



RD4C DATA ECOSYSTEM MAPPING TOOL

VERSION 1 - 2020

Across contexts and regions, the children's data ecosystem is complex and constantly shifting. New data systems, stakeholders, opportunities, and risks arise regularly. Actors who seek to ensure responsible data for children in their context often need to make decisions without a detailed understanding of the current situation.

The RD4C Data Ecosystem Mapping Tool intends to help these actors to identify the systems generating data about children and the key components of those systems. After using this tool, users will be positioned to understand the breadth of data they generate and hold about children; assess data systems' redundancies or gaps; identify opportunities for responsible data use; and achieve other insights.

Through this work, actors can enable the development of a data systems inventory and determine whether the data systems align with the RD4C Principles: Purpose-Driven, People-Centric, Participatory, Protective of Children's Rights, Proportional, Professionally Accountable, and Prevention of Harms Across the Data Lifecycle. After mapping the current state of the children's data ecosystem, users can 1) conduct more in-depth analyses of the policies, guidelines, and risks present in their context through the RD4C Opportunity and Risk Diagnostic Tool; and 2) clarify the decision-making structures affecting these data systems through the RD4C Decision Provenance Mapping Tool.

The RD4C Data Ecosystem Mapping Tool encourages users to capture three types of information about the data systems they use and manage:

- ▶ **WHY** the system exists. This information is important for determining if the system and associated activities are Purpose-Driven, People-Centric, and if it involves Proportional data collection and retention practices.
- ▶ **WHO** is involved in its management and use. Awareness of these stakeholders can help determine whether current data practices are Professionally Accountable and Participatory.
- ▶ **WHAT** data is held on the system. The types of data held on the system, as well as its inputs and outputs, should inform appropriate actions to be Protective of Children's Rights and ensure Prevention of Harms Across the Data Lifecycle from the data's initial collection through its eventual use.

In the attached [spreadsheet](#), users should try to answer the following prompts for their organization:

WHY	<ul style="list-style-type: none">▶ System name — including any relevant acronyms or alternative naming conventions; and▶ Purpose of the system — a brief description of the data system’s value proposition, including how it addresses the needs of its users and intended beneficiaries (e.g. making nutrition data available to pediatric health service providers).
WHO	<ul style="list-style-type: none">▶ System owner — the institution or department that manages the system;▶ Core stakeholders — other parties (if any) involved in determining the system’s purpose, and governance framework or involved in making any other foundational decisions;▶ Organizations and service providers contributing data — a listing of the parties able to <i>write</i> new information into the system (e.g. provincial education information officers contributing aggregated data collected from regional schools); and▶ Organizations and service providers accessing data — a listing of the parties able to <i>read</i> information from the system (e.g. administrators of community education facilities).
WHAT	<ul style="list-style-type: none">▶ Data assets — overview of the information elements held on the system (e.g. child immunization rates, statistics on children out of school, and incidence of child malnutrition);▶ Types of personal data — information on the system (if any) regarding an individual child (e.g. name, contact details, government ID number, birth date);▶ Types of non-personal data — information on the system not directly associated with an individual child (e.g. demographic statistics by province, aggregated national survey data, administrative data);▶ System inputs — the format through which data is added to the system (e.g. electronic form, digitized paper record, and automated or algorithmic data collection);▶ System outputs — information assets produced through the system (e.g. insights reports, monitoring and evaluation dashboards, and data visualizations); and▶ Data sensitivities — information elements that warrant particular consideration or duties of care (e.g. racial or ethnic data, biometric or genetic data, criminal or disciplinary data, health data, and geolocation data).

[DOWNLOAD SPREADSHEET](#)