NOW WHAT?

Next Steps for Using Interoperable Home Visiting Data

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HRSA
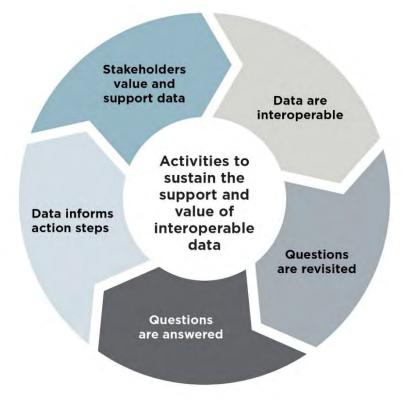Maternal & Child Health

INTRODUCTION

In 2018, the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program was extended through the Bipartisan Budget Act of 2018 (Pub. L. 115-123) (BBA). Part of this bill directed the Health Services Resources Administration (HRSA) to establish standards for the exchange of data between home visiting, other state programs, and federal agencies to begin making data interoperable. A hallmark of interoperable data is the presence of a mechanism by which data are shared automatically across sources without needing human intervention. Once data are made interoperable, program leaders and policymakers can use interoperable data to answer questions about children and families more efficiently and effectively.

However, the interoperability process does not stop or start once home visiting data are made interoperable. In fact, awardees must start considering how they will use, maintain, and sustain interoperability from the time they enter the initial stages of implementation. Understanding the activities that might need to be conducted to sustain the use of interoperable home visiting data can inform the planning process and prepare state leaders to best use interoperable data when they are available.

The goal of this resource is to highlight considerations for MIECHV awardees after data are made interoperable. Awardees may go through a series of activities that can sustain the value of interoperable data (Figure 1). These activities inform one another, so there may be a feedback loop between activities. This resource highlights key considerations for each activity.

Figure 1.

Activities to sustain the support and value of interoperable data

QUESTIONS ARE REVISITED

When home visiting data are automatically shared between home visiting agencies or with other state agencies, states are able to answer questions about the children and families they serve that they may not have otherwise been able to answer. Before beginning the implementation process, awardees should spend time to develop a clear set of goals and initial questions that can be used to determine which data will be made interoperable. However, awardees should continue to revisit these questions once data are interoperable and make revisions to the questions as new goals and priorities emerge. Whenever awardees are identifying or refining questions of interest, they should engage their leadership teams, data governance bodies, and relevant stakeholders (e.g., policymakers, home visitors, or families) to ensure that these questions meet their needs.

To do this, awardees should examine the data that have been made interoperable and see if they are able to answer their intended questions. However, there may be times when these questions may need to change or be revised.

1. **The types of data that are best aligned across sources may not be able to answer initial questions.** For example, a state may be interested in understanding the average number of visits a family receives if they engage with a home visiting service. During the process of making data interoperable, state leaders may have found that the only common elements across home visiting models are whether families receive at least one visit and how long these families are enrolled in the program. These elements cannot tell state leaders about the average number of visits a family receives. Rather, awardees can report the average duration of a family's enrollment in home visiting. It is important for awardees to think about whether the question that can be answered with existing data meets their needs or if they need to make changes either to their question of interest or to the data they collect.

2. **Interoperable data may be incomplete and affect whether the question of interest can be answered**. An agreement should be established between participating organizations that requires partners to be notified when interoperable data elements are changed. Then, partner organizations can discuss how data element changes may affect the interoperability of data across organizations. However, there may be instances when data become incomplete through procedural changes in

With interoperable home visiting data, states can answer three types of questions:

Policy questions relevant to early childhood programs

▲ What areas within the state lack a comprehensive set of services for families with young children? Are there counties that do not have enough home visiting capacity to meet the needs of children and families?

Program questions about how early childhood programs are administered or function

▲ What percentage of families that receive home visiting services also receive Medicaid? Of these families, how many received a referral from their home visitor for a well-child visit in the past year? Of these families, how many went to a well-child visit in the past year?

Research questions that can inform a research project or concept

▲ What is the relationship between children in families who receive a home visit and children's scores on kindergarten entry assessments?

collection or reporting. For instance, a state may be interested in understanding the number of families that receive home visiting services who also received a referral for a developmental screen. The desired data elements are aligned across data sources, and the awardee has successfully made these data interoperable across the state. However, after the process, one home visiting model changed the way home visitors report on these referrals (e.g., asking for more details on referrals resulting in two referral variables as opposed to one variable), and all of the fields from the original referral variable are now missing. In this case, an awardee will need to think about whether they continue to use these data, knowing that information from that home visiting model will be missing, or how they plan to adapt to this change (e.g., establishing new data exchange standards that match the model's reporting change).

3. **New questions may arise**. Awardees may decide to share a few data elements initially to answer one or two questions to test the feasibility of making data interoperable. If these test cases are successful and prove to be helpful to informing policy and practice, other state leaders may start to understand how interoperable data can be used. New questions about policies and programs may become important to the state, which would require ensuring that interoperable data can answer these new questions or that more data are made interoperable.

QUESTIONS ARE ANSWERED

Some questions of interest may be answered easily once data are made interoperable. For example, if data about families' receipt of prenatal home visiting services is made interoperable with data on families' participation in a food assistance program (e.g., Supplemental Nutrition Assistance Program [SNAP]), awardees can easily calculate indicators, such as the percentage of families that receive SNAP who also receive a prenatal home visit. However, when a question is more complex and requires sophisticated analysis, awardees may consider the following options:

▲ **Internal capacity**. There may be a data-minded individual or team in the agencies that have shared data who has the technical expertise to conduct complex analyses to answer questions. These agencies may support time and effort for this individual or team to conduct the necessary analyses as part of their regular duties.

▲ **External capacity.** If there is no individual or team that has the ability to conduct the necessary analyses or these individuals do not have the capacity to take on this type of work, awardees may need to engage external support for answering questions. External support could include researchers at academic or research institutions or a contractor with statistical expertise.

Additional Resources for Obtaining External Capacity

Engaging an External Research Partner to Help Use Linked Data

Procuring Research and Evaluation Services

Awardees may want to consider how analyses will be reported or displayed. When analyses are complex, the results should be digestible and understandable to a wide array of stakeholders. If there is value in automating analyses or easily creating graphics to convey results to stakeholders, a state can embed these analyses within a data platform (e.g., a data dashboard or automated reports), which may already exist within the state or could be developed through a vendor. Lastly, awardees should also think about how regularly analyses should be conducted and how these findings will be included into a data platform.

DATA INFORMS ACTION STEPS

Program leaders, policymakers, and the public should then use the answers to their questions to inform decisions about early childhood services and systems. Decisions made with interoperable data can also improve service provision to better help children and families who need these services. States can identify gaps and needs across their state or in particular regions, or they can identify how to streamline the provision of services.

Awardees may already use data to drive decisions for programs and policies, or they may need support to begin data-driven decision-making. Regardless, when home visiting data are interoperable, state leaders have an opportunity to incorporate data into decision-making structures. Examples of using information informed by interoperable data include:

- ▲ Program leaders committing to reviewing this information during planning meetings to ensure that program decisions are informed by the data.
- ▲ Program leaders sharing this information with policymakers and legislators to help answer questions they may have about early childhood programs and services.
- ▲ Program leaders sharing this information with service providers (e.g., home visitors) so they see how their services are connected with other services and are supporting families.
- ▲ Program leaders using this information to provide technical assistance and professional development to service providers to improve services.

The following table offers examples of action steps that could be made once questions are answered.

	Example Question	Example Action Steps
Policy question	How many families follow a continuum into other home visiting services after their child has graduated of one home visiting service?	▲ Invest funds to support increasing the supply of home visiting services for older children ▲ Identify whether policies or procedures are barriers for providing home visiting services to families in need (e.g., warm hand-offs from one home visiting program to another) ▲ Conduct focus groups with families to understand the types of services they need that may not be available after their children graduate from a program ▲ Gather information from staff in early childhood services and programs about challenges they face in helping families receive similar services if the family is no longer eligible

	Example Question	Example Action Steps
Program question	What percentage of families that receive home visiting services also receive Medicaid? Of these families, how many received a referral from their home visitor for a well-child visit in the past year? Of these families, how many went to a well-child visit in the past year?	▲ Host regular meetings between Medicaid and home visiting staff to understand how referrals work between the two programs ▲ Identify ways to streamline referrals and provision of services (e.g., when offering a referral, offering a direct contact to schedule a well-child visit with pediatricians that accepted Medicaid) ▲ Analyze typical barriers to receiving a well-child visit from home visitor logs of follow-up visits after referral has been made
Research question	What is the relationship between children in families who receive a home visit and children's scores on kindergarten entry assessments?	▲ Disseminate findings about the relationship between early childhood and later child outcomes to policymakers ▲ If children in families that receive home visiting services score higher on kindergarten entry assessments than comparable peers in families that did not receive home visiting services, identify ways to offer home visiting services to families with similar demographic characteristics

STAKEHOLDERS VALUE AND SUPPORT DATA

Awardees may find that they are able to sustain the use of interoperable data more successfully if they have a long-term perspective for this work, which includes establishing a sustainability plan during the implementation stage and regularly engaging stakeholders. Because interoperable data can address both point-in-time needs and assess needs and impact over time, the more that stakeholders value and support the work around interoperability, the more likely the data can be useful. Below are some activities that would be possible as interoperable data are sustained over time.

▲ **Tracking and reporting indicators.** Awardees can use interoperable data to track indicators over time to see if there are meaningful changes over multiple years. Additionally, if there are specific policy, program, or cultural changes, awardees can track what happened before and after these changes. Finally, these metrics can be used to inform reporting requirements for funders, especially when addressing questions about progress.

▲ **Supporting continuous quality improvement (CQI).** Awardees interested in continuing to improve quality within home visiting programs or other early childhood services can use interoperable data to inform CQI efforts. Awardees can use interoperable data to both identify areas that would benefit from additional CQI efforts and track whether these efforts are working long-term. Awardees can then provide technical assistance to service providers.

▲ **Streamlining collected information.** States can examine how to gather information about families and programs more efficiently as these data are shared over time. For example, states may gather a family's eligibility information for multiple programs and services at one time to reduce the number of times a family provides the same information and to reduce staff time to

gather eligibility information. If one program has already collected this information, with automatic data sharing, another program could easily pre-populate their forms.

▲ **Triangulating data across programs and services.** Programs can use data shared from other programs to triangulate information they may be receiving from families. For example, a home visiting program can match information they receive from families (e.g., the percent of families that report seeing a mental health professional after receiving a referral) with the information from health professionals (e.g., the percent of families in their program that received services from a mental health professional from the health system) to understand whether families' report of service receipt is comparable to actual receipt of services. Home visitors can use this information to adjust referral strategies and improve service provision.

Because resources and capacity to support these long-term activities can fluctuate, awardees will want to think through how to sustain these activities. Some aspects to consider include:

▲ **Stakeholder engagement.** Creating a plan for regularly engaging stakeholders will be important—not just to inform the implementation process, but also to sustain support for this work. Awardees may want to develop a long-term plan for how and when relevant stakeholders are engaged.[1] They should ensure that there is political and public support for this type of effort.

  o **Political support.** Policymakers and legislators have the ability to finance or write policies to support making data interoperable between early childhood programs and services. By demonstrating to policymakers the value of this type of work, states will be better able to continue to support these programs and efforts.

  o **Public support.** Building public support for interoperable data will ensure that information of interest can continue to be included and used in these shared systems. Awardees can share information from interoperable home visiting data with community partners to show how community partnerships have supported services. For instance, awardees can share information with family advocacy organizations to show how families are being served in their communities; or share information through social media outlets, websites or newsletters to inform the community about the impact of these services. As stakeholders receive regular communication, they are more apt to continue to support these services over time.

▲ **Ongoing funding for maintenance and continued growth of the system.** Using interoperable data requires ongoing funding. There may be costs to pay for a data system that automatically shares data across sources, costs to pay individuals to maintain or analyze the data, or costs to disseminate information about these efforts. In addition, it is important to account for costs to continue to grow the system, such as adding in more data sources, developing additional reports, or building out further analytic capacity. States should consider how they can leverage and braid federal, state, and private funds to support these efforts.[2]

▲ **Revisions to policies and practices, including governing operations if needed.** Sometimes, awardees may find that they have set up all the necessary structures to support interoperability

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[1] For more about engaging stakeholders, see *Engaging stakeholders in home visiting data integration efforts*.

[2] For more on possible funding sources, *see Strategies for financing the integration of home visiting and early childhood data systems*.

efforts but are faced with limitations due to policies and practices. These may come from state regulations, agency policies, community practices, or program administration. State regulations or mandates, for example, may restrict which organizations can have access to unique identifiers, which limits the organizations that can share data. Regulations must then be altered to support greater data sharing. When agency leadership changes, there may be a shift in priorities away from earlier goals for interoperable data. Program administrators may also develop policies that restrict what type of information about families can be shared. Awardees may want to think through how they plan to work with partners across the system to ensure that policies and practices are functioning in a way to support the interoperability process.

Awardees should think about what processes and structures should be put into place that work within their state context. As these processes are streamlined and working successfully, states may experience a reduction in the burden on human intervention. The earlier these considerations are embedded into the process, implementation and continued sustainability of interoperable data will be more successful.

CONCLUSION

As awardees consider adopting data exchange standards in their states and making home visiting data interoperable with other data, they must also think about what happens after data are made interoperable. Awardees may conduct a variety of activities once data are interoperable that can ensure the successful use and sustainability of the data system.

How awardees ensure the successful functioning of these steps may differ as they progress with implementation. Awardees may need to invest more time on activities in earlier stages of implementation to set the system up successfully. For example, they may invest the time and money to build a data platform that seamlessly gathers data and calculates information to answer questions. Over time, as these processes begin to function smoothly, awardees can focus on other activities, like sharing lessons learned using interoperable data, using those data to drive decision making, and continuing quality improvement within home visiting programs.