Introduction

In January 2020, the Advancing a Healthier Wisconsin (AHW) Endowment[1] funded a small pilot project in Milwaukee to create early childhood intervention data standards.[2] Part of the funding was allocated to administer a survey to a random sample of childcare providers in the city of Milwaukee about early childhood intervention data collection, sharing, and training. The research team used the survey results to begin creating a common language in the early childhood interventions space, along with developing training and data-sharing tools such as consent forms and data-sharing agreements.

The original plan was to administer the survey in spring 2020, but due to the COVID-19 pandemic and corresponding crisis in the child care sector, the research team decided to delay the survey until the sector stabilized. After careful consideration, the team administered the survey to child care providers during February 2021. Respondents who completed the survey received a $15 gift card to Amazon.com to thank them for their time.

A total of 156 respondents completed the survey. Though lower than anticipated, the effects of COVID-19 on the child care sector likely impacted this response rate. To reduce the burden on an already overly tasked industry, the team considered the current survey results to be sufficient for the purposes of this project.

A summary of the results follows[3].

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[1] This project is funded by a grant from the AHW Endowment via the Research in Early childhood Development by Improving Resiliency and EQuiTy (REDIRECT) project.

[2] A data standard creates a common language between different data collection systems. For example, if a flashlight needs two AA batteries to work, any brand of batteries can be used because batteries are made to a standard. We want to do the same thing for early childhood intervention information and create a common language that everyone can use, regardless of how the information is stored.

[3] Responses may not equal 156 due to response patterns in the survey and respondents having the option to skip questions if they did not wish to provide an answer.
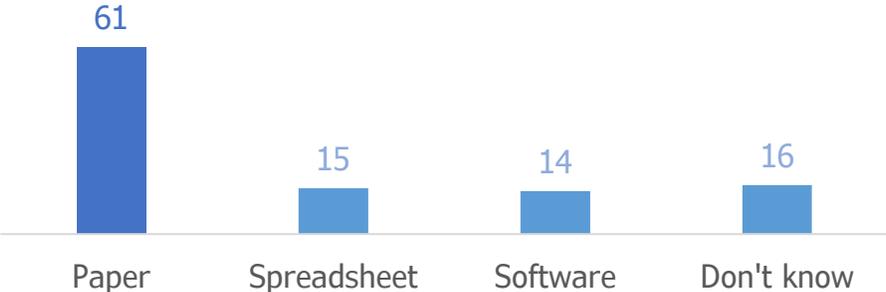
Early Childhood Interventions

When asked if their organization collected information around early childhood interventions (for example, services, support, or developmental screeners), almost 1 in 2 providers indicated they did (66 providers, 49%). Approximately 1/3 of respondents (41 providers, 30%) do not collect early childhood intervention information, and 21% of respondents (28 providers) were unsure if this information was collected.

Half of respondents collect early childhood intervention data.
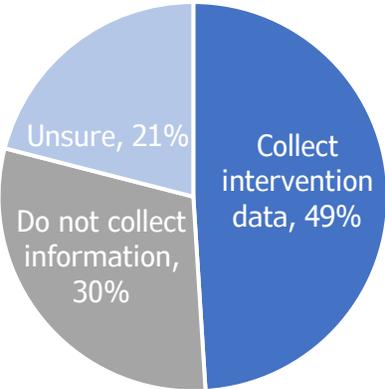
Most respondents collect early childhood intervention data on paper (61 providers), followed by a spreadsheet like Excel (15 providers), and a software program (14 providers). Sixteen providers were unsure how data was captured.

Majority of respondents collect early childhood intervention data on paper.
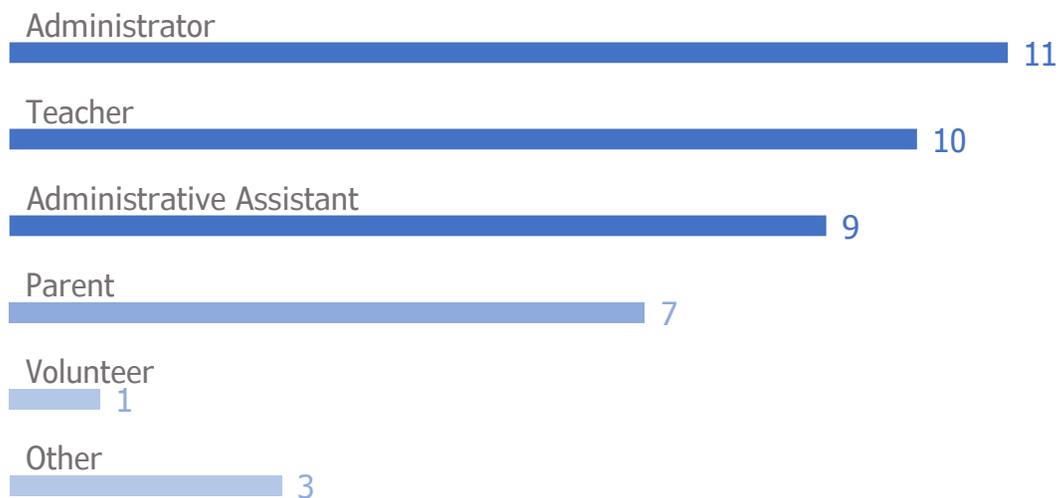
Early Childhood Intervention Electronic System[4]

For those providers who use some type of software to collect their early childhood intervention data, Procare (4 providers), Child Plus (3 providers), Bright Wheel (2 providers), Shine Insight (1 provider), and medical records database (1 provider) were the choices selected.

Teachers, administrators, and administrative assistants were the most common individuals who enter the intervention data into the electronic system. Parents, volunteers, and other individuals (managers or therapists) were also selected.

Administrators, teachers, and administrative assistants are most likely to enter early childhood intervention data into the electronic system.

Administrator
11

Teacher
10

Administrative Assistant
9

Parent
7

Volunteer
1

Other
3

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[4] Providers who selected collecting early childhood intervention data on "paper only" or were "unsure" how early childhood intervention data was stored did not answer questions in this section because it pertained to those who use an electronic system to capture the intervention information.

When queried as to how often the early childhood intervention data was checked for accuracy, almost all respondents indicated that data was checked for accuracy on some type of schedule. Eight respondents marked daily, six respondents indicated weekly, and five respondents marked a few times a year. Only one respondent indicated that early childhood intervention data was never checked for accuracy.

Only one respondent never verified early childhood intervention data for accuracy.

Daily	8
Weekly	6
Monthly	2
A few times a year	5
Other	1
Never	1
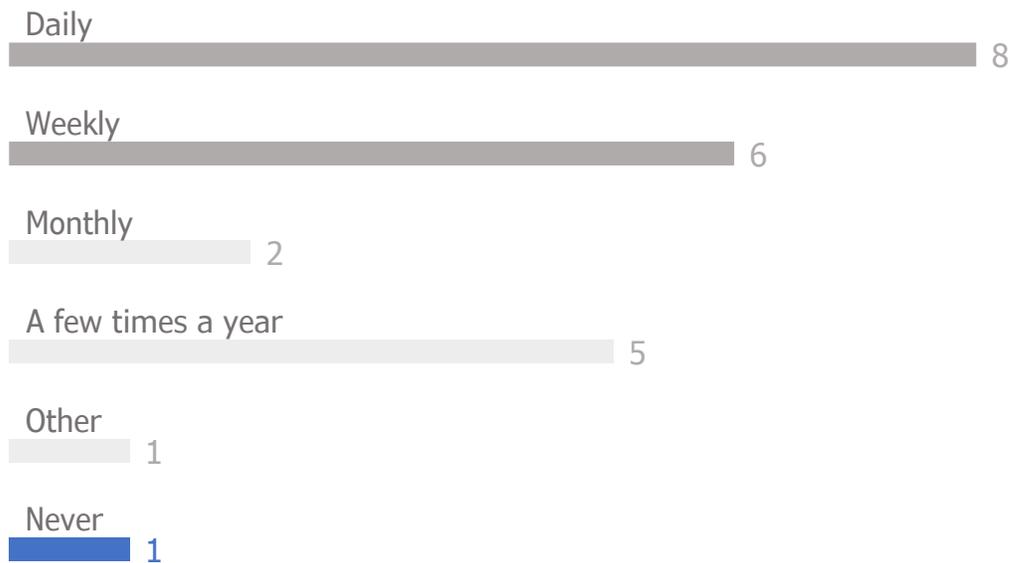
Almost all of the respondents who keep electronic records have a system that allows for a PDF of the results to be uploaded and stored (16 providers, 76%). Four respondents (19%) were unsure, and one provider (5%) did not have that capability.

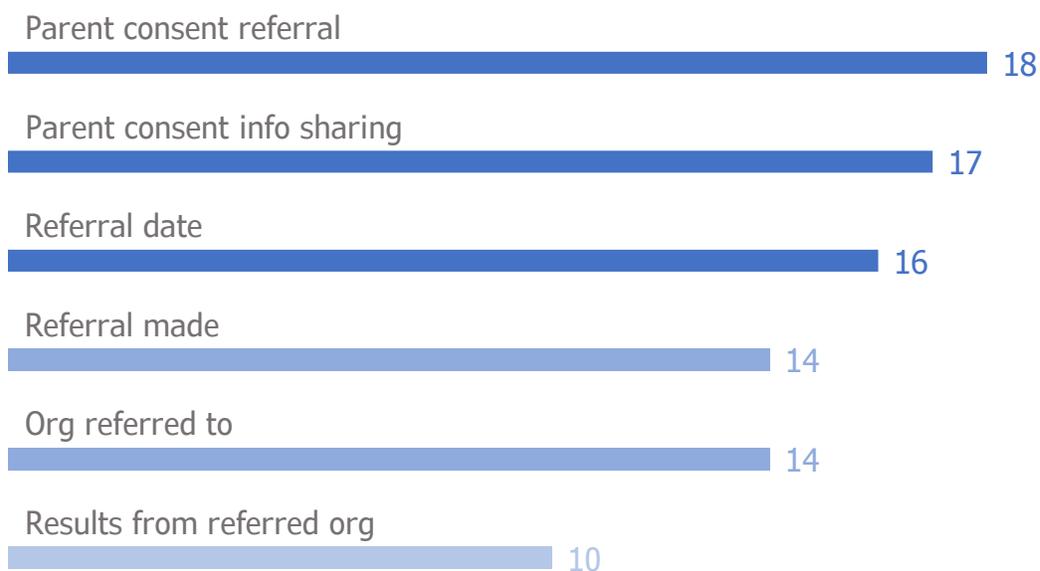When queried as to what child-level information is stored in the electronic system, child name, parent name, and parent phone were the most common options selected. Screener score and sub-section scores from the development screener were selected the least number of times.

Most providers recorded child name, parent name, and parent phone in the electronic system.

Category	Value
Child name	18
Parent name	17
Parent phone	16
Parent address	14
Parent email	14
Type of screener	10
Screener notes	9
Screener score	7
Sub-section scores	5
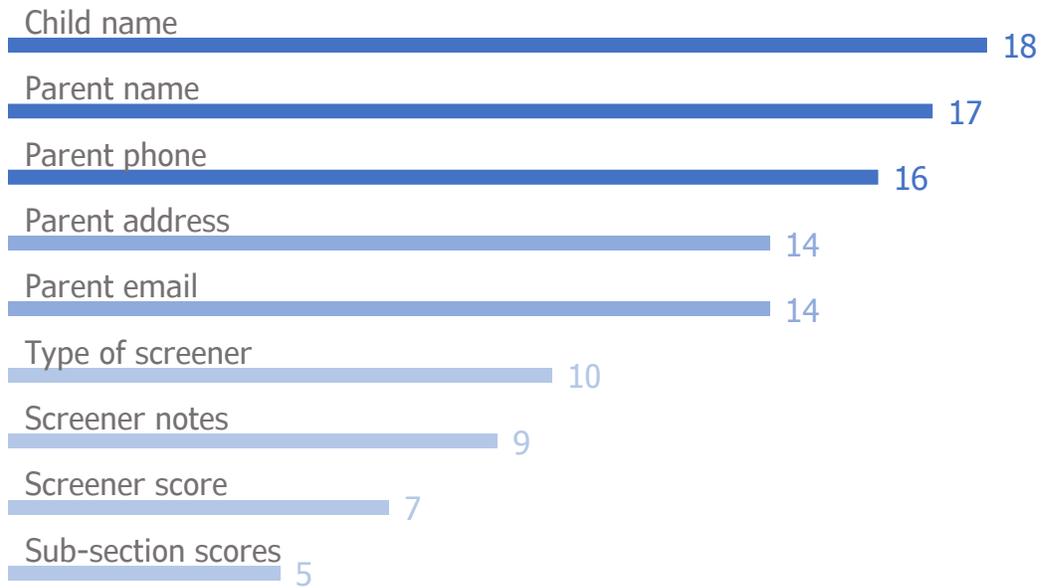
There are multiple steps in the actual early childhood intervention referral process. When asked which steps they record in the system, parental consent for the referral, parental consent for sharing information, and the date of the referral were the most frequent steps selected. Providers selected receiving results from the organization to which the child was referred as the step that happened least.

Most providers recorded parental consent for referral, parent consent to share information, and referral date.

Parent consent referral	18
Parent consent info sharing	17
Referral date	16
Referral made	14
Org referred to	14
Results from referred org	10

Early Childhood Intervention Screener and Referral Process

The next series of questions focused on the developmental screener providers used as well as the referral process. Developmental screeners are an efficient, cost-effective way to identify potential problems related to early childhood development, including milestones related to physical, social, cognitive, and other milestones within a specified age range.

Respondents were asked to select the developmental screener that they used and stored in the electronic system. Fifteen providers used the Ages and Stages Questionnaire (ASQ). One provider used the Denver.
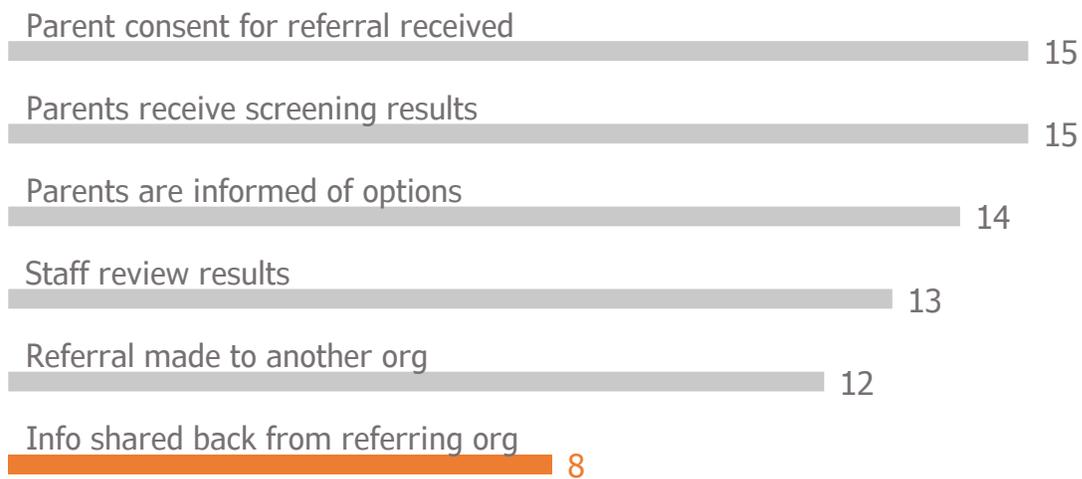
Developmental screeners provide results based on domain categories, and respondents indicated they used and scored most of the domain categories. Fine motor (21 responses) and gross motor (20 responses) were the most common, followed by communications (19 responses), problem solving (19 responses), personal social (18 responses), and parent concerns (18 responses). These domains are captured in both the ASQ and Denver.

Providers selected recording common domain categories.

Domain	Responses
Fine Motor	21
Gross Motor	20
Communications	19
Problem Solving	19
Personal Social	18
Parent Concerns	18

If a child's score on the developmental screener indicates an area of concern, the child can be referred for additional intervention services and supports. Asked about steps in the referral process when a child's score shows an area of concern, most providers receive parental consent and give parents results from the screening and potential next steps. Only eight providers indicated that they receive information back from the referral organization after a child is referred for services.

Eight providers receive information back from the organization the child is referred to for services.

Parent consent for referral received
15

Parents receive screening results
15

Parents are informed of options
14

Staff review results
13

Referral made to another org
12

Info shared back from referring org
8

Data and Information Sharing

Respondents were queried if they shared early childhood intervention data with other organizations. Nine providers (50%) indicated that they share early childhood intervention information with other organizations, like child care and health care providers. Eight providers (44%) said they did not share this information, and one provider (6%) was unsure.

Half of respondents share early childhood intervention data with others.

Unsure, 6%

Do not share information, 44%

Share info, 50%
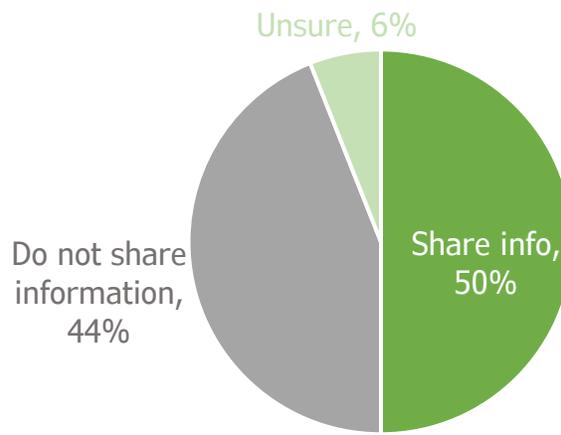
When asked to select what early childhood intervention information is shared with other organizations, not including parents, screening results was the most common option selected, followed by child's name, parent's name, and parent contact information.

Nine providers share screening results with other organizations.

Screening results — 9
Child's name — 7
Parent's name — 7
Parent contact info — 7
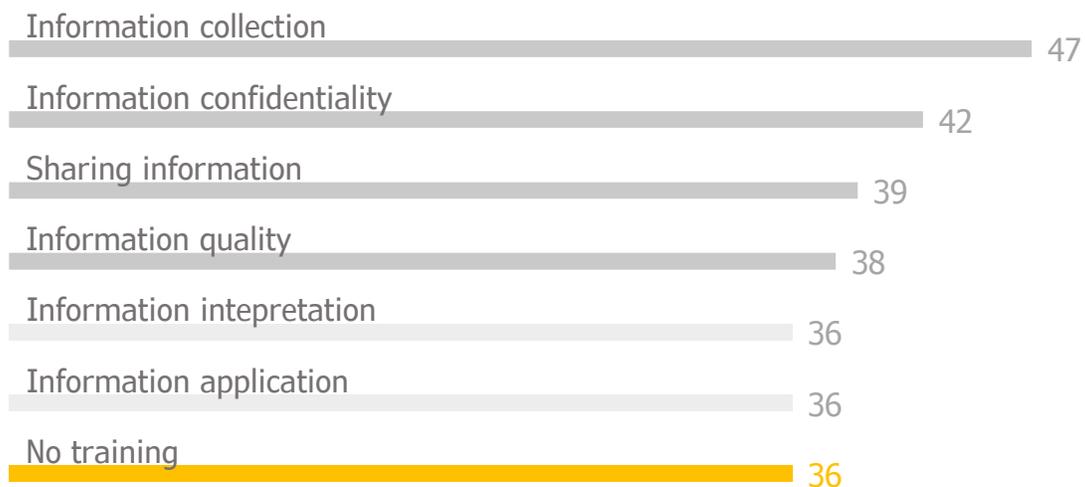Referral information — 6
Plans of care — 1
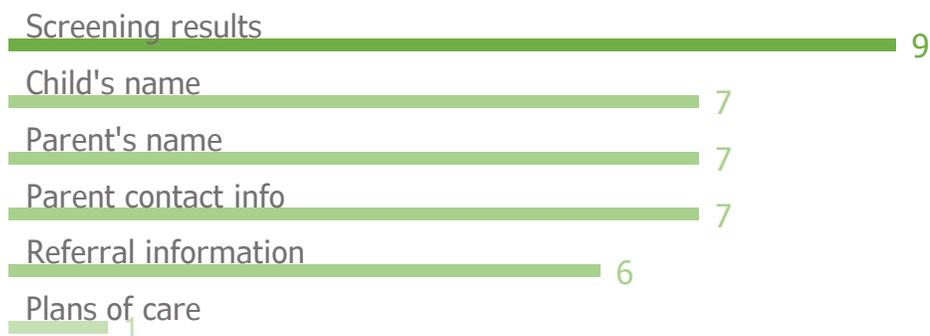
Training

The last section of the survey focused on training around early childhood intervention data and information, with the goal of using this information specifically to develop training handouts and tools for providers.

While 47 providers indicated that they provided training about information collection and 42 provided training on information confidentiality, 36 providers selected that they did not provide any training related to early childhood intervention data and information.

Thirty-six providers do not provide training around early childhood intervention information and data.

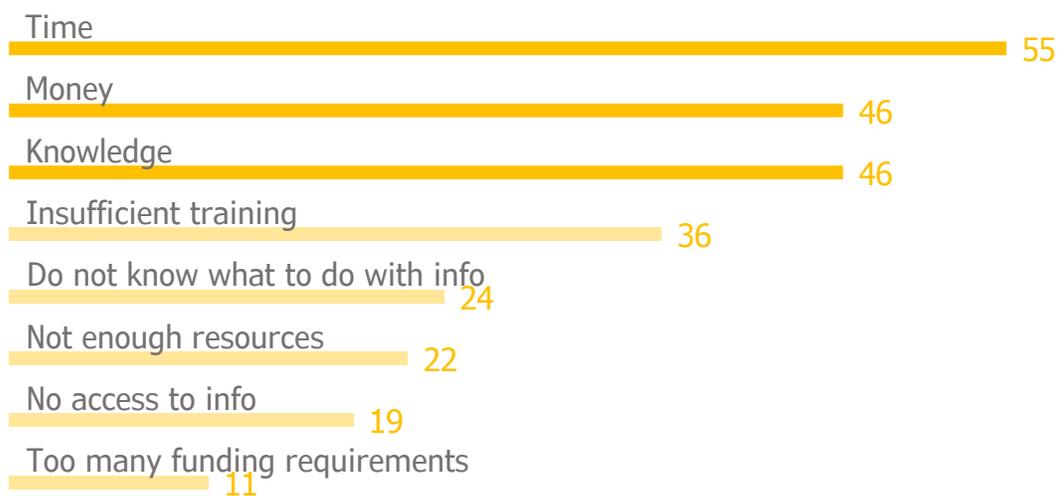|	
Information collection	47
Information confidentiality	42
Sharing information	39
Information quality	38
Information intepretation	36
Information application	36
No training	36

When asked how frequently training around the referral process is conducted, only three providers indicated that it was never offered. Twenty-four provided training upon hire, and 23 provided the training a few times a year.

Only three providers never provide training around the referral process.

Upon hire	24
Monthly	11
A few times a year	23
Annually	19
As needed	19
Never	3
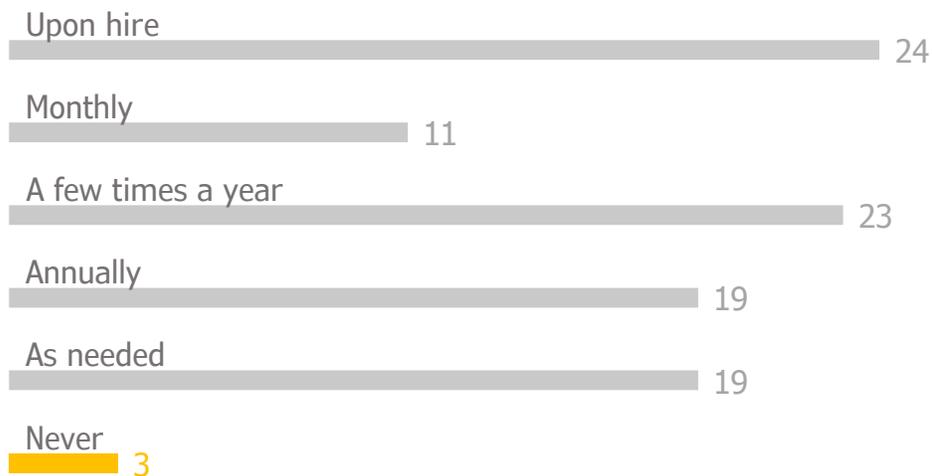
Lastly, we asked providers what challenges they face around information collection. Not surprisingly, time, money, and knowledge were the most common responses.

Providers identified time, money, and knowledge as the the biggest challenges.

Time	55
Money	46
Knowledge	46
Insufficient training	36
Do not know what to do with info	24
Not enough resources	22
No access to info	19
Too many funding requirements	11

Discussion

The purpose of the survey was to gain more knowledge around data- and information-sharing in the early childhood data intervention space in Milwaukee. While receiving fewer responses than would have been ideal, given the circumstances in the child care sector due to the COVID-19 pandemic, the results still rendered a wealth of useful information that can be utilized for future decision-making.

While just under half of the respondents indicated that they collect and record early childhood intervention data, most respondents are capturing this information on paper. This suggests that for any type of data-sharing to occur in this sector, it will likely require an infusion of resources for some type of electronic record keeping, be it a spreadsheet or some type of software.

On the positive side, those providers who currently keep electronic records related to early childhood interventions tend to maintain similar types of information, including domain scores, child name, parent name, and more. Most providers also verify their early childhood intervention data for accuracy, with only one provider indicating that this type of data is never verified. There also appears to be a small portion of providers who are already participating in some form of data- and information-sharing, with eight providers receiving results when a child is referred for additional services and nine providers sharing screening results with other organizations.

An area of need that will be addressed with this project includes training on data- and information-sharing. Currently, 20 percent of providers (1 out of 5) do not offer any type of training on data sharing. Not surprisingly, many providers indicated that time and money were the biggest challenges to conducting training on these topics.