



IBM Cúram Social Program Management

# Business Intelligence and Analytics for Cúram Child Services Guide

Version 6.0.4

**Note**

Before using this information and the product it supports, read the information in Notices at the back of this guide.

This edition applies to version 6.0.4 of IBM Cúram Social Program Management and all subsequent releases and modifications unless otherwise indicated in new editions.

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# Chapter 1

## Introduction

### 1.1 Purpose

The purpose of this guide is to provide an overview of the business intelligence and analytics (BI & Analytics) available in Cúram Child Services™ (CCS). After reading this guide, the reader should have a clear understanding of the business intelligence and analytics implemented as part of this solution.

### 1.2 Audience

This document is intended for business analysts employed by the organization. It is assumed that this audience has a strong knowledge of the organization's business requirements.

### 1.3 Related Documentation

It is assumed that the reader is familiar with the basic concepts of CCS. To better understand the topics covered in this guide, the reader may wish to reference the documents in the following table.

Document Name	Description
Cúram Business Intelligence Guide	This guide provides a business overview of the business intelligence infrastructure and how the infrastructure is utilized in the online application as well as in data warehousing.
Cúram BI Reporting Developer Guide	This guide provides installation, setup, configuration, compliance of the warehouse

Table 1.1 Helpful Documentation

## 1.4 Chapters in this Guide

The following list describes the chapter (s) in this guide:

### **Overview**

This chapter provides an overview of Cúram's BI & Analytics for CCS.

### **Representative Analyses**

This chapter provides a description of possible reports based on the key performance indicators supported by the solution's implemented business intelligence and analytics.

### **Configuration Options**

This chapter provides an explanation of the configuration options available as part of the solution's implemented business intelligence and analytics.

# Chapter 2

## Overview

Cúram provides reporting capabilities that includes data marts, graphical reports, dashboards, performance indicators and analytics to assist child welfare agencies more effectively manage programs. Business intelligence and analytics for the solution target safety, well-being and permanency key performance indicators (KPIs), as well as measure agency and worker performance. This release utilizes Cúram's Reporting Schema to support a set of Extract, Transform and Load (ETL) processes for the solution.

Note: See the Cúram Business Intelligence Reporting Developer Guide for more information.

### 2.1 Reporting Schema

The Cúram Business Intelligence and Analytics module contains a domain specific schema which models child welfare processes of interest to business intelligence users. The Business Intelligence and Analytics schema is comprised of three tiers:

- Staging tier
- Central Data Warehouse tier
- Datamart tier

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

### 2.2 ETL Infrastructure

- 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: Once the staging area is populated with data, executing the Central ETLs pull data into the Central Data Warehouse. Business logic is applied and data is manipulated, as appropriate.
- Datamart Tier: This is the final stage of the Business Intelligence and Analytics repository. Data is transformed into dimensional format, and de-normalized to supporting ease of use, and to ensure cube builders and report builders find the data easier to model.

## 2.3 Business Process

The Business Intelligence and Analytics schema for the solution will support reports regarding the safety, well-being and stability of children to promote their welfare. The following table includes a sample of data elements and their definition which included in Business Intelligence and Analytics for the solution.

Sample Values:

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



# Chapter 3

## Representative Analyses

Although sample reports are not provided, the available artifacts facilitate examination of child welfare from the three key performance indicators mentioned earlier: safety, well-being and stability. Parameters related to time frames and other variables are administratively configurable. The following describes possible analytical views.

### 3.1 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 would be the primary measurement to support compliance based on the priority assigned to the investigation from the intake process. Such a report would provide an analyst a view of the organization's initial contact compliance as mandated by federal, provincial, state or other local statutes.

### 3.2 Initial Contact Reporting Compliance

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

### 3.3 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 would be the primary measurement to support compliance based on the frequency identified (e.g. monthly contact for children in care versus every 6

months for children not in care). Such a report would provide an analyst a view of the organization's ongoing contact compliance as mandated by federal, provincial, state or other local statutes.

### 3.4 Ongoing Contact Reporting Compliance

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

### 3.5 Additional Analyses

The following analyses have been developed based on national outcome standards for child welfare and are used to demonstrate the types of analytics that can be developed with additional licensing. Parameters related to time frames and other variables are administratively configurable.

#### 3.5.1 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 requiring alternative care (e.g. foster care). This type of analysis would provide an analyst a view of the effectiveness of placement resources for the organization and (potentially) allow identification of problematic areas of child placement stability.

#### 3.5.2 Maltreatment Recurrence

This type of analysis evaluates the incidents of maltreatment recurrence (recidivism) among children involved with the organization. It would present the number of children for whom more than one report of maltreatment (e.g. physical abuse, neglect, etc.) 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 type of analysis would provide an analyst a view of the effectiveness of services and resources provided to the child/family by the organization and (potentially) allow identification of problematic areas of effectiveness.

# Chapter 4

## Configuration Options

As part of the solution's Business Intelligence and Analytics feature, the following configuration options will be available.

### 4.1 Contact

Initial contact and ongoing contact compliance parameters (e.g. frequency, compliant contact types, etc.) are managed via the administrative functionality provided by the Cúram Family Services Suite™ (CFSS). For example, the administrator may define the contact frequency required by the placement type of a child in care. These configurations are managed via the Family Services portion of the Cúram Administration Application.

### 4.2 Maltreatment

Currently, the window defined for an instance of maltreatment recurrence is a new incident within a 6 month timeframe. The default value (6 months) can be modified by an administrator by editing the ALLEGATION\_COUNTBACK\_WINDOW parameter in the DW\_CONFIGPROPERTIES.csv file which is located in the data\_manager directory.

Another parameter available within this file, CCS\_ABS\_MALTREATMENT\_AVERAGE, represents the target average and can be used for comparative purposes.

The start date of the maltreatment recurrence report is represented by the application property of curam.childsevice.businessreports.admin.maltreatmentrecurrence.startdate. It follows the 'yyyy-mm-dd' format

### 4.3 Stability

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Currently, any initial placement less than eight (8) days is not included in the count of active placements. This configuration is managed via the Business Intelligence portion of Cúram System Administration Application.

The count of the number of days in placement is provided by the application property of `curam.childservices.businessreports.admin.numberofdaysinplacement`.

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