



Effective cross-agency systems need to establish formal connections between agencies and shared infrastructure. Systems-building efforts that tackle data issues may take on such tasks as the development of shared data systems, streamlined and shared reporting systems, strategies for system-wide use of data, and sharing data and information beyond the system partners, with the broader public and community leaders.<sup>1</sup> This Brief creates an opportunity to explore these issues and more within the context of the Early Childhood Councils' Health Integration project.

## **PARTICIPATORY EVALUATION APPROACH**

The Evaluation Team and ECCHI Grantees worked together to develop a set of research questions related to data use and shared accountability. Each Council had their own research questions, tailored to the data use and shared accountability issues facing their Council. The questions were explored and refined through a site visit with the evaluators and the technical assistance consultant assigned to the Council. At the site visit, most Councils selected one or two research questions most relevant to their Health Integration project, though a couple selected their questions later in partnership with key stakeholders. Some of the specific research questions are presented as part of the analysis below.

Each Council developed a plan of action at their site visit for how they wanted to gather input from their stakeholders to answer the research questions. The data collection processes implemented by grantees varied and included gathering stakeholder input from facilitated discussions at existing meetings, collecting information via open-ended survey questions of key stakeholders, individual interviews or some combination of these strategies. Summary responses to the questions were submitted to the evaluators by each Council, along with a description of the data collection process and participants.

The summary responses provided by grantees were not always clearly tied to one question or another. For this reason, the analysis was not completed

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<sup>1</sup> Coffman, J. (2007). A framework for evaluating systems initiatives. Boston, MA: Build Initiative.

question by question, but rather sought to find themes across all data provided. A qualitative analysis process was used to identify and articulate a set of themes and identify quotes to articulate the themes.<sup>2</sup> It is important to highlight that while the themes generated by this analysis represent the input of multiple Councils, these themes *cannot be generalized* to all Councils and are not representative of the full range of data use and shared accountability issues faced by Councils.

## **FINDINGS**

The analysis identified specific areas of opportunity and need for improving data use and sharing data. The information collected from the Councils was less focused on shared accountability. The Councils defined data use and sharing data in the context of the availability and quality of local and statewide data, how data informs and shapes their efforts, and its role in securing stakeholder buy-in and support. Councils defined accountability broadly with a focus on how does data encourage the buy-in, partnership and commitment of key stakeholders and service providers in strengthening a system of support for young children and their families. Consequently, the themes that emerged were largely driven by data issues such as a lack of consistency in the data available, gaps in data and, in some cases, an overabundance of data that was challenging to navigate. As not all Councils responded to all of the potential research questions, it is difficult to assess which of the themes are the most prevalent. Accordingly, the themes are ordered by their prevalence within the data that was available.

### **Need for Additional Data**

The most frequently identified theme was the need for additional data. One Council, for example, noted that they had not been able to find health-related data specific to young children birth to eight in

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<sup>2</sup> The specific qualitative analysis process was using a common coding framework across all data. The codes were organized and displayed across five key concepts identified during the coding process (data collection, data use, data sharing, data needs, and shared accountability). The final themes were generated within and between the five concepts and quotes were identified to more fully describe each theme.

Denver County. Over half of the Councils reported one or more types of needed data, some that were very specific and detailed and others more overarching. While some Councils largely listed data types that were needed, others described the consequences of not having the information and/or how they would be able to use it, were it available.

One of the specific examples reported by multiple Councils was the need for **accurate documentation of service utilization and gaps**. This included a need for improving the tracking of referral sources, referral gaps, program utilization and service gaps. One Council had a concrete suggestion on how to better track data through referrals from their clients' primary prenatal care provider. Another Council was aware that they were not getting the referrals they wanted from medical providers, but lacked the data to support their perception. Effective data systems can not only provide this type of information about referrals patterns and referral gaps, but also help improve referral systems.<sup>3</sup>

**Potential Technical Assistance Need:**

Assistance to Councils to develop and implement an analysis of referral sources, patterns, and gaps.

One Council asked their stakeholders to respond in writing to a question specifically on referrals: "Should we be looking at gathering broader data on referrals?" Nine stakeholders provided written feedback to this Council, which the Council's Health Integration Coordinator summarized as:

*"It is important to know where the referrals are coming from, or maybe even more important to know where they are NOT coming from. It is frustrating...when a family calls with an almost 3 year old who could have been receiving needed services. We believe that by looking at the broader data on referral sources we may learn where additional gaps are in regards to referrals."*

<sup>3</sup> Early Childhood Data Collaborative. (2010). Building and using coordinated state early care and education data systems: A Framework for state policymakers. Boston, MA: Build Initiative.

Another gap was the need for more up-to-date and accurate data related to the Family Support and Education domain of the State Early Childhood Framework (a resource and guide for comprehensive early childhood systems work in Colorado.<sup>4</sup>) and on individual child developmental status. Councils described a need for more data at the community level, as relates to specific populations in their communities, demographic information, and more accurate data at the state level that can be compared to community-level data.

For example, one Council described in-depth how the state level data on children eligible for but not enrolled in Medicaid and CHP+ does not match their local experiences. Their stakeholders expressed "confusion and some frustration about the fact that outreach fairs are poorly attended. All outreach efforts have only limited response, which is hard to understand given the number of families that the various data says are eligible but not enrolled." This is a good example of a disconnect between data and practice that can lead to a lack of faith in the data. While the state level data is accurate at the county level, the practice of enrollment fairs is not necessarily a strategy that can lead to a high turnout, thus causing the Council to experience a disconnect. Technical assistance to the Councils to understand how and when to use data to guide program strategies may alleviate future frustration and improve the value of data to the Councils.

**Potential Technical Assistance Need:**

Understanding when and how to access state data on early childhood and health that is relevant, timely, and can be used to make decisions about programs and services locally.

Another Council engaged eight stakeholders in a group discussion at their Council meeting on the question: "How can the (demographic) data collected alleviate barriers (i.e., to get more funding for treatment and to get more [primary care providers] involved)?" The stakeholders reported:

<sup>4</sup> [http://earlychildhoodcolorado.org/inc/uploads/ECC\\_Framework\\_in\\_Action\\_State\\_Plan\\_2010-2012.pdf](http://earlychildhoodcolorado.org/inc/uploads/ECC_Framework_in_Action_State_Plan_2010-2012.pdf)

*“It would be helpful if we could collect additional demographic information from a state level by a year by year basis. This would help us compare local data to state data, which sometimes seems inconsistent. For example, it would be good to know age groups of children in the state, as well as locally, like birth – 1 year olds and birth – 3 year olds, etc.”*

Two Councils identified data needs related to the Ages & Stages Questionnaires (ASQ) and measures of increased knowledge of the parents completing the ASQ. Stakeholders from one of the Councils were asked at their quarterly meeting: “What does successful implementation and/or quality standards look like around the implementation of the ASQ?” In response, they reported:

*“Though the council has successfully trained healthcare and childcare partners around the importance of screening, oral health and social emotional development, it is necessary to come up with a common message around ASQ screening, oral health and social emotional development regionally and across sectors... We are looking at quality standards and best practices for implementing the ASQ screening tool and the referral process between health care providers in different counties.”*

They also identified barriers to compiling the results of ASQ screenings, including the lack of a mechanism for providers to document and share the data.

In the era of data-driven decision making, it is critical that the Councils are able to identify, collect and access the most relevant data to inform their work. As the Councils continue in their data collection efforts, it is vital that the additional data being collected not only meets the needs of individual Councils, but that the data also speak to state-level needs and policy priorities<sup>5</sup>. Nationally, many early childhood organizations are struggling with data collection gaps and how to best link data collected to policy priorities. While more data are needed, Colorado’s Early Childhood Councils are well-positioned to address data limitations, continue identifying useful data and ultimately use these data to inform policy. In order to better support this

<sup>5</sup> Discussed in The Early Childhood Data Collaborative’s *10 Fundamentals of Coordinated State Early Care and Education Data Systems* March 2011 report.

process, technical assistance that specifically links Councils to the best available data locally and statewide and/ or addresses Council concerns regarding the accuracy of state data would be helpful.

### **Common Definitions, Indicators, and Tools**

The Councils identified a variety of specific areas where their health integration work would benefit from common definitions, indicators, and data collection tools. Some examples that were repeated by more than one Council include:

- Identification of common school readiness indicators including those related to health;
- Standardized indicators for programs like Cavity Free at 3;
- Common language and indicators for collecting information related to social-emotional wellness, including one request for a universal social-emotional assessment tool.

Many of these common indicators and definitions already exist in Colorado or nationally. Some Councils may not be aware of the resources already available.

A more general request was for common definitions and a common language across different parts of the system to make it easier to measure “success” and “quality.” One Council also identified a need for common identifiers between preschool and kindergarten to make it easier to track data during transition points.

#### **Potential Technical Assistance Need:**

Connecting Councils to current efforts to develop and disseminate common indicators.

One Council asked their partners: “How can/do we collect crucial social-emotional data before and during the transition from the early childhood setting to school?” Seventeen stakeholders from this Early Childhood Council participated in a group discussion and also completed a paper-and-pencil survey asking for individual input, with the Council reporting that:



*“Developing a common language, familiarity with the curricula/models, common assessment tools, and building trust between preschool and elementary school entities were mentioned as being important.”*

The Councils’ emphasis on shared definitions, shared indicators, and a common language highlights their awareness of the importance of bringing collaborative partners together to collectively define data needs. Council feedback also demonstrates that there may be different levels of awareness among the Councils of what common definitions, indicators and tools are currently available. Targeted technical assistance and the development of a centralized information sharing infrastructure could help ensure that councils can easily access up-to-date information in this area.

In a systems building effort, the identification of shared indicators and common definitions is only a first step – once Councils access what is already available in Colorado or develop their own shared indicators and definitions, their next steps are to develop the appropriate data collection systems with their partners, define roles, provide training, and develop clarity on how the data will be analyzed and the results used.<sup>1</sup>

The implementation and use of common definitions and indicators will generate a more accurate picture of the entire state early childhood system. Additionally, as the K-12 system nationally is moving to a set of common data standards, there is also value in early childhood systems having common data standards. Many experts, policy-makers and service providers alike are seeking to promote early childhood systems that align with K-12 systems<sup>6</sup>. Colorado is also moving in this direction.

### Opportunities for Using the Data

Although the lack of data was reported as an issue by over half of the Councils, some Councils also reported how they are using data or hope to use data, including adjusting the program design to be more effective, assessing whether programs are

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<sup>6</sup> The Early Childhood Data Collaborative’s *Building and Using Coordinated State Early Care and Education Data Systems: A Framework for State Policymakers* August 2010.

meeting their goals, and improving the continuity of care.

Councils identified approaches for using data to monitor community-level trends, help with community planning, provide baseline information about population needs, and compare overall population needs to the clients being served. The data that were mentioned as useful included the Local Systems Assessment results, data collected on client contacts, and data from partners across their local systems. One Council shared that during monthly wellness council meetings they discuss specific cases and share resources that will help these cases reach desired outcomes. Another Council described how they are making substantial strides in data collection — specifically the Screening Coordinator designed a form for each site to record screening numbers and demographic information. Each site is now submitting that information on a monthly basis. In addition, the Council is in the process of designing a parent survey tool that measures increases in knowledge as a result of greater access to screenings and developmental milestone information. Another council noted:

*“Data is a way ... to measure the success of the program and share that success – to further our work educating the public – with the community. To this end, local media sources are a partner to share this success and further our mission. If the data we collect reveals that the program is not meeting our progress goals, we will be able to assess what portions of the program are effective and which portions need improvement. Through this process, we will be able to adjust our program through the three-year grant cycle – and beyond – to make Cavity-Free at Three as successful as possible.”*

A few Councils also reported a need to synthesize multiple data sources in order to better utilize the data that are available. Examples of this include mapping current early childhood resources and programs with census data in order to identify the overlap and gaps of services to potential need and combining multiple datasets in order to better inform decision-making and to identify effective and missing referral connections between agencies. In responding to the question, “How can we combine data from various early childhood agencies ...to

make decisions about our system moving forward?" one Council noted:

*"Partners have suggested that we might consider tracking outcomes of the cases we discuss and analyze the connections that are made between agencies through referrals. This would help to identify the most effective connections as well as connections that may be missing."*

A primary purpose of collecting data is to use that data in a meaningful way. The Councils identified many of the same uses of data that are recognized nationally as the opportunities for improving early childhood systems. Improving the quality of data available can be useful in identifying which kids are able to access the services they need<sup>7</sup> and the gaps in the school readiness and program participation levels of different subpopulations.<sup>8</sup> Data can be used to assess the readiness of the workforce to provide care and services and the alignment of the workforce with the populations in need.<sup>9</sup> With so many ways to use data, while also having many gaps in data available, Councils may need assistance to explore their needs fully before narrowing their efforts on collecting and using data to meet high priority information needs.

### Data Sharing with Stakeholders

To answer questions related to data sharing, the Councils collected the information through a mix of approaches, including group discussions with key stakeholders and emailed requests for individual thoughts. The participants involved in these discussions and emails identified many different groups and mechanisms they have used to share the results of their data collection and analysis.

For example, multiple Councils shared how their partner organizations share information with parents and families, sometimes through flyers, other times in a more direct, one-on-one fashion if

<sup>7</sup> Walker, K.E., Farley, C., and Polin, M. (2012). *Using data in multi-agency collaborations: guiding performance to ensure accountability and improve programs*. Child Trends (Public/Private Ventures).

<sup>8</sup> Bruner, C. and Emarita, B. (2009). *Building public early childhood data systems for a multi-ethnic society: Issues & Opportunities*. Boston, MA: Build Initiative.

<sup>9</sup> Bruner, C. and Emarita, B. (2009).

the information is directly relevant to a single family. Multiple Council respondents also talked about sharing information with community members through community-wide fact sheets, frequently asked question documents, through the media, on the internet and in faith-based settings.

The respondents described many different formats and mechanisms for information sharing, including word of mouth, informal conversations, presentations at the Council meetings or other settings, flyers, staff meetings, in reports, and in grant applications.

### **Potential Opportunity for Cross-Council Sharing:**

Create peer-driven learning opportunities about different mechanisms and strategies for sharing data and findings with families and communities.

A variety of strategies for improving data sharing were reported including the use of more visuals, more quantitative information to support the qualitative information most often available, hosting meetings specifically focused data findings, taking time to help audiences understand what the data means for them, and having more formal write-ups or easy to use one-page handouts that can be shared with others outside of the usual professional circles. One respondent's concrete suggestion was:

*"Tailoring to various audiences due to their different outcomes. In line with values and beliefs – each have a different bottom line – parent is more personal. Community members – maybe what's missing what has been useful, what they can utilize...Legislators, policy makers how can we tell them about the work that we are doing? They want to see statistics and evidence of the impact of various programs."*

Data sharing is an important part of the Councils' work. Not only does sharing information engender accountability, but sharing data also helps improve outcomes, services. In order to make informed decisions and allocate resources, policymakers must have access to current and accurate data. Across the

nation, early childhood work is hampered because information about their work is “siloes and uncoordinated” and therefore does not reach policymakers in an impactful way. This data is also important for others beyond policymakers. Simply put, sharing data with stakeholders, whether parents, community providers or legislators, equips them to be the most effective advocates for the early childhood system.<sup>10</sup>

## CONCLUSION

The Colorado Trust’s Early Childhood Health Integration grantees are all engaged in building a more integrated system of care at the local level that links child health services to other early childhood services. *Shared Accountability* is one of the foundations noted in the Early Childhood Colorado Framework that functions as a critical systems building element, essential to reducing the longstanding fragmentation of policies and programs serving young children and their families.<sup>11</sup> Sharing, understanding, and tracking data are essential to monitoring and ensuring accountability.<sup>12</sup>

The Councils’ ability to be effective in their systems building efforts is impacted by barriers in data availability and sharing. The Councils are aware of how critical it is to not only have accurate, accessible data, but to effectively share that data across multiple domains.

Colorado’s Early Childhood Councils are not alone in the challenges they are experiencing around data use and shared accountability. Limited data access and data sharing have been acknowledged by Early Childhood Organizations statewide as key barriers in building systems of support for young children

and their families. Now that Colorado’s Early Childhood Councils have identified targeted areas of focus in strengthening data use and shared accountability, they can begin to work with stakeholders and partners on developing the infrastructure to address those barriers. Potential next steps include: leveraging knowledge on successful strategies, utilized both locally and statewide; developing and enhancing integrated data collection systems; and systematically using data to directly influence the quality of programs and services delivered.<sup>13</sup>

This brief highlights the many common needs and experiences of the participating Councils as relates to data, including the need for strategies to collect, synthesize, and use data and the need for common definitions and indicators. The brief also captures some potential next steps for Councils to consider in their efforts to establish the cross-system infrastructure necessary to improve health outcomes for young children. Improving data access, sharing and application to strengthen systems of support for children and their families is a long-term effort involving multiple stakeholders. In response, the brief identified concrete areas where technical assistance and cross-council learning in the short-term could support the Councils as they collect and use data as well as share information with their partners.

*To learn about the Early Childhood Health Integration Project, please contact The Colorado Trust at [deidre@coloradotrust.org](mailto:deidre@coloradotrust.org)*

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<sup>10</sup> The Early Childhood Data Collaborative’s Building and Using Coordinated State Early Care and Education Data Systems: A Framework for State Policymakers August 2010.

<sup>11</sup> Early Childhood Colorado Framework, A Collective Vision on Behalf of Colorado’s Young Children and their Families, Framework in Action State Plan 2010–2012.

<sup>12</sup> Early Childhood Colorado Framework, State Plan 2010–2012.

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<sup>13</sup> The Early Childhood Data Collaborative’s Building and Using Coordinated State Early Care and Education Data Systems: A Framework for State Policymakers August 2010