

# **Cúram 8.1.3**

**Business Intelligence and Analytics** for Cúram Child Services Guide

# Note

Before using this information and the product it supports, read the information in  $\underline{\text{Notices on page}}$   $\underline{13}$ 

# **Edition**

This edition applies to Cúram 8.1, 8.1.1, 8.1.2, and 8.1.3.

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# 1 Business Intelligence and Analytics for Child Services

Business Intelligence and Analytics for Child Services consists of three main parts. It includes a domain-specific reporting schema that models child welfare business processes. It also contains an Extract, Transform, and Load (ETL) infrastructure for staging, manipulation, and final presentation of the data, and business processes that define the data that is used in the solution.

Business Intelligence and Analytics for Child Services supports child welfare-specific reporting and provides options for configuring the reports.

# 1.1 Reporting Schema

The Business Intelligence and Analytics module contains a domain-specific schema that models child welfare processes of interest to business intelligence users.

The Business Intelligence and Analytics schema is composed of three tiers.

- · Staging tier
- · Central Data Warehouse tier
- Data mart tier

The Cúram operational database is the source database from which the data is extracted.

### 1.2 ETL Infrastructure

ETL is the process that is used to extract data from the application databases and transfer it to the data mart schema.

The ETL infrastructure is composed of three tiers.

#### • Staging tier

The staging tier of the ETL transports data from a source (the Cúram operational database) to a staging area.

#### · Central Data Warehouse tier

When the staging area is populated with data, by running the central ETL, data is pulled into the central data warehouse. Business logic is applied and data is manipulated.

#### · Data mart tier

The data mart tier is the final stage of the Business Intelligence and Analytics repository. Data is transformed into dimensional format, and de-normalized to support ease of use and to ensure that the data is easier to model by cube builders and report builders.

#### 1.3 Business Process

The Business Intelligence and Analytics schema supports the generation of reports that relate to the safety, well-being and stability of children to promote their welfare.

Listed is a sample of data elements and their values that are included in Business Intelligence and Analytics for the solution.

- Contact Type Foster Home visit, Home visit, Office Visit, Site Visit.
- Contact Purpose Alleged Victim Contact, Case Planning Entry.
- Contact Frequency Monthly, Weekly.
- Removal Date Date child was removed from their parents and/or Guardian.
- Placement Type Foster Care, Adoption, Runaway, Trial Home Visit.
- Placement Date Date child was placed in an out-of-home placement, for example, foster parent.

# 1.4 Representative Analyses

Based on the key performance indicators for business intelligence and analytics that are implemented, a number of reports are supported so that analysts can report on contact compliance for child welfare

#### **Initial Contact Compliance**

This type of analysis evaluates the timeliness of initiating investigations on reports of child maltreatment. The date of initial contact with the alleged victim is the primary measurement to support compliance based on the priority that is assigned to the investigation from the intake process. The report would provide an analyst with a view of the organization's initial contact compliance as mandated by federal, provincial, state, or other local statutes.

#### Initial Contact Reporting Compliance

This type of analysis evaluates the timeliness of reporting by an investigator about initial contact with the alleged victim (investigation initiation). The entry date of the initial contact record is the primary measurement to support reporting compliance based on the priority that is assigned to the investigation from the intake process. The report would provide an analyst with a view of the organization's reporting (documentation) compliance as mandated by federal, provincial, state, or other local statutes.

#### **Ongoing Contact Compliance**

This type of analysis evaluates the timeliness of recurring contacts with children being monitored by the organization. The date of contact with the child is the primary measurement to support compliance based on an identified frequency. For example, monthly contact for children in care versus every six months for children not in care). The report would provide an analyst with a

view of the organization's ongoing contact compliance as mandated by federal, provincial, state, or other local statutes.

#### **Ongoing Contact Reporting Compliance**

This type of analysis evaluates the timeliness of reporting by the caseworker about contact with a child. The entry date of the contact record is the primary measurement to support reporting compliance based on the frequency identified for the child. The report would provide an analyst with a view of the organization's reporting (documentation) compliance as mandated by federal, provincial, state, or other local statutes.

### **Additional Analysis**

Based on national outcome standards for child welfare, further analysis demonstrates the types of analytics that can be developed with additional licensing

#### **Placement Stability**

This type of analysis evaluates the stability of a child in placement by presenting the number of children in care based on the length of time with a single provider. Most organizations strive to reduce the number of disruptions for a child that requires alternative care, for example, foster care. The analysis would provide an analyst with a view of the effectiveness of placement resources for the organization and (potentially) allow identification of problematic areas of child placement stability.

#### **Maltreatment Recurrence**

This type of analysis evaluates the incidents of maltreatment recurrence (recidivism) among children involved with the organization. It presents the number of children for whom more than one report of maltreatment occurred in a six-month period from the initial report of maltreatment. Most organizations strive to reduce the recurrence of maltreatment for a child. This analysis provides an analyst with a view of the effectiveness of services and resources that are provided to the child or family by the organization. It also potentially allows for the identification of problematic areas of effectiveness.

# 1.5 Configuring Reports

Administrators can configure options as part of the solution's implemented business intelligence and analytics.

#### **Configuring Contact Compliance**

Administrators can configure initial contact and ongoing contact compliance parameters such as frequency and compliant contact types by using functionality in the Cúram Family Services Suite (CFSS). For example, an administrator can define the contact frequency required by the placement type of a child in care. Administrators can configure these options in the Family Services section of the administration application.

#### **Configuring Maltreatment**

Currently, the window that is defined for an instance of maltreatment recurrence is a new incident within a six month timeframe. Administrators can change the default value (6) by editing the ALLEGATION\_COUNTBACK\_WINDOW parameter in the DW\_CONFIGPROPERTIES.csv file, which is located in the data manager directory.

The CCS\_ABS\_MALTREATMENT\_AVERAGE parameter, that is available in the same file, represents the target average and can be used for comparative purposes.

The curam.childsevices.businessreports.admin.maltreatmentrecurrence.start date application property represents the start date of the maltreatment recurrence report. The format is yyyy-mm-dd.

#### **Configuring the Number of Days in Placement**

Currently, any initial placement less than eight days is not included in the count of active placements. This configuration is managed in the Business Intelligence section of the system administration application.

The application property curam.childservices.businessreports.admin.displacement represents the number of days in placement.

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