	Research		Actual
Records Maintenance	Record Purging		Actual
	Record Destruction		Actual
	Maintenance of Records		Actual
	Information Systems Support		Actual
Support Activities	Functional Centre Activities		Actual
	Organizational/Professional		Actual
	Teaching / In-service		Actual
	Support to Switchboard		Actual
	Support to Registration		Actual

REGISTRATION
WMS Activity and Time Recording Methodology Summary

Workload Category	Activity Category	Component Activities	Time Recording
Admissions	Inpatient/Resident Admissions		Standard
	Transfer/Separation Procedures		Actual
	Bed Management		Actual
	Other Admission Related Procedures		Actual
Registrations	Client Registrations		Standard
	Other Registration Related Procedures		Actual
Appointments & Scheduling	Appointments Booked	Individual	Standard (Facility)/ Actual
		Block	Actual
	External Bookings/Referrals		Actual
	Other Appointment Related Procedures		Actual
Support Activities	Functional Centre Activities		Actual
	Organizational/Professional		Actual
	Teaching In-Service		Actual
	Support to Health Information Management		Actual
	Support to Switchboard		Actual

Who Should Record Workload Data?

The Health Information Management/Registration WMS is intended, primarily, for use by the Unit-Producing Personnel of the functional centre. Examples of unit-producing personnel include transcriptionists, file clerks, registration clerks, health records technicians, health record analysts, etc.

As previously mentioned, students do not function independently, and therefore do not record workload themselves. Rather, the staff member who signs off on the work done would be credited with the workload units. The staff members providing instruction, orientation, evaluations, etc will record Functional Centre Support Workload for these activities.

Managers involved with the provision of Health Information Management/Registration services should also record workload for the time they are involved in this activity.

Recommendations for WMS Implementation and Data Collection

The Provincial Health Information Services MIS Committee has reviewed recent MIS Guideline revisions and implementation progress to date. While significant progress has been made, not all regions have achieved the same level of implementation. The Committee wishes to promote more use of the data for comparative indicator analysis. Therefore, complete and standardized implementation is required. To assist regional Health Information Management/Registration services in achieving this, the following recommendations are provided, summarizing key expectations.

1. The workload measurement system customized for application to Health Information Management/Registration services in NL be piloted in 2016-17 and fully implemented by April 1, 2017.

2. Workload data should be recorded to ensure all activities of staff are included in the workload measurement system (WMS). Regional health authorities will collect this data on either a sampling or continuous basis, using a manual or automatic data collection process that is practical for that organization.

3. Workload data should be collected and reported based on the following Categories of Service Recipients: Inpatients, Clients, and Residents, where applicable.

4. Accepted provincial unit values have been derived from timings or consensus exercises for many workload activities and are contained in this report. These unit values are to be used by Health Information Management and Registration services as the basis for workload data collection and procedure counts. Organizations are encouraged to develop facility specific unit values when the provincial value is NOT consistently representative of the time it takes to complete the specified task (using an approved CIHI methodology). For all other workload activities, actual time recording is recommended.

5. The recommended level of detail for reporting data at the regional level, on a facility specific basis, is:
   - Total Workload Units – Accounts 1 14 Health Information Management Workload Units, and 1 70 Registration Workload Units, and where applicable, at the **component** activity level, e.g. for HIM WMS this refers to the activity component level of Coding/abstract, assembly/analysis, incomplete record management, etc. This data is further broken down by Category of Service Recipient for selected activities.
   - Earned Hours – Management and Operational Support Personnel (Account 3 10), by hours type and bargaining unit
   - Earned Hours – Unit-Producing Personnel (Account 3 50), by hours type and bargaining unit
   - Staff Activity Statistics-
     - 2 55 Service Recipient Registrations Completed by HIM/Registration Staff, by Category of Service Recipient
     - 2 56 Service Recipient Appointments Scheduled, by Source
     - 2 60 Requests for Release of Information Processed, by Request Type
     - 2 61 Transcription Lines Typed
     - 2 62 Images Processed
     - 2 59 Health Records Abstracted, by Category of Service Recipient and Abstract Type

6. The recommended level of detail for reporting facility specific data at the <u>provincial</u> level is:

   - Total Workload Units – Accounts 1 14 Health Information Management Workload Units, and 1 70 Registration Workload Units, at the **workload** activity level, e.g. for HIM WMS this refers to the activity level of Record Processing, Transcription, Record Imaging, etc. No further breakdown is reported for categories of service recipients as these categories apply to a small number of activities and are of value only in the collection of the data.
   - Earned Hours – Management and Operational Support Personnel
     (Account 3 10), by hours type and bargaining unit
   - Earned Hours – Unit-Producing Personnel (Account 3 50), by hours type and bargaining unit
   - Staff Activity Statistics-
     - 2 55 Service Recipient Registrations Completed by HIM/Registration Staff, by Category of Service Recipient
     - 2 56 Service Recipient Appointments Scheduled, by Source
     - 2 60 Requests for Release of Information Processed, by Request Type
     - 2 61 Transcription Lines Typed
     - 2 62 Images Processed
     - 2 59 Health Records Abstracted, by Category of Service Recipient and Abstract Type

7. WMS and Activity statistics should be reported internally each month for regional use and included in monthly electronic submissions to the Provincial MIS Database at the DHCS.

8. Given the complexity of the WMS systems, efforts should be made to collect as much data as possible by electronic means, as a byproduct of daily work processes. This is particularly relevant for transcription functions.

9. All data reported to the Statistical General Ledger of the boards should be reviewed and verified for accuracy prior to use at the regional and provincial levels. Once verified, the data contained in the general ledger should be considered the 'first and only source' for such information, not systems such as the registration system. By doing so, all users are assured assess to the same data, reported in accordance with accepted data definitions. Only in extenuating circumstances such as electronic information loss or significant information retrieval problems should other sources of the data be used, with the source and reason for alternate use documented.

10. Managers of HIM and Registration services should calculate key performance indicators from the data collected to support management functions such as planning, budgeting, evaluating, monitoring, tracking performance over time, as well as peer comparison.

How to Collect and Report This Data through Meditech and Transcription Systems

Some statistics will be captured directly through the ADT and Health Records modules of Meditech. However, much of the workload data must be captured using other electronic or manual systems such as the 3M Health Data Management System. Control documents have been developed in Excel spreadsheets to assist regions with data capture and tallying at month end. These are available from Committee members.

Transcriptionist's output and workload (time) can be captured through the Lanier Fusion transcription system if the workload related dictionaries have been set up within local systems appropriately to do so. A provincial standard listing of activities used within Fusion to identify reasons for pause can be mapped as indicated below to the Fusion Work Types (Transcription, Non-Work Activity-Transcription and Other Work Non Transcription activities), Fusion Activity Type Choices (Yes/No) and the WMS component activities. In order to use Fusion in this manner, staff must log into the Fusion system at the start of the work shift and log off at the end of each shift, recording reasons for pausing throughout the workday.

FUSION Pause Reason	FUSION Work Type	FUSION Activity Choice Type (Yes/No)	HIM WMS Activity Category	HIM WMS Component Activity
Break	Non-Work	Yes		
Data Quality Activities- includes activities to find missing information for incomplete records	Transcription	Yes	Transcription	Transcription Related Procedures
Help to Co-worker	Transcription	Yes	Transcription	Transcription
Help to Physician re Transcription Report	Transcription	Yes	Transcription	Transcription
Lunch	Non-Work	No		
Organizational/Professional activities (e.g. committee work)	Other	Yes	Support Activities	Organizational/ Professional Activities
Other (e.g. computer issues, personal time, etc)	Other	Yes		
Preparation of Clinic Charts (for use by Labrador-Grenfell Health only)	Other	Yes	Support Activities	Functional Centre Activities
Process EKG (for use by Labrador-Grenfell Health only)	Other	Yes	Support Activities	Functional Centre Activities
Radiology Clerical Duties (for use by Western Health only)	Other	Yes	Support Activities	Functional Centre Activities
Staff Meetings	Other	Yes	Support Activities	Functional Centre Activities
Staff/Physician orientation/training,	Transcription	Yes	Transcription	Transcription Related Procedures

Support to Health Records Functions-includes clerical support to physicians (non-medical transcription, travel/insurance papers, address patient inquiries)	Other	Yes	Support Activities	Functional Centre Activities
Support to Registration Functions	Other	Yes	Support Activities	Support to Registration
Support to Switchboard Functions	Other	Yes	Support Activities	Support to Switchboard
Teaching/In-service	Other	Yes	Support Activities	Teaching/In-service
Transcribed report distribution (sorting, faxing, mailing, photocopying)	Transcription	Yes	Transcription	Transcription Related Procedures

Indicators – What They Are and How to Use Them

Indicators link two data elements together to measure performance and to provide information that can be used to facilitate decision making or compare performance. There are many indicators that can be produced by the data elements contained in the MIS database. This document will primarily discuss those that are related to resource consumption.

Workload data can be linked to financial data or other statistical data to create performance indicators. These indicators can be used for planning, staffing, budgeting and measuring efficiency. Implementation of a workload measurement system and reporting of workload data is not the ultimate goal. The primary value in workload measurement is the use of information to make better decisions related to resource consumption. This is essential, in order to gain value from the time, effort and dollars consumed in the workload data collection process. Appropriate use of the information and feedback to staff will enhance understanding and support for accurate information, resulting in better data quality.

The MIS Standards contain the calculations and explanations for many indicators. They are classified into the following categories: Financial, Staffing, Utilization, Productivity, and Workload. Readers are advised to refer to the recommendations of the Provincial Health Information Management/Registration MIS Committee for suggested indicators for use by these services within the province.

Selected examples of some key indicators, their calculations, and interpretation follow.

Cost per Workload Unit
This indicator describes the cost to provide a workload unit.

$$\text{Cost per Workload Unit} \quad = \quad \frac{\text{Defined Cost}}{\text{Workload Units}}$$

The costs in this formula can be defined as:

- **Full cost** which includes both direct and indirect functional centre costs. Indirect costs are overhead costs distributed to the functional centre from the administration or support functional centres and the undistributed accounting centres. Direct costs are those which are charged to the functional centre. Direct costs are controlled by the manager and provide more useful information for decision making than total or indirect cost.
- **Direct cost only,** or
- **a specific component** of direct cost such as unit-producing compensation, supplies or sundry.

The Workload Units used could be:
- Total (Service Recipient and Support)
- Service Recipient or
- Support

The cost and workload values selected for measurement will be dependent on the intended use of the data. The components of this indicator must be known when comparing costs across organizations. One of the most commonly used financial indicators is "Direct Cost per Service Recipient Workload Unit". Total cost per Service Recipient Workload Unit is used in service recipient-specific costing. Managers will find that "Compensation Cost per Workload Unit" is valuable to support human resource decisions.

Factors that may affect this indicator include:
- staff mix
- workload measurement system in use
- overtime
- use of on-call staff
- sick time
- education and orientation costs
- benefit compensation packages
- compensation levels

"Cost per Workload Unit" can be used, in conjunction with "Workload Units per Activity", to determine costs of new programs and services and to determine the financial resources to be added, transferred or removed from a functional centre due to changes in population served, program or service.

Workload Units per Activity
This indicator describes how workload is related to a specific activity such as an attendance day, admission, procedure or visit.

$$\text{Workload Units /Activity} = \frac{\text{Workload Units for the Defined Activity}}{\text{Volume of Activity}}$$

The Workload Units used could be:
- Total (Service Recipient and Support)
- Service Recipient or
- Support

This will depend on the intended use of the data. When calculating staffing for changes in patient/resident/client volumes, only the Service Recipient workload should be considered as Support workload is not volume dependent and this workload will remain despite changed service volumes. This would also apply when considering changes in service recipient type, i.e. chronic rather than acute, or inpatient rather than client.

Factors that can affect this indicator include:
- availability of support staff on the unit
- availability of other health professionals
- physician ordering practices
- organizational policies
- facility layout
- patient/resident/client acuity

Productivity

Productivity is the relationship between inputs and outputs. In this context, inputs are worked hours and outputs are Workload Units. The goals or targets set for productivity indicators depend on the circumstances and the strategic goals of the organization.

The options for increasing productivity include:

- Maintain the inputs but increase the outputs
- Decrease the inputs but maintain the outputs
- Decrease both the inputs and outputs but decrease the inputs more than the outputs
- Increase both the inputs and outputs but increase the outputs more than the inputs
- Decrease the inputs and increase the outputs

$$\text{Productivity} = \frac{\text{Workload Units} \div 60}{\text{UPP Worked Hours}} \times 100$$

The MIS Standards includes coffee break time as part of the worked hours. Coffee breaks alone can account for 7-8% of worked hours. In addition, approximately 5% is usually lost to personal or delay time. Therefore the maximum productivity which can be expected is approximately 87-88%. Realistically, 80-85% total productivity is a reasonable level of accountability of how worked hours were spent. If productivity is higher than this, it could be related to:
- staff working through coffee and/or lunch
- presence of students
- staff working unpaid hours to provide services
- inaccurate reporting of either worked hours or workload

For Health Information Services and Registration functions, the most relevant productivity indicator that can be adapted for use is:

❑ **Unit-Producing Personnel Total Productivity (%):** This indicator calculates the percentage of all unit-producing personnel worked and purchased hours spent in the provision of and HIM/Registration and Support Activities. It is calculated as follows:

$$\frac{\text{Service Recipient and Support Workload Units} \div 60, \times 100}{\text{Unit-Producing Personnel Worked and Purchased Hours}}$$

Applications of Performance Indicators

To effectively allocate and use resources, policy makers, health administrators and professionals must understand resource consumption and costs of caring for groups of service recipients with varying needs, in different settings. Workload measurement data, in conjunction with other information, can provide valuable information to support decisions. At the department level these decisions include:

- identification of staff hours required to meet workload requirements
- construction of a staffing schedule which reduces resource requirements
- equitable staffing assignments
- appropriate skill mix
- optimal education level for the type of services provided
- best process for care delivery

How can Workload Information be used for Costing?
The allocation of functional centre costs is based on workload data. Workload values affect not only the allocation of functional centre direct costs to types of service recipients but also the distribution of indirect costs -administrative and support costs. This occurs because indirect costs are distributed to types of service recipients based on the direct costs.

How can an Organization Apply Performance Indicators?

Budgeting/Impact Analysis
Workload information can be used to determine zero based or flexible budgets for existing services or for planning the budget of a new or altered service.

Predicted Volume x Service Recipient Workload per Activity = Predicted Service Recipient Workload

Predicted Service Recipient Workload x Cost per Service Recipient Workload Unit = Predicted Total Cost

Benefit Hours and Salaries and Benefit Contribution Dollars must then be added to develop the total budget.

Increase/Decrease/Transfer of Service Recipients or Dollars Within an Organization/ Between Organizations

Workload information can prove helpful when trying to determine the staffing impact of increasing or decreasing a particular activity or when trying to determine the appropriate transfer of funds which are linked to the particular activity.

Example: Change of an inpatient service to a client (outpatient) service
To determine staffing impact:

Number of Inpatient procedures generated by that service x Service Recipient Workload Units per Inpatient Procedure = Inpatient Service Recipient Workload that will not be generated after the closure.

Expected Client Service Recipient Workload = # of expected client procedures x Workload Units per Client Procedure

Inpatient Workload – Client Workload = Difference in workload expected.

Difference in Expected Client Service Recipient Workload ÷ Service Recipient Workload Units per FTE = # of FTE's not required/required, depending on if the new client workload exceeds or is less than the Inpatient workload it is replacing.

To determine budget impact:
Service Recipient workload x Cost per Service Recipient Workload Unit = Total Cost estimated

---

Staffing/Scheduling

Workload can be used to justify current staffing, and identify staff increases or reductions based on workload requirements. Patient census alone cannot identify needs since all service recipients are not alike and do not consume the same resources.

An increase in productivity can reduce costs by eliminating non-productive time. This can be achieved through a better matching of workload requirements and actual staffing and by monitoring trends of resource needs by day of week and time of year. Staffing schedules can sometimes be altered to provide a better match.

Non-productive time can only be identified if Service Recipient and Non-Service Recipient workload is accurately defined and measured. A system which presumes that all time not related to Service Recipient activities is automatically Non-Service Recipient time or a system that assumes Non-Service Recipient activity is directly related to Service Recipient, will not provide the required information. Non-Service Recipient activities need to be specifically defined with associated time values.

Workload information can also be used to determine staff assignments. Rather than determining staff assignments based on the number of service recipients, the assignments can be determined based on workload. This can lead to more equitable assignments, higher staff morale, and better care. This will lead to more accurate workload collection. Staff travel time also needs to be considered when assigning caseloads in order to reduce Non-Service Recipient workload. Included in this decision process one must

---

also consider the knowledge and skill required to provide care for specific types of patients/residents/clients.

Human Resource Decisions

A workload measurement system, which identifies types of specific activities, can also be useful for skill mix decisions. The tasks which are frequently selected can be reviewed to determine the level of expertise which is required to complete the tasks and this information can be helpful in determining the appropriate ratio of staffing. Caution should be exercised when using this process as the level of expertise required to provide Service Recipient care is not the sum of specific tasks but also the analysis required to determine the strategies required to respond to the data generated by these tasks. The workload resources required, could be the same in two units, but the level of expertise required to provide care may be different depending on the level of complexity of care needs.

If the appropriate matching of workload and actual hours, to improve productivity, can not be achieved within the current staffing complement, the manager may need to alter the full-time/part-time ratio to allow the flexibility required to provide the required match.

Given current fiscal restraints and recruitment/retention issues in many health disciplines, there is a growing interest in capturing more human resource related data through the MIS Standards. Provincially, a Health Human Resource project has been collecting detailed Earned Hours data used for MIS based reporting, in addition to other workload, caseload and related statistics.

Cost Minimization

A workload measurement system, which examines specific activities, can be used to identify non-value added activities or to identify improved processes or timing for providing specific tasks. If activities are not vital to clinical outcomes or client satisfaction, they may be considered for elimination. The identification of these activities usually occurs during the implementation and validation/revalidation of standard time tools.

Activities can be linked to care plans or critical pathways to assist in quantifying and selecting alternate modes of care. Physician-driven activities can also be quantified and this can provide valuable information when discussing critical paths with the medical staff.

A workload measurement system can identify specific tasks performed by laboratory staff that could be performed by other staff, to reduce costs. This could be the work of other health care professionals or support staff.   However when these tasks do not consume significant time, it may be more cost effective for the staff to continue to perform the tasks.

Example: There may be sufficient clerical or portering activities to warrant the transfer of these tasks to non-professional staff.

Quality Initiatives

Workload data can identify processes that could be improved. These processes may be controlled by the functional centre manager or by another department. If tasks are transferred to another department the workload measurement systems will identify the staffing and cost implications for both departments.

Performance Indicators Recommended by the

Provincial Health Information Services MIS Committee

Indicators are ratios or percentages, which quantify the relationship between two data elements. The MIS Standards suggests key indicators which are grouped under the following headings for ease of use:

- Financial,
- Staffing,
- Productivity,
- Utilization
- Workload

These indicators have been reviewed by the provincial HIS MIS committee and selections made from four of those categories of those indicators deemed to be of greatest value to managers, regional boards and the ministry. **Each health service organization should calculate these key indicators on an ongoing basis to monitor and trend performance.** These indicators support self evaluation over time as well as peer group comparison. Additional indicators can be utilized periodically to meet specific management needs. Many indicators, particularly workload indicators, have been customized to the data currently recommended by the Health Information Management/ Registration Committee. All indicators can be calculated on a site-specific basis, as well as rolled up to a regional level for regional reporting.

The following table highlights the indicators recommended for use by Health Information Management and Registration functional centres. The formulas for calculation are noted below. **Separate calculations should be made for the Health Information Management and Registration functional centres.**

Summary of Indicators for HIM and Registration Services

Indicator Name	Health Information Services	Registration
Financial Indicators		
1. Direct Cost per Workload Unit	X	X
2. Sick Leave Expense to Total Compensation Expense %	X	X
3. Supplies Expense per UPP FTE	X	X
Staffing Indicators		
4. # of UPP Full-time Equivalents (FTE's)	X	X
5. UPP Worked Hours to Earned Hours	X	X
Productivity Indicators		
6. Total Productivity %	X	X
8. Workload Units per UPP Full-time Equivalent (FTE)	X	X
Workload Indicators		
9. % Distribution of Workload, by activity category	X	X

Financial Indicators

1. Direct Cost per Workload Unit
The average cost per health information management or registration workload unit is calculated by dividing the functional centre's direct operating expenses by the total health information management or registration workload units (including support activities) generated by that functional centre in a given period.

$$\frac{\text{Direct Operating Expense}}{\text{Total Workload Units (including support activities)}}$$

2. Sick Leave Expense to Total Compensation Expense (%)
The percentage of the compensation expense of a functional centre which is attributable to the sick leave expense. It is calculated by dividing the sick leave expense for all personnel by the total compensation expense in a given period.

$$\frac{\text{Sick Leave Expense for all Personnel}}{\text{Total Compensation Expense}} \times 100$$

3. Sick Leave Expense per UPP FTE
The average cost of sick leave per UPP full time equivalent of a functional centre. It is calculated by dividing the sick leave expense by the number of UPP FTE's in a given period.

$$\frac{\text{Sick Leave Expense}}{\text{\# UPP FTE's}}$$

Staffing Indicators

4. Number of UPP Full-Time Equivalents (FTE's)
The average number of Unit-Producing Personnel full-time equivalents. It is calculated by dividing the earned hours for all UPP employees (full-time & part-time) by the normal earned hours for a full-time equivalent in a given period.

$$\frac{\text{Total Earned Hours for All UPP Staff}}{\text{Normal Earned Hours for one UPP FTE}}$$

5. UPP Worked Hours to Earned Hours

The proportion of Unit-Producing Personnel earned hours which is attributable to the worked hours component. It is calculated by dividing the total worked hours by the total earned hours in a given period. This can be reported as a ratio (as illustrated below) or as a percentage (multiplied by 100).

$$\frac{\text{Total UPP Worked Hours}}{\text{Total UPP Earned Hours}}$$

Productivity Indicators

6. Total Worked Productivity (%)

The proportion of total Unit-Producing Personnel worked hours that is attributable to health information management or registration activities **and** support activities as measured by the workload measurement system.

$$\frac{\text{Total Workload Units (including Support Activity Workload Units)} \div 60}{\text{UPP Worked and Purchased Hours}} \quad \text{x 100}$$

7. Workload Units per Unit-Producing Full-Time Equivalent (FTE)

The average number of workload units generated by each unit-producing personnel full-time equivalent. It is calculated by dividing the workload units (excluding Support Activities workload units) by the number of unit-producing personnel full-time equivalents.

$$\frac{\text{Workload Units (excluding Support Activity Workload Units)}}{\text{Unit-Producing Personnel FTE's}}$$

Workload Indicators

8. % Distribution of Workload, by Workload Category

The percentage of unit-producing personnel time that is attributable to the various workload activities. It is calculated by dividing the number of workload units for a specified activity by the total number of workload units for a given period, and multiplying by 100.

$$\frac{\text{Workload Units (Specified Activity)}}{\text{Total Workload Units for all Activities}} \quad \text{x 100}$$

This calculation should be performed for each Workload Category, e.g., for Health Information Management, the following workload activities would be included: Record Processing, Transcription, Record Imaging, Release of Information, Health Data Reporting, Records Maintenance, and Support

Activities. For Registration functional centres, the workload activities would include: Admissions, Registrations, Appointments and Scheduling and Support Activities.

Internal Management Reporting and Use

"You Can't Manage What You Can't Measure"

The data collected through the WMS and the associated activity statistics should be compiled and reported on a monthly basis to the administrator of the Health Information Management, Registration and Communications Services. Individual site reports are of value to site managers, as well as to the Director of these services. In combination with a monthly financial report, managers are able to calculate key performance indicators with which they can monitor and measure departmental performance. Ideally, such indicators can be automatically generated from automated systems. Managers are encouraged to work closely with Information Systems staff and Finance Dept staff to develop automatic reporting for all stakeholders containing information at an appropriate level of detail for the user and in a timely fashion.

The basic operational management information provided by the MIS data is the foundation for day-to-day management functions as well as strategic decision making and impact analysis. Many managers use MIS performance indicators as components of balanced scorecards, or other quality reporting required by their regional boards. Such data is vital for benchmarking activities, a valuable process for discovering best practices among peer organizations.

Provincial Reporting Requirements

The following data should be reported monthly at the provincial level by being included in the monthly electronic submissions made to the Provincial MIS Database at the Department of Health and Community Services. Of prime importance is inclusion of this data in the year end period 13 data submissions from the regional boards as this submission is considered to be the 'official' statistical report for the board. Period 13 data is used widely at the provincial level as well as submitted to the Canadian MIS Database at the Canadian Institute for Health Information, Ottawa, Canada for national and international use.

The provincial minimum reporting level is denoted in the list below by the symbol '♦'.

Total Workload Units

1 14 ** XX Health Information Management Workload Units
By Category of Service Recipient
       ** 00   No applicable Category

      By Activity Category
            XX 10   Record Processing♦
                20   Transcription♦

<div style="margin-left: 25%">

30   Record Imaging♦
40   Release of Information♦
50   Health Data Reporting♦
60   Records Maintenance♦
70   Support Activities♦

</div>

<u>1 70 ** XX Registration/Appointments Workload Units</u>
By Category of Service Recipient
       ** 00   No applicable Category

       By Activity Category
              XX 05 Admissions (Provincial account)♦
                  10 Registration♦
                  20 Appointments and Scheduling♦
                  30 Support Activities♦

Earned Hours

3 11 ** **MOS Worked Hours, by bargaining unit♦
3 13 ** **MOS Benefit Hours, by bargaining unit♦
3 19 ** **MOS Purchased Hours, by bargaining unit♦

3 51 ** **UPP Worked Hours, by bargaining unit♦
3 53 ** **UPP Benefit Hours, by bargaining unit♦
3 59 ** **UPP Purchased Hours, by bargaining unit♦

Staff Activity Statistics

<u>2 55 ** Service Recipient Registrations Completed by HIM/Registration Staff</u>
by Category of Service Recipient

       **10 Inpatient♦
         20 Client-Other♦
         30 Client-Surgical Day/Night Care♦
         40 Resident♦

<u>2 56 ** Service Recipient Appointments Scheduled</u>
by Source

       ** 10 Operating Room♦
         20 Client♦

<u>2 59 ** XX   Health Records Abstracted</u>
by Category of Service Recipient and Abstract Type

       ** 10 Inpatient
         20 Client Hospital
         40 Resident

XX 10 DAD⬥
            20 NRS⬥
            30 OMHRS⬥
            40 NACRS⬥

2 60 ** Requests for Release of Information Processed
by Request Type

        ** 10 Routine⬥
            20 Complex⬥

2 61 ** Transcription Lines Typed⬥
by type of transcription

        ** 10 Medical Transcription
            20 Non-medical Transcription

2 62   Images Processed⬥

REFERENCE

2016 MIS Standards, Canadian Institute for Health Information, Ottawa, Canada

APPENDIX A

Provincial Health Information Services/Registration

MIS Committee

Terms of Reference

Provincial Health Information Services MIS Committee

Terms of Reference
Revision approved by the
Provincial Health Information Services MIS Committee
September 17, 2014

Purpose:
To facilitate adoption and sustainability of the MIS Standards for Health Information Services (HIS) and ongoing use of MIS data within the province of Newfoundland and Labrador (NL).

Objectives:

1. Review and interpret the MIS Standards related to HIS; act as a resource to HIS staff regarding the MIS Standards.

2. Identify applicable MIS financial and statistical data collection and reporting requirements for HIS and promote implementation within each regional health authority (RHA).

3. Review proposed revisions to the MIS Standards and provide feedback on their relevance and impact for HIS data collection and reporting.

4. Facilitate development and implementation of the workload measurement system for HIS, where applicable.

5. Identify and promote key MIS performance indicators recommended for use by clinicians, managers and administrators to assist in the interpretation of data.

6. Promote data quality by undertaking activities such as developing resource materials, identifying educational needs, providing education sessions, auditing data collection processes, analyzing indicator results, etc. in conjunction with the MIS Standards staff at the Newfoundland and Labrador Centre for Health Information (the Centre).

7. Act as a liaison between the the Centre and the RHAs on issues related to the use of the MIS Standards for HIS. Also, liaise with the Canadian Institute for Health Information (CIHI) and the Department of Health and Community Services (DHCS) through the Centre on HIS MIS issues.

8. Share knowledge and expertise regarding methods of data collection and reporting, interpretation and use of the MIS data (e.g. performance indicators and benchmarking) as they pertain to HIS.

Membership
Membership will consist of representatives from each RHA and the Centre.

Additional individuals may be identified and invited to attend meetings on an ad-hoc basis related to topics which require their specific knowledge.

Members are responsible for consulting with others within their organizations to ensure informed feedback is communicated to the committee. Members are also expected to ensure committee decisions are disseminated for implementation within their organizations.

Meetings
A minimum of four face-to-face meetings per year, with further meetings scheduled at the call of the chair.

Quorum
The quorum shall be 50% of the membership plus one, with representation from three of the four RHAs. The Centre representative will be part of the quorum.

Chair
Appointed by members and reviewed every two years. If no consensus is reached, a rotating chair will be assigned based on alphabetical order. The responsibilities of the chair include: being the primary contact for committee members; providing input into agenda, and chairing meetings.

Terms of Reference
Renewed every two years.

Recording Secretary
Duties to rotate through all members alphabetically (excluding the chair) unless otherwise agreed.

Minutes
Approved minutes will be forwarded to all committee members and others as identified by the committee.

Accountability
This committee reports to the Manager MIS Standards at the Centre.

Funding
Travel expenses incurred to attend meetings will be cost shared 50/50 between the Centre and participating RHAs. Conference call expenses will be the responsibility of the Centre.

APPENDIX B

WMS Provincial Standard Times Unit Value Summary

2016

Health Information Services and Registration

WMS Provincial Standard Times Unit Value Summary

2016

Workload Activities	Component Activities	Inpatient (minutes)	Client-MDC/SDC (minutes)	Client-ER/Clinics (minutes)	Resident (minutes)
HEALTH INFORMATION SERVICES					
Record Processing	Assembly	9.3	N/A	N/A	N/A
	Analysis	3.8	N/A	N/A	N/A
	Assembly & Analysis	14.7	3.1	ER-0.5 Clinic 1.2	N/A
Coding & Abstracting	Coding & Abstracting	19.66	8.3	N/A	N/A
Incomplete Record Management	Incomplete Record Processing	2.4	6.56	N/A	N/A
Record Retrieval & Filing	Routine Record Retrieval	1.9	1.9	2.4	N/A
	Record Filing	0.92	0.92	0.92	N/A
	Loose Report Filing	1.6	1.6	1.6	N/A
Record Imaging	Scanning	0.4			
Release of Information	Routine Requests	10.5			
Transcription	Transcription	0.45			

REGISTRATION						
Workload Activities	Component Activities	Inpatient	Client-MDC/SDC	Client-ER	Client-Clinics	Resident
Admissions	Admissions	14.3	N/A	N/A	N/A	14.3
	Transfer/Separation Procedures	0.52	N/A	2.0	N/A	0.52
Registrations	Client Registrations	N/A	2.8 (scopes)	2.3	1.4	N/A
Appointments & Scheduling	Individual Appointments Booked	N/A	3.6 (scopes)	N/A	1.24	N/A