Improving the lives of young children through data

Elizabeth Jordan, Carlise King, Patti Banghart, and Courtney Nugent

Lessons learned from three early care and education data integration projects

Children and families make use of a variety of public systems, including public health insurance, child care subsidies, and food assistance. Because children and families access many different systems, it is critically important to gather information about their experiences with these services—which ones they access, how the quality of those services affect them, and how children fare later in school and life. Such information can be used to shape the services themselves, making them more effective and efficient. This information is also necessary to identify gaps in needed services and locations where additional resources should be invested. Sharing and integrating data across the variety of systems accessed by children and families is crucial to providing decision-makers with complete and accurate information that they can use to shape and improve services.

This brief highlights projects implemented in **three states** to integrate education, health, and/or social services data in order to inform policies that influence the lives of young children and their families. The Annie E. Casey Foundation (AECF) funded KIDS COUNT organizations in the states of Mississippi (MS), Minnesota (MN), and Rhode Island (RI), supporting each state in its use of integrated data to address one pressing early childhood policy question (see box below). The Early Childhood Data Collaborative (ECDC) had the privilege of contributing to the work of the three KIDS COUNT sites by providing technical assistance to support their completion of project goals and tracking their progress to document the benefits and challenges of this work.

Each site used integrated data about children from birth to age 5 to learn more about the ways young children interact with different systems. By state, the integrated data were used to learn how public assistance (MN), health (MS) and the child welfare (RI) systems intersect with and connect to early care and education[1] (ECE) services and programs. Specifics about the three state organizations' policy questions, key findings, and recommended strategies to support the continued use of integrated data are profiled at the end of this brief.

Early Care and Education Data Integration Projects

Children's Defense Fund-Minnesota examined patterns by race in children's participation in ECE programs and other public assistance, such as Temporary Assistance for Needy Families (TANF) and Supplemental Nutrition Assistance Program (SNAP).

Mississippi State University's Social Science Research Center analyzed the characteristics of kindergarten students enrolled in Medicaid; their participation in Medicaid's Early, Periodic Screening, Diagnosis, and Treatment (EPSDT) program prior to school entry; and their level of kindergarten readiness.

Rhode Island KIDS COUNT explored the number of young children involved in the child welfare system, these children's maternal and child health characteristics (e.g., maternal mental health, low birth weight), and which of those children were enrolled in ECE programs.

[1] Early care and education is defined as services children receive from birth through third grade.

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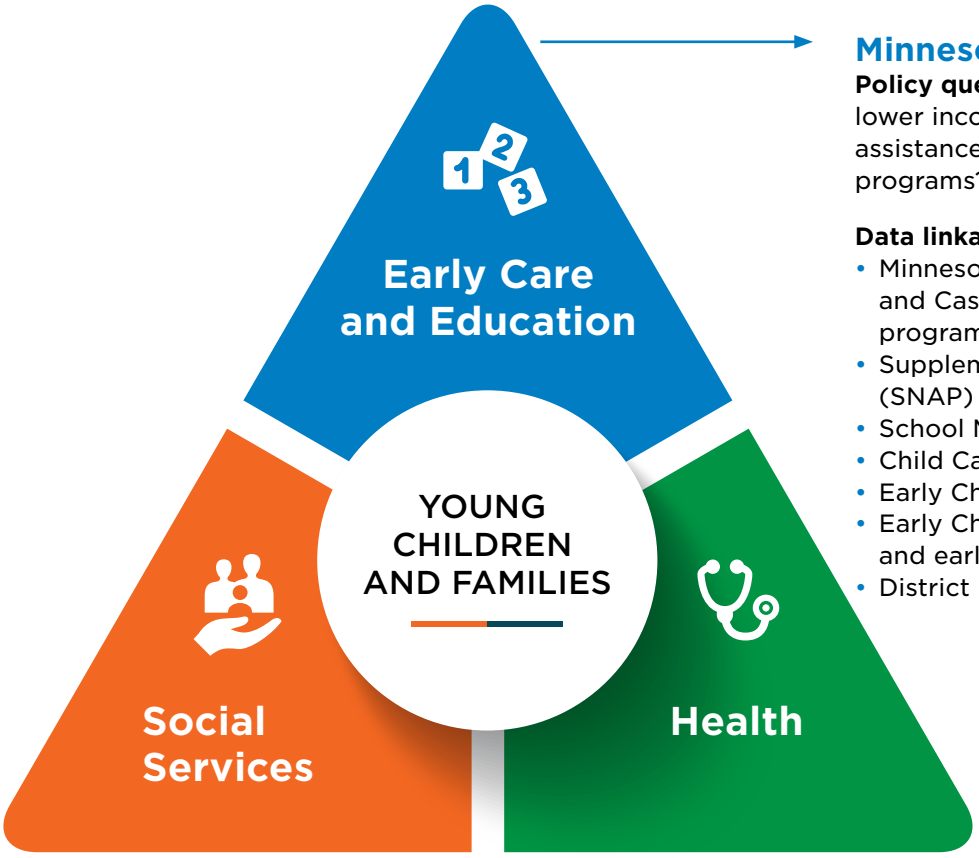
The Early Childhood DATA Collaborative

Data Linkages Needed to Answer Policy Questions



Minnesota

Policy question: Do children of color and lower income children participating in public assistance programs have equal access to ECE programs?

Data linkages needed:

- Minnesota Family Investment Program (MFIP) and Cash assistance (Minnesota's TANF program)
- Supplemental Nutrition Assistance Program (SNAP)
- School Meal Program
- Child Care Assistance Program (CCAP)
- Early Childhood Family Education (ECFE)
- Early Childhood Special Education (ECSE) and early intervention
- District preschool

Rhode Island

Policy question: How many young children involved in the child welfare system participate in high-quality ECE?

Data linkages needed:

- Family home visiting
- Public pre-K and preschool special education
- Child care assistance program
- Early intervention
- Early Head Start and Head Start
- KIDSNET health data

Mississippi

Policy question: How does early childhood health relate to kindergarten readiness?

Data linkages needed:

- Mississippi Division of Medicaid/Medicaid enrollment and EPSDT
- Mississippi Department of Education, kindergarten and kindergarten readiness assessments

Commonalities across projects focused on data integration

While each site was unique in certain characteristics—the agencies it worked with, the data infrastructures it used, and the research question it explored—commonalities arose across the sites:

- **Efforts to integrate data across programs is groundbreaking for states.** Integrating data across systems is new in most states; therefore, efforts to integrate data require significant time investments to build stakeholder interest, set up data-sharing agreements, and translate data to inform policies. In **Mississippi**, this work involved the first attempt to link data about children's kindergarten readiness with their Medicaid status. **Rhode Island** built off of existing data integration structures to add child welfare data and early care and education data. In **Minnesota**, state and local stakeholders were educated about the wealth of data publicly available from the new Early Childhood Longitudinal Data System and its potential to inform policy and practice.
- **Strong partnerships are essential.** Regardless of their focus or task, sites relied on their partners to move the work forward. In **Rhode Island**, the Children's Cabinet, a group of agency leaders convened by the Governor who work together to improve governance, services, and outcomes for children and youth, inspired the initial work. In **Minnesota**, the partnership between the Department of Education and the KIDS COUNT organization allowed for the analysis to be robust and shared broadly. And in **Mississippi,** the grantee bolstered its existing partnership with state agency leadership to answer new research questions using Medicaid and education data.
- **The work is just beginning.** Although each site had the opportunity to explore a key question, all of them identified additional questions to explore and challenges to address as they continue the work of integrating data across systems. In **Minnesota**, they identified additional data that could be added to their current integrated data system to answer important questions. In **Rhode Island,** they plan to develop clearer protocols for data sharing across agencies to streamline this process in the future. In **Mississippi**, they identified additional resources that are needed to make data available and accessible for integration.

Recommendations for local, state, and federal policymakers

- Include data that are essential for addressing questions across the sectors of health, family, and education, since all of these sectors contribute to the lives and healthy growth of young children. Craft policies that protect the data and allow for secure sharing.
- Invest in a data governance structure that can manage the integrated data efforts and define the roles and responsibilities of participating agencies.
- Build in the capacity—with respect to both time and skills—for public agencies to support data integration efforts. Plan for the time needed to use the data and support partnerships with local stakeholders. Ensure that agency staff have the skills needed to connect the data, meet with partners, and interpret findings.
- Convene leaders from all agencies that support young children and their families—including health, child welfare, early care and education, elementary school, and public benefits such as WIC and SNAP. Provide opportunities for cross-agency brainstorming, goal setting, and discussion to elevate the utility of integrated data for ensuring the delivery of high-quality services to the populations with the greatest need.
- Use the data regularly to improve services. Relying on the data and showing how it can be used to improve services will promote integrated data capacity in agencies.

Minnesota: Early Care and Education Program Participation

The Children's Defense Fund-Minnesota (CDF-MN) led the data integration project in Minnesota. Their goal was to conduct analyses and promote the use of quantitative data from the newly launched state Early Childhood Longitudinal Data System (ECLDS). In addition to using the analysis to inform current policy debates regarding access to early care and education and other publicly funded supports, CDF-MN hoped to help stakeholders recognize the value and utility of the ECLDS. CDF-MN worked closely with partners at the Minnesota Department of Education to access and analyze data.

In addition to using quantitative data from the ECLDS, CDF-MN gathered qualitative data to understand more about the supports and barriers to accessing these services. They leveraged partnerships with the Voices and Choices for Children Coalition—which includes organizations, professionals, and parents of color and American Indians—to gather qualitative data and interpret findings.

Key findings include:

- Children accessing cash assistance or food programs were more likely to access one of the four early childhood programs[2] included in the ECLDS than children who did not access cash assistance or food programs.
- Participation in ECE programs varied by program type and race:
  - Latino and Asian American children in Minnesota had lower rates of participation in early childhood programs than black or white children.
  - Early Childhood Family Education (ECFE) served wealthier white children at a higher rate than all other racial/ethnic groups.
  - Participation in District Preschool was representative of the diversity of the 2015 kindergarten class but could be leveraged to provide more services to lower income children, children of color, and American Indian children to mitigate gaps in their access to services and kindergarten readiness.
  - Early Childhood Special Education (ECSE) had slightly higher rates of participation for lower income and children of color; however, those rates were lower than the rates in K-12 Special Education.

Minnesota Early Childhood Longitudinal Data System

Minnesota's Early Childhood Longitudinal Data System (ECLDS) securely links data from the state departments of education, human services, and health.

Users can access deidentified aggregate-level standard reports on birth records, program participation, financial assistance programs, child and family demographics, and other data sources that impact young children.

[2] The four ECE programs were Minnesota's Child Care Assistance Program (CCAP)/CCDBG, Early Childhood Family Education, Early Childhood Special Education/Early Intervention, and District Preschool/ public pre-K.

Strategies for continued work

Continued partnership. CDF-MN and the Minnesota Department of Education strengthened their relationship over the course of this work, and they plan to partner together on future projects and continue to inform each other's work.

Promote the ECLDS. As CDF-MN continues to share findings from the analysis and report, they also promote the ECLDS itself, encouraging stakeholders to tap into the resource and incorporate it in their work and planning.

Advocate for additional data in ECLDS. Although the ECLDS has a wealth of data, there are notable gaps. For example, there is no participation data for Head Start or a method for requesting access to the raw data. These gaps present an opportunity to engage local Early Head Start and Head Start program leaders to provide them with information about the ECLDS and to communicate the benefits of contributing Head Start data to it.

Interested in learning more?

Read CDF-MN's full report, including recommendations and highlights of best practices in ECE programs in the state - https://www.childrensdefense.org/cdfmn/wp-content/uploads/sites/5/2018/07/evaluating-early-childhood.pdf

This video highlights the potential of using the ECLDS from the perspectives of local and state organizations - http://www.ecedata.org/resources/video-minnesotas-data-story/

Mississippi: Early Health and Kindergarten Readiness

The Mississippi State University's Social Science Research Center (SSRC) led the data integration project in Mississippi. SSRC worked closely with two state agencies, Mississippi Department of Education and Mississippi Division of Medicaid, to access, link, and analyze data to answer questions about the demographics and needs of the highest-risk children in the state. They specifically looked at how early childhood health relates to kindergarten readiness.

Through the analysis, SSRC found:

- 24,562 kindergarteners (58 percent) were enrolled in Medicaid.
- Of kindergarteners enrolled in Medicaid, 60 percent were black, and a majority of black kindergarteners (72 percent) were enrolled in Medicaid.
- Of students entering kindergarten in the 2014/2015 school year, the percentage who received the recommended EPSDT screenings decreased between 2013 (60 percent) and 2014 (39 percent).
- Only 30 percent of kindergarteners enrolled in Medicaid passed the Kindergarten Readiness Assessment, compared to 44 percent of kindergarteners who were not enrolled in Medicaid.

In addition to answering questions that have not been explored before, the researchers expanded their own capacity and expertise to use integrated data in their research. SSRC plans to continue working with both the Mississippi Department of Education and the Division of Medicaid to conduct additional analysis.

Strategies for continued work

Monitor progress over time. SSRC intends to make this analysis a baseline that they can track over time. By doing so, they can explore whether and how outcomes improve for young children in their state.

Be flexible. Several challenges arose as the site worked to access the Medicaid data. Because of data limitations and significant time delays in accessing it, the team changed the scope of its research questions and looked primarily at descriptive statistics. To address these challenges, it will be important to clarify staffing and to consult early with staff who are knowledgeable about the data to anticipate the amount of time needed to prepare requests.

Support data access. Although data in the state can be linked, stakeholders lack access to the data, and agency staff lack the time to forge relationships with partners and prepare the data for sharing. Future policies need to go beyond supporting the technical aspects of linking; it should also include staff time for cleaning the data and promoting partnerships with researchers to ensure the data are used.

Interested in learning more?

Read SSRC's full report- https://kidscount.ssrc.msstate.edu/wp-content/uploads/2018/10/KC-IDS-policy-brief_9.28.18.pdf

Rhode Island: Early Care and Education and Child Welfare

Rhode Island KIDS COUNT conducted a demonstration project with the goal of integrating early care and education data across systems to examine the number of young children involved in the child welfare system participating in early care and education programs. They also hoped to inform the work of the Rhode Island Children's Cabinet, a cross-departmental decision-making body charged with improving outcomes for children and working on an initiative to improve highly vulnerable children's access to high-quality early learning programs—the "Getting to Kindergarten Initiative." Rhode Island KIDS COUNT partnered with DataSpark (an intermediary organization that integrates data across several Rhode Island state agencies and manages the State Longitudinal Data System) to match child level data across state agencies.

The demonstration project revealed that in 2015, there were **1,421 children under age six** with an indicated case of **child maltreatment** in Rhode Island. Key findings include:

- The cohort of children who were maltreated were more likely than the general population to have been referred for a First Connections[3] home visit (76 percent vs. 63 percent), and more likely to have received at least one First Connections visit (53 percent vs. 29 percent).
- Only 10 percent of maltreated children in the cohort participated in an evidence-based home visiting program before, during, or after the maltreatment occurred.
- Over a third (39 percent) of the maltreated children in the cohort received a referral to Early Intervention before, during, or after the maltreatment occurred. Of these children referred, more than half (58 percent) were determined eligible for services, and the vast majority (82 percent) were found to have a significant developmental delay.
- Of the children in the cohort who were old enough to participate in State Pre-Kindergarten, 2 percent (or 7 children) were enrolled in State Pre-Kindergarten before June 30, 2016.[4]

Strategies for continued work

Establish an early childhood data governance process. A clear process should be established for housing and managing the state's multiple integrated data systems. This process should also establish who is responsible for regularly developing a set of core reports for state agency leaders who will review and use the data to improve children's access to high-quality early learning opportunities. An ECE data governance structure can guide efforts to strengthen the coordination, funding, security, and appropriate use of ECE data.

Interested in learning more?

Read Rhode Island Kids Count's full report: http://www.rikidscount.org/Portals/0/Uploads/Documents/Special%20Publications/6718_ELFS_v9web.pdf

[3] First Connections is a short-term home visiting program designed to help families get connected to needed resources soon after the birth of a child.
[4] State Pre-K experienced significant growth between 2013-2014 school year and the 2017-2018 school years. In the 2017-2018 school year an additional 34 children from the cohort were enrolled in State Pre-K.