PENNSYLVANIA EARLY CHILDHOOD COMPREHENSIVE SYSTEMS HEALTH INTEGRATION PRENANTAL TO THREE PROGRAM

OCTOBER 2022

System Asset and Gap Analysis

CHRISTINA HARRIS, M.S.

SADIA BATOOL, MBBS

BENJAMIN COHEN, PH.D.

Christina Harris, MS, is the Early Childhood Lead for the Early Childhood Comprehensive Systems Program, Pennsylvania Office of Child Development and Early Learning.

Sadia Batool, MBBS, is the Early Childhood Family Lead for the Early Childhood Comprehensive Systems Program, Pennsylvania Office of Child Development and Early Learning.

Benjamin Cohen, Ph.D. is the Director of Evaluation at the Center for Schools and Communities, a division of the Central Susquehanna Intermediate Unit. Dr. Cohen is the Contracted Evaluation Coordinator for the Early Childhood Comprehensive Systems Program.

Acknowledgements

The Pennsylvania Early Childhood Comprehensive Systems (ECCS) System Asset and Gap Analysis Report is made possible by the valuable skills, knowledge and experiences shared by Pennsylvania partners, including families. The ECCS Team recognizes that everyone in their respective roles play an integral part in ensuring the success of PA's prenatal to age three services and supports.

The authors of this report thank participants for their time, voices, and honesty. Throughout the report those who provided their voices will be referred to as "informants" or subjects" to respect their confidentiality.

Voices found within this report represent the diversity of the Prenatal-to-Age Three (P-3) population being served in Pennsylvania.

Special Thanks

Thank you to the ECCS Advisory Committee members, including family leaders, who contributed their time and knowledge to this report to ensure cross system representation, regional representation, health integration and family leadership. Commitment among these members furthers the invaluable contribution of experience and expertise that builds a strong foundation for today's P-3 population for a better and brighter future where all families in Pennsylvania thrive and have equitable access to maternal and early childhood services and supports.

Pennsylvania's Office of Child Development and Early Learning (OCDEL) strongly believes in the value and importance of family leadership and therefore, parent and caregiver participation in this report ensures family voices are heard, valued and influential in state decision making. Throughout the ECCS System Asset and Gap Analysis Report, there are pictures of real Pennsylvania families who are receiving or who have received maternal and early childhood services. The Pennsylvania Early Childhood Comprehensive Systems (ECCS) Team thanks the families for sharing the photos because they lend greater understanding of the families who receive maternal and early childhood services.

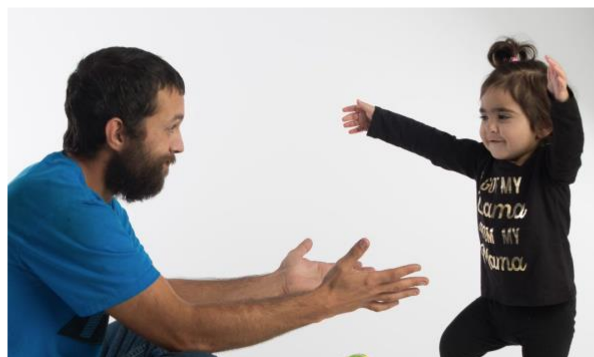


Table of Contents

Acknowledgements iii

Special Thanks iii

Executive Summary 1

Introduction 2

  Methods 3

Analysis of Findings: Describing Complexity in Early Childhood and Maternal Health Systems 5

  Strategic Planning 6

  Capacity of Prenatal to Three Systems Staff 8

  Partnerships 9

  Capacity of Data Systems 11

  Family Engagement and Leadership 13

  Equity 16

  19

  Models for Health Integration and Practice Transformation 20

.... 21

Summary 22

  Systems Asset and Gap Analysis in the Context of Systems Change 23

  Limitations 25

  Conclusion 26

Appendix A: Interview Protocol 27

Appendix B: PELICAN Overview 28

Appendix D: ECCS Advisory Committee Members List 30

Appendix E: Family Engagement Initiatives and Activities 33

Appendix F: References 35

Executive Summary

In July 2021, Pennsylvania Office of Child Development and Early Learning's (OCDEL) was selected to receive the Early Childhood Comprehensive Systems: Health Integration Prenatal to Three Program award, a five-year grant from the Health Resources and Services Administration (HRSA), to promote cross-sector collaboration and partnership, health system transformation, state-level policy and fiscal innovation, family leadership, and advancing equity. The purpose of this System Asset and Gap Analysis (SAGA) Report is to understand the landscape of the state's maternal and early childhood, particularly assets and gaps that either promote or inhibit early developmental health and family well-being. The SAGA is intended to inform development of a strategic plan to effectively organize current or future priorities, objectives, and implementation timelines within OCDEL and among its partners.

Pennsylvania has a wide variety of maternal child health and human services available to pregnant and parenting families of infants and toddlers. The developmental health and family well-being needs of families with prenatal to three (P-3) children requires a responsive and well-informed service system that uses best practices, caregiver engagement and leadership, qualified and culturally responsive staff, and clear strategic plans. The SAGA used nearly 30 interviews of ECCS partners, including parents/caregivers, to understand both resources and barriers within the multiple agencies and non-governmental organizations (NGOs) associated with maternal and early childhood systems.

The SAGA illuminated six topics central to Pennsylvania's maternal and early childhood systems. Interview respondents identified capacity issues regarding staff, the strengths and weaknesses of different partnerships and the role of local community organizations, how to enhance data systems, underscored needs to improve communication with health providers and explained different types of family engagement. Matters regarding equity were threaded through each of these topics. In focusing on these topics, the interviews provided a comprehensive landscape analysis of several factors related to successful policies and practices that bear on Pennsylvania's mission to optimally support the P-3 population. Aside from providing new data to inform practices, it was encouraging to see strong commitments among interview subjects to improve maternal and child services and outcomes by enhancing systems. In different ways, subjects described fresh ideas to improve communication, family leadership, data systems, partnerships, or equitable distribution of resources.

Introduction

In July 2021, the Pennsylvania Office of Child Development and Early Learning's (OCDEL) application was selected as an Early Childhood Comprehensive Systems (ECCS) Health Integration Prenatal-to-Three Program grantee from the Health Resources and Services Administration (HRSA), an agency of the U.S. Department of Health and Human Services. The award promotes cross-sector collaboration and partnership, health system transformation, state-level policy and fiscal innovation, family leadership, and advancing equity.[1]

The purpose of the SAGA Report is to understand the landscape of Pennsylvania's maternal and early childhood systems, address integration of the early childhood systems and health sector and identify gaps in promoting early developmental health and family well-being. The SAGA Report will lay the foundation for the ECCS Team to develop the ECCS Maternal and Early Childhood Strategic Plan, that may organize current or future priorities, objectives, and implementation timelines within the ECCS Program.

Pennsylvania has a wide variety of maternal child health, education, and human services available to pregnant and parenting families of infants and toddlers. The complex developmental health and family well-being needs of families during the P-3 period requires a responsive and well-informed service system that applies well-resourced best practices, caregiver engagement and leadership, qualified and culturally responsive staff and clear strategic plans. In this light, OCDEL applied for, and received, funding for ECCS Project. The SAGA Report is one part of the ECCS Program. It uses primarily interviews of ECCS partners, including parents/caregivers, to understand both resources and barriers within the multiple agencies and non-governmental organizations (NGOs) associated with maternal and early childhood systems.

While Pennsylvania's initial approach to conducting the SAGA was an analysis of extant statistical reports on health and education outcomes among the P-3 population, it quickly became evident that averages and percentages were insufficient to understand the gaps in the health, education and human services systems. Statistical reports provided excellent summaries of groups, although they did not lend insight into how systems succeeded, failed, or faltered. By late Spring 2022 the ECCS Team decided to create a set of questions that would prompt system partners to *explain* what the key gaps and assets are, and how they might be addressed in the ECCS Maternal and Early Childhood Strategic Plan.

[1] To learn more about the ECCS Health Integration Prenatal-to-Three Program visit the Pennsylvania Department of Human Services Pennsylvania Department of Human Services ECCS-Prenatal-to-Three Project webpage.

Methods

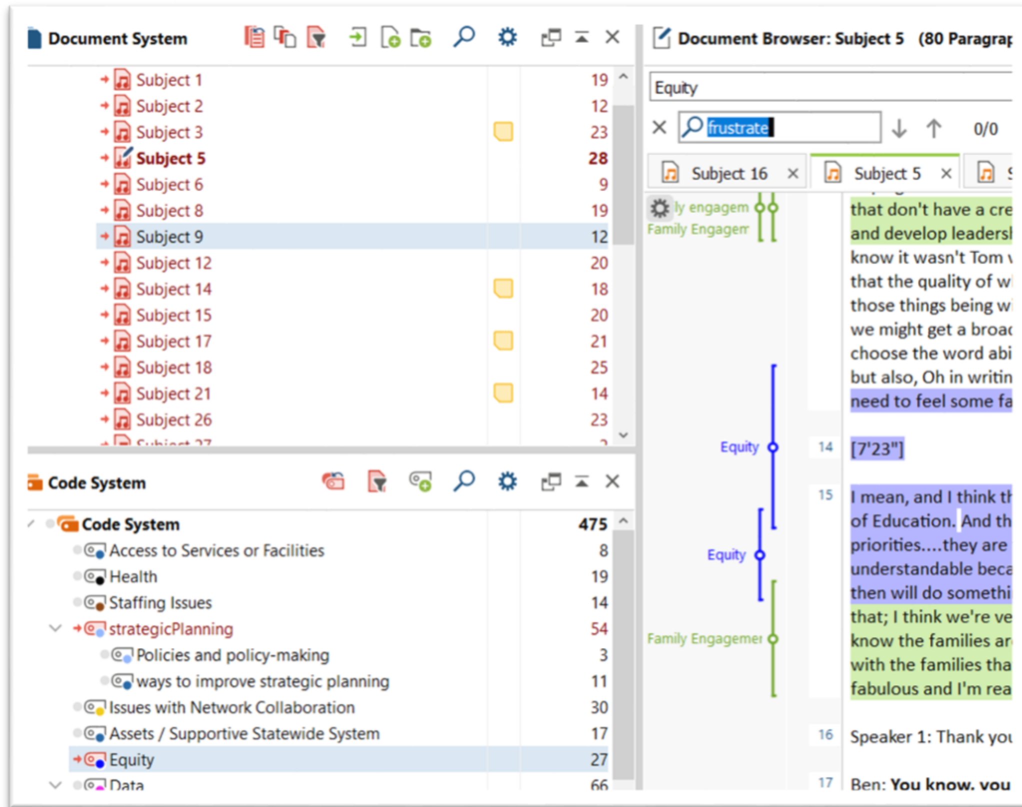
The data collection and analysis within the SAGA focused on the P-3 population because of the many important foundational skills and important health and developmental milestones that occur during those years. Pennsylvania's maternal and early childhood systems recognize that experiencing stress and adversity during the P-3 period, without sufficient supports, can have long-term consequences for child and family health and wellbeing.

This report rests mainly on qualitative analysis of interview data. A sample of interview subjects was selected first from members of the ECCS Advisory Committee (Appendix C for a list of members). Additional subjects were selected from relevant organizations and other committees linked to the work of maternal and early childhood systems. Other informants were members of three focus groups: two consisting of family leaders (n=16), and another of regional health partners and local community leaders (n=15). The breadth of informants who were interviewed for this study ensures that a diverse set of perspectives are represented. Included are key informant types, such as parents and caregivers, education and health advocates and other professionals who represent different facets of maternal and early childhood in Pennsylvania. Moreover, the sample was balanced with governmental and non-governmental subjects, who work at state and local levels. Parents and caregivers were reimbursed for their time at a rate of $25 per hour, and childcare, as needed, at a rate of $15 per hour. To accommodate families' schedules, morning and evening focus groups were held.

Interviews were semi-structured, using a set of questions included in an interview protocol (Appendix A). Interviews took place online using Zoom for audio capture, for 45-60 minutes each. Subjects consented to have their interview recorded. Audio recordings were transcribed using automated transcription services, both Wreally and Otter AI transcription services were used. Transcripts were then anonymized, and light editing of subjects' comments was made for clarity, or to remove repetitive jargon or vernacular (e.g., "like, um, like…"). References to interviews in this report include the de-identified subject number and the paragraph of their transcript (e.g., Subject 02:31).

The ECCS Team used qualitative analysis software (MaxQDA) to analyze the large set of transcript data that resulted from interviews (n=28 subjects) and focus groups (n=31 subjects). MaxQDA permits researchers to identify, highlight and organize themes (or codes) evident in subjects' transcripts (see Figure 1). After the interview transcripts were imported, the ECCS External Evaluator, Dr. Cohen assigned codes to different text segments according to the topics evident in those segments. The coding process was iterative; that is, transcripts were read multiple times and as more refined (or expanded sets of) codes were developed, coded segments were updated. When transcript coding was completed, the codes were reviewed again, and compared and analyzed in multiple ways.

Figure 1: Screenshot of MaxQDA Document and Coding Tools



Several codes were used in the analysis of the ECCS System Asset and Gap Analysis Report interview data. Some codes were pre-established according to HRSA's *System Asset and Gap Analysis: Guidance for Awardees* report. Other codes emerged as the interview data was analyzed, and segments of text could be tagged with more than one code.

The codes of primary interest to HRSA were health integration, partnerships, equity, data, strategic planning, and family leadership. The ECCS Team developed a handful of other codes because they were prominent in subjects' interview data: access to services, network collaboration and staffing.

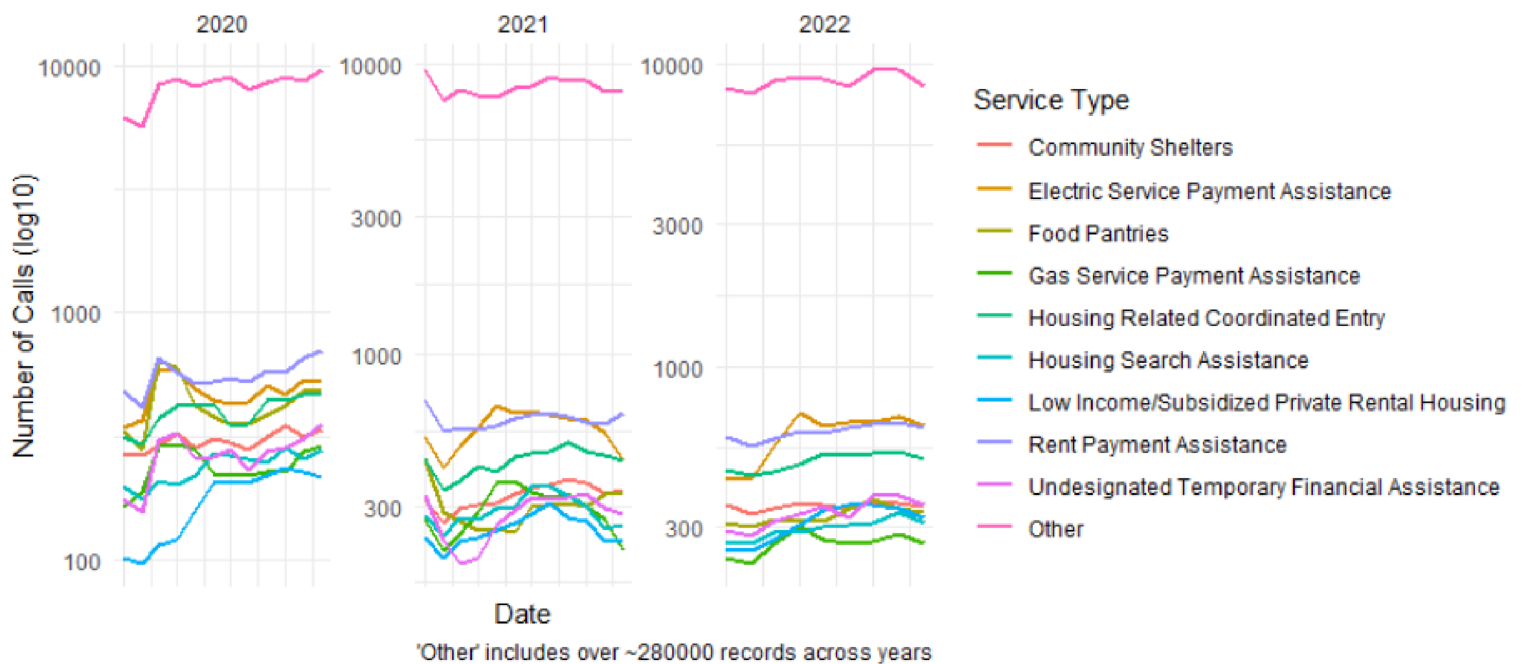
The remainder of this report provides an analysis of each of the codes as they applied to the interview transcripts. Taken together, these codes document a complex intermingling of organizations, policies, and family needs.

Analysis of Findings: Describing Complexity in Early Childhood and Maternal Health Systems

Describing the assets and gaps within Pennsylvania's maternal and early childhood systems is a large task. The systems itself are very large, with multiple government agencies (see Appendix C for the network of government organizations), dozens of advocates, non-governmental organizations (NGOs) and health care providers interacting with each another. Moreover, these key actors work across 67 counties that, depending on their function, have independent operating governmental structures and procedures.

The work taken on by these agencies is both essential in purpose and daunting in scale. Pennsylvanians' needs and demands for services are intensive. United Way's PA 211 dataset provides a sense of the scale of these needs. [2]show that between 2020 and 2022 there were more than 380,000 calls for assistance (Figure 2). Calls to PA 211 in 2020 occurred during the growth of the COVID-19 Pandemic, they reflect the set of health, safety, education, and other issues that persist in communities and impact maternal and early childhood population. Family health and well-being indicators are evident in these data as the struggle to maintain housing and food is reflected in the trends for each year.

Figure 2: Most Common Service Calls to PA 211



[2] The PA211 system provides information and referrals to the general public for many services such as child care, food banks, basic needs, and health services (PA211, 2022).

Strategic Planning

Collectively, P-3 partners and family leaders in interviews made it certain that all families should receive the full range of services and supports to build a strong foundation for lifelong health and well-being. By discussing with interview subjects their strategic plans, or how they respond to strategic plans in general, it may be more feasible to enhance their adoption and implementation. That is, interviewees can illuminate how partners respond to current state-level strategic plans and the extent to which P-3 partners align their goals and priorities.

Throughout interviews, subjects described the nature of strategic planning emerges first from funders', both public and private, goals. Yet how maternal and early childhood partners respond to strategic plans is tied to competing organizational priorities, timelines, and their agency or organization's approaches to equity. When queried about strategic planning, several subjects limited their descriptions to organizational goals, while others offered nuanced pictures of the strategic planning process. Typically, the former group had less experience participating in strategic planning activities.

Among the strategic planning issues subjects identified was the tension among funders' sometimes disparate goals. Responding multiple funders' interests required that some interview subjects to, "…be a little more creative and figure out how we can meet the needs of all our programs…" (Subject 3:14). Uneven, or creative, responses to strategic planning are also a result of the structure of certain state programs. For example, referring to the 67 separate county agencies expected to respond to a strategic plan, one interview subject explained that for their agency, "…we don't dictate [to county agencies], we provide guidance…but we don't say you must use a particularly screener or [refer to] …a strategic plan" (Subject 8:14). These circumstances may be cause for why strategic planning is, "…. [done] in such a way that you leave yourself so much wiggle room, that you're not actually really saying much at all." (Subject 11:50).

Even while strategic planning should be a collaborative activity – "the state can't do it alone" (Subject 12:88) -- other respondents had some level of doubts about it. One stated, "…plenty of organizations do extraordinary work and have mediocre strategic plans. It doesn't necessarily correlate [to outcomes], I don't think." (Subject 11:63).

Throughout interviews, respondents explained that differences in agency calendars and schedules made strategic planning complicated, "…[we] are supposed to collaborate. But you're right. None of our timelines are ever the same." (Subject 17:95). Additionally, respondents described that strategic plans need explicit references to collaboration. Other sources explained that federal requirements might impinge on developing, interpreting, and implementing a strategic plan.

Returning to the multifaceted goals inherent in strategic planning, another informant described that legislation and policies do not necessarily design integrated service solutions that support parents well.

> *"But sometimes [strategic planning] doesn't give [legislators] the entire spectrum of "Well, it actually might work better if a doula worked with alongside a home visitor and, you know, an EI specialist, to give mom specialized care, that's all coordinated and speaking to each other."* (Subject 17:95)

Thus, it is difficult to create strategic plans that are symbiotic with other programs, perhaps especially at the legislative level. Certainly, strategic planning looks rather different to actors at the county and state levels, yet enhancing the amount of collaboration might help navigate these hurdles:

> *"So, if I was writing a strategic plan, I would want to make sure that it's in the plan to make sure that those conversations continue for the long term. …I would definitely want to make sure that all the folks that touch our providers are having ongoing conversations about how to make things less burdensome."* (Subject 21:33)

Additional successful strategic planning approaches evident in the transcripts were having clearly defined outcomes (particularly from evidence-based sources), regional meetings that expand engagement in the planning process, using a theory of action, ensuring there is a cross sector support within program designs, and ensuring that coordinated meetings are explicitly included in strategic plans. One subject summarized strategic planning as beneficial when done well:

> *"So, I think it can certainly be beneficial when done well. I think it can provide focus, I think it's a really key thing, and I think it's a hard thing to do, for any agency to think about what we do well, what we should do more of and what we should partner on."* (Subject 11: 50)

In summary, strategic planning can be enhanced by aligning goals and priorities, ensuring cross-level (local, county, state) collaboration is explicitly state in strategic plans, and cross-agency coordination and funding are increased.

Capacity of Prenatal to Three Systems Staff

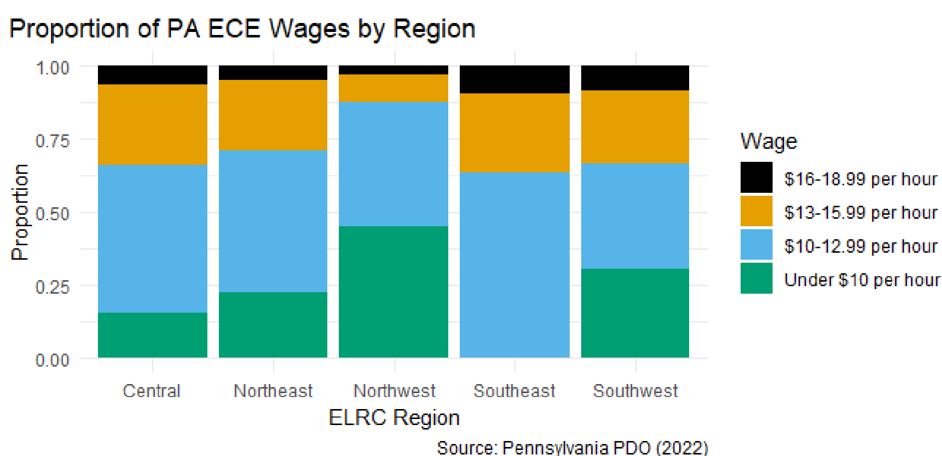
An analysis of staffing in the maternal and early childhood systems arena focuses on the vital human resources that are implement key activities essential for system operations. While staffing was not a central focus of the interview protocol, many subjects described staffing issues in the course of answering other questions.

One of the areas in which staffing emerged was in reference to equity. For example, staff turnover reduces the ability of service providers to refer, support and/or treat children and families to acceptable standards. Also, newly hired staff must be continually trained while the knowledge held by departing staff is lost if these individuals do not return to the field. Differences in wages are a key issue, as one subject explained:

> *"We know childcare compensation levels are one of the reasons why it has been such a struggle for providers to recruit and retain staff in an economy where wages are going up everywhere, and you can go work at Target and make $18 an hour, which is more than some childcare facilities have been able to pay. So, we're kind of seeing this as issues that are all entwined together."* (Subject 24:46)

Early childhood education teachers have very low wages. According to OCDEL's Professional Development Organizations (PDO) project, on average, just over 70 percent of ECE teachers in a training program (n~4000) earned $12.99 an hour or less, and one-quarter (on average) earned under $10 per hour.[3] These wages are not competitive with retail occupations. For example, recent data from indeed.com shows that the average retail sales associate wage in Pennsylvania is $13.49 (indeed, 2022). Such disparities could put many education providers in a recruitment bind, given that well over half of ECE employers paid less than the average retail wage.

Figure 3: Proportion of ECE Teachers by Wage and Region



[3] About half of teachers in the PDO were under 29 years of age, and 75 percent held a high school diploma as their highest degree. The PDO data does not include Philadelphia County. While the wage estimate is not based on a scientific sample, it does represent a wide range of locations across the state.

Knowledge loss that results from staff attrition also impacts data quality. As described elsewhere in this report, maternal and early childhood data systems are complex and, in several cases, disconnected and difficult to use. The problems of staff attrition then compound with other antagonists to data quality (described below), in turn compromising data accuracy.

Partnerships

Partnerships were examined as a general concept, because the ECCS Program focuses on comprehensive initiatives and cross-systems integration. When subjects talked about different organizations, offices, contacts, or agencies they worked with, the names of those entities were noted, and the authors delved into understanding what activities took place between them. Over 90 partners were named by subjects across interviews. Subjects described several areas in which partnerships were in place or needed development. These areas included data sharing, inter/intra-agency coordination, community outreach, and family leadership.

In terms of data sharing, subjects described both successful arrangements and those in which there were gaps. While there are a handful of formal data sharing agreements (such as between OCDEL's Bureau of Early Intervention Services and Family Supports and the Department of Health Bureau of Family Health, or with the Pennsylvania Professional Development (PD) Registry[4]), several respondents were eager to establish more of them and they showed a clear awareness of why data sharing was an important form of partnership. One agency respondent responsible for large amounts of data described:

> *"...relationship building [partnerships] is extremely important to me. But I also have to shift the mindset of my team so that they understand that these processes, this system, they all need to work so that if anybody stepped into this role, they could do this work."* (Subject 21:77)

[4] The PD Registry is managed by The Pennsylvania Key. It is essentially a workforce registry for early childhood educators, and tracks individuals' certifications, professional development and the like.

Effective partnerships also rely on complex inter- or intra-agency coordination. For example, OCDEL's relationship to numerous large managed care organizations (MCOs) requires a great deal of intermediary work to ensure OCDEL goals are addressed, service levels are maintained, and program activity monitoring and contract adherence is sustained.

Changes in leadership, whether gubernatorial or at lower levels, can be roadblocks to sustained partnerships, as well. If leadership does not inculcate a collaborative culture, new leaders arrive at siloed bureaus or offices. The way forward is to develop new patterns of exchange, and "…culture is definitely a part of it, because we are dealing with folks who have worked in their own silo." (Subject 21:73).

Informing the development of partnerships also requires, according to a maternal health advocate, strong roots in communities that receive services, "I don't think it's possible to overstate the value of having service providers in the community that can really wrap their hands and arms around [service recipients] …" (Subject 27:38). Such community partnerships are integral to reach families, according to another informant who explained, "You get involved with those grassroots organizations that are within the local communities because I think those are some of the areas where families will reach out to." (Subject 9:58).

Another state agency actor echoed that collaboration between multiple local and state providers is a salient feature of effective partnerships, yet some systems do not even know about one another:

> *I definitely think partnerships within the program, at the state and local levels, are really important. …and I think that's an area that really needs strengthened when we talk about families supporting families to be strong. It often takes that integration of lots of different systems. And if the systems don't know about each other it makes it very hard.* (Subject 6:80)

Capacity of Data Systems

Because the ECCS project focuses on systems building, data use is critical to successful decision-making for, and oversight of, maternal and early childhood systems. Coordinated data systems design has much potential for improving services and child outcomes but requires a high level of collaboration across P-3 partners.

OCDEL's data systems are central to its operations, and not surprisingly there are earlier reports that examine their quality. Such analyses have offered ideas, critiques, and guidance on ways to enhance data and data systems. For instance, a commissioned report from 2013 advised that ECE workforce data be improved, including enhanced staff qualifications data, "…most data elements are self-reported and not currently verified within the registry. ECE workforce data remains the largest and most pressing gap in PA's data collection." (Sirinides, 2013, p. 26)

Since these pressing gaps were documented in 20123, efforts to enhance data quality have progressed. A major development since Sirinides' report is the Pennsylvania's Enterprise to Link Information for Children Across Networks (PELICAN), a large information system with multiple components that touch multiple bureaus and agencies (see Appendix B).[5] Central to resolving the ongoing integration of PELICAN data is an effective Master Client Index (MCI) that is utilized across all data systems. Its absence is one reason, perhaps, that subjects in our interviews described a number of data system issues that could be addressed.

The interviews showed that data literacy varied among subjects, and that staff training would be beneficial. Some subjects were able to describe the types of data they collect or use in simple terms, while others were more sophisticated in demonstrating knowledge of data validity, how systems were interconnected, what outcome measures were collected, staff skill levels in using them, and the like. These varied responses depended on the subjects' current occupation or position in the broader system. Respondents also provided an insight into the range of different organizations using their own data and how data from other sources was used.

The current status of P-3 data systems presents a multi-faceted challenge to maternal and early childhood systems in the form of insufficiently linked data systems and limited analysis capacity. For example, one subject explained their strong preference for linked system data with a caveat:

> *…I would love to have data systems that talk to each other, I would love to be able to take a look at a family from a data perspective and see other places that they're interacting with the system, because that tells us other places where we can intervene or other services. But then I also worry a great deal about over surveillance, right? (Subject 8:92)*

Yet the reality that maternal and early childhood related data systems are not linked was made very clear by multiple respondents. One subject stated that, "…we don't have data integration at all" (Subject 17:81). Major sections of the P-3 data systems are not linked, including Pelican EI and Pelican ECS (Subject 17:81) Similarly, a highly networked non-profit leader viewed state-level data as lacking standard technology solutions, "…The rest of the world is moving on to distributed data sharing and

---

[5] More details about PELICAN can be found online. The EI required elements and ECS elements are at these links.

Application Programming Interface (API's) …our whole purpose is to have a valuable data set that's transferable to other partners…" (Subject 24:98). These types of feedback were consistent with comments from the health partners focus group. One health partner shared "Yes to EMR! (Electronic Medical Records) It must be documented. Children need to be identified through early screening and development tools. I do not believe that healthcare providers know what to do next when red flags are raised from screening" (Health Partners Focus Group, 2022).

Another subject explained the Health Insurance Portability and Accountability Act (HIPAA) may be at least one factor that is interfering with data system integration. "Like I said, HIPAA [is] probably one of the larger barriers…We're linking system and allowing permission and going through legal for that kind of work. It takes some effort" (Subject 15: 32). Another respondent shared their feeling that data collection might be going too far, although they also did not voice a clear understanding of how the data are being used, stating,

> *"...I personally don't know if we need all of this information from families and is it too intrusive to families? ... I think I don't really see how that data is really…. We collect a lot of data, I think we could probably do a little more work and really look at the data and really use it…. how do we use that information to drive change or to look at things more closely?"* (Subject 3:33)

Interview subjects also described that staff had uneven capacity to use and analyze data. These subjects explained, "We do not have the ability to analyze [data] in a way that's beyond counting... we rely on universities and outside researchers to do any type of analysis that would get to efficacy or anything beyond counting." (Subject 8:48) Similarly, staff entering data in different counties do not necessarily follow the same protocols:

> *"...the data is as good as the people that are entering the data and how they're looking at it. So, like I said, I have this county that says that they are going to open up a case for every child that is substance exposed. That's really messes with my data, right?" (Subject 8:52).*

Subject 8's rhetorical question echoed the anomalies in data summaries across different Pennsylvania regions, which was described by another respondent. They wondered if the differences were due to insufficient training in data entry, stating, "Maybe there's not any operational guidance that supports that particular thing. So, it's really interpreted differently." (Subject 21:37).

Finally, P-3 maternal and early childhood-related data were viewed as having insufficient breadth or longevity to be suitable for robust analysis. "…we've only really started to see visits consistently being reflected on our monitoring maybe this year. So, you can't even really look at it as a year-over-year comparison yet. It's just very early in that stage." (Subject 2:26). The interviews show that while there is ample data across systems, improved data literacy and standardization of procedures for collection and analysis throughout systems could lead to the ability to capture and analyze key data points around equity, access, and quality of Pennsylvania's maternal and early childhood systems and services.

Family Engagement and Leadership

Pennsylvania has a history of supporting partnerships with families within state decision-making. State initiatives have focused on ensuring family members are supported in their own leadership development and are provided with opportunities to share their experiences, expertise, and knowledge. The long history of such efforts also means there are multiple ways families interact with maternal and early childhood systems and services.

In interviews, respondents sometimes used the terms *engagement* and *leadership* synonymously, moving between descriptions of engagement and leadership in the same interview. The results mirror both forms of family interactions with the maternal and early childhood systems.

"Families and children within the maternal and early childhood systems are often in crisis and deal with multiple ongoing challenges" (Subject 5). When these families wish to identify services to help themselves, the large number of programs available may be too much to effectively digest and navigate for parents and caregivers, particularly if English is not their first language. In short, these families cannot find what they need. This observation was repeated by a parent and a policymaking/advocacy professional, respectively:

> *"A lot of programs are invisible for us as parents, I know the state programs don't always give a budget for advertising. So that's why I think a lot of programs remain invisible" (Subject 13:55)*

> *"I think that there are many systems available to families in Pennsylvania. I think the connections across systems are either invisible to families [or] just not really as strong as they should be." (Subject 11:20)*

To parents and caregivers, the dearth of advertising is one explanation for programs that seem "invisible" to them, while to the policymaker, insufficient connections across system agencies and organizations is the limiting issue. Even when a family identifies a service they want, transportation can be an even more insurmountable barrier to some, particularly for rural residents. One subject explained how the addition of transportation issues leads to a quick erosion of caregivers' efforts to get support:

> *"… then you run into a lot of barriers around transportation, and people working, and you know, it just kind of breaks down I think, because providing support over the telephone is not the same as having a dedicated person working directly with an individual to help them navigate the system" (Subject 27:22).*

Beyond identifying and utilizing services, families can be thwarted from engagement in leadership and decision-making events in multiple ways. An informant working at a non-profit organization concluded:

> *"I work with teenager parents…and I know for that population it's really hard to engage because they have a lot of problems going on. They have relationship things and abuse, and physical sexual abuse, and a lot of complicated relationships going on with their parents. Some of them are homeless, they're trying to graduate from high school where they take care of a baby, and I think, to recruit that population, which is already pretty marginalized [and] super burdened, is not ideal. I think the best way to advocate for this population is to recruit parents who are professionals, because they are already pretty doing well" (Subject 13: 75)*

This perspective stood in direct contrast to subjects who described the importance of ensuring that communities be molded inclusively into the engagement process. Informants described in direct terms that individual communities hold the information needed for creating effective solutions into practice. One family leader stated, "it's as simple as asking [from the community] what's needed" (Subject 16:53) and another family leader explained, "I think we really have to tap into touch points in populations to get them engaged… like faith leaders or community [leaders]" (Subject 22:62).

Another gap in family engagement relates to the milieu of maternal and early childhood systems decision-making meetings. For example, acronyms and jargon used in these meetings could limit caregivers' ability to participate. One agency staff member explained, "…as the meeting goes on, people will fall back into just talking jargon and then families just feel like they really can't provide..." (Subject 5:25) Furthermore, when they attend leadership events, caregivers may find themselves uncomfortable with the much larger number of professionals in attendance, "They're grossly outnumbered by professionals and feel intimidated; not wanted." (Subject 5: 25).

Confidentiality and privacy may also work against family leadership, even if caregivers are willing to attend a meeting. Depending on the topic, or on the particular service a family received, speaking about one's experiences at a leadership event is far too personal. In this regard, survivors of abuse are typically unheard in leadership forums. For example, an informant explained that,

> *"For their safety and due respect, [sharing a story] is intentionally not done… Or to bring folks together to really talk and explain what their experiences have been." (Subject 7:24)*

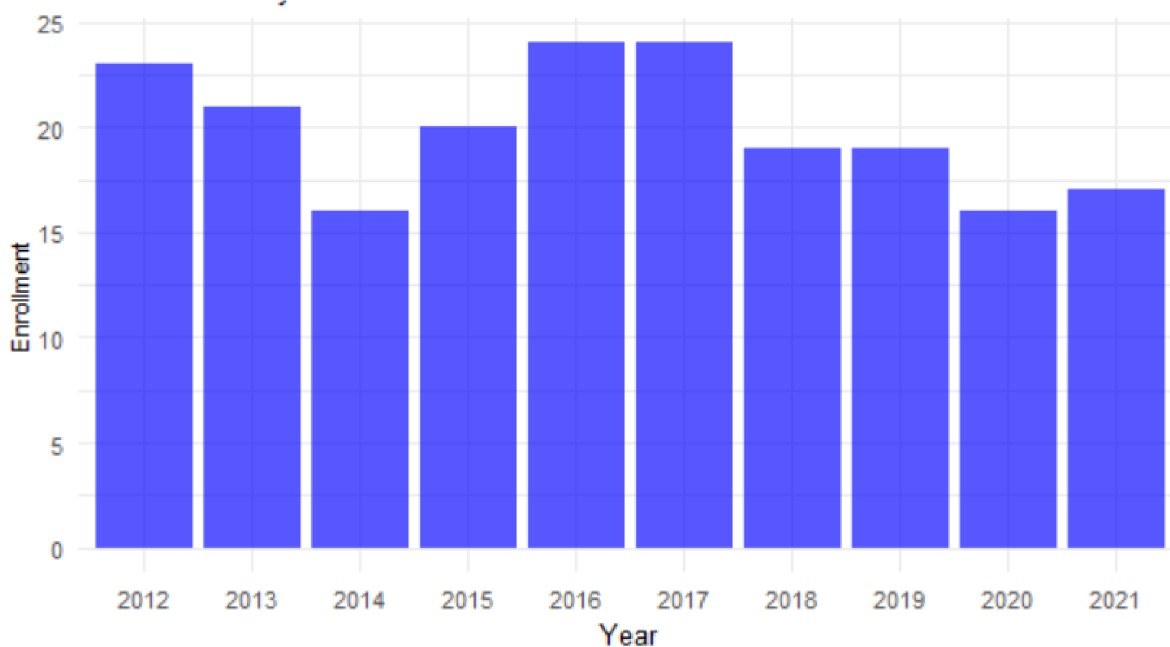
While parents and caregivers can provide ground-level input to enhance service implementation they require support – support which multiple informants described as insufficient. Many maternal and early childhood family leadership initiatives or opportunities already provide stipends and other ways to reimburse parents and caregivers for the time they invest in leadership meetings and other engagement events. However, such supports are not standardized statewide, making cross-system engagement efforts challenging. Another interview subject explained that dedicated professional position(s) are essential so understanding families and their communities is more reliable and informed directly from face-to-face exchanges. One interview subject said, "providing support over the telephone is not the same as having a dedicated person working directly with an individual to help them navigate the system" (Subject 27:22). A dedicated staff member might best be, "…a person with lived experience, in

substance use, but also with our system. And, you know, she obviously can't sit on every committee and be part of everything," (Subject 8:13)

Finally, gaps in family leadership are governed by technology, especially for rural families. Subject 5 underscored how internet and other technology is a barrier to access and leadership, while another explained, "there's even populations that don't have access to Telehealth services, and they've had to rely on the use of telephones. So, I see that as being a huge barrier." (Subject 2:88)

Although family engagement and leadership are faced with multiple gaps that curtail interactions with decision makers, or impede bottom-up information exchange, assets remain or have grown in number. One of these is a long-standing effort to support and educate families about Early Intervention, and how they can increase their involvement as partners at local, state, and national level. The Competence and Confidence: Partners in Policy Making Early Intervention (C2P2EI) program supports participants to identify best practices, connect with community resources, and navigate the Pennsylvania Early Intervention (EI) system. Figure 4 below shows the number of participants who have completed this program over time, who then in turn, become strong resources to the systems and other families in their communities and across the Commonwealth.

Figure 4: Number of C2P2EI Graduates by Year



Alongside C2P2EI's long-term effort is the recent growth in virtual and hybrid meetings that permit more interactions between families, service providers, and agency decision-makers. Such technology might be expanded to family leadership trainings or participation, for example in the Family Leadership Learning Community (FLLC), an effort by the PA's Pritzker P-3 Collaborative. FLLC supports family engagement and leadership regardless of maternal and early childhood program affiliation. Practically speaking, the FLLC provides a consistent set of resources and tools to support family leadership and is not tied to program-specific rules or protocols.

Additional assets include forms of social networking among caregivers. For example, parents and caregivers continue to support themselves, and learn about resources available to them, in the Be Strong Families: Parent Cafés, organized by a variety of maternal and early childhood programs.[6] In these meetings, parents and caregivers build their knowledge and social networks, in turn, enhancing family capacities to improve child outcomes.

Finally, assets in family leadership include the multiple state programs that reimburse them for costs associated with childcare, travel, and meals. A state agency employed explained that such engagements build an asset of greater competency, "I think that's what helps build families' competency more than the ...sharing of the information. And feeling less isolated and being part of the leadership journey together with other families [grows competency]" (Subject 3:31).

These reimbursements and other assets help to sustain meaningful family engagement and leadership. In an effort to be trauma informed, some organizations expressed expanding meaningful family engagement and leadership is difficult due to the sensitive nature of their work and the families' experiences. However, other organizations have the potential to adopt such strategies to increase family engagement and leadership opportunities.

Equity

According to the Pennsylvania Department of Human Services *Diversity, Equity and Inclusion Standards Guide*, equity is defined as ensuring "that individuals are provided the resources they need to have access to the same opportunities, as the general population. Equity represents impartiality, meaning the distribution is made in such a way to even opportunities for all the people." (Department of Human Services, 2022, p.1).

In practical terms, the extent to which different groups have access to, and positive outcomes that result from, health, education, and human services is at the center of questions about equity. Equity takes the form of social structures that undergird all aspects of health and human services, and as such, it is not surprising that it is a useful lens for P-3 systems and partners. Equity issues in maternal and early childhood systems are well-known, most often from statistical summaries, such as the *State of Babies Yearbook* or the *Pennsylvania Family Support Programs Needs Assessment Report*. Gleaned from these and similar compendia are statistics that underscore the imbalance in service delivery and positive outcomes that are associated with geography and race:

- Only 22 Pennsylvania counties met or exceeded the American Academy of Pediatrics (AAP) recommendation of six or more well-baby visits in the first year of life. (Pennsylvania Department of Human Services, 2020) Urban counties have about twice the physicians per resident, and about twice the dentists.
- There are 23 percent more hospital beds available per capita in urban areas. Seven rural counties in Pennsylvania are without a hospital (Pennsylvania Office of Rural Health, 2019)
- Black children represent 35 percent of Pennsylvania's foster care population, while accounting for just 13 percent of children in Pennsylvania (Department of Human Services, 2021).

[6] More information about Parent Cafes can be found here: https://www.paparentsasteachers.org/

- Black African American women are three times as likely to receive no prenatal care than white women (Department of Human Services, 2021).
- Black/African American infants are 2.5 times as likely to die of Sudden Unexpected Infant Death (SUID) than when White infants in PA (Bureau of Family Health, 2021).

Such quantitative disparities are reflected in the SAGA interview data, but in terms of practical problems of daily life, as well as issues in systemic program implementation. The latter issue is related to maternal and early childhood staff or their contracted service providers.

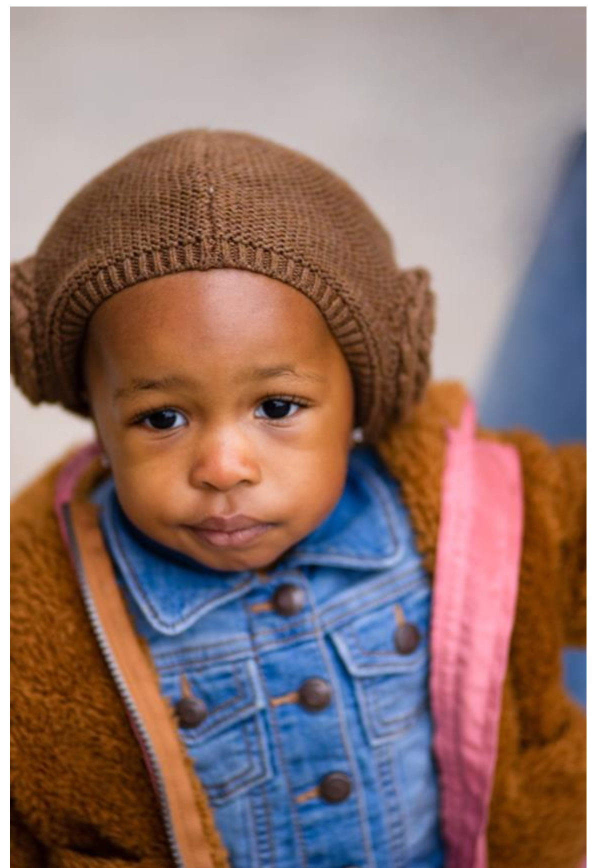
Put most succinctly, an underlying equity issue centers on the staff who deliver services. As one agency employee stated, “...we do have a real bias in how we administer [our programs]” (Subject 8:25). This matter was further described by health partners in a focus group, where one shared, “In addition to disparities by race and ethnicity, another important equity gap is being able to provide information and services in the language which is most familiar to the parent and caregiver and being conscious of immigrant states and families that do not have access to public health insurance and benefits.”

Insufficient language and translation services were evident in other comments. For instance, one health partner shared “...we’ve seen a decrease in on-site language interpreters which has been creating barriers to immigrant communities and has put the burden on families in providing their own translation support and if they can’t some providers have been canceling a caregiver’s appointment until they can.” The kind of direct communication translators can provide echoes another parent’s view that invitations to participation are best done *verbally*, stating, “I would not have known about leadership opportunities if it weren't for a personal invitation. Those mean more than flyers or media online." (Family Leader Focus Group, 2022).

Furthermore, different socio-cultural and economic backgrounds of professional staff may form unconscious biases among the P-3 partners serving Pennsylvania families. Such biases play out in unconscious assumptions about race can put families at risk when they are screened for health:

> *"…you end up with a lot more people saying, "Oh, she was positive for marijuana use." Maybe I have biases about her based on her race, ethnicity, her education level, et cetera. And then we are putting this family at risk, who maybe doesn't need to be reported to OCYF. So, it kind of goes both ways. We can miss kids. And then we are over-reporting people that don't necessarily need it based on our provider biases. And we know that that's a huge implicit bias." (Subject 20:146)*

Even when problems regarding bias are addressed, other inequities related to geography continue. For example, a Pennsylvania state agency employee explained, "…There's a lot of families living in rural parts of the state, [and] no matter how much money they have…they have difficulty with the internet...." (Subject 5:16). Without internet, access to information and online services is impossible. Similarly, another health partner explained how Medicaid transportation benefits are insufficient in rural areas because they cover only patients, and not necessarily parents who must accompany children to service providers (see also Subject 27 in the next section, as well).



Persons in poverty also must contend with federal regulations that complicate benefits. For example, individuals using the Pennsylvania Special Supplemental Nutrition Program for Women, Infants and Children (WIC) have difficulty accessing this benefit because it is confounded with transportation and raising young children:

> *"The transportation barrier has resonated with my experiences so much ...to take my kids to the grocery store is a challenge because they're so young and to use WIC you have to be in a grocery store. You can't shop online so that has been a huge challenge for me. ...I'm hoping that the solution will be that they can make it in a way that I can pay for the grocery with a WIC card online."* (Family Leader Focus Group Participant).

Access to benefits was also related to systemic racism, according to another subject, who stated:

> "...*families [do not feel] comfortable accessing services because the discrimination and kind of just the legacy of racism that different communities experience. I think looking at those structural factors about that are kind of undergirding why or why not they're able to get to an appointment*" (Health Partner Focus Group Participant).

Parents and caregivers struggle to muster confidence and competence was also identified as a barrier. For example, when individual families and caregivers seek assistance in education, health, and human services, at times they do so lacking confidence and know-how:

> *"…your average parent is not going to be able to [understand education policy, so] they were going to take "no" from their school district, [and then] their kid's not going to talk and everybody's going to be frustrated and nobody's going to work together. So that's where I felt that equity wasn't really part of the program. And I understand that there's a limited amount of resources to provide services, but I also understand that the law says that children should receive the services that they need, right?" (Subject 9:54)*

Similarly, this confidence was undermined in conversations with medical professionals:

> *"Jargon that doctors use is the big barrier and also many people that suffer with mental health. Sometimes you're just not in that space to receive all that information and it's like nobody ever follows up with you."* (Family Leader Focus Group Participant, 2022).

Families facing crisis also leaves them less able to join family engagement and leadership opportunities, where their voice and experiences can shape policies and procedures that influence the very systems that serve them. Ongoing emergencies and predicaments rise frequently for families within the P-3 population, leaving only the set of individuals *without* such crises to participate in engagement and leadership activities. As one agency employee concluded, "I feel like in a lot of ways we're doing a lot of cream skimming with the families that we have involved in leadership opportunities." (Subject 5:15). This observation is consistent with Subject 13's conclusion (see Family Engagement and Leadership section) that parents and caregivers with professional or educational training in the maternal and early childhood field are the best choice for family engagement and leadership participants. The goal of an inclusive and equitable feedback system seems lost in this divide.

Models for Health Integration and Practice Transformation

Models for health system transformation and practice transformation can advance practices to support the connection of the health sector and systems of human and education services (e.g., home visiting, early intervention, childcare, etc.). Because maternal and early childhood health, education and human services are inextricably bound to one another, health integration practices are essential for an efficacious maternal and early childhood system. Researchers Brooke Fisher, Ann Hanson and Tony Raden stated the importance of health integration in their report directly:

> *"…good health in early childhood is an essential component of school readiness. The benefits of health and learning are mutually reinforcing a healthy child is less likely to miss school and is better able to concentrate and process information in class, and the skills the child acquires in school often pay off in mental and physical health benefits down the road."* (Fisher et al., 2014)

Despite the substantial knowledge base linking health with human services and early education outcomes, informants' comments underscore multiple gaps in services integration. Access to health services is prominent among the concerns raised, particularly for the many families that obtain health services via Medicaid:

> *…it's very difficult to find providers who actually are Medicaid providers [and] access to services for individuals who are on medical assistance is very difficult at times. And if they're in rural areas, it's even more difficult. There's just a dearth of providers, you know, in the rural areas.* (Subject 27:60)

Reimbursement policies set by private health insurance companies also factor into health service access – "it's all driven by insurance companies" (Subject 27:30). Feedback from the health partners focus group substantiated this point, as one member stated, "data sharing would also help combat power imbalances between traditional healthcare institutions and community-based organizations." (Health Partners Focus Group, 2022).

Those policies also create tough spots for families whose income is just above federal poverty level (FPL) thresholds that define benefit eligibility. The Asset Limited Constrained Employed datasets available from United Way indicate about 27 percent of Pennsylvanians are in this difficult situation (United for Alice, 2022).

Successful health integration is also constrained by the limited assets among health, human services, and education staff, the lack of integration system. As described above, P-3 staff supply is an ongoing challenge, and in turn, sustaining effective health practices is impeded (Subject 8 and 12). Compassion fatigue and burnout grow within this environment.[7] Caregivers' knowledge is shortchanged in this environment, leading to even greater gaps in service delivery.

[7] Research on nurses, for instance, found that burnout was highest among younger nurses with higher caseloads, two conditions which would be heightened with high staff attrition. (Bakhamis et al., 2019)

Standing in the path toward greater health integration is the size of the various P-3 systems itself. Enhanced communication methods may be a practical solution to this problem, and numerous subject repeated that communication must be improved.

Communication about the range of health resources available is also needed for health providers. Another professional informant explained how insufficient communication has worked to limit referrals for early intervention:

> *"…children at Early Child Care Education Centers are being referred to their pediatricians for behavioral concerns or developmental concerns. And not all pediatricians are aware of all the resources that they have available and within like neuro psychiatry or within developmental pediatrics right now."* (Subject 19:72)

Understanding the whole sequence of touch points between a service recipient and a provider organization is essential for successful health integration.

> *"…it requires a whole change to everything so it's not just asking two questions about [services]. It's not just having a sign in your waiting room that's in Spanish. It is working with a variety of people to engage in thinking meaningfully about what the [engagement] process is from the minute somebody Googles your organization all the way up through."* (Subject 7:19)

Summary

This System Asset and Gap Analysis Report focuses on partnerships, data systems, family leadership, equity, health integration, and staff capacity. In focusing on these topics, the interviews provided a comprehensive analysis of several factors related to the policies and practices that impact Pennsylvania's P-3 systems. The interviews also revealed strong commitments from subjects to improve maternal and child services and outcomes by enhancing systems. In one way or another, subjects described fresh ideas to improve communication, data systems, partnerships, family leadership and equitable distribution of resources.

With nearly 30 completed interviews, multiple focus groups, and a review of extant data and reports, the authors were increasingly aware of the scale of the project at hand. The size and complexity of P-3 systems forces the realization that addressing a system's gaps while leveraging its assets is a large task, to say the least. Fortunately, Pennsylvania's ECCS Program is not the first effort to consider large scale systems change. Since the systems change road has been traveled previously, there are maps that may serve to guide decision makers. One such map has been designed by Peter Senge and his colleagues at FSG, a systems change consulting firm. Their "Six Conditions of Systems Change" (Kania et al., 2018) helps to make sense of the assets and gaps identified above. Before the ECCS Team can apply this model, it is useful to take a top-level look at the findings uncovered within the interview data.

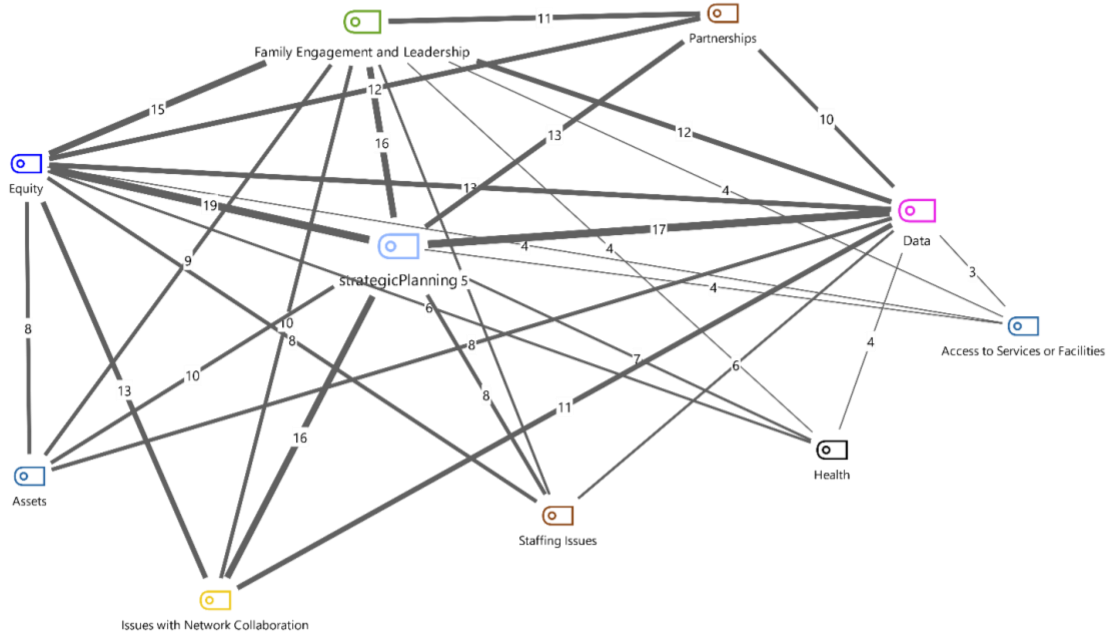
One way to get a bird's eye view of the data is a quantitative summary of the interview transcripts, specifically a measure of *coding overlap*. Across the themes, family engagement and leadership, and strategic planning, have the largest amount of coding overlap – that is, the frequency that a given text segment is associated with another code. Figure 5 illustrates coding overlap with lines drawn between each code. If a segment of text was coded with more than one code, a line is drawn between those codes. The magnitude of coding overlap is shown using thicker lines to represent greater amounts of overlap. So, strategic planning most often overlaps with segments about equity and data. Segments about data have overlaps with nine other codes (totaling over 70 coded text segments).

The code overlap also points to tensions between subjects' points of view. For example, the interviews evidenced the need of *both* community and research-based input in determining how human service programs are designed. In reviewing the ECCS SAGA Report findings, one professional echoed this by sharing "Evidence-based best practices can limit creativity and transformative practices. In some ways, they can reflect implicit biases of the researchers who are required to limit their ideas to best practices."

Though, these two groups typically do not collaborate or inform one another directly, as research-based solutions may contain biases that result from the very different worlds in which researchers and communities exist. Moreover, subjects expressed that state-level P-3 system's interest in efficiency might conflict with the need for solutions that are tailored to the community level. Thus, across the interviews we identified opposing forces that will require careful consideration going forward.

While coding overlap does not yield a specific direction for strategic planning, it substantiates the reality that no part of the system can be explained without consideration of the other. Sorting out whether strategic planning or family engagement should be a priority is difficult. Using a framework for systems change can help and discussed next.

Figure 5: Code Overlap in 28 Interviews for Selected Codes



System Asset and Gap Analysis in the Context of Systems Change

As a model of systems change, the "Six Conditions of Systems Change" framework (Kania et al., 2018) recognizes multiple system factors impinge on one another simultaneously. These factors can work on each other within one organization or across many. Understanding the factors are related to each other helps the model reflect the complexity in systems, including Pennsylvania's maternal and early childhood systems.

Kania and colleagues explain that an essential catalyst for change is shifting the conditions that *prevent* change. These conditions take place at different levels (Figure 6). First, at the structural level, change is related to policies, practices, and resources. Such conditions are superficial, but explicit – staff know about them, but they do not often impact individuals' motivations or attitudes. Second, considering relational change, connections between people and their related power dynamics are central. Different organizations can exercise their power and make choices to collaborate and exchange with one another, in turn, leveraging their resources to create mutually supportive solutions. Third, transformative change entails what the Kania and colleagues call *mental models* – those beliefs and attitudes that implicitly motivate individuals to work intrinsically toward goals. (Kania et al., 2018)

- **Structural Change.** The interviews found systems misalignment, conflicting timelines, insufficient funding (e.g., for staffing), insurance policies (e.g., for health expenses) and strategic plans as creating a set of interrelated barriers that thwart more effective maternal and early childhood systems. At the same time, a wide array of offices, administrative procedures, and human resources sustain a great deal of ongoing P-3 operations.

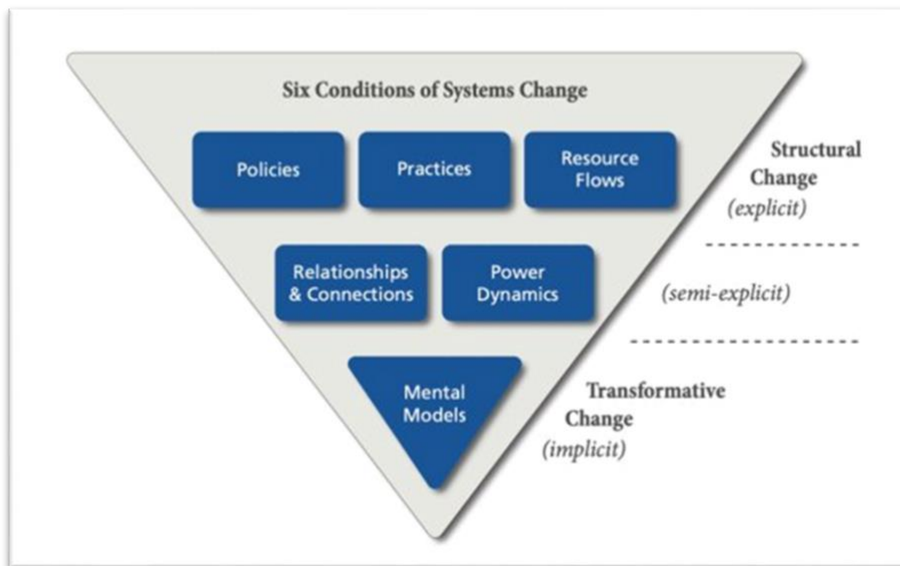
- **Relational Change.** Interview subjects conveyed both insufficient or absent relationships, as well as important ones that were assets. In one sense, the ECCS Advisory Committee (whose members were many of the interview subjects), are motivated to convene and set an agenda for change. Nonetheless, there are gaps in data systems, inefficient geopolitical structures (e.g., county-based systems), and siloed programs/personnel that remain as an obstacle to change.
- **Transformative Change.** The authors did not plan interviews to examine the kind of "deeply held beliefs" that Kania and colleagues describe. If there is any proxy to this construct in the data, it might be subjects' views on strategic planning. Since subjects conveyed a range of ideas about strategic planning – whether they referred to the same goals or had placed the same value on strategic planning itself – it might be concluded there is not a unified idea or attitude about how to approach transformative change. This does not preclude such change, although additional data collection and analysis may be necessary before understanding how transformative change might occur.

The systems change model shows change occurs in three interrelated ways. The ECCS Program's approach to systemic change, if it follows Kania's model, must account for these interrelations. Additionally, the feasibility, and organizational mission and rules will impinge how successful systems change can be.

- **Feasibility**: Communicating core goals regularly to all staff might have the lowest cost and fewest implementation barriers. Additional evaluation or research on siloes and other barriers to collaboration might fit here.[8] Decision-makers should consider the best way to achieve a cohesive set of inter-agency goals in combined a DOH/ DHS/OCDEL/PDE strategic plan.
- **Organizational Mission**: Positive family, maternal and child outcomes are at the heart of OCDEL and other P-3 partners' missions. Decision-makers could focus on changes that impact the P-3 population most directly. This might take the form staff changes, high quality data systems, or improving the delivery of culturally responsive, equitable evidence-based practices.
- **Applying a Systems Change Model**. From systems change perspective, bottom-up change can be transformational, and thus findings related to changing organizational culture – attitudes, beliefs, etc. – will have the largest effects and could be prioritized.

[8] One approach to understanding organizational siloes is to use network analysis. Individuals in the system can report who the work with most often and who then work with least often. The resulting dataset could help to describe where collaboration is occurring most and whether collaboration is clustered into tight groups or spread across multiple departments and agencies. See (Bento et al., 2020) "Organizational Silos: A Scoping Review Informed by a Behavioral Perspective on Systems and Networks."

Figure 6: A Tiered Systems Change Model



Source: Kania, Kramer and Senge (2018), *The Water of Systems Change*

Limitations

Twenty-eight interviews were completed for the ECCS System Asset and Gap Analysis Report, along with focus groups and analysis of extant statistical reports. While these sources form a substantial basis to understand maternal and early childhood systems, they do not guarantee our results are entirely valid. Among the limitations of the SAGA are, first, the entire corpus of data created was not fully analyzed, given timeframe and the time-consuming methods of qualitative data analysis. Specifically, the interview transcripts could be analyzed again by a greater number of researchers and an inter-rater reliability computed to improve the certainty of the conclusions. Nonetheless, the details about the inner workings of P-3 programs and partnerships were found to be straightforward in many cases. Second, results from interviews cannot be turned into estimates like a well-sampled survey dataset. Thus, while generalizability is limited with these data, findings have illuminated *how and why* certain gaps remain in human service systems. Third, the sample was intended to represent many types of actors – staff from maternal and early childhood state agencies, regional health partners, non-profits, advocacy partners, family leaders, and the like. Given the time and budget constraints of this project, the authors were not able to gather more than one or two representatives for some of these groups. While these limitations must be kept in mind with the results, a draft of this report was reviewed by the ECCS Advisory Committee and P-3 partners, including family leaders, who found its analysis generally acceptable. Specifically, in a series of focus groups with family leaders, regional health partners and local community leaders, participants explained that the general sentiments and themes evident in the interview transcripts echoed their experiences.

Conclusion

With this Statewide Assets and Gap Analysis Report, the Pennsylvania ECCS Program examined the education, human services, and health systems supporting the P–3 population. With the results from the SAGA, the ECCS Program is more prepared to approach strategic planning using recent data. Additionally, the SAGA helps to align the strategic plan with the health sector, early developmental health and family well-being best practices, and an integrated early childhood data systems design. In examining the capacity of staff, partnerships, data systems, family leadership, equity and models for health integration, the Pennsylvania ECCS Program can leverage the findings in this report to advance ECCS goals. Specifically, this report will help to enhance state-level infrastructure (e.g., data systems), increase alignment and communication among partner agencies, respond to issues regarding equity, and maintain links to communities to sustain critical services to the P-3 population.

Appendix A: Interview Protocol

Pennsylvania's ECCS System Asset and Gap Analysis Interview Protocol

Open with introductions, and then inquire about the subject's background and experience.

How would you describe your area of expertise?
Consider experience with state-level maternal and early childhood systems, alignment of Pennsylvania's Prenatal-to-3 (P-3) statewide systems, health equity, family engagement, data-based decision making, and social determinants of health.

How is data used throughout the Maternal and Early Childhood System that you represent, to strengthen outcomes?
Who do you share your data with?

Who shares data with you?

Can you describe any strategic plans that guide your work?
If not, which groups should develop strategic plans, and on what topics?

What are some Family Engagement and Leadership opportunities available families enrolled in your programs in their roles as parents/caregivers and leaders in decision making at the state level?
Are there any supports provided to families or parents who do work in a leadership role? (Local and state-level).

To what extent do state systems strengthen community-level Early Childhood Systems (ECS) through funding, resources, and policy solutions?

Do you feel that, within your role, your partners are clearly defined?
Who would you identify as your key partners at both the state and local level?

What do you feel these partnerships bring to your programs, or the children and families participating in the programs?

Can you describe external partners and professionals are engaged to enhance infrastructure capacity? This is defined as how much work your organization's currently available resources can accomplish in how much time. **What can you tell us about the kinds of equity issues you see in your work?**
How do current policies drive or impede equity progress?

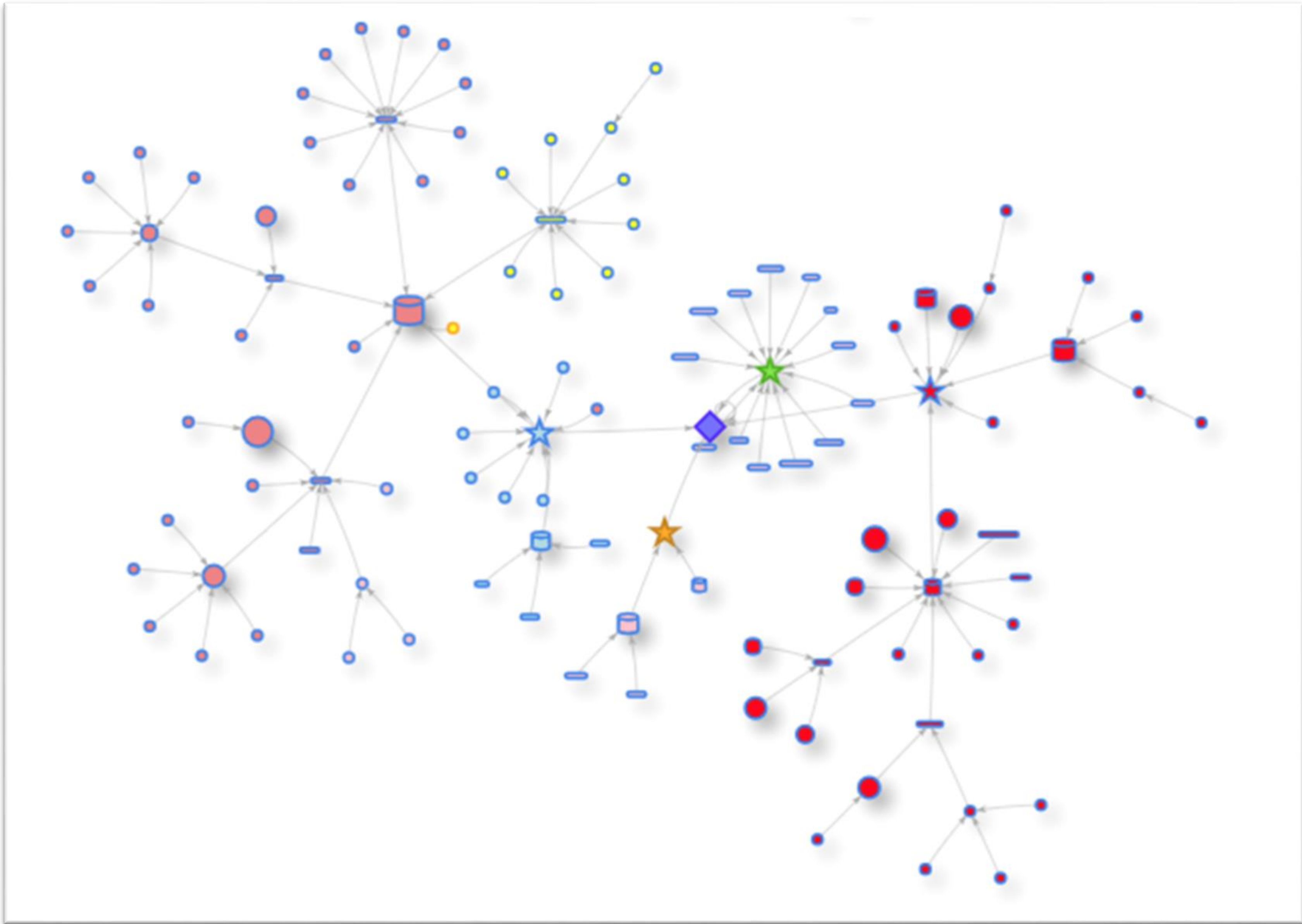
Appendix B: PELICAN Overview

DPW + PDE Systems

PELICAN

Primary User(s)	**Certification**	**Child Care Works (CCW)**	**Keys to Quality**	**Pre-K Counts**	**Early Learning Network**	**Early Intervention (EI)**	**Provider Mgt**
Certification	1						
HQ	1	1	1	1	1	1	
CCIS		1					1
Providers		1					
CAOs		1					
IG		1					
Comptroller		1					
STARS Consultants or Providers			1		1		
Classroom Assessors			1				
Head Start				1	1		
Pre-K Counts				1	1		
P3 Specialists				1			
PA Key			1	1			
Service Coordinators						1	
Teachers						1	
Financial Mgrs.						1	
Program Supervisors						1	
Commonwealth Reviewers							
Total Users	**2**	**6**	**4**	**5**	**4**	**5**	**1**

Appendix C: Connections Between Health, Education and Human Service Departments and Organizations in Pennsylvania Government



Appendix D: ECCS Advisory Committee Members List

The mission of the ECCS Advisory Committee is to support the advancement of Early Childhood Comprehensive systems project goals and to advise and inform existing Prenatal-to-age Three (P-3) Committees of collaborative strategies to increase referral and access to developmental health and family wellbeing services. Note members are listed in alphabetical order by last name.

Name	Title
Andrea Algatt	Executive Assistant, to the Deputy Secretary, in the Office of Child Development and Early Learning
Heidi Allen	Parent and Family Leader
Jameekia Barnett	Executive Policy Specialist, Office of Policy Development, Department of Human Services (DHS)
Gerria Coffee, CLC CD CBE CHW MH MA	Owner, Genesis Birth Services
Tracy Duarte	Director, Pennsylvania Head start Collaboration office
Nicole Durler	Parent and Family Leader
Robert Ferguson	Chief Policy Officer at Jewish Healthcare Foundation
Tamula Ferguson	Human Services Program Specialist Supervisor
Brandy Fox	Director of Cross Sector Infant Early Childhood Mental Health Initiatives
Joy Gibson	Parent and Family Leader
Sara J. Goulet	Special Advisor to the Acting Secretary of Human Services
Andrea Heberlein	Executive Director, Pennsylvania Early Learning Investment Commission
Luz Hernandes	Executive Director, Hispanos Unidos para Niños Excepcionales (HUNE), PA
Sarah Holland	Director, Parent to Parent of Pennsylvania and Family Engagement Initiatives
Sara Jann	Director of Policy & Advocacy, Maternity Care Coalition, Philadelphia, PA
Amy Kabiru, MSW, LSW, BCBA	Clinical Consultant, Bureau of Children’s Behavioral Health Service, Office of Mental Health and Substance Abuse Services
Kari King	President & CEO, Pennsylvania Partnerships for Children
Rebecca Lamar	Manager of Higher Education Initiatives, The Pennsylvania Key

Name	Title
Courtney Malecki	Division Director - Planning, Policy and Program Development, Office of Mental Health and Substance Abuse Services (OMHSAS) Children's Bureau Department of Human Services
Dr. Brittany Massare	Assistant Professor of Pediatrics, Penn State College of Medicine Physician Advisor, Pennsylvania American Academy of Pediatrics Early Childhood Education Linkage System
Cathy Roccia-Meier	Family Engagement, Training, and Leadership Consultant
Dr. Erin Murray	Parent and Family Leader
Sara Nelis, BS, RN, CCE	Project Manager, PA PQC & Safer Childbirth City: Pittsburgh Jewish Healthcare Foundation, Women's Health Activist Movement Global
Mae Reale	Technical Assistance and Education Specialist, Pennsylvania Coalition Against Domestic Violence (PCADV)
Amy Requa, MSN, CRNP	Senior Health Manager, The Pennsylvania Key
Kristen Rotz	United Way of Pennsylvania President and PA 211 Executive Director
Wenxi Schwab	Parent and Family Leader
Karen Shanoski, M. Mgt.	Pennsylvania Parents as Teachers State Office Director Family Support and Community Engagement Director Center for Schools and Communities
Heather Warren Smith, MSLS	Early Childhood Services Advisor, Bureau of Library Development Office of Commonwealth Libraries
Jane Stadnik	Family Resource Specialist at PEAL Center
Laura Theurer	Bureau of Managed Care in the Department of Quality and Special Needs (DQSNC), Office of Medical Assistance Programs (OMAP)
Tara Trego, M.Ed.	Director, Bureau of Family Health, Department of Health (DOH)
Michele Walsh, Ph.D., M.S.W.	Executive Assistant to the Office of Children, Youth, and Families (OCYF) Deputy Secretary

Name	Title
Ilecia Voughs	Consultant for Family Support & Home Visiting Programs Center for Disease Control’s (CDC) Learn the Signs Act Early Ambassador to Pennsylvania

Appendix E: Family Engagement Initiatives and Activities

The assets listed here are often facilitated with stipends, childcare and meal reimbursement, hotel, and airfare, etc. for the families that participate. Many OCDEL programs provide an honorarium of $25/hour and Childcare $15/hour to families participating in family engagement and leadership opportunities. Honorarium is also provided for time spent on preparing for the meetings/presentations.

1. **Family Connections for Language and Learning.** The Department of Health Bureau Family Health (DOH BFH) and OCDEL funded Family Connections for Language and Learning, a family support program made up of a team of experienced parents of children who are deaf or hard of hearing and deaf/hard of hearing adults is a family support program made up of a team of experienced parents of children who are deaf or hard of hearing and deaf/hard of hearing adults.
2. **Parent Partners.** A program that includes families and consumers, who provide a caregiver perspective to the medical home practice teams.
3. **Parent to Parent (P2P) of Pennsylvania.** P2P-PA is a statewide peer-matching program for families with children with disabilities, delays, or special health care needs, to provide emotional and other support.
4. **Parents as Partners in Professional Development (P3D).** P3D is a Pennsylvania initiative that brings together families of children in Early Intervention with opportunities to contribute to professional development and pre-service learning.
5. **Confidence and Competence Partners in Policy Making Early Intervention** (C2P2EI). C2P2EI is a leadership program funded by OCDEL. It has been successfully administered by the Temple Institute on Disabilities for the past since 1997. For its 26th year, OCDEL's Bureau of Early Intervention Services and Family supports (BEISFS) is integrating the program into its family engagement efforts, under the Parent to Parent of Pennsylvania umbrella.
6. **Family Leadership Learning Community (FLLC).** FLLC is an effort by Pennsylvania's Pritzker Prenatal to Three Collaborative that supports family engagement and leadership regardless of what program a family receives services from. Practically speaking, the FLLC funding provides a consistent and even set of resources to support engagement that is not tied to program-specific rules or protocols.
7. **Be Strong model of Parent Cafés.** In 2015-2016, to increase family engagement and parent leadership, the Strengthening Families Leadership Team, OCDEL, and Center for Schools and Communities (CSC) formally brought the Be Strong Model to Pennsylvania by partnering with Be Strong Families in a certification process for instructors. As a Certified Training Partner with Be Strong, the Pennsylvania Instructor Team from CSC has certified more than 60 local teams that includes providers and parents/caregivers to hold cafes in their community.
8. **National Conference Participation.** Many OCDEL programs support family leaders to attend national conference. Recently three Pennsylvania families attended the Division for Early Childhood Conference in Chicago and received a scholarship from Early Intervention technical Assistance (EITA) to cover for expenses. Participating families bring back family engagement strategies to further strengthen Pennsylvania's P-3 systems. Additionally, OCDEL supports family leaders participating at national gatherings, such as at the Collaborative Action for Family

Engagement under Mid-Atlantic Equity Consortium, a federally funded Statewide family engagement center in Pennsylvania and Maryland.

9. **Review of Key Reports.** Family leaders are involved in leadership roles in every step of the State Performance Plan Annual Performance Report (SPP/APR) partner feedback process, required reporting to Office of Special Education Programs (OSEP) under Individuals with Disability Education Act (IDEA)
10. **OCDEL Policy Fellowship.** Works to grow the candidacy pool of future leaders including professionals and families in Pennsylvania's early learning system at the state and local levels, and ultimately, strengthen the quality of the system to better serve children, families, and providers.

Appendix F: References

Bakhamis, L., Paul, D. P. I., Smith, H., & Coustasse, A. (2019). Still an Epidemic: The Burnout Syndrome in Hospital Registered Nurses. *The Health Care Manager*, *38*(1), 3–10. https://doi.org/10.1097/HCM.0000000000000243

Bento, F., Tagliabue, M., & Lorenzo, F. (2020). Organizational Silos: A Scoping Review Informed by a Behavioral Perspective on Systems and Networks. *Societies*, *10*(3), Article 3. https://doi.org/10.3390/soc10030056

Bureau of Family Health. (2021). *Title V MCHSBG 2020 5-Year Needs and Capacity Assessment Report*. Department of Health. https://www.health.pa.gov/topics/Documents/Programs/Title%20V%20MCHSBG%202020%205-Year%20Needs%20and%20Capacity%20Assessment%20Report.pdf

Department of Human Services. (2021). *2021 DHS Racial Equity Report*. Department of Human Services. https://www.dhs.pa.gov/about/Documents/2021%20DHS%20Racial%20Equity%20Report%20final.pdf

Fisher, B., Hanson, A., & Raden, T. (2014). *START EARLY TO BUILD A HEALTHY FUTURE* (p. 31). Ounce of Prevention Fund.

indeed. (2022, October 6). *Retail sales associate salary in Pennsylvania*. https://www.indeed.com/career/retail-sales-associate/salaries/PA

Kania, J., Kramer, M., & Senge, P. (2018). *The Water of Systems Change*. FSG. https://www.fsg.org/resource/water_of_systems_change/

Office of Childhood Development and Early Learning. (2022). *Early Intervention Family Survey*. https://files.constantcontact.com/3e3d36fe201/394ee5ff-82c6-45eb-90f0-65121b52294e.pdf

PA211. (2022). *Pennsylvania 211*. https://pa211east.org/

Pennsylvania Department of Human Services. (2020). *Pennsylvania Family Support Programs Needs Assessment Report*. https://www.dhs.pa.gov/docs/Publications/Documents/2020%20-%20PA%20-%20FSNA%20-%20Full%20Report%20with%20Appendices.pdf

Pennsylvania Office of Rural Health. (2019). *The State of Health Equity in PA Report*. Pennsylvania Department of Health. https://www.health.pa.gov/topics/Documents/Health%20Equity/The%20State%20of%20Health%20Equity%20in%20PA%20Report%20FINAL.pdf

Sirinides, P. M. (2013). *Pennsylvania's Early Childhood Data Systems: History, Uses & Opportunities* (CPRE Working Papers, p. 29). University of Pennsylvania.

United for Alice. (2022, September). *Pennsylvania | UnitedForALICE*. https://www.unitedforalice.org/state-overview-mobile/Pennsylvania