

# EMR i4C Dashboard 2.0

## EMR Specification

July 9, 2019

Document Version & Status: 2.0 – Draft for Use



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# 1 INTRODUCTION

This document specifies requirements for implementing the Insights4Care (i4C) Dashboard within an EMR Offering. It defines a dashboard that provides clinicians with a visual representation of provincial health indicators that reflect and support clinical needs.

## 1.1 Specification Scope

### 1.1.1 In Scope

- Defining functional and non-functional requirements for the i4C Dashboard.

### 1.1.2 Out of Scope

- Specific OntarioMD Indicators are published separately and not included in this specification package. They are available from the [OntarioMD i4C Dashboard Indicator Library](#).

## 1.2 Related Documents and References

The following documents and references have been deemed as essential reading to understand key concepts mentioned within this specification document or to adhere to requirements mentioned as part of this EMR specification.

DOCUMENT NAME	VERSION	PUBLICATION DATE
EMR Core Data Set (OntarioMD, 2017) <a href="https://www.ontariomd.ca/emr-certification/emr-specification/library">https://www.ontariomd.ca/emr-certification/emr-specification/library</a>	5.0	2017-08-04
OntarioMD i4C Dashboard Indicator Library (OntarioMD, 2019) <a href="https://www.ontariomd.ca/emr-certification/emr-specification/ontariomd-indicator-library">https://www.ontariomd.ca/emr-certification/emr-specification/ontariomd-indicator-library</a>	-	-
Primary Care EMR Baseline Requirements (OntarioMD, 2017) <a href="https://www.ontariomd.ca/emr-certification/emr-specification/library">https://www.ontariomd.ca/emr-certification/emr-specification/library</a>	5.0	2017-08-04

## 2 BUSINESS VIEW

### 2.1 Business Overview

EMRs help clinicians collect and use key patient data to assess patient health at the point of care. In addition to assessing specific patients' health, clinicians have voiced a need to efficiently review the health data of their patients. The i4C Dashboard provides this broader perspective, by aggregating patient data stored in the EMR and representing it visually (e.g., through graphs and charts) across a set of health indicators. Each indicator has been developed using standard definitions and represents a specific aspect of patient health. Access to this broader view of the patient data within EMR Offerings can help to improve population-based health care by leveraging the i4C Dashboard.

### 2.2 What is the i4C Dashboard?

The i4C Dashboard provides clinicians with a visual representation of indicators about their patients' data in their EMRs, across a range of widely recognized primary care health indicators. The i4C Dashboard provides a foundation to support the development of future indicators that follow a standard and enhances clinical value by providing clinicians with the ability to:

- trend Indicator Results over time,
- compare aggregate (non-PHI) data against indicators across a clinic practice, region, LHIN, or group,
- improve EMR data quality by identifying inconsistencies in data collection, and
- visually display patient details relating to an indicator, enabling clinicians to take actions to enhance patient care.

### 2.3 Key Benefits

The i4C Dashboard introduces an essential digital health tool that:

- gives clinicians insight into all their patients' health status through indicators,
- defines a standard structure for EMR vendors to develop indicators,
- is standardized to be scalable across different EMR Offerings,
- leverage data stored in clinician's EMRs and does not require Private Health Information (PHI) to leave the clinic practice,
- helps to improve EMR data quality by identifying inconsistent or missing patient data; and
- has the foundation and flexibility to support current and future indicators.

### 2.4 i4C Dashboard Example

The following diagram provides a visual depiction of the i4C Dashboard.

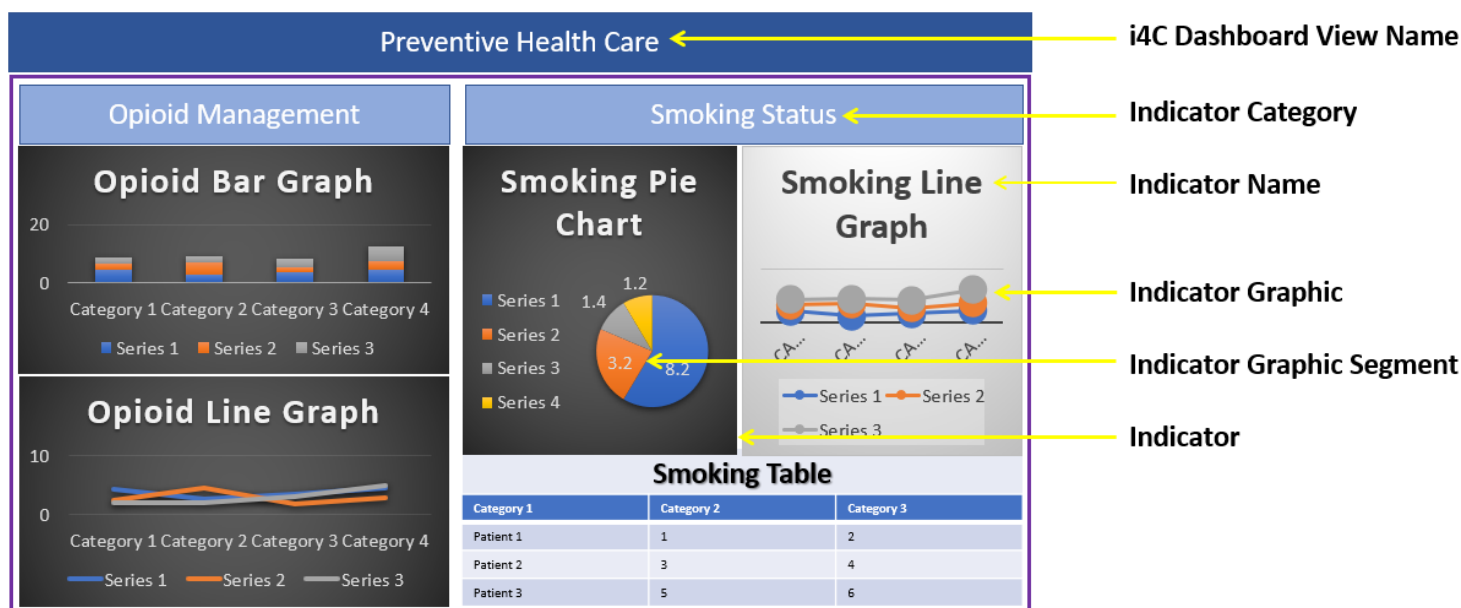


Figure 1 - i4C Dashboard View Illustration

## 2.5 How EMR Data is Used to Display an Indicator

The following provides a logical overview of how data in an EMR Offering is displayed using indicators in an i4C Dashboard View.

1. Each indicator defines what EMR data is needed to represent a specific health indicator (EMR data consists of patient data already stored when an EMR is used). An indicator also defines how to use that data to generate Indicator Results, providing greater insight into the clinician's patient population.
2. Indicator Results are used by the i4C Dashboard to interpret the information into a graphical display.
3. Indicators are displayed by the i4C Dashboard within the EMR Offering, providing clinicians with valuable information in a graphical format that enables them to easily identify population health of their patients.

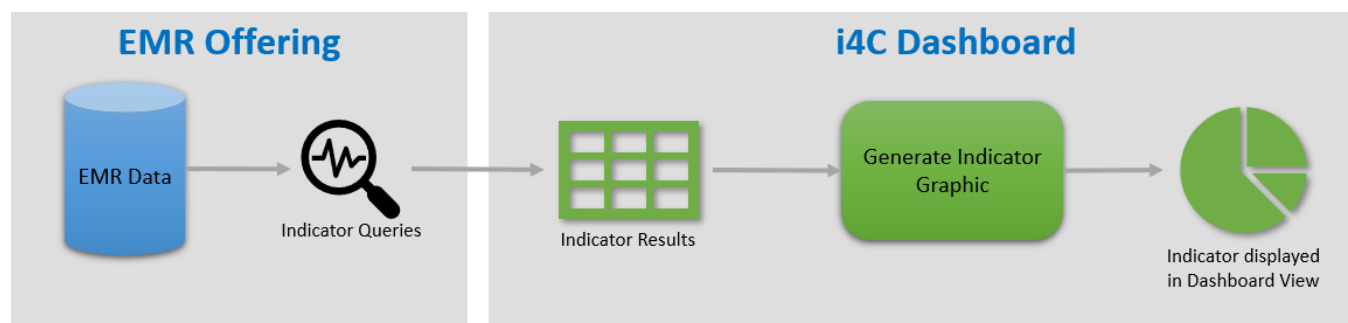


Figure 2 - How EMR Data is Used to Display an Indicator

## 2.6 Indicators

An indicator defines a measure of health against a population. Each indicator uses a standardized set of properties that defines it and guide its implementation. This includes such information as references to the source EMR data needed to generate results that can be represented in a visual format (e.g., pie charts, bar charts, trend lines), as well as how that indicator will be visually represented. All indicators are defined following this standardized set of properties in order to be supported by the i4C Dashboard. Furthermore, it is envisioned that the i4C Dashboard will support many new indicators to meet future health care needs.

### 2.6.1 Types of Indicators

This EMR Specification defines support for two types of indicators. An indicator can be either:

- a) an **OntarioMD Indicator**, or
- b) a **Custom Indicator**

**Note:** References to an indicator within this document, where the type is not specified, refers to both types of indicators.

### 2.6.2 OntarioMD Indicators

OntarioMD Indicators are established in collaboration with other stakeholders and based on indicators originally defined by health organizations (e.g., AFHTO, CIHI, ICES, HQO). These indicators are developed by OntarioMD and published in the [OntarioMD i4C Dashboard Indicator Library](#) for use by implementers of the i4C Dashboard.

### 2.6.3 Custom Indicators

The i4C Dashboard also provides the ability for other parties to define their own indicators that adhere to the same standardized approach as OntarioMD Indicators. These Custom Indicators can be defined by any individual or EMR vendor for their personal use. Custom Indicators are not vetted for provincial use and are not published in the OntarioMD i4C Dashboard Indicator Library.

## 2.7 Indicator Definitions

An indicator definition file includes information needed to develop and implement that indicator for clinician practices. This information is provided in an understandable format and explains the data sources that reference the [EMR Core Data Set](#) (CDS), the query statement to calculate the result, and the parameters to display a given indicator. It is essential that the EMR Offering adheres to the CDS, in order to determine which data elements are referenced in an indicator definition. The following is the full list of properties within an indicator definition.

Refer to the OntarioMD i4C Dashboard Indicator Library for the list of all available indicators.

The following table identifies all properties of an indicator (including OntarioMD Indicators and Custom Indicators).

ID	INDICATOR PROPERTY	DEFINITION
1	<b>Indicator ID</b>	An identifier that uniquely identifies the indicator.
2	<b>Indicator Name</b>	A display name to describe a given indicator to the EMR user.
3	<b>Indicator Version</b>	An incrementing value for a given indicator noting a change or update has been applied to a given indicator. <b>Note:</b> More detailed version history information is provided in a change log.
4	<b>Date Published</b>	The date on which the OntarioMD Indicator was published.
5	<b>Description</b>	A high-level description of indicator purpose and use.
6	<b>Source</b>	The source of original definition on which the indicator is based.
7	<b>Source Description</b>	If populated, provides additional information pertaining to the source of the indicator.
8	<b>Status</b>	Current status of the indicator: Values may include ' <b>Active</b> ' or ' <b>Discontinued</b> '. <b>Active</b> means that the indicator definition is current and in use <b>Discontinued</b> means that this indicator is no longer used and should not be used or deployed
9	<b>Category</b>	The primary grouping assigned to a given indicator. This information is used to display related indicators in a group.
10	<b>Subcategory</b>	If populated, defines the second level grouping assigned to a given indicator. This information is used to display related indicators in a sub-group.
11	<b>Indicator Order</b>	If populated, is a numeric value that defines an explicit order to display a set of indicators belonging to the same category or subcategory.
12	<b>Indicator Graphic Type</b>	Lists the supported type(s) of graphics to render the Indicator Graphic for a given indicator. <b>Note:</b> Where there are more than one Indicator Graphic Type is defined, only one type is required to be supported.
13	<b>Indicator Graphic Notes</b>	If populated, provides additional information pertaining to the Graphic Type
14	<b>Indicator Segment ID</b>	An identifier that uniquely identifies each indicator segment within an indicator <b>Note:</b> This information is provided per Indicator Segment.
15	<b>Indicator Segment Label</b>	The name to identify each specific Indicator Graphic Segment of a given indicator to the EMR user. <b>Note:</b> This information is provided per Indicator Segment.
16	<b>Display Indicator Segment</b>	Indicates whether or not an Indicator Segment is to be displayed in a Dashboard View when displaying that indicator. <b>'Yes'</b> means this indicator shall be displayed. <b>'No'</b> means this indicator shall not be displayed (but still generated).

		<b>Notes:</b> Indicators not displayed still need to be generated for other purposes (e.g., export). This information is provided per Indicator Segment.
17	<b>Indicator Segment Query Criteria</b>	Information that defines how to derive or calculate the numeric output that is an Indicator Segment Result  <b>Notes:</b> This information is provided per Indicator Segment. The set of Indicator Segment Results for an indicator is referred to as the Indicator Result.
18	<b>Indicator Segment Query Notes</b>	Information to identify data sources, in reference to the CDS, needed by the given indicator, and other contextual information relating to the data sources
19	<b>Patient List Criteria</b>	Identifies the mandatory and optional information to be displayed for all patients linked to the respective Indicator Segment.  This list of patients and their information is called the Patient List and is displayed when requested by the EMR user.  <b>Note:</b> This information is provided per Indicator Segment. Where an Indicator Segment is not to be displayed (see “Display Indicator Segment”), the Patient List does not apply and is not defined.
20	<b>Patient List Notes</b>	Content to describe and define the data identified in the Patient List Criteria, to assist with implementation of the Patient List Criteria.
21	<b>Indicator User Help</b>	Content to be made accessible to the EMR user for a given indicator.



### 3 EMR I4C DASHBOARD REQUIREMENTS

This section consists of the EMR functional requirements for i4C Dashboard Requirements:

Support:

**M** = Mandatory; EMR Offerings certified for this specification **MUST** support this requirement.

**O** = Optional; EMR vendors **MAY** choose to support this requirement in their certified EMR Offering.

Status:

**N** = New requirement for this EMR Specification

**P** = Previous requirement

**U** = Updated requirement from previous EMR Specification

**R** = Retired requirement from previous EMR Specification

The following definitions of the conformance verbs are used in this document:

OMD #:

A unique identifier that identifies each requirement within OntarioMD's EMR Requirements Repository

#### CONFORMANCE LANGUAGE

The following definitions of the conformance verbs are used in this document:

- **SHALL/MUST**: Required/Mandatory
- **SHOULD**: Best Practice/Recommendation
- **MAY**: Acceptable/Permitted

The following tables contain column headings named: 1) "Requirement," which generally contains a high-level requirement statement; and 2) "Guidelines," which contains additional instructions or detail about the high-level requirement. The text in both columns is considered requirement statements.

### 3.1 Access Rights Management

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB01.01	The EMR Offering MUST incorporate system access management for i4C Dashboard functions.	<p>The EMR Offering MUST have an ability to manage access to i4C Dashboard to EMR users or roles.</p> <p>The EMR Offering MUST be able to restrict access to i4C Dashboard at a user level and only to users who are authorized or subscribed to access the i4C Dashboard.</p> <p>Access management MUST either:</p> <ul style="list-style-type: none"> <li>a) leverage existing EMR access controls, or alternatively</li> <li>b) consist of access controls specific to the i4C Dashboard.</li> </ul> <p>For more information on existing EMR access controls, refer to the System Access Management section of the <a href="#">Primary Care EMR Baseline Requirements</a>.</p> <p><b>Definition of Indicator Result:</b> The set of all values generated by the i4C Dashboard, for a given indicator, as defined by each Indicator Segment Query Criteria.</p>	M	U
DSB01.02	Access to personal health information (PHI) in the i4C Dashboard MUST be restricted by system access management.	<p>It is acceptable to leverage existing EMR Offering access controls to restrict access to PHI.</p> <p>Access to PHI includes, for example, viewing a Patient List, opening a patient chart from the Patient List, and any other access to PHI that may exist.</p> <p><b>Definition of Patient List:</b> A list of all patient(s) included when generating or calculating an Indicator Segment Result.</p>	M	U
DSB01.03	Access to i4C Dashboard functions MUST NOT require additional authentication by an EMR user.	Once logged into the EMR Offering, an EMR user MUST NOT be requested for additional credentials in order to access i4C Dashboard functionality.	M	P
DSB01.04	i4C Dashboard displays and functions MUST be inaccessible after logging off an EMR Offering.	To ensure privacy, there MUST be no i4C Dashboard windows (e.g., modal windows, frames, web browsers) that remain open or accessible once an EMR user is logged off.	M	P

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB01.05	The Terms of Use for i4C Dashboard are accessible to the EMR user.	The Terms of Use MUST be available for the EMR user to display. The Terms of Use content will be provided by OntarioMD.	M	P
DSB01.06	The i4C Dashboard MUST restrict indicators and functionality to only include patients assigned to an EMR user who is the most responsible provider (MRP).	i4C Dashboard functionality (e.g., Patient Lists) MUST be restricted to the population of patients assigned to the EMR user who is the MRP.  Similarly, generating of Indicator Results MUST also be restricted to the population of patients assigned to the EMR user who is the MRP.  <b>Definition of MRP:</b> The most responsible clinician to whom the patient is assigned in the EMR system. Refer to “Primary Physician” (DE01.015) in the CDS.  <b>Note:</b> The term “Primary Physician” includes nurse practitioners, clinicians, or any other EMR user who is authorized to provide care to that patient – and not only physicians.	M	N
DSB01.07	The i4C Dashboard MUST have the functionality to allow delegation of access to other EMR users.	For an EMR user who is not a clinician, or does not have any patients (e.g., office administrative staff), the i4C Dashboard MUST be able to grant functionality to that EMR user (e.g., to be able to generate Indicator Results, view indicators) on behalf of a clinical EMR user and their patients.	M	N

### 3.2 i4C Dashboard

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB02.01	The i4C Dashboard View MUST have the functionality to toggle its visibility.	The EMR user MUST be able to collapse and subsequently restore a Dashboard View from being displayed.  <b>Definition of Dashboard View:</b> A window that displays one or more Indicator Graphics grouped by Category and (if applicable) Subcategory. It is acceptable to implement, as examples, one	M	U

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
		Dashboard View that includes all indicators, or alternatively, multiple Dashboard Views per Category of indicators.		
DSB02.02	The i4C Dashboard View MUST be able to render Indicator Graphics.	<p>The EMR Offering MUST be able to display the following Indicator Graphics formats:</p> <ul style="list-style-type: none"> <li>a) Bar graph</li> <li>b) Stacked bar chart</li> <li>c) Pie chart</li> <li>d) Line graph</li> <li>e) Table row</li> </ul> <p>The data represented by an Indicator Graphic MUST represent the Indicator Segment Query Criteria.</p> <p>The i4C Dashboard View MUST be able to display the Indicator Graphic for an indicator, as defined by the Indicator Graphic Type within the indicator definition. It is acceptable, but not required, to be able to display additional Graphic Types. Where more than one Indicator Graphic Type is defined for an indicator, any one (or more) of the defined Indicator Graphic Types MUST be supported for display.</p> <p>Indicator Segment Labels MUST be displayed for every Indicator Graphic Segment.</p> <p>Each Indicator Segment MUST be visually distinct (e.g., through the use of colour, shading, patterns).</p> <p><b>Definition of Indicator Graphic:</b> A graphical representation of all Indicator Queries defined as part of an indicator. The graphic is in the form of a graph or visual representation. An Indicator Graphic is composed of one or more Graphic Segments.</p>	M	U
DSB02.03	The i4C Dashboard MUST display indicator properties with an indicator.	<p>At minimum, the i4C Dashboard MUST visually identify all of the following properties when displaying an indicator:</p> <ul style="list-style-type: none"> <li>a) Indicator Name</li> <li>b) Indicator Category</li> <li>c) Indicator Subcategory (if defined)</li> <li>d) Indicator Graphic</li> </ul>	M	U

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
		It is acceptable to identify one or more of these properties for a group of indicators.		
DSB02.04	The i4C Dashboard MUST support displaying across multiple screens.	Where information extends beyond a single window or screen, the i4C Dashboard MUST provide a means to view all information (e.g., scrolling, pagination).	M	P
DSB02.05	The Dashboard View MUST group all Indicators by their assigned Indicator Category and Indicator Subcategory.	Indicators MUST be grouped together in a Dashboard View by their: a) Indicator Category b) Indicator Subcategory (if defined)  Grouping of indicators by any of the above criteria MAY be implemented as different Dashboard Views (e.g., where each Indicator Category is a separate Dashboard View), or as a single Dashboard View.	M	P
DSB02.06	The Dashboard View MUST display indicators by the sequence identified by the Indicator Order.		M	P
DSB02.07	The Dashboard View MUST have the functionality to search for an indicator.	The Dashboard View MUST have the functionality to search for any indicator displayed in a Dashboard View.  Searching MUST support both of the following options: a) A substring search by Indicator Name or Indicator Category; and b) A list of indicators filterable by Indicator Category.	O	P
DSB02.08	The Dashboard View MUST support an ability to superimpose Indicator Graphics.	The Dashboard MUST have the ability to lay an Indicator Graphic from one indicator over an Indicator Graphic from another Indicator Graphic for display (e.g., superimposing Indicator Graphics belonging to Mammogram, PAP and FOBT indicators).	O	P
DSB02.09	The i4C Dashboard MUST have the functionality to share an Indicator Graphic.	An EMR user MUST have the ability to send (e.g., e-mail) an Indicator Graphic, as displayed within a Dashboard View, to any other individual (within or outside of the EMR system).  The recipient MUST NOT require EMR functionality to receive and view the Indicator Graphic.	O	P

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
		<b>Note:</b> This function is not intended to share PHI since Indicator Graphics do not contain PHI. However, caution must always be taken whenever allowing or potentially allowing PHI or confidential information to be sent outside the EMR system, or beyond any PHI safeguards or policy.		
DSB02.10	The i4C Dashboard MUST have the functionality to regularly and automatically update Indicator Results.	Indicator Results MUST be generated from EMR data within the last 24 hours.	M	U
DSB02.11	The i4C Dashboard MUST have the functionality to disable regular and automatic refreshes to Indicator Results.	The i4C Dashboard MUST allow an EMR user to disable regular and automatic updates for Indicator Results, both globally (all indicators at once) and individually (specific indicators).  The ability to disable and re-enable regular and automatic updates MUST be restricted to specific EMR user(s) or EMR roles.	M	U
DSB02.12	The i4C Dashboard MUST have the functionality to manually refresh an Indicator Result.	The Dashboard MUST have the ability for an EMR user to manually initiate an update to an Indicator Result on a per-indicator basis.	M	P
DSB02.13	The i4C Dashboard MUST display a progress status for an indicator during an Indicator Result refresh.	While an Indicator Result is being updated, there MUST be a visual indication of the progress of that update.	M	U
DSB02.14	The i4C Dashboard MUST allow cancellation of an in-progress Indicator Result refresh.		M	U
DSB02.15	The i4C Dashboard MUST support functionality for an EMR user to flag specific indicators.	The i4C Dashboard MUST provide an ability for an EMR user to flag specific (e.g., favourite) indicators and to display only those flagged indicators within a Dashboard View.	O	P

### 3.3 Indicators

This section applies to *both* OntarioMD Indicators and Custom Indicators.

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB03.01	The i4C Dashboard MUST adhere to the EMR Core Data Set to support indicator definitions.	Indicators MUST be able to reference elements defined in the <a href="#">EMR CDS</a> .  <b>Note:</b> Indicators may reference data elements outside of the EMR CDS in situations where those elements are not defined.	M	P
DSB03.02	An indicator MUST display an Indicator Graphic with all defined Indicator Graphic Segments and related information.	When an indicator is displayed on an i4C Dashboard View, it MUST display the following: a) Indicator Name b) Indicator Graphic c) All defined Indicator Graphic Segments d) Label for each Graphic Segment e) Indicator Category  Displaying an indicator MUST not require EMR user intervention (i.e., MUST be automatically generated).	M	U
DSB03.03	An indicator MUST have an option to display specific indicator property information.	An indicator MUST provide the EMR user with an ability to view each of the following indicator property information: a) Indicator ID b) Indicator Version c) Indicator User Help  Having an external source does not satisfy this EMR requirement.	M	U
DSB03.04	The i4C Dashboard MUST have the ability to display the date and time that the Indicator Result is based on.	This date and time MUST reflect the most recent successfully generated Indicator Result  for each indicator displayed on an i4C Dashboard.  The date and time format MUST adhere to the International Organization for Standardization (ISO) 8601 notation and include up to the nearest second (i.e., YYYY-MM-DDThh:mm:ss).	M	U

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB03.05	An indicator MUST be identified as either an OntarioMD Indicator or Custom Indicator.	An indicator MUST be explicitly identified as either: a) an OntarioMD Indicator, or b) a Custom Indicator.	M	P

### 3.4 OntarioMD Indicators

This section applies only to OntarioMD Indicators and does not apply to Custom Indicators.

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB04.01	The EMR vendor MUST have the means to deploy OntarioMD Indicators.	The EMR vendor MUST have a means to deploy new OntarioMD Indicators, or to update existing OntarioMD Indicators to their EMR Offering, or to retire existing OntarioMD Indicators.  <b>Note:</b> An OntarioMD Indicator may, for example, be retired if it is no longer clinically relevant and must be removed from all clinic practices for which it was deployed.	M	U
DSB04.02	The i4C Dashboard MUST display OntarioMD Indicators.	All supported OntarioMD Indicators MUST be displayed in the Dashboard View(s).  The EMR user MUST NOT be able to exclude an OntarioMD Indicator from being displayed.  <b>Note:</b> The specific subset of OntarioMD Indicators (out of the full set of available OntarioMD Indicators) required to be supported by an EMR Offering will be determined as part of a separate process beyond the scope of this document.	M	U
DSB04.03	An EMR user MUST NOT be able to modify an OntarioMD Indicator.	An EMR user MUST NOT have the ability to create, delete, nor change any OntarioMD Indicators.  <b>Note:</b> A OntarioMD Indicator is intended to be provincially consistent and not changed by any EMR user.	M	P



### 3.5 Custom Indicators

This section only applies to Custom Indicators and does not apply to OntarioMD Indicators.

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB05.01	The i4C Dashboard MUST provide the functionality to create, modify and delete Custom Indicators.	<p>The i4C Dashboard MUST have functionality for an EMR user to create, modify and delete Custom Indicators.</p> <p>Creation of a Custom Indicator includes the ability for both:</p> <ul style="list-style-type: none"> <li>a) Copying an OntarioMD Indicator to modify, and</li> <li>b) Creating a blank or net new Custom Indicator</li> </ul>	O	U
DSB05.02	An EMR user MUST be able to add to and remove Custom Indicators from a Custom Dashboard View.	<p>Where an i4C Dashboard supports functionality to create Custom Indicators, an EMR user MUST have the functionality to add and remove Custom Indicators from the Custom Dashboard View.</p> <p><b>Note:</b> This EMR requirement is mandatory only if Custom Indicator functionality (DSB05.01) is implemented.</p>	M	P
DSB05.03	Custom Indicators MUST conform to the structure of OntarioMD Indicators.	<p>Where an i4C Dashboard supports functionality to create Custom Indicators, a Custom Indicator MUST provide the following fields for the EMR user to populate or define:</p> <ul style="list-style-type: none"> <li>a) Indicator Name</li> <li>b) Indicator Category</li> <li>c) Indicator Segment Label(s)</li> <li>d) Indicator Segment Query Criteria</li> <li>e) Patient List Criteria</li> <li>f) Indicator Graphic Type</li> </ul> <p>A Custom Indicator MAY optionally include the following information:</p> <ul style="list-style-type: none"> <li>g) Indicator Version</li> <li>h) Indicator Subcategory</li> <li>i) Indicator Order</li> <li>j) Indicator Segment Query Notes</li> <li>k) Patient List Notes</li> </ul>	M	U

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
		<p>l) Indicator User Help</p> <p>Refer to <a href="#">Indicator Definitions</a> section for an explanation of each item.</p> <p>Any EMR data element MAY be used when defining Indicator Segment Query Criteria for a Custom Indicator – CDS adherence is not required.</p> <p><b>Note:</b> This EMR requirement is mandatory only if Custom Indicator functionality (DSB05.01) is implemented.</p>		
DSB05.04	The i4C Dashboard MUST support sharing of Custom Indicators.	<p>An EMR user MUST be able to provide a copy of a Custom Indicator to another EMR user that allows for further defining or modify.</p> <p>At a minimum, providing a copy of a Custom Indicator between EMR users MUST be possible within the same EMR Offering in the same clinic practice.</p> <p><b>Note:</b> This function is not intended to share PHI since Indicator Graphics do not contain PHI. However, caution must always be taken whenever allowing or potentially allowing PHI or confidential information to be sent outside the EMR system, or beyond any PHI safeguards or policy.</p>	O	U

### 3.6 Patient List

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB06.01	An indicator MUST have the functionality to display associated Patient Lists for each Indicator Graphic Segment.	Any indicator displayed on a Dashboard View MUST have functionality allowing an EMR user to open and display a Patient List respective to each Indicator Graphic Segment shown, based on the most current patient data available in the EMR.	M	U

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
		This applies to all indicators, including Custom Indicators and OntarioMD Indicators.		
DSB06.02	A Patient List MUST include patient demographic and indicator criteria detail information.	A Patient List MUST display data defined as mandatory in the Patient List Criteria of the indicator definition.  <b>Patient List Criteria:</b> See <a href="#">Indicator Definitions</a> section of this document.	M	P
DSB06.03	The Patient List MUST allow the EMR user to open the patient chart for any patient appearing in the Patient List.		M	P
DSB06.04	The Patient List MUST provide access to perform existing EMR-supported actions relevant to a patient profile.	The Patient List MUST be selectable to perform existing EMR-supported actions.  EMR-supported actions that can be performed from the Patient List MUST include one or more of the following: <ul style="list-style-type: none"> <li>a) Generate patient letter(s)</li> <li>b) View the patient's appointment booking(s)</li> <li>c) Identify the next appointment for the patient</li> <li>d) Generate a task to book an appointment</li> <li>e) Update patient Cumulative Patient Profile (CPP)</li> <li>f) Access to view/update the patient chart</li> <li>g) Create an alert to take action</li> </ul> Upon completion of an EMR-supported action, the EMR interface MUST return to display the Patient List from where the action was initiated.	M	P

### 3.7 Trending and Comparing

Trending allows an EMR user to review the change of their own Indicator Result for an indicator, over a period. Comparing allows an EMR user to review their own Indicator Result at a specific point in time, with that of another EMR user, or group's aggregated Indicator Result.

**Note:** Comparing and trending of indicators are only intended between the same indicators.

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB07.01	The i4C Dashboard MUST be able to automatically save Indicator Results based on a schedule.	To support the ability to trend Indicator Results over time, they MUST be captured and stored at multiple points in time.	M	U
DSB07.02	The i4C Dashboard MUST have the functionality for the EMR user to compare Indicator Results.	<p>There MUST be functionality allowing the EMR user to compare their own Indicator Results with that of a group of EMR users (e.g., by practice, by geographical location).</p> <p>When displaying a comparison, the EMR Offering MUST inform the EMR user that the comparison or Indicator Results only includes data from participating users.</p>	O	U
DSB07.03	The i4C Dashboard MUST be able to display a trend of Indicator Results over a period of time.	<p>The i4C Dashboard MUST have the ability to display a graph of an EMR user's saved Indicator Results for an indicator over a period of time.</p> <p>Intervals between points on a trend (i.e., sampling frequency) MUST be within 24 hours or more frequent.</p> <p><b>Definition of a trend:</b> In the context of this EMR requirement, it is the ability for an EMR user to compare their own Indicator Results at captured points in time for the same indicator to allow the review of change over time.</p>	M	U

### 3.8 Printing

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB08.01	The i4C Dashboard MUST have the ability to print.	<p>The i4C Dashboard MUST support functionality for an EMR user to print any of the following:</p> <ul style="list-style-type: none"> <li>a) A Dashboard View</li> <li>b) An Indicator</li> <li>c) A Patient List</li> </ul>	M	U

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
		Printing MUST support functionality to print to a software printer (e.g., print-to-PDF).		
DSB08.02	Printing of PHI content MUST include a confidentiality statement.	Printing of any PHI (e.g., Patient List) MUST display a confidentiality statement on each page printed.	M	P
DSB08.03	Printed material MUST identify the individual who printed it.	All printed material MUST display the first and last name of the individual who printed it, on every page printed.	O	U

### 3.9 Exporting Indicator Results

All i4C Dashboard functionality related to exporting only pertains to OntarioMD Indicators. It does not apply to Custom Indicators.

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
DSB09.01	The i4C Dashboard MUST have the functionality to allow an EMR user to export all their Indicator Results to a file.	<p>Indicator Results MUST be exportable to a file that includes all of the following content:</p> <ul style="list-style-type: none"> <li>a) Clinician identifier (i.e., CPSO or CNO of the MRP)</li> <li>b) Indicator ID</li> <li>c) Indicator Version</li> <li>d) Indicator Segment ID</li> <li>e) Indicator Segment Result</li> <li>f) Indicator Segment Result Date/Time export</li> </ul> <p>Each file SHALL contain Indicator Results for all OntarioMD Indicators belonging to a given EMR user, including Indicator Results for the same OntarioMD Indicator over time.</p> <p><b>Definition of Indicator Segment Result:</b> The numeric value generated by the i4C Dashboard that represents the output based on the definition provided for an Indicator Segment Query Criteria. (See <a href="#">Indicator Definitions</a> section for an Indicator Segment Query</p>	M	U

OMD #	REQUIREMENT	GUIDELINES	M/O	STATUS
		<p>Criteria.) The set of all Indicator Segment Results for a given indicator is referred to as the Indicator Results.</p> <p><b>Definition of Indicator Segment Result Date/Time:</b> The date and time identifying when all Indicator Segment Results were generated. The date and time format MUST adhere to ISO 8601 notation and include up to the nearest second (i.e., YYYY-MM-DDThh:mm:ss).</p>		
DSB09.02	The i4C Dashboard MUST have the functionality to export Indicator Results to the supported file format(s).	<p>Indicator Results MUST be exportable to one or more of the following file formats:</p> <ul style="list-style-type: none"> <li>a) Comma-separated values (CSV)</li> <li>b) Extensible Markup Language (XML)</li> </ul> <p>The file contents MUST NOT contain PHI. The name of the export file MUST include the following information as part of the file name:</p> <ul style="list-style-type: none"> <li>a) EMR Offering name</li> <li>b) EMR identifier</li> <li>c) Date and time export file was generated</li> </ul> <p>The date and time format MUST adhere to ISO 8601 notation and include up to the nearest second (i.e., YYYY-MM-DDThh:mm:ss).</p> <p><b>Notes:</b> The EMR identifier is unique (e.g., to that EMR Offering for each clinic practice). It MUST be specific to either an EMR instance or clinic location.</p>	M	N