Disease Surveillance Repository

2024-12-23

# 1.0 Introduction

The purpose of this effort is to provide free and accessible base database schema for healthcare communicable diseases surveillance (disease tracking, monitoring, control, contact tracing, and infectious disease detection and response) in a simple design while being adaptable and flexible enough for daily on-line transaction processing.

The designed repository is not tailored to any specific disease but generic in nature and could support any related tracking effort based on a set of conditions. Additionally, the model supports Healthcare services (programs) such as those supported by Psychosocial initiatives, mental health, substance abuse, and other community benefits to.

## 1.1 Business Areas

The Repository covers various business (data entities) areas that are generally referred in related CDC Communicable Disease reporting and others for general data management including:

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| **General Data Management** | |
| Action | This namespace contains data components related to Activities, Events, and Actionables. |
| Application | Data Components related to an Application. |
| Article | Data Components to register or manage Items, such as vehicles or other artifacts. |
| Entity | Data Components such as Organizations, Officers, Person, and Contacts. |
| Generic | Generic Data Components based on Entities and Elements definitions for extensibility. |
| Geography | Locations with Geo-Coordinates support and Census division-subdivisions, Zip-Codes and others. |
| Helper | Generic store procedures, Helpers and other to help search or define structures. |
| Message | Support to store/register BLOB(s), text messages, JSON (or XML) documents, and other. |
| **Health Care Data Management** | |
| Clinical | Clinical patient information along other related information (vaccine, immunization, virus, and other). |
| Epidemiology | Specimens, Laboratory and related Data Components. |
| Management | Cases, referrals, requests, assignments, and dispositions along other related Data Components. |
| Provider | Provider credentials and related information. |
| Surveillance | Profiles, assessments and reporting related Data Components. |

# 2.0 Business Data Components

This section contains ERD’s of primary business data components and areas that show the data components tables, data elements (columns) and their relationships.

## 2.1 Management – Cases and Follow-Up

As shown in Figures 2.1 and 2.2, agencies that manage health Programs related to Communicable Diseases such as Tuberculosis, COVID 19, and others track those cases investigation and follow-up through referrals and requests and to support these efforts.

A screenshot of a computer program

Description automatically generated

Figure 2.1 Conceptual Case Management Data Components.

The above Figure shows the Case, Assignment, Request, Referrals and Disposition components and (in light orange) related code sets.

A diagram of a company

Description automatically generated with medium confidence

Figure 2.2 Cases, Referrals, Requests, Assignments, and Dispositions.