Manitoba Public Health Information Management System

Report User Guide

MB5101
Immunization - Invalid Doses Report

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2024-01-11	Arielle Goldman Smith	0.06	Report added to MB_Imms_QA user role.

Definitions for Report User Guides:

a. "Authorized Organization" means an organization (an RHA, a First Nation, or other organization) with whom Manitoba has entered into an agreement in order to facilitate access to PHIMS.

b. "Authorized User" means an employee, agent or contractor of an Authorized Organization (the employer) permitted to access to PHIMS.

c. "Service Delivery Location" (SDL) means a public health office or a Community Health Centre.

d. "User Role" means the specific role or roles to which an Authorized User is assigned and which prescribes what information the Authorized User is permitted to access, use and disclose.

Data Type		Explanation
Aggregate, no identifiable data	=	Summary data with no client identifiers
Aggregate, no identifiable data, but possible small population sensitivity or Provider / Org Sensitivity	=	Summary data with no client identifiers However there are sensitivities in the data where small numbers could identify clients, communities or providers
Line Level, Single client identifiable data	=	Includes client identifiers of an individual client
Line level, Multi client identifiable data	=	Includes client identifiers of a list of multiple clients

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1. Background

1.1. Data Access Scope for Immunization in PHIMS

In Manitoba, Authorized Users ("users") of the immunization module have access to immunization records for all Manitobans. This was decided as a result of a number of considerations, including:
- Clients can receive immunization services at SDL's other than their default public health office, either within or outside their home health region.
- Cases and outbreaks of vaccine preventable diseases also cross regional boundaries and may involve multiple public health provider organizations.

1.2. Privacy/Data Sensitivity

This report is set at the Manitoba level. This means that users who have access to this report can "view" data from all regions in Manitoba. The report includes data at the level of the region and SDL. Information includes PHIMS Client ID, Immunizing Agent and Date immunization administered, and immunizer.

1.3. Permitted Disclosures

- The report could be shared with the public health practitioner working on immunization reconciliation. Other information contained in the report is not to be disclosed.

Note re Permitted Disclosures - In general, Reports in PHIMS have been designed for internal use for day to day public health and health service delivery, limited to Authorized Users of Authorized Organizations. Authorized Users may only disclose information from the report that relates to their Designated Health Region. For First Nation Authorized Organizations - sites that have entered into a Bridging Service ISA, an Authorized User (of the Bridging Organization) generating the reports may provide Reports to a First Nation Authorized User.

1.4. Data Stewardship

Users who have access to this report require background in report generation and are responsible for the following:
- Users only run this report for their designated Health Region, or on a need to know basis
- The data produced are to be validated and interpreted prior to disseminating any information produced from the report. The output requires contextual interpretation based on the filters used and timing of when the report was generated.
- The data are intended to be used by public health practitioners for immunization record remediation.
- Users ensure that all data are managed securely and appropriately according to organizational guidelines especially when the report(s) identifies small populations or schools.

Users who have access to this report will be subject to PHIMS audits documenting which user generated the report and on what date.

2. Purpose

The **Immunization – Invalid Doses Report** will be used to identify immunization entries that have doses recorded that are invalid according to the relevant forecaster rules for that agent/antigen. It will be used to monitor the quality of immunization data to ensure that all immunizations entered into the system by Regions, that do not meet the forecaster requirements, are identified to support clinical decision making and potential support for users in relation to agent/antigen-specific immunization criteria.

The **Immunization – Invalid Doses Report** provides client-specific information (at the Line Level), and includes:

- Immunization information recorded manually and from the CPS and DPIN interface.
- Client ID
- Date immunization was administered
- Immunizing Agent(s)
- Mass Immunization Event ID associated with immunization entry (if applicable)
- How the immunization was recorded (Historical; Non-Provider Recorded; Provider Recorded)
- Date immunization was entered
- User who entered the immunization
- Immunization Organization and Service Delivery Location (SDL), including "Unspecified"
- Reason the immunization is marked Invalid

2.1. Population Included in the Report

The populations included in this report are:

- All active and inactive clients who have a PHIMS Record that have an invalid immunization dose recorded against their record.
- Historical note: Prior to a PHIMS upgrade in 2022, Inactive clients did not display on the report because the forecaster functionality was previously not applied to inactive clients.

2.2. Recommended uses for this report

The **Immunization – Invalid Doses Report** may be produced:

- At defined periods based on operational requirements to monitor and remediate invalid doses in records.
- After immunization clinics/campaigns for quality assurance purposes.
- On ad hoc request from stakeholders as part of ongoing Data Quality Assurance processes.

3. Selecting the Report Parameters

When running a report you must select specific parameters. Some parameters are required and some are optional.

Selecting the Correct Parameters to Generate the Required Output

You can generate this report from the "**Reports"** section in PHIMS.

This is a statistical report under **Immunization: Operational Reports**

- Click **Reporting & Analysis > Reporting** (LHN) or the **Reporting** tile on the dash board.
- Open the Immunization Report Folder by expanding the collapsible panel.
- Scroll to Operational Reports and select **MB5101 – Immunization – Invalid Doses.**
- Select the **Date Entered From/To** (Required).
- Select the **Date Administered From/To** (Optional).
    - If you require ALL immunizations to display with the administered date(s) selected, you must ensure that the required **Date Entered From/To** parameters are broad enough to cover all possible entry dates.
    - Example: To return immunizations administered on May 1, 2021 – May 7, 2021, set the Date Entered parameters from [May 1, 2021] to [current date]. This will ensure that all of the immunizations that may have been entered up to and including the current date are displayed.
- Select the **Provider Organization** (Required). The Provider Organization reflects the parent organization (at the level directly below Manitoba Health), of the immunization organization as recorded on the invalid immunization. Select "Unspecified" to include immunizations with no organization recorded.
- The SDL Embedded Find Component (EFC) will default to the preferred SDL of the logged in user. This default MUST be cleared if it is NOT required in the search results. Select the **Service Delivery Location** using the typeahead field (optional). Report MB9702-SDL-List may help with determining the correct description of the required SDL. Typeahead functionality requires the user to enter the SDL correctly for the desired data element to display.
- Select the **Antigen** (Optional). The Antigen selected will filter the available agents to include only those agents that include the selected antigen.
- Select the **Immunizing Agent** (Optional). Immunization agent pick list will only be populated if an antigen is selected.
- Click **Generate Report Now**

3.1. Parameter Definitions

Parameter Name	Data Type	Description	Validation
Date Entered From	Calendar or Numeric	Earliest Date Immunization was recorded	Required
Date Entered To	Calendar or Numeric	Latest Date Immunization was recorded	Required
Date Administered From	Calendar or Numeric	Earliest Date Immunization was administered	Optional
Date Administered To	Calendar or Numeric	Latest Date Immunization was administered	Optional
Provider Organization	Multi List select	The parent organization of the recorded immunization organization, at the level directly below MB Health. *Unspecified* will return immunizations with no recorded organization.	Required
Service Delivery Location	EFC	Autopopulates the preferred (default) SDL for the logged in user. This default must be cleared or updated if not part of the desired report parameter.	Optional (auto populates with log in, must be cleared if not needed)
Antigen	Multi list select	The antigen that the client was immunized for. Note that for some diseases, there may be more than one antigen if there are different strengths or formulations of the vaccine (e.g. diphtheria, pneumococcal). User can select multiple antigens.	Optional
Immunizing Agent	Multi list select	The agent that the client was immunized for. Agents are sorted by Antigen, so user must select the antigen first for the agents to become available. User can select multiple agents.	Optional

4. User Roles

Report is Assigned to the following User Roles:

- MB PUBLIC HEALTH MANAGER
- MB IMMS QA

5. Report Description

Report Output: The report will be generated as a Formatted MS Excel Spread sheet

Data Source: PHIMS database, real time data

5.1. Report Data fields

#	Field Name	Description
1	Report Title	MB5101-Immunization-Invalid Doses
2	Static Text	The purpose of the report is to identify immunization entries having invalid doses according to the relevant forecaster for the immunization agent/antigen.
3	Date Generated:	The date (and time) the report was generated YYYY-MMM-DD
Report Parameters		
4	Date Entered	Date range as specified in the report parameters
5	Date Administered	Date range as specified in the report parameters. If no dates entered, 'No Filter' will display.
6	Agent	Agent specified in the report parameters. If not entered 'No Filter' will display
7	Provider Organization	Provider organization(s) as specified in the report parameters
8	Service Delivery Location	SDL as specified in the report parameters. If not entered 'No Filter' will display.
9	User Organization	Organization of the logged in user
Details		
10	Client ID	PHIMS generated unique identifier for client
11	Immunization Date	Date recorded as 'Date Administered' for the applicable agent
12	Agent	Agent recorded
13	Mass Imms Event ID	Event ID associated with the recorded agent if applicable, otherwise blank
14	Recorded As	Historical, Non-Provider Recorded and Provider Recorded will display as selected when the immunization was recorded. Historical will display if immunizations have been entered via the CPS or DPIN interface.
15	Entered On	Date the immunization was entered into the database
16	Entered By	User who entered the immunization. If entered by the CPS or DPIN interface will display ",".
17	Organization	Organization recorded on the immunization. If not recorded will be blank.
18	Service Delivery Location	SDL recorded on the immunization. If not recorded will be blank.
19	Invalid Reason	Reason that the vaccine is set to invalid status • Forecaster generated: as set by the forecasters rules • User-selected reason: Option that the user selected when manually overriding the immunization status to Invalid.

5.2. Invalid Reasons:

Forecaster-generated Reason	Meaning
Client administered with same agent on same day.	Two doses of the same agent were recorded on the same date. The dose that was recorded second (by timestamp) will be marked invalid.
Administered date is less than or greater than eligibility date.	Dose was given outside of the forecaster intervals, such as before a minimum interval (too soon) or after a maximum age.

Additional dose resulting from use of a multi-antigen agent	Forecaster rules can outline a maximum number of antigens that a client can receive. This Invalid Reason is less commonly seen because the Manitoba Forecaster rules account for additional doses.

5.3. User-selected Reasons

- Given after vaccine expiration date.
- HepB and Rabies invalid if not given as IM.
- Internationally adopted.
- MMV and VZV too close to the receipt of blood products.
- Other (user would have specified a reason)
- Patient was not within the licensed age group.
- Stem cell transplant.
- Stored at unacceptable temperatures prior to administration.
- Vaccine lot recalled.
- Violation of minimum intervals.

6. Report Data Mapping

Records are filtered by:

1. Client has an immunization agent with an Invalid status

In the event that no data are retrieved, a blank report is generated and returned to the user.