Early Childhood Iowa Integrated Data System (IDS): Overview

February 2020. IDS is authorized by the ECI State Board and Department Directors, and advised by the IDS Taskforce, a subcommittee of ECI Results Accountability Workgroup: Heather Rouse & Cassandra Dorius (Iowa State University); Shanell Wagler & Amanda Winslow (Department of Management); Ryan Page & Tammi Christ (Department of Human Services); Kelly Davydov (Department of Human Rights); Betsy Richey (Department of Public Health); Jay Pennington & Tom Rendon (Department of Education); Marion Kresse (BooST Together for Children).

Early Childhood Iowa VISION for Iowa’s Integrated Data System (IDS):

Iowa’s early childhood system will be effectively and efficiently coordinated among health, social service, and education agencies to support healthy and successful families. This work will be informed by actionable intelligence derived from a statewide integrated data system that comprehensively identifies and addresses the needs of Iowa’s young children and their families.

Goal: ECI IDS is a university-state partnership that supports timely and cost-efficient evaluation and analytics using integrated data across state agencies. It is designed to securely share data to a centralized linking hub (referred to as a “data lake”), where anonymized datasets can be created for department-approved projects using collaboratively agreed upon governance policies and procedures.

Potential Use Cases Relevant to Iowa Partners:

- Understanding how the timing and duration of early care and education programs (e.g., SWVPP, Shared Visions, Child Care Assistance, Head Start) impacts child health and education outcomes, and whether or not children who receive multiple services have different outcomes
- Informing cross-system prevention and intervention services for children identified with special education or health needs
- Understanding what happens when children transition out of early childhood services – for example, do home visiting programs lower the risk of child maltreatment? Do families receiving CCA transition more successfully into preschool or kindergarten programs?
- Using community and family risk profiles (generated with data from across multiple systems) to inform targeted service delivery approaches to improve school readiness, promote optimal health, and prevent child maltreatment.

Challenges Addressed with an IDS:

- Allows agencies to answer questions to improve policies and programs with cross-system data
- Frontloads the legal and data security decisions so they aren’t revisited with every new use case
- Limits transfer of personal identifiers to a centralized linking hub with a neutral 3rd party
- Relieves burden on agency staff to coordinate cross-agency responses to data requests
Governance Approach for Iowa’s IDS:

Figure 1. Legal Structures

Memorandum of Agreement (MOA)
(“business use” of the IDS to serve Departments)

Data Sharing Agreements
(overall data security; privacy protections)

Data Use Licenses
(project specific, anonymized datasets)

Figure 2. Working Groups

Governance Board
Department Directors and ex-officio members
Overall leadership and authorization of the IDS

IDS Resource Center
(ISU Partners)
- IDS implementation
- Staff meetings and maintenance
- Capitalize on University infrastructure for data security and technical expertise
- Expand and contract as needed to meet demands

Data Stewardship Committee
(Agency Authority)
- Project authorization and translation
- Appointed by Directors
- Create a culture of “data use” between departments
- Recommend ad-hoc committee members (below)

Scientific Reviewers

Data Experts

Community Advisory Groups

The success of a statewide longitudinal IDS relies on the expertise and contributions of key leaders and stakeholders who are strategically engaged in the work. For our ECI IDS, key working groups will facilitate this collaborative effort by fulfilling a requisite role in shaping and executing the vision and mission of the IDS (see Figure 2). This governing body will include three standing workgroups (Governance Board, IDS Resource Center, and Data Stewardship Committee) as well as three ad-hoc groups commissioned to support individual projects before and after their approval: Scientific Reviewers, Data Experts, and Community Advisory Groups.

Every project will follow a standard set of processes from the initiation of the idea through to the dissemination of results (see Figure 3). Agency feedback throughout the project is critical, including involvement of each of the governance committees from project approval through project completion.

Memorandum of Agreement: umbrella agreement authorizing the IDS to exist in service of the ECI mission.

Data Sharing Agreements: individual agreements between each department and Iowa State University (as a business agent to operationalize the system as outlined in the MOA) allowing secure transfer of data following strict policies and procedures for all data use in accord with the MOA.

Data Use Licenses: time-limited agreements for each approved project to use anonymized, integrated data to answer departmental approved policy and evaluation questions.