D4I Technical Assistance on the Establishment of the Case Management Information System (CMIS) in Armenia

Data for Impact (D4I), funded by the United States Agency for International Development (USAID), supports countries to generate and use high-quality data to improve their programs, policies, and—ultimately—health outcomes. D4I also strengthens the technical and organizational capacity of country partners to collect, analyze, and use data to support their sustainable development. The overall goal of the USAID-funded [Data for Impact (D4I)](#) project in Armenia is to support the Government of Armenia, in particular the Ministry of Labour and Social Affairs (MOLSA), to strengthen collection, management, and use of quality routine data to support effective case management, thus improving the provision of child protection and care. D4I in Armenia focuses on three main areas of work:

1. Establishing systems to collect data, monitor, and report the situation of children in residential and family-based alternative care or for children who may be at risk of violence, abuse, or neglect

2. Strengthening individual and institutional capacity to generate and use evidence to support effective case management

3. Promoting data use at all levels

To foster improved services for children in difficult life situations, prevent unnecessary separation, and support early reunification with a focus on breaking the cycle of re-institutionalization, the social workforce needs routine and reliable data as well as tools to easily mobilize existing services. The case management information systems (CMIS) can help case workers operate more efficiently and effectively, providing them with reliable data on child-specific resources, services, needs, and wellbeing outcomes. The CMIS can also support effective referral systems and information sharing among provider agencies (e.g., day care centers, emergency shelters, schools, police, hospitals, courts, and social services),

ensuring that children receive timely, coordinated services for the best outcomes.
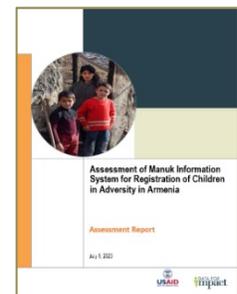
This brief summarizes the continuous efforts of D4I in promoting the establishment of an operational and multifunctional CMIS for the Ministry of Labour and Social Affairs of Armenia (MOLSA) to collect, monitor, and report data on the situation of children in residential and family-based alternative care as well as those who may be at risk of violence, abuse, or neglect. The CMIS, if developed according to D4I's recommendations, will assure interoperability and real-life data exchange between all actors who deal with children in difficult life situations and will promote improved case management.

Timeline of joint efforts for developing the new CMIS for the Armenia child protection system

Assessing existing capacities, June 2021

As a first step, D4I supported a participatory self-assessment of the Manuk Information System (IS) used by the MOLSA for registration of children in adversity, prospective foster and adoptive parents, and also adoptions. The assessment was conducted using the [Case Management Information Systems (CMIS) Assessment and Planning Toolkit](#) developed by D4I. The tool provides a guide for government agencies to identify the gaps and needs of case management systems through an organizational self-assessment, followed by a set of questionnaires to evaluate potential solutions.

The assessment helped to collect information on the existing practices, as a starting point for the implementation or selection of a CMIS platform.

Through the series of meetings and structured interviews with key users of the Manuk IS, particularly with the developers and system administrator from Nork Social Services Technology and Awareness Center Fund (Nork Technology Center) and from the MOLSA, D4I collected information on resources gaps and availability and mapped the ecosystem of users and key players linked to the information system and outlined users' needs and requirements. The assessment revealed several issues with the Manuk IS. The issues were in the technical, functional, and system areas. It was noted that the system does not respond to the current needs of the users and stakeholders who participated in the assessment exercise. It was observed that the system cannot be enhanced further because it is more than 20 years old, and out of the seven dimensions in the assessment framework (system specifications; decision making; interoperability; usability; documentation and support; data and system governance; privacy and security), five scored as poor. Considering the assessment findings, D4I recommended investment in a global reform of the Manuk IS. This reform will include the development of a new CMIS with wider capacity, flexibility of settings, and possibility for future expansion, as well as a revision of the legal background to support the digitization strategy.

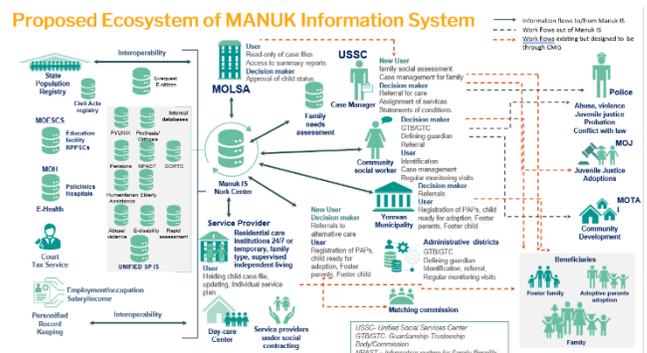## Users' needs assessment and validation of findings, May to July 2022

The D4I team had meetings with all types of users and key actors in the child protection (CP) system. A validation workshop was conducted at the conclusion of all user meetings to validate the summary results. This workshop revealed that the users are open to a revision of their scope of work and level of commitment with the new system, which will facilitate their existing business processes and resolve the issues in the current Manuk IS. Specifically, by improving some business processes and re-assigning the responsibilities for data entry and data updates to different users, the data collection will become faster and more efficient. By resolving the issue of interoperability in the new system, human resources will be used more practically, and the processing of

cases will be streamlined. This will require a certain level of policy and responsibility changes and requires commitment from the MOLSA.

Ecosystem of new CMIS and proposed new data flow-reporting mechanisms, June to August 2021

The D4I team supported the MOLSA Division on Children's Issues to develop and finalize the ecosystem of the new CMIS, including the main users, information flows and roles distribution. The ecosystem proposed to expand the role of the community social workers as a first level in the three-tier CP system of Armenia. The community social workers currently do not have access to the existing Manuk IS, which means there is a large gap in the case management processes, and the information collected for use by community social workers is out of the MOLSA's control. Moreover, the community social workers do not have an information system to collect and report standardized data on populations in difficult life situations. The communities and social workers are separated from the information flows in the social protection system in general. With the proposed CMIS, community social workers will become the primary source of information on children in adversity and their families, with the possibility to report and refer cases to higher levels as needed.

Figure 1. Ecosystem of proposed new CMIS and interoperability with other government agencies information systems*

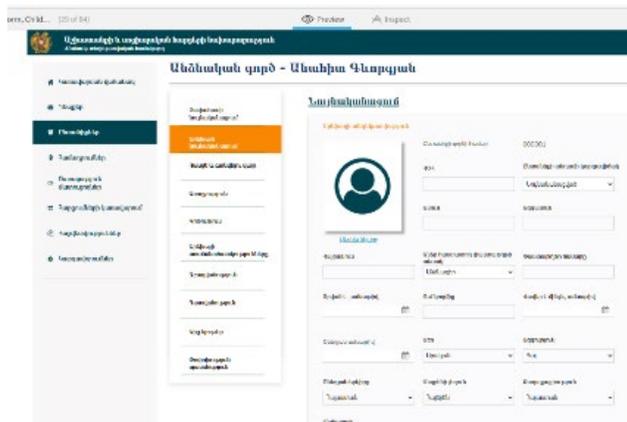*View the full figure here.

Development of system analysis and detailed system specification documents, August 2021 to April 2022

Based on the information collected, the D4I team developed two documents to assist MOLSA and Nork Technology Center with understanding the proposed new CMIS and its architecture, specifications, and requirements.

The System Analysis Document outlines the conceptual approach to the new CMIS and consolidating the new CMIS requirements, and it details MOLSA's needs for operating the new system. This document served as a basis for developing the Terms of Reference (TOR) of the new CMIS with more detailed specifications on the technical requirements and functional descriptions.
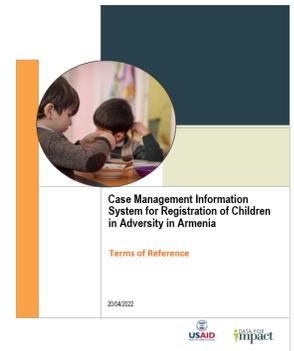
The detailed System Requirements Specifications document was developed for the experts from Nork Technology Center to provide guidance on the functional and non-functional requirements for the new CMIS development.

Figure 2. Screenshot of CMIS Prototype

The aim of the specifications document was to provide detailed technical requirements for the new CMIS. The document is intended to serve as a reference during the CMIS development and the system acceptance activity by MOLSA at the end of the development. Unless communicated otherwise or adjusted during the development phase, it is assumed that the final product will be developed in accordance with the requirements listed in this document.

To support the development process, D4I has also developed the prototype version of the final product. Since October 2021, D4I has oriented a diverse group of stakeholders to the new CMIS, including staff from MOLSA, Unified Social Services Centers, Ministry of Justice, UNICEF, the National Board on Adoption, and other service providers. A five-month process of responding to questions and helping stakeholders visualize the new system followed. The new CMIS prototype served as a platform for demonstrating the proposed functioning of the new CMIS and was well received by all actors.

Using the proposed CMIS as an advocacy tool for CP system reform

The D4I team developed different types of business and information flow maps to assist the MOLSA and Nork Technology Center in understanding the main business flows and role distribution for the new CMIS for key actors of Armenia's CP system. Figure 3 shows the roles and information flows for families who apply for services, stakeholders who identify children at risk, and functions of three-tie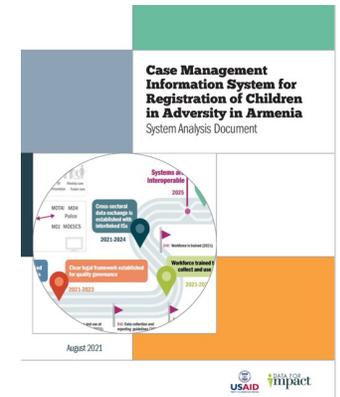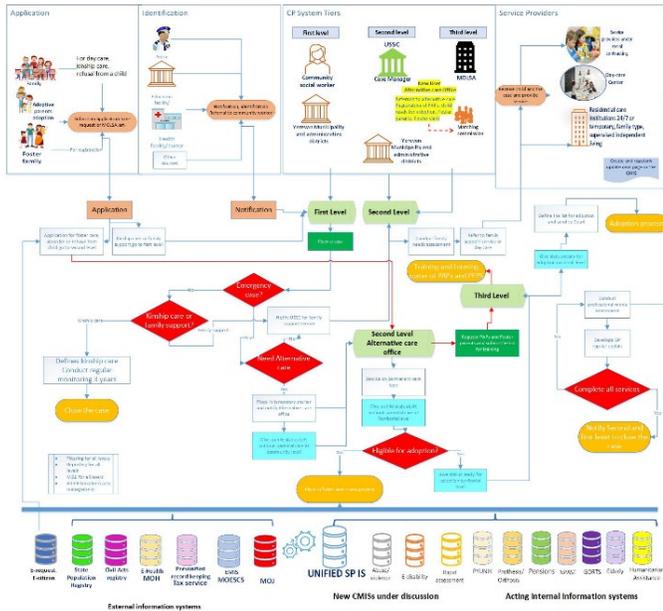r CP system and service providers. Figure 4 shows the swimlanes of identification, registration, and placement streams for a child left without parental care and the roles of the system players. The D4I team developed similar swimlanes for the key system cases: registration of prospective foster parents and/or adoptive parents; matching children and placement of children in relevant alternative families as well as routine monitoring and reporting by the community social worker; placement of a child in residential care and reunification with biological family of placement in kinship care with routine monitoring and reporting by the community

Figure 3. Roles and information flows in the new CMIS

social worker. To ease the users' experience, the D4I team also developed a step-by-step explanation of how to enter and manage information in the CMIS using the new CMIS mock-up screens.

Promoting decision-making on the new CMIS

To support the MOLSA in CMIS decision-making and communication, the D4I team developed a detailed explanation note describing enhancements in the new CMIS in comparison to the existing MANUK Information system. D4I showed the benefits of the proposed CMIS, such as:
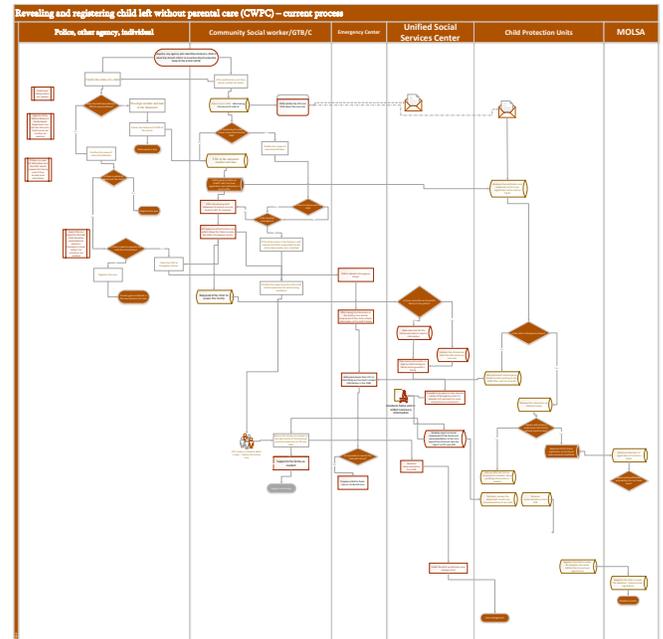
- centralized management of family profiles
- centralized case management module
- improvement of data collection approach by minimizing reentry of previously collected information
- possibility to have information about the child case, original state, interventions, and outcomes in one case form
- improved data accuracy by introducing mandatory ID number validation and links with parents and other family members

- possibility to have a gallery of photos and videos for every child in the system
- centralized database of service providers
- monitoring of service providers' performance

In addition, the D4I team developed a cost estimation analysis for the MOLSA, proposing the use of custom software versus off-the-shelf software deployment, demonstrating cost- and time-saving benefits.

The D4I team participated in various discussions at the MOLSA on development of new information systems for Unified Social Services Centers for comprehensive family needs assessment and a newly developed e-disability information system for registration and assessment of persons with disabilities including children. D4I's participation in those discussions helped maintain a synchronised approach for all information systems for case management and referrals.

Figure 4. Swimlanes of identification, registration and placement of a child left without parental care

Conclusions and next steps

With D4I technical assistance, MOLSA has a detailed TOR for development of a modern CMIS which responds to the needs of all users and key actors of the Armenia CP system. The D4I team believes this will improve services for children in adversity, preventing their separation from families and improving the quality of reunification. The new CMIS responds to stakeholder-identified requirements for data collection, management, and use at all levels of Armenia's CP system, and as the activity closes, the MOLSA has the information necessary to begin the system development.

For more information

D4I supports countries to realize the power of data as actionable evidence that can improve programs, policies, and—ultimately—health outcomes. We strengthen the technical and organizational capacity of local partners to collect, analyze, and use data to support sustainable development. For more information, visit https://www.data4impactproject.org/