

Iterative Project Report for Programs & Multi-Year Phased Projects

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GENERAL INFORMATION

Program/Project Name: Early Childhood Integrated Data Set (ECIDS)

Agency Name: Department of Health & Human Services (HHS)

Project Sponsor: Jessica Thomasson

Project Manager: Ramya Mogili

PROJECT DESCRIPTION

An Early Childhood Integrated Data System (ECIDS) integrates, maintains, stores, and reports information from various early childhood programs across multiple organizations that serve children and families from birth through the age of five (and in some cases, birth to age 8).

North Dakota is pursuing an ECIDS to strengthen the quality, coordination, and alignment of its Early Childhood Experience (ECE) programs and services in ways that will ultimately inform policy that will improve child outcomes. With siloed data, providers find it difficult to coordinate their efforts, policymakers struggle to find answers, and families may encounter childcare related challenges. An ECIDS will help North Dakota address each of these challenges and better support its children and families.

Department of Health & Human Services (HHS) issued a Request for Proposal (RFP) in 2023 that required the successful offeror to develop and implement the technical strategy for sharing child-level data between ECIDS-connected datasets, based on an analysis of constraints and opportunities.

The Phase 1 project began in September 2023 and was completed in August 2024. The Phases 2 & 3 project began in July 2024 and was completed in June 2025. Phase 4 project began in April 2025 and is scheduled to be completed in January 2026.

BUSINESS NEEDS

The HHS Early Childhood section needs to be able to access data from several disparate data collection systems to inform policy decisions and recommendations. A functioning ECIDS, combined with parallel data governance efforts underway within HHS, will be a primary means of delivering on the business need. HHS would like to solve the issues of:

1. policymakers struggling to find answers to key policy questions
2. families encountering childcare related challenges
3. providers struggling to successfully operate quality early childhood services at full capacity

PROGRAM/PROJECT FORMAT

Program/Project Start Date: 01/18/2022

Budget Allocation at Time of Initial Start Date: \$1,000,000

How Many Phases Expected at Time of Initial Start Date: 1

Phase Approach Description:

- a. Phase 1 - Develop the integrations associated with inclusion of four data sets into the ECIDS using an agile methodology with production deployments throughout the life of the project.
 - i. Vital Records (maintained by ND Department of Health)
 - ii. Teaching Strategies (including Head Start and Best in Class programs)
 - iii. New World Now (including workforce registry, professional development, quality rating and improvement system, as well as provider grants management), and
 - iv. WorkLife System (resource and referral database)
- b. Phases 2 & 3 – Develop the integrations associated with inclusion of select elements from four data sets into the ECIDS using an agile methodology with production deployments throughout the life of the project.

- i. Integrated Eligibility System (SPACES)
 - ii. ND Reference Tables
 - iii. ND Department of Public Instruction (STARS)
 - iv. ND Department of Public Instruction (TIENET)
- c. Phase 4 – The scope of work for this phase focuses on the delivery of:
 - i. Organization Master Dictionary Conversion
 - ii. ECIDS Information Output Interface (for internal use)
 - iii. Data Quality Alerts (for data source stewards)

Estimated End Date for All Phases Known at Time of Initial Start Date: August 2024

PROGRAM/PROJECT ROAD MAP

The program road map shows the high-level plan or vision for the program/projects/phases. It is intended to offer a picture of the lifespan of all the effort that is expected to be required to achieve the business objectives.

Project/ Phase	Title	Scope Statement	Estimated Months Duration	Estimated Budget
Project 1	Phase 1	Develop the integrations associated with inclusion of four data sets (Vital Records, Teaching Strategies, Insight/New World Now, WorkLife Systems) into the ECIDS using an agile methodology with production deployments throughout the life of the project.	30 months	\$1,000,000
Project 2	Phases 2 & 3	Develop the integrations associated with inclusion of select elements from four data sets (SPACES, Reference Tables, STARS, TIENET) into the ECIDS using an agile methodology with production deployments throughout the life of the project.	6 months	\$1,250,000
Project 3	Phase 4	This scope of this phase focuses on the delivery of: • Organization Master Dictionary Conversion • ECIDS Information Output Interface (for internal use) • Data Quality Alerts (for data source stewards)	9 months	\$770,000

Notes:
None.

PROJECT BASELINES

The baselines below are entered for only those projects or phases that have been planned. At the completion of a project or phase a new planning effort will occur to baseline the next project/phase and any known actual finish dates and costs for completed projects/phases will be recorded. The iterative report will be submitted again with the new information.

Project/ Phase	Project/ Phase Start Date	Baseline End Date	Baseline Budget	Funding Source	Actual Finish Date	Schedule Variance	Actual Cost	Cost Variance
Phase 1	01/18/2022	7/30/2024	\$975,500	General and Federal	8/22/2024	18 days	\$920,168.42	5.6% under
Phases 2 & 3	04/24/2024	01/29/2025	\$1,250,000	General and Federal	06/23/2025	14 days	\$1,118,773.40	6.8% under
Phase 4	04/30/2025	01/29/2026	\$770,000	General and Federal				

Notes:

The Phases 2 & 3 project was re-baselined after ESC approval on 2/26/25. The project was 81 days behind the original baseline, due to the following reasons:

- Data integration activities for SPACES were delayed as the data use agreement for SPACES, and the data sharing agreement between SPACES and ECIDS took longer than anticipated to be put together and signed.
- Data integration activities for STARS and TIENET were delayed as sample files were not made available to the vendor as per the required timelines. Also, the data sharing agreement between DPI and ECIDS took longer than anticipated to be put together and signed.

The original baselined end date was 01/29/2025. After the re-baseline, the baselined end date was 06/04/2025.

The Phase 4 project plan and schedule was approved by the ESC on 8/18/2025.

OBJECTIVES

Project/ Phase	Business Objective	Measurement Description	Met/ Not Met	Measurement Outcome
Phase 1, Phases 2 & 3	HHS is able to answer at least one policy question that they were not able to answer before.	Within 6 months of implementation of all phases of ECIDS, HHS is able to use integrated data from at least two data sets in the system to understand a policy question HHS was previously unable to answer.	Met	1) HHS is now able to see exactly which counties are experiencing child care shortages and compare that with where CCAP-eligible children live. Before, we couldn't easily tell where both high need and low access were overlapping. Now, we can identify these areas and quickly plan accordingly. 2) We are also able to identify which counties are considered as Childcare deserts and how severe the shortage is. 3) We're able to see what types of providers are most commonly found in shortage areas. This level of visibility helps us answer questions that were not measurable before ECIDS.
Phase 1, Phases 2 & 3	HHS is able to identify any necessary process improvements to better coordinate provider efforts and better assist families.	Within 6 months of implementation of all phases of ECIDS, HHS is able to use integrated data from at least two data sets in the system to understand process improvements for providers and families.	Met	1) By looking at workforce data and shortage data, HHS is now able to identify areas where child care capacity is limited and then understand more about available workforce. This insight helps guide better coordination of resources. 2) We are now able to compare the children eligible for CCAP with actual participation, allowing HHS to identify where families may not be accessing available support. This will help us improve outreach and enrollment efforts in a more targeted way.

Project/ Phase	Business Objective	Measurement Description	Met/ Not Met	Measurement Outcome
Phase 4	Conversion of the Organization Master Dictionary's source system from WLS to Insight	Within 1 month of full migration, all Early Childhood Integrated Data Set (ECIDS) data pipelines consuming Organization Master Dictionary data have successfully transitioned to use Insight as the authoritative source, replacing WorkLife Systems (WLS), with no critical data loss or downstream processing errors. At least 90% of mapped elements from WLS to Insight are successfully validated for completeness and consistency through automated Quality Assurance (QA) checks.		
Phase 4	Initial increments of the ECIDS Information Output Interface (for internal use)	Within 1 month of Information Output Interface (IOI) development, Power BI reports are consuming data from at least one entity in each of the Organization, Child, and Staff domains via the IOI semantic layer, enabling internal user groups to generate policy-relevant dashboards or queries without needing direct access to the raw source systems.		
Phase 4	Initial increments of the Data Quality Alerts (for data source stewards)	Within 1 month of rule bank implementation, automated data quality alerts are successfully generated for at least three ECIDS data sources, logging violations for at least five active validation rules and notifying data stewards through scheduled email alerts that include error summaries and file links. Error resolution status and batch history are trackable via the centralized error log or archive.		
Phase 4	Continued growth in ECIDS data stewardship at ND HHS	Within 1 month, at least one ND HHS unit or program participate in ECIDS data stewardship activities, such as reviewing data quality alerts, contributing to rule development, or validating Insight/WLS mappings. These activities are documented through meeting logs, metadata contributions, or governance updates.		

KEY LESSONS LEARNED AND SUCCESS STORIES

A lessons learned effort is performed after each project or phase is completed. This process uses surveys and meetings to determine what happened in the project/phase and identifies actions for improvement going forward. Typical findings include, "What did we do well?" and "What didn't go well and how can we fix it the next time?"

Project/ Phase	Key Lessons Learned and Success Stories
Phase 1	Lessons Learned: - Establishing a clear understanding of roles and responsibilities for key stakeholders, including data stewards and technical resources will help assure that project schedule estimates are achievable. - When source data systems are not well-prepared to establish connection between disparate datasets (i.e., data readiness), project timelines will be difficult to maintain. - Lack of pre-existing meta data for data elements in source systems will contribute to challenges in identifying necessary fields, creating required data sharing agreements, and establishing data extracts. - Detailed documentation of requirements and expectations, both for the data architecture/modeling and for the data visualization, are essential to keeping work and deliverables within scope and reviewable to specification. - Receipt of timely, constructive feedback to the vendor aids in their ability to respond to and refine approach and processes. Success Stories: - Shifting to a collaborative approach where both the State and vendor teams have task assignments with target completion dates has been helpful to make efficient progress and meet deadlines. - Data access/sharing agreements have been put into place to define data specifications and establish appropriate use statements. - Incremental development and decision making helped to keep progress in motion and help project advancement. - Implementation of collaborative biweekly working sessions fostered opportunities for State and vendor teams to demonstrate thought partnership and leadership. - Creation of data governance policy manual that can guide teams through implementation and operation.
Phases 2 & 3	Lessons Learned: - Thoroughly detailed documentation with instructions helps team members understand what is expected from them. When everything is clearly and properly documented, even new team members or team members in transition can carry out their tasks effectively. - Having tasks that did not have any interdependence worked out well, as the team was able to work on such tasks when there were impediments to the other. This helped the team to carry out other tasks while they were waiting for the impediments to be cleared. - Staying focused on utility of the project to end users will result in better user adoption and support positive outcomes. - In the future, either having anonymized sets or test decks could be helpful. - In the future, having the data sharing and data use agreements established in advance (if possible) would be helpful. Success Story: The integration of additional datasets into ECIDS is allowing HHS to remove much of the manual work the was previously needed to answer policy questions. One example is the calculation of child care under-supply (aka, child care deserts). While HHS has been able to produce similar information before ECIDS, the effort can now be accomplished much timelier and with greater accuracy as the data source validation is occurring consistently (internal to ECIDS processes). There is more work to do to ensure that users can access information in ways meaningful to them but, the core work of dataset integration and creation of actionable information from the integrated data sources is a solid success.

KEY CONSTRAINTS AND/OR RISKS

- Aligning timing of Phase 4 work and overall coordination with Insight Enhancement project, as Insight is a major data contributor to ECIDS