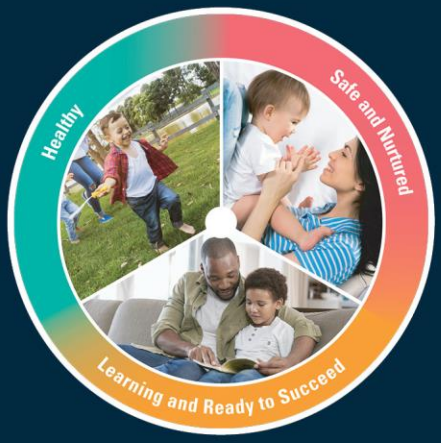

PRESCHOOL DEVELOPMENT GRANT B-5

SURVEY OF EARLY CHILDHOOD EDUCATION DATA USERS

FINAL REPORT OF THE DATA USERS ROUNDTABLES
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Executive Summary

In 2019, our team presented findings and recommendations from the Preschool Development Grant (PDG B-5) Survey of Early Childhood Education Data Users. A key recommendation of this report was to ensure that the development of early childhood data systems improvements is **"human-centered."** As the North Carolina (NC) Department of Health and Human Services (DHHS) contemplates how to **design** improvements to early childhood data systems, human-centered design strategies can yield important insights into how to improve the success of new data services provided in early childhood systems.

Using a human-centered design framework as a guide, we developed a process to engage in nine "data design roundtables" with stakeholder groups across the state. We selected topics based on focus areas of DHHS identified in the NC Early Childhood Action Plan (ECAP), as well as other topics of special interest to DHHS. Topics included substantive areas such as food insecurity and housing, while others focused on specific populations such as Native and tribal children. More details about the individual roundtable topics and participants are provided in this report.

Each roundtable yielded insights regarding data design and policy recommendations specific to each topic area. However, we also identified a set of **cross-cutting themes**, **open questions**, and **next steps** that emerged from collective analysis of the data. We will list the themes here then provide further detail in this report, along with information about the questions and next steps.

The **cross-cutting themes** were design features that emerged in the majority, if not all, of the groups. Development of these themes was also informed by our facilitation team's observations of the roundtable discussions and process. The themes were:

1. Data users in early childhood systems need a cross-sector integrated data system to provide a holistic approach to understanding child development that reflects the actual constellation of supports and services families receive.

2. Data systems designed to have data flow from the local to the state must also include feedback loops in which data then flows back to local users.

3. Definitions and measures must be consistent, timely, and uniform. An early childhood "data dictionary" is needed to ensure all users are contributing to and accessing high quality (valid and reliable) information.

4. The NCCARE360 platform is an opportunity to provide a new revolutionary platform for information sharing in early childhood systems.

5. Representation of marginalized groups in data systems must be prioritized so that all children are "seen" in the data, particularly groups such as Native and tribal children, as well as children who are homeless or housing insecure.

6. North Carolina's residents, particularly parents and service providers, have the capacity to inform and lead data systems improvement. Many individuals are highly invested in this change and should co-lead design planning.

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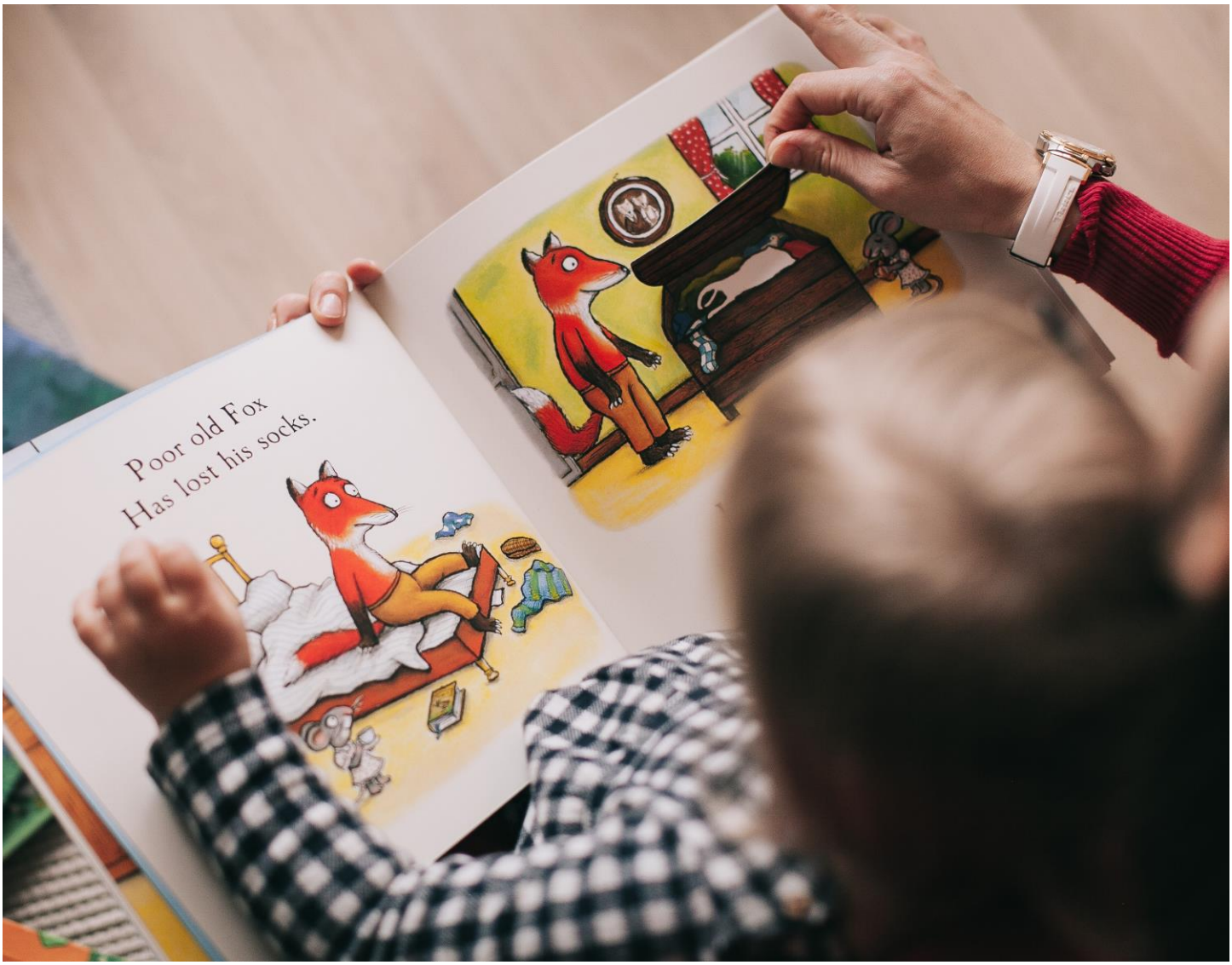

Background

For additional context regarding the motivation for the data roundtables, we invite readers to review our full report of the Early Childhood Education Data Users Survey available online. The final recommendations from the survey report were:

1. Data quality and management. Build internal capacity in early childhood settings at the community level to collect, manage, and use data.
2. Data sharing. Support the sharing of data between organizations by providing legal, procedural, and policy guidance.
3. Purposeful data use. Provide technical assistance to early childhood organizations to access and leverage existing early childhood data from available public sources.
4. Data transparency at the state level. Provide accessible and timely information to improve access to state administrative data.
5. User-centered system. Better aligning data systems to equitably support the needs of all users.

Our team focused on Recommendation #5 and developed an evaluation design strategy to support progress on this recommendation. Although we received many open-ended responses in the survey regarding designing data systems, we wanted to engage in deeper conversation to gather more detailed feedback from data users and stakeholders. We sought to answer questions such as: How can DHHS best address needs of data users throughout the state? What can DHHS do to better support data creators and data users? What would a successful data system look like to the typical user?

Methods

With this motivation in mind, we developed a strategy informed by human-centered design[1] methodology to facilitate a series of data roundtables across different geographic areas of North Carolina. During each data roundtable session, facilitators engaged participants in a series of exercises in an effort to first increase their familiarity with human-centered design, and then to gather insights from participants on the topic of the session. Participants first completed a worksheet individually describing how they use data, their experience with the data (sources, quality, accessibility, etc.), and any improvements that they would like to see. After completing this exercise, individuals joined together in small teams to discuss their experiences and collectively identify one improvement that they would like to design for, share insights with one another, and define their "how might we" question. Individuals then worked to design a solution on their own, before coming together as a group and developing a final design informed by one another's work. Finally, teams completed an environmental policy analysis. This analysis assessed the level of the solution, whether or not a policy change is needed in order to accomplish the design solution proposed, potential champions, and feasibility. In closing, groups presented their solutions with all attendees, followed by discussion providing additional insight on each group's "how might we" question and proposed solution.

[1] For more details regarding human-centered design, see https://www.ideo.org/tools and https://www.ibm.com/blogs/watson-health/human-centered-design/

Topic	Date	Location
Safe and Secure Housing for Children	January 9th	Smart Start of Mecklenburg County Charlotte, NC
Disaster preparedness and response for children: communicating across systems	January 13th	Smart Start of New Hanover County Wilmington, NC
Residential Care	January 21st	Buncombe Partnership for Children Asheville, NC
Kindergarten Transition	January 23rd	Catawba County Partnership for Children Hickory, NC
Suspension and Expulsion Data in Early Childhood Settings	January 24th	Wake County Smart Start Raleigh, NC
Food Security in Early Childhood Data	January 27th	Web-based meeting
Data Use to Support Children in Native and Tribal Populations	February 3rd	Robeson County Partnership for Children, Inc. Lumberton, NC
Measuring and Tracking Social-Emotional Health for Children	February 5th	Rockingham County Community College Wentworth, NC
Data sharing to serve families impacted by the opioid epidemic	February 6th	Harnett County Cooperative Extension Lillington, NC

Findings

Cross-Cutting Themes

1. Data users in early childhood systems need a cross-sector integrated data system to provide a holistic approach to understanding child development that reflects the actual constellation of supports and services families receive.

Although the early childhood system components exist in fragmented siloes, roundtable participants readily identified the fact that children and families interact with numerous sub-systems in their daily experience. Because of this holistic understanding of the child/family in the environment, participants wanted data systems that reflected the true, complex, multi-sector nature of the child's experience.

2. Data systems designed to have data flow from the local to the state must also include feedback loops in which data then flows back to local users.

Data that goes up must come back down. This is feedback that we heard in our surveys and almost every group had some design planning that included this idea. Data users appeared to understand the need to send data to a single entity to integrate and compile data from multiple sources, but most participants also included a need for that information to return to their agency or to themselves individually.

3. Definitions and measures must be consistent, timely, and uniform. An early childhood "data dictionary" is needed to ensure all users are contributing to and accessing high quality (valid and reliable) information.

The need for consistent definitions to ensure data quality was a theme that came up in every group. The lack of common measures presents challenges on a number of fronts.

4. The NCCARE360 platform is an opportunity to provide a new revolutionary platform for information sharing in early childhood systems.

Most groups acknowledge NCCARE360 as a new resource for the state that has implications for data sharing and integration in early childhood systems.[2] With the optimism that the platform could leveraged in early childhood, participants also expressed the need to address current limitations in data collection. Similar to Theme #1, part of the appeal of this resource is the integration of health and human service data information. Also, participants had several innovative ideas about how this platform could also serve as a data platform, beyond the current focus on referrals and service provision.

5. Representation of marginalized groups in data systems must be prioritized so that all children are "seen" in the data, particularly groups such as Native and tribal children, as well as children who are homeless or housing insecure.

Lack of representation in data was an overarching theme that emerged in most roundtables to some extent. Making sure that children and families of all groups are appropriately identified based on their preferences is key to equitable data collection and decision-making. This issue was highlighted most clearly in the Native and tribal communities roundtable.

6. NC residents, particularly parents and service providers, have the capacity to inform and lead data systems improvement. Many individuals are highly invested in this change and should co-lead design planning.

In all groups, roundtable participants were engaged with design thinking and were able to conceptualize detailed design solutions. This is notable because participants had a fairly short period of time and were given no prompts prior to the roundtable for planning. Our facilitation strategy was also fairly "hands-off," meaning we provided some prompts and allowed groups to determine their design focus and structure. We observed that this indicates high potential for innovation given time and resources. Several groups even appeared to be easily able to "spin-off" into their own working group with little outside management other than basic organization (e.g., providing communication and locations). Based on our observations, all groups have the capacity for continued engagement. However, the suspensions/expulsions group and the Native/tribal groups are examples of roundtable groups that appeared to be highly motivated to engage in additional design work.

Open Questions

Although we were focused on identifying design solutions to improve data systems, many questions also emerged. We consider these "open questions" that DHHS may consider in future planning:

Equity: In some groups, issues of equity (specifically racial equity) were front-and-center in the conversation. Two examples of roundtables where issues of racial equity were in the forefront of conversations follow. First the roundtable on Native and tribal children focused much of the conversation on the lack of appropriate racial identity categories on data collection forms and in data reporting. Children who identify as Native American and/or tribal-affiliated are often not "seen" in early childhood data. In Robeson County, where this roundtable was held, 42% of the population identifies as American Indian.[3] Participants stated that statewide data often "lumps" these children in an "other" category making it impossible to understand their unique

[2] https://nccare360.org/about/

[3] https://www.census.gov/quickfacts/fact/table/robesoncountynorthcarolina/PST045219

needs and experiences. As a second example, the reducing suspensions and expulsions roundtable was prepared to frame the issue as one of race equity and identified racial disparities in the treatment of children of color. In other groups, issues of equity (e.g., race, class, geographic) were not discussed at all despite known differences in experiences for subgroups. We wondered: ***How can early childhood data systems be used to perpetuate or remedy existing disparities?***

Public/Private Partnerships and Innovation: Data system design and management is a major area of focus for large, for-profit corporations.[4] Numerous vendors are seeking to enter this space and gain a foothold through local, state, and federal contracts. However, a broader question remains regarding whether cross-sector data on children and families is best viewed as a "public good" that should be managed by government and non-profits or a "commodity" competed over via the free market. Although we certainly did not attempt to resolve this question, we see several questions with different answers that would have implications regarding how improvements early childhood data systems are viewed and monetized. ***What role will the public play in future innovation and design? If these functions are handed over to corporate entities, will there be an opportunity for partnership with public stakeholders, advocates, and citizens? If the public sector maintains control over integrated data systems, how can the vast technical expertise of the business sector be leveraged?***

Early Childhood Action Plan Targets: The ECAP is currently written with a heavy focus on data-driven metrics of accountability. Each of the 10 areas includes a measurable benchmark to reach by the year 2025. We primed each roundtable group with a discussion of the ECAP, and where appropriate we identified the benchmark goal area and data points included in the plan. However, design teams did not readily make a direct connection between their data system improvements and achieving ECAP goals. It is possible that these longer-term goals were not relevant to the design questions. It is also possible that the ECAP benchmarks are not well understood or data users do not feel responsibility for these metrics. Familiarity with the ECAP overall was very high in the groups, but there appeared to be a disconnect between everyday data use and achieving state-level benchmarks. From our perspective, data users are directly connected with achieving ECAP metrics. ***How can DHHS improve buy-in from data users? Do local programs feel ownership and responsibility for achieving the 2025 goals?***

Next Steps

We suggest the following next steps to keep the positive momentum generated from these data design roundtables moving forward.

1. Pilot prototypes of NC ECIDS and NCCARE360 integrated data system in local communities. This should include evaluation and replication of best practices.
2. Review Early Childhood Data Advisory group and other key stakeholder groups to ensure representation from under-represented groups.
3. Connect ECAP targets and logic model with program-level data points in order to generate increased buy-in from local data users in achieving statewide goals.

[4] For example, IBM https://www.ibm.com/watson-health/solutions/social-program-management

and SAS https://www.sas.com/en_us/software/analytics-for-child-well-being.html