Early Childhood Health Integration Evaluation
Brief Report #4: Screening and Referral Systems
for Early Childhood Health

February 2013

INTRODUCTION

Colorado's thirty-one Early Childhood Councils operate in fifty-eight of Colorado's sixty-four counties and work collaboratively with other key early childhood partners in their communities to improve systems of support for young children in the four areas of early learning; family support and parent education; social, emotional and mental health; and health.

Screening and referral systems are an important part of these broader systems of support. They are a mechanism for early identification of young children's needs, appropriate and timely assessment of services, a coordinated system of referrals and ultimately connection to community services. Through early intervention, not only can an individual child's outcomes be improved, but the overall early childhood system benefits by diverting future resource needs, decreasing the overall burden on the system and freeing up high-end services to those children with the greatest needs.[1] Screening and referral systems exist both between providers and within each practice, where a community level system helps individual providers to develop and sustain their own screening and referral practices.[2] In Colorado, the Early Childhood Councils are uniquely positioned to help develop these screening and referral systems.

This brief, the fourth in a series on the efforts of Colorado's Early Childhood Councils to integrate health and early childhood services at a community-level, explores both nascent planning efforts as well as a smaller group of Councils' experiences implementing screening and referral systems.

CONTEXT

The Colorado Trust (TCT) has invested $5.75 million over six years (2009-2014) into an Early Childhood Health Integration Strategy that "assists Early

> ### *Summary of Recommendations*
>
> *1. Expand the role of families in the screening & referral system.*
>
> *2. Engage state partners and other Councils in identifying potential strategies and practices.*
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> *3. Develop a screening and referral implementation plan that is feasible, even if it requires starting small.*
>
> *4. Identify and incorporate technology strategies.*
>
> *5. Incorporate financial and non-financial incentives into the screening and referral process.*
>
> *6. Be strategic in engaging community leaders who can bring vision, as well as key partners to the table.*
>
> *7. Prioritize up front planning for sustainability.*

Childhood Councils (Councils) in building local system infrastructures that better integrate health and healthcare as a means to improve health outcomes for children throughout the State."[3] Aligned with this focus is a recognition that Councils would benefit from tools and, in some cases, training to support their efforts. From 2010-2012, twenty-five Councils received Health Integration implementation grants from TCT to support their efforts to strengthen the health domain of local early childhood systems.

Three years of implementation has resulted in both TCT and participating Councils identifying areas where additional support would significantly benefit the Councils in their work to better integrate the health domain into local systems of support for young children. One of these areas is developing effective screening and referral systems.

Developing screening and referral systems has only recently been identified as an area of focus for many of the Councils. However, according to the Councils' self-report, all twenty-four of the Councils (who provided data for the *Screening and Referral Systems*

for Early Childhood Health brief) are either in the very preliminary stages of exploring efforts to map early childhood health-related screening and referral systems, already engaged in a planning process of mapping resources in order to develop screening and referral networks, or looking at enhancing existing screening and referral systems.

While a number of these Councils have begun implementing referral and screening networks in their communities, many Councils have acknowledged that engaging health partners and securing their commitment to using standardized, evidence-based screening is still an area of growth.

To this end, the Councils have benefited from statewide technical assistance on developing screening and referral processes from the Colorado Assuring Better Child Development (ABCD) project. The ABCD project's mission is "to encourage the use of developmental screening tools in healthcare settings across Colorado to facilitate early identification and referral."[4]

In addition, The Colorado Trust, in 2012, offered three screening and referral system learning circles, which are peer-to-peer learning opportunities, for the Councils to share knowledge, troubleshoot barriers and seek support from the state ABCD technical assistance team. The Councils also received specific mapping and referral system development resources including STRIVE's Collective Impact model[5] and three ABCD documents - *Model Communities*, *Blueprint for Community Screening and Referral Road Map* (a tool that provides steps to map and develop a referral and screening process for oral health, developmental health and/or social-emotional health), and *Using Data to Tell the Story: Screening, Referral and Follow-up*.

RESEARCH METHODS

To understand how the Councils are planning and implementing their screening and referral systems, this study asked the following research questions:

- What screening and referral system strategies are planned or already underway by Councils?

- What are the barriers experienced by Councils as they plan and implement screening and referral systems?

- What strategies are Councils employing around screening and referral?

Recognizing that the Councils operate in different environments and are focused on different health issues, the brief also examines variations in the context of urban and rural settings.

The following research methods were used:

- A survey of twenty-four Councils to understand planned and current Council screening and referral practices, as well as barriers; and

- In-depth interviews with staff representing five Councils, in order to better understand specific strategies and barriers.

Qualitative survey and interview data were coded and the codes were analyzed to generate themes. Quantitative survey data was used to help explain the themes.

The brief's findings are structured to reflect the flow of the Councils' planning and implementation efforts, starting with an overview of developing a screening and referral system, followed by sections that are focused on more concrete steps within this process including developing the screening and referral road map; implementing a screening and referral system; and recommendations generated from the analysis to inform the Councils' efforts moving forward.

I.   DEVELOPING A SCREENING & REFERRAL SYSTEM

A well designed screening and referral system is based on a proactive examination of existing practices, resources available, and development of efficient referral procedures.[6] Referral procedures may include such things as the use of a screening tool, common forms for screening, information sharing protocols, and a procedure for the referral agency to learn about the results of the referral.

Effectively structured referral systems also include some form of accountability,[7] whether through legal agreements such as Memorandums of Understanding; external monitoring of the system; or other mechanisms.

Components of an effective screening and referral system

The five Councils interviewed were asked to describe their vision for an effective, fully developed screening and referral system. Most identified children and families being able *to access the right services and resources at the right time* as the ultimate goal of a fully developed screening and referral network.

Their ideas regarding the critical components of an effective screening and referral system had much in common:

Communication and Integration: A full circle of communication, where the outcome of a referral is shared with the referring agency and families and providers are linked together and have the information they need.

Evidence-based Screening Tools: Age appropriate, evidence-based screening tools used consistently throughout the system.

Partnership Agreements: Ensuring, that when designing a screening and referral system, the roles of providers and organizations at the table are clearly identified and that the system and how it will work has been mapped out prior to engaging the necessary partners for that system.

Measurement and Tracking: The ability to track the whole screening and referral process (from screening to referral to services provided) to assess the outcome on families and children, which includes measurable data that captures how many programs and services children and families have accessed.

> "We want a rich picture of what it looks like - our referral process – to ensure the right kids get the right programs." *Council Staff*

De-stigmatize Behavioral Health Challenges: De-stigmatize behavioral health issues so that a mother, for example, would not feel embarrassed by following up on a referral for post-partum depression.

Family Engagement and Empowerment: A screening and referral system that is family friendly and,

ideally, one in which parents are informed, empowered and have the support they need.

Health Partner Participation: Recruit health providers to be actively engaged in discussions and planning related to strengthening referral and screening networks.

Leadership: Key community leaders who can bring partners to the table, such as a well-respected local physician who can highlight the need for thoughtful coordination and collaboration in creating a functional screening and referral network.

Collaboration: There is no system without the necessary partners at the table – these partners should not only be recruited, but must recognize the value of participating.

To summarize, one Council identified the ingredients of a fully developed referral system as three fold: 1) the use of evidence-based screening tools; 2) coordinated efforts between referring agencies and receiving agencies; and 3) parents having the education and support they need to follow through on referrals.

Engaging providers in the screening and referral process

Screening and referral systems, by definition, depend on a network of engaged partners, including providers with access to families and the ability to provide screenings; providers with treatment capacity; Council and other coordinating staff; and families. Partners are also engaged in exploratory screening and referral system planning processes for their expertise regarding best-practices in early childhood health-related screening tools and to ensure the environmental context (i.e., available resources and providers in a community) are taken into consideration. Councils identified a variety of strategies for engaging these partners, as well as many barriers.

Partnerships that engage providers across the continuum of care are the heart of an effective screening and referral system.[8] While the partners in the system may often be medical providers, other providers who come into contact with children and families on a regular basis, such as childcare

providers, are also important.[9] Councils frequently referenced either utilizing ABCD technical assistance providers to outreach to local clinics and hospitals and provide guidance to communities on developing their screening and referral road map; working with Colorado's Department of Health Care Policy and Financing (HCPF) and/or the Early Childhood Councils Leadership Alliance to help demonstrate the need for standardized screening and referral through state level data and current research.

One-quarter of the Councils described the importance of making the case to key stakeholders of a shared vision, specifically demonstrating how strengthening the screening and referral network contributes to that shared vision and how partners will directly benefit from participation. For example, one Council described sharing data on how many women suffered from post-partum depression in a community to secure health partner buy-in in adopting the selected screening tool and a sense of shared accountability.

Several of the Councils also described strategies to identify the levels of partnership needed on the Council and recruitment strategies specific to those levels. For example, two Councils described smaller cadres of health partners engaged in committees responsible for designing or overseeing the referral and screening systems and another mentioned their strategy of breaking up the development of the referral process across their key partners – allowing each person to take the lead on an area most applicable to their skills and relationships.

Finally, less commonly reported strategies included:

- The provision of training as incentives for providers to participate in a standardized screening and referral process and facilitate their participation by building knowledge specific to the screening and referral system.

- Cultivation of the Council's reputation as a trusted hub of early childhood information in their community.

- Leveraging well-placed Council members to recruit providers into the network, such as directors of agencies and members of the local medical society.

Barriers to Engaging Providers

Across the board, Councils noted that engaging health partners in planning and developing a screening and referral system was often a challenging process that required different approaches and strategies. A few Councils expressed concerns that some barriers to engagement could not be addressed, while others highlighted specific methods they used to work around a potential issue.

Staff turnover and capacity issues were prominent among the barriers mentioned by Councils. Some reported on the limited number of providers in their rural counties (i.e., one pediatrician and in some cases no pediatricians are available in a community). Others highlighted that there was no dedicated staff person to follow through with families at a provider's practice and that existing staff time is limited. Additional issues related to provider capacity included many providers not accepting new patients, new patients that are under or uninsured, or providers that have concerns regarding additional work load that would result from referring families to additional services.

Approximately a quarter of the surveyed Councils discussed the lack of buy-in of physicians and public health partners, specifying a general resistance to participating in a standardized screening and referral system, with some physicians choosing to simply bypass the referral system. Specific issues identified by Councils include providers finding the system too complex, providers being unaware of resources available locally, and territorialism between referral source (i.e., mental health therapist) and referring agency (i.e., public health) as an impediment to engaging providers.

Engaging Families

Effective screening and referral systems coordinate care in a manner that is patient and family centered. This requires engagement of families throughout the model, with a goal of equipping families with the knowledge and skills needed to be effective system navigators for their children.[10]

The two most frequently mentioned strategies for engaging families in the screening and referral

process were to 1) follow-up with families after a provider has made a referral to ensure the family accesses those services; and 2) to provide general education and information to families and the public more broadly.

To support family engagement, ten Councils reported training providers on how to engage families in screening, with another four Councils planning a similar type of training. Also, three Councils are training providers on how to engage families not just in screening, but also in the referral process, while another five Councils are exploring this idea. In some cases, this training centered on appropriate ways to frame and deliver information to parents, while other training was related to general communication about the importance of screenings and referrals. Some Councils also created standardized referral letters that providers can send to families, explaining the reason for the referral.

Family engagement strategies for many Councils come in the form of educating families and providing them with information they need to take action on behalf of their children. For example, sharing referral directories, self-screening tools, video clips on wellness, and online trainings. Some communities are providing more in-depth family education strategies, such as parent support groups, one-on-one information about care coordination and options, and even educating families on how to navigate the early childhood system.

At a broader, systemic level, there are Councils that are exploring who in their system should be held accountable for ensuring referrals are completed. For example, one Council has identified that an existing challenge in their system is the expectation that families should be proactive and accountable for completing a referral, instead of the providers or the point-of-contact at the Council.

The large majority of Councils, however, did not engage families at the systemic level, with only four of the Councils surveyed engaging families in the process of developing their screening and referral system. Among these Councils, strategies reported included surveying families and bringing families to the table to map resources. Another eleven Councils

reported an interest in doing this, but have not yet taken action.

Barriers to Engaging Families

Some Councils indicated that family engagement is an ongoing gap in their screening and referral system. Councils noted specific barriers such as engaging hard-to-reach populations, lack of staff capacity to engage and follow-up with families, and failure to provide necessary information to families, such as letters with details about the referral they have been encouraged to access for their child.

> **Fremont County Early Childhood Council** reported that the biggest gap in their existing screening and referral system is the lack of family follow-through with referrals. To address this, they are ensuring that families:
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> "…Get the right paperwork and referral, but also get support in a more coordinated fashion… parents are empowered, have the best knowledge and are aware of the advantages of following through on a referral." *Council Staff*

Councils also reported that barriers to family engagement derive from families not understanding the importance of health for early childhood, not having enough information, and not following through on referrals that resulted from screenings.

II. DEVELOPING THE REFERRAL ROADMAP

Developing a referral process or "roadmap" requires a diverse compendium of action steps, which includes needs assessment, tool identification and attention to existing referral models.

Mapping and Addressing Gaps

Several Councils noted the importance of data collection for the purpose of assessing needs and mapping gaps in the existing screening and referral process. Specific techniques included phone surveying mental health providers to see who is offering developmental screenings and services, surveying large clinics about the top health needs of clients, conducting key informant interviews with

partners on resources available and surveying families on their needs and concerns related to the health of their young children. Conducting scans on services to match client needs was helpful in realistically assessing local resources, as well as, targeting key partners for recruitment prior to developing the screening and referral roadmap. Research shows that when providers work together to share information, uncover gaps in services, and collaborate to address gaps, they can improve the effectiveness of their referral systems. This collaboration can also lead to the capacity to change policies and programs to better meet the needs of families.[11]

When asked about their *process* for developing a roadmap of their referral and screening system, Council responses indicated that they were in various stages of the process from early planning, implementation of mapping and needs assessment activities, to completion of the mapping process. However, irrespective of where a Council was in developing their referral and screening roadmap, for many Councils the first step in the process included engaging partners, something over half the Councils reported doing.

One-quarter of the Councils reported developing resource directories for providers and families. For example, two Councils reported they had developed specialized referral lists, one specific to dentists with information on the types of insurance they accepted and another related to mental health providers:

> "We completed mental health provider community mapping and put together a list of individual/agency providers, their specialties and the insurances they accept. This list is a component of our referral path." *Council Staff*

Fourteen of the Councils surveyed discussed other strategies for addressing gaps (i.e., lack of provider buy-in and participation, lack of efficient data tracking processes), including using health leadership teams and action teams composed of providers to develop a plan to address gaps in the screening and referral system, identifying resources (i.e., incentives, partnerships to leverage to secure health provider participation) to fill the gaps, and outreaching to those resources.

Other strategies implemented by only a few Councils included accessing data from state partners to fill gaps in knowledge about the level of need (i.e., the percentage of children under three receiving oral health screening) to identify target areas of focus for their screening and referral maps; using a strategic planning process to secure partner buy-in in addressing gaps in the screening and referral system; engaging state technical assistance to facilitate working with clinics within larger healthcare systems that require consistency in screening and referral processes across their entire system; and working with a state partner to influence the process at a larger systems level and create changes. Another Council leveraged the knowledge they had gleaned piloting a smaller screening and referral system with early childhood educators to inform this larger process with health partners.

Notably, Councils reported that specific resources have helped in the mapping process. Specifically, about one-quarter of the Councils surveyed cited using ABCD state technical assistance in developing their roadmap and identifying which providers are providing screening services.

Nonetheless, while over half of the Councils have mapped their referral process, few have gone from mapping to developing their screening and referral "roadmaps".

Selecting the Screening Tool(s)

At the heart of any referral system is the screening tool that triggers the referral. An effective referral system uses an objective and validated screening tool that is age appropriate.[12]

The planning process that many of the Councils engaged in included identifying best practices for selecting and implementing standardized screening tools. By far the most common screening tools selected by Councils were the evidence-based developmental screening tools, the Ages and Stages Questionnaire (ASQ) and the Ages and Stages Questionnaire Social Emotional (ASQ-SE). Another commonly identified tool was oral health screening through the Cavity Free at Three program, though some Councils are supporting providers to

implement other types of dental screening tools. Another tool – the Edinburgh screen for post-partum depression – was mentioned by one Council.

> **Chaffee County Early Childhood Council** described a highly systematic approach of engaging non-medical partners, such as a local church and childcare providers, to train them on the ASQ and ASQ-SE. They link these providers with their referral points of contact and collect data from their sites quarterly to troubleshoot any referral and screening challenges.

Councils reported that recruiting providers in using a standardized screening tool was not a seamless process. Two Councils are dealing with the challenge of existing screening tools being difficult to replace with the evidence-based tools promoted by their Councils. One of these communities is not only inconsistent in the use of screening tools among providers, but they also reported that screening tools are often not administered with fidelity. The other community is struggling with misunderstandings among providers around confidentiality and what screening result information can be shared.

Standard Forms and Procedures

Standardized forms are an important part of an effective referral system and come in many types, from hardcopy materials for faxing to centralized offices to online systems that share case level referral information for providers (and sometimes families) and track the overall referral system.[13]

The utilization of standard referral forms was an underdeveloped area for the surveyed Councils. Only a few Councils reported that they offered a standardized referral form to engage providers or provide technical assistance on the use of the standardized form. Only one Council reported providing both a standard follow-up form and consistent messaging to use around follow-up with families. However, a good portion of the Councils described their efforts to make the case for the use of standardized forms and screening by bringing in medical experts to inform other providers, providing trainings to providers and promoting the benefits of

standardized forms by demonstrating how a standardized form can facilitate increased system efficiency and lead to more accurate data tracking.

Councils also highlighted some of the challenges to using standardized forms. Specific challenges included:

- A lack of provider buy-in to the screening and referral process; and

- An inability to implement a standard referral form because of different technology systems and administrative policies (i.e., different referral form systems used by Child Find, which identifies children with developmental and other delays and matches them to resources, and Early Intervention, which ensures families who have children [birth to three] with diagnosed disabilities, developmental delays or substantial risk of significant delays receive the services needed to best support their child's development).[14]

Using Existing Referral Models

In addition to utilizing available screening tools and standardized forms to create effective referral systems, many Councils reported following existing models to guide their referral system efforts. Half of the Councils surveyed referenced the Colorado ABCD project that works to help communities screen as many children as possible with developmental delays and ensure those children are matched with the appropriate services.

Alternately, the Early Childhood Partnership of Adams County is using the Collective Impact model[15] (developed by STRIVE, an Ohio-based nonprofit) to create a shared agenda among stakeholders to improve their screening and referral process. Through the Collective Impact model, the Council's action team went through a "root cause analysis" in order to identify key problems in early childhood and health, frame those issues using the Collective Impact process and identify systemic drivers, specifically a lack of developmental screening and care coordination and limited understanding among

families of the importance of health in early childhood.

Finally, one Council used the Pyramid model to define the components of an ideal screening, referral and service system that best supports young children in achieving social emotional competence; and incorporates these components in efforts to strengthen the professional development of early childhood providers.

Barriers to Developing Referral Systems

Several barriers were also reported by Councils. First, as noted earlier, some Councils highlighted the issue of getting providers to use other screening tools if they have their own screening tool of choice. Second, several Councils cited clinics and hospital systems using different technology and electronic medical records as a significant challenge to a standardized screening and referral process. Third, a lack of funding to operationalize resources behind a referral was mentioned by a quarter of the Councils with one Council also elaborating that their public health department worried they would lose Medicaid reimbursement if their clients were referred to and seen by other providers.

Specific to rural Councils, barriers included not having any dental providers to provide screenings and treatment and not having pediatricians available in the community.

While many Councils noted barriers associated with the accessibility of referral options, they varied greatly in the specific barriers experienced. For example, two Councils reported that children are not eligible for certain referral services and others reported that services are neither available locally nor in timely manner. Specific to oral health screening for infants and toddlers, one Council referenced their dental providers not being comfortable seeing children under the age of three and another Council noted that dentists in their community perceived Cavity Free at Three as duplicative of the dental checks and services they are already providing.

The responses of the Councils demonstrated that they are at very different places in the development of their referral process with many still engaged in the early exploration and planning stages, while others are identifying and addressing gaps. Seven Councils however, are firmly in the implementation stage with many components fully underway, while others are implementing portions of a screening and referral system, or making plans to do so soon.

III. IMPLEMENTING A SCREENING & REFERRAL SYSTEM

The implementation of a screening and referral system goes beyond mapping out the ideal system and encouraging providers to get involved. Implementation requires training for the providers, ongoing support materials, and other types of support, such as direct assistance with redesigning office workflow.[16]

Training

In an effective screening and referral system, providers are trained not only on the screening tool, but also on *how* to apply the tool in practice.

A common strategy reported by Councils is to offer providers initial training on how to use and implement screening tools and how to make referrals and complete necessary forms. Of the twenty-four Councils surveyed, fifteen shared that they currently offer or plan to offer some type of provider training related to their screening tools, while fourteen Councils have or will have training for providers on referral forms and processes. For many Councils, provider training was specific to either the Cavity Free at Three program or the Ages and Stages Questionnaire (ASQ) forms and protocols. In cases where it was more difficult to provide training to traditional healthcare providers (e.g., in rural communities), the training was directed at child care providers, who have regular access to children and families.

Another common training strategy was the importance of partnering with experts, such as ABCD personnel or medical professionals, to deliver the training. In several instances, Councils also used a train-the-trainer model to expand the reach of the training.

Training providers on the standard forms and processes is an important first step in building a well-functioning referral network. However, some Councils also noted the importance of customized training— e.g., acknowledging that family, provider and community needs vary and therefore tailoring their training accordingly. For example, some Councils shared that their trainings were localized to reflect the service infrastructure or staff capacity in a given community. Additionally, one Council shared that the materials and handouts provided during the trainings were customized to each site and were reproducible so each provider could use the forms and tools as needed.

In an effort to develop a systemic approach to screenings and referrals, many Councils train not only on specific forms, tools and resources, but also on the overall screening and referral model/roadmap. For example, some Councils, when meeting with health partners, bring their screening and referral roadmap and walk the provider through the process.

Councils also highlighted the importance of on-going training and support. Often, this support materialized through periodic site visits to ensure compliance, information sharing about updated processes or changes to screening and referral forms, and hands-on training such as role-playing.

Finally, Councils reported barriers to conducting trainings, including the ongoing issue of providers who do not wish to be engaged in the screening and referral process. In other cases, the barrier to training is capacity— either for the Council to coordinate or deliver trainings, or for the health providers, where turnover can result in untrained providers.

Changes to Practice

Referral systems also require changes in the workflow and practices of the referring agencies in order to integrate the screening and referral process.[17]

Councils employed several strategies to influence changes in screening and referral practices:

Streamlining Communication: Some Councils reported encouraging providers to streamline communication in order to facilitate a more efficient information sharing process.

Co-Location of Providers: Another strategy is to encourage the co-location of similar providers or the co-location of the referring agency and the receiving agency. When sharing how Councils help foster connections between providers, some indicated that they currently or will in the future, encourage providers to co-locate. However, challenges to co-location can arise in situations where there is limited physical office space or high levels of territorialism. Even with potential challenges, some Councils acknowledged the benefits of co-location, which resulted in increased communication, expanded care coordination and overall improved early childhood health.

Formal Agreements: The highest level of changing providers' practices comes in the form of Memoranda of Understanding (MOUs) or other formal operating agreements between entities. Such agreements may be between providers, between the referring agency and the receiving agency, or even between the provider and the Council. In some instances, Councils reported that the agreement pertains to a commitment to communicate and share data, while other times the agreement specifies the use of a screening tool in exchange for support and resources. Whatever the nature of the agreement, it formalizes a change in providers' operating practices to support the screening and referral network.

Accountability: Councils also reported other accountability measures including, collecting and analyzing data, having specific individuals responsible for follow-up, having a Council coordinator check for consistency across providers, or in the case of one Council, having a dedicated Action Team focused on accountability.

Single Point of Contact: Finally, a change to provider practices can include having a single point of contact in the referral process instead of each provider initiating the referral process for themselves. The use of a single contact person at the point of entry to the referral system helps create strong linkages between referring agencies and agencies accepting referrals.[18] This point of entry may be housed at the Council level, with the Council acting as the liaison

between referring and accepting agencies. Alternatively, there may be a single phone number for providers to call and have their referrals handled.

One Council reported that referrals are streamlined with a single person responsible for reaching out to the family with referral information and next steps. Another Council reported a single contact for any post-partum depression related referrals. The point of contact may not always be designated to handle actual referrals, but instead be a one-stop shop of resources. Thirteen Councils indicated that they provide a single contact person to help answer questions or trouble-shoot problems providers might have related to screening tools.

Customized Technical Assistance: Ten Councils reported that they currently work with or plan to work with providers specifically on issues related to using screening tools, while nine Councils are/or plan to offer assistance on integrating screening and referrals into provider practices. Council responses also demonstrated that in some cases, it may not always be the Council that engages the providers — instead it may be the ABCD coordinator or other key community organizations who discuss providers' workflow practices. In some cases, once Councils work with providers to understand their practices, they then work together to identify needed changes.

Monitoring and Measuring

Effective screening and referral systems also use tracking, data collection, analysis, and reporting of results as a means to steadily monitor and improve. These monitoring and measuring mechanisms helps, for example, in understanding the number of children receiving screenings and referrals[19] and provides information on gaps or problems in the system. Ideally, data systems will provide information not only for monitoring, but also provide helpful information to providers and families.[20]

Data Collection: While the majority of Councils indicated that they collect or track some type of data, the methods Councils use to collect data vary. Several Councils have dedicated sub-committees or groups focused on data collection, tracking and

analysis. One Council asks its members to be responsible for collecting and providing relevant data. Some Councils have developed systems by which to regularly collect data, such as quarterly reporting, or collecting data after each Wellness Council meeting. Overall, fifteen Councils indicated they already do or will work directly with providers to collect needed data. While Councils seem to be able to readily collect data from providers, several Councils noted that they formalize this process with a specific MOU or letter of agreement governing data collection, tracking and/or sharing.

Some Councils highlighted the importance of first having a clear plan of what data are needed and how they will be utilized before compiling data. For example, one Council developed a roadmap specific to data collection and sharing to guide their work. In other communities, the planning stages of data collection included talking with existing agencies and partners to understand how they collect, track and report data to ensure consistency and avoid duplication of efforts.

Barriers to Data Collection: Although Councils realize the necessity of data collection, they also reported barriers to collecting good data. In some cases, the fact that different providers or different agencies (particularly state versus local) report their data in different formats is a barrier to consistent tracking. Additional challenges to consistency develop when data is being collected across multiple counties. For several Councils, their primary barriers to data collection and tracking are driven by limited technology—this could be outdated systems, or complete lack of electronic tabulation structures.

How Data is Used: Despite variations in how data is collected, and potential obstacles to collecting quality data, Councils reported meaningful ways they use their data. The majority of Councils recognize the importance of using data to drive decision-making about their referral and screening systems, including collecting information to assess if referrals are happening, if duplication is being minimized, or even to inform overall improvements to the system. In some communities, Councils used data to inform the expansion of their referral system and which partners to recruit.

Councils also shared that they view data as an accountability mechanism. By collecting and regularly reviewing data, Councils believe this will help them keep sites accountable and generate external oversight. Finally, Councils reported that they are sharing data back with key partners, specifically medical providers and for one Council, state legislators.

Reimbursements and Incentives

Health providers who choose to participate in a screening and referral system must commit both time and effort, which in practice often translates into an allocation of resources. To that end, many Councils have employed the use of reimbursements and/or incentives as a key strategy.

Financial Reimbursement

Many Councils recognize the importance of accessing financial reimbursement for providers who participate in the screening and referral system. Twelve of the twenty-four Councils have either provided training on how certain types of health providers can access reimbursement for screening and/or care coordination or plan to offer such training.

Councils have both identified and informed providers on potential financial reimbursement opportunities. Specifically, many Councils have focused on informing eligible providers about Medicaid reimbursement for developmental screenings. Another Council referenced enhanced reimbursement opportunities for pediatric practices operating as medical homes. ABCD state coordinators clarified that "enhanced" reimbursements are available to pediatric practices that are "certified" by Medicaid as a medical home and that developmental screening is a reimbursable service under Medicaid with very concise "rules" of when screening can be reimbursed. In addition,

reimbursement is now available from Medicaid for Cavity Free at Three screening. Both ABCD and Cavity Free at Three can help Councils educate providers about billing and reimbursement from Medicaid.

Other Incentives

Although national research identifies financial incentives as a critical component of sustainable referral systems[22], relatively few Councils were able to identify financial incentives for participation, and most Councils had non-financial incentives in place. These types of incentives included training on the screening and referral tool, technical assistance to help individual practices develop an efficient screening and referral workflow, screening and referral resources, access to technology, and providing a single point-of-contact.

The most common incentive reported by Councils was access to training. However, only a few were able to describe how the training functions as an incentive. For example, beyond building provider knowledge specific to the screening and referral system, one Council made a point to include information about medications that can be safely prescribed for pregnant and nursing mothers, meeting a broader educational need of their providers.

Most Councils provided support materials, such as the screening tools themselves, standardized agreements and forms, guides that provide information on the screening, visual and narrative information about the referral process, and referral guides. Some Councils also engaged in technology options for their referral system, expanding what providers can access, including videos for patients to view, social media and online tools, and databases. For example, the Rural Resort Region Northeast Early Childhood Council offered iPads with an online ASQ application to providers who participate.

TECHNOLOGY

Technology plays an increasingly important role for many Councils' screening and referral systems. Sometimes technology is a barrier, but at other times it has the potential to overcome existing barriers and create new ways of communicating.

Technology Solutions

Some Councils developed online strategies to support their screening and referral systems. For example, Southwest Connect (http://www.swconnect.org/) is a community website that includes an early childhood specific section with information about referral resources for providers and families located in communities in Southwestern Colorado. In addition, Councils have employed the use of online webinars to train providers on the care coordination system, as a precursor to engaging in-person. Online data tracking systems are also being explored by a few Councils to facilitate monitoring and measurement of the screening and referral system.

Some Councils are also developing more sophisticated measurement systems, moving from Excel to formal databases, learning to extract reports from their systems, and even exploring community-wide databases, although this has been found to not be feasible in some communities.

Councils also identified a variety of strategies to engage families through technology, such as online and mobile device ASQ, social media, video and webinar trainings, online access to their child's Passport, and online self-screening tools.

Not all Councils are leveraging online technology as a tool for improving their screening and referral systems. Some Councils report their systems are heavily dependent on and benefit from a common call-in or fax number for providers, where doctors can easily send referral information.

Technology Barriers

Some Councils reported that technology was a significant barrier to implementing standardized screening. Specifically, they indicated that the electronic medical records (EMR) in use by providers could not accommodate the standardized

The **Rural Resort Region Northeast Early Childhood Council** has identified technology as a key component of their referral system and is working with the Rural Health Network to develop an innovative strategy for implementing ASQ online:

"This will allow parents to access an ASQ application on a smart phone, PC or iPad. From that application they will be able to build a "profile" for each child in their family and complete the ASQ online and share information, results and scores with both healthcare and childcare providers. Each healthcare and childcare provider will also receive an iPad for their preschool or office through grant money the Rural Health Network has received. This application will share information between parents, childcare and healthcare providers, allow parents to manage their child's profile, collect aggregate data and ultimately connect each child with a medical home. We will also look forward to using this ASQ application at health fairs and community wide screening days." *Council Staff*

screening information, referral information, or the results of the referral. For one Council, the challenge was a financial one – their providers could not afford to implement an electronic ASQ in addition to their existing EMR. Another Council indicated that their providers were using EMRs that already included another screening, making it difficult to transition to the standardized screening. Meanwhile, for some Councils, it was less about whether the EMR could include this information and more about how to pull data out of various EMR systems to track if providers are doing screenings and referrals.

IV.   RECOMMENDATIONS

The following recommendations are intended to inform Councils' efforts to develop screening and referral systems.

> ### Recommendation 1:
> Expand the role of families in the screening and referral system.

While the vision of an ideal screening and referral system is one that empowers families, in practice it appears that Councils have focused more on engaging and supporting providers. Some of the engagement strategies that go beyond ensuring that families follow-through on referrals include

increased parental access to information about their child; education for families on how to navigate the system; and engaging families in the design of the screening and referral system. Councils that have not engaged families should identify ways that their referral system can empower families and expand their role in the screening and referral process.

Recommendation 2: Engage state partners and other Councils in identifying potential strategies and practices.

Most Councils are still in the planning stage when it comes to implementing significant components of their screening and referral systems. As they move from planning to implementation, there are specific activities that may require substantial new knowledge for Councils to be effective.

For example, the majority of Councils expressed an interest in offering technical assistance to providers to redesign practices around screening and referrals. While some Councils indicated they are already engaged in this work, most Councils interested in using this strategy noted it was a planned effort, but not currently underway.

Similarly, nearly all of the Councils recognize the importance data plays in building a sustainable screening and referral system. Over half of the Councils identified data and measurement strategies as a top or secondary priority. However, the majority of Councils working on this strategy reported that they are still in the planning phases and have not yet fully implemented the strategy.

Both of these are examples of significant steps planned by many Councils that require specialized expertise to undertake. Due to the complexity in implementing a screening and referral process, Councils should leverage opportunities with state partners, including key early childhood funders and policymakers, and peer Councils that have deeply engaged in this work in order to identify replicable strategies or engage in a broader conversation to address statewide barriers and develop potential solutions that can be tailored for local communities.

Recommendation 3: Develop a screening and referral implementation plan that is feasible, even if it requires starting small.

Developing a screening and referral system is uncharted territory for many Councils and can feel daunting. However, two Councils had success starting their screening and referral systems on a small scale, fine-tuning and enhancing their systems and incrementally scaling up, often recruiting new providers through the word-of-mouth of participating providers who have seen the benefit of the system to their clients. Council partners and key stakeholders can help provide the reality check for what can actually be accomplished with existing resources.

When Councils convene their stakeholders to map out a process for implementing a screening and referral system, they may have an aspirational, long-term vision for that system, but the implementation plan itself should focus on what steps, necessary to build the system, can be accomplished in the short term. Even if Councils tackle one small component of their referral system, their ability to implement that component well has the potential to organically grow their system by securing partner buy-in through evidence of success.

Recommendation 4: Identify and incorporate technology strategies.

Many innovative strategies identified from the survey and interviews leveraged technology to overcome a barrier or increase access to information for families and providers. Technology strategies can have significant upfront costs and be inflexible once they are underway, but they also have the potential to overcome barriers that would otherwise be impossible to address. As Councils explore and implement innovative technology solutions, the Councils should again consider engaging key state partners - from state technical assistance resources to policymakers and funders - in developing a feasible plan for evaluating individual technology strategies to assess their cost effectiveness and outcomes.

Information about the most effective strategies could be shared with other Councils at statewide convenings, not only reducing risks associated with selecting and implementing new technologies, but also providing an opportunity to trouble-shoot barriers that had not previously been considered.

Recommendation 5:
Incorporate financial and non-financial incentives into the screening and referral process.

Most of the strategies identified by Councils to incentivize providers to join the screening and referral network were focused on making it easier to participate. While this can facilitate participation by providers who see the value added of the system, it may not change the level of participation of providers who do not place a priority on screening and referral systems. Yet, these providers are also seeing families with young children. To address this, Councils should become informed of and fully utilize any financial incentives already available to their providers through training providers on reimbursement for screening and care coordination activities.

Recommendation 6:
Be strategic in engaging community leaders who can bring vision, as well as key partners to the table.

Community leaders, who can bring vision, as well as additional partners to the table, are valuable assets for Councils engaging in complex systems improvement efforts. These leaders can provide effective leadership for the Early Childhood Council and its membership. Whether by creating a single point-of-contact within the Council or engaging other leaders to provide resources, a Council's system efforts will benefit from active, accessible leadership.

Recommendation 7:
Prioritize up front planning for sustainability.

Significant effort goes into developing a referral and screening system and sustaining that system should be a priority. Up front planning for sustainability, recognizing that providers and Council staff will turnover with time, is critical. Councils should plan referral and screening system sustainability strategies that are not dependent on specific people, such as video-recording trainings, train-the-trainer models, and memorandums of understanding.

CONCLUSION

Among the Early Childhood Councils participating in The Colorado Trust's Early Childhood Health Integration Strategy are a number of examples of innovative and effective strategies for establishing screening and referral networks. More than one-third of the Councils participating in the Health Integration strategy have made progress in establishing referral and screening networks in their communities. The range of Councils that have already made headway in this area include both Councils located in large urban areas and small rural communities, providing an opportunity to replicate a diverse range of strategies that meet different demographic needs.

The results of the data collection and analysis also demonstrated a number of significant barriers in establishing early childhood health screening and referral networks in Colorado communities. This brief is intended to initiate a discussion on a collective approach to addressing those barriers, as well as, serve as a resource in leveraging learning in this area across Councils.

The findings and recommendations of the brief have also been consolidated into an *accompanying tip sheet*, which serves as a user-friendly tool for Councils to apply these recommendations to their referral and screening planning and implementation efforts.

ENDNOTES WITH REFERENCES

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