Promoting Understanding of Community Connections in Home Visiting: State of Available Data and Future Opportunities

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Introduction

Home visiting programs send trained staff to the homes of expectant parents or parents of young children to provide individualized information and supports to address families' needs. The families served by these programs often have many needs, and home visitors cannot address all of them. Therefore, referrals to outside community services (such as mental health services, child care, job training, and more) are vital for the success of the families served.

One source of federal financial support for home visiting is the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program, which was authorized in 2010. The Health Resources and Services Administration (HRSA), in partnership with the Administration for Children and Families (ACF)—both of the U.S. Department of Health and Human Services (HHS)—administers the MIECHV Program. The statute authorizing the program requires the MIECHV Program to collect data on how awardees are achieving outcomes in six domains, including improved coordination and referrals for other community resources and supports. MIECHV supports various home visiting models that refer families to needed services. The models track information about those referrals using different data systems and track different information about referrals (e.g., type of referral made, whether clients follow through on referrals). As a result, it is hard to collect and interpret data about referrals outside of individual programs or models.

The recently completed Mother and Infant Home Visiting Program Evaluation (MIHOPE) study attempted to gather consistent information about referrals across home visiting programs. While 80 percent of home visiting program managers reported that needed services were available in

¹ The MIHOPE study focused on four of the most widely used home visiting models at the time of the study: Early Head Start – Home-based option, Healthy Families America, Nurse-Family Partnership, and Parents as Teachers.







their communities, just one- to two-thirds of managers reported that these services were accessible and effective. Referrals were especially challenging in certain service areas, with fewer than half of programs reporting accessible, available, effective services for child care or substance use and mental health treatment in their community. Program managers indicated that other services, such as prenatal care and pediatric care, were more accessible, available, and effective (Duggan et al, 2018).

Referrals to community service providers are a critical element of home visiting programs to meet the diverse needs of the families they serve, yet little is known about the community-level networks and systems in which home visiting programs operate. The Assessment and Mapping of Community Connections in Home Visiting (AMC-HV) project sought to address these challenges. For the AMC-HV project, ACF, in partnership with HRSA, contracted with Child Trends and Trilogy Interactive to design a prototype for a tool to enhance understanding of community connections in the MIECHV context. This potential tool is intended to support home visiting stakeholders (including state administrators, local implementing agencies [LIAs], federal staff, and others) in understanding community resources and facilitating referrals to these services. The project goals were to understand the diverse stakeholders' interests related to community resources and referrals and to consider how a potential tool could be designed to answer stakeholders' questions of interest.²

To develop the prototype, the project team first collected information via interviews and focus groups to determine what stakeholders—for example, federal staff, state administrators, and LIAs (including tribes)—want to know about community connections. Findings from these activities revealed that stakeholders want to know more about the supply of and demand for community services, as well as their accessibility, and were interested in accessing these indicators at the LIA, state, and national levels. Furthermore, stakeholders would like to learn about how these metrics change over time, so they can more effectively target services and track their progress toward their goals (see Table 1). Next, the project team explored currently available data sources that could be used. The project team was able to identify many data sources but also encountered many challenges in trying to leverage data to populate the tool. This brief focuses on the state of data availability and data quality as it relates to community connections in home visiting, and presents potential opportunities to strengthen data related to community resources and referrals in the future.

² For more information about the project, see the full report available on the ACF website. The content for this brief was adapted from the full report (Rosinsky et al, 2019).

Table 1. Interests by Stakeholder Group^a

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1.	Identify or visualize the location of local community service providers	✓	✓		✓
2.	Identify the risk and protective factors of families in the community	✓	✓	✓	✓
3.	Identify gaps in a community between needs and availability of relevant service providers, and reasons for those gaps	✓	✓	✓	✓
4.	Provide information about the spatial (e.g., distance from clients, proximity to public transit) and operational (e.g., hours of operation, language) accessibility of service providers	√	√		✓
5.	Track screening results and referrals made from home visiting programs to other services to measure how many families successfully connect to providers and why some referrals are not successful	✓	~	✓	✓
6.	Identify features of relationships between home visiting programs and other service providers, such as whether memoranda of understanding (MOUs) are established, and whether those features impact the rate and success of referrals		✓		✓
7.	Access real-time information about service providers, such as points of contact and current wait lists/availability		✓		✓
8.	Determine quality of and family satisfaction with service providers		✓		✓
9.	View information over time to identify trends in the above topics	✓			✓
10.	Connect with others in the community to promote collaboration (e.g., share knowledge, coordinate community-wide trainings, enhance networking among providers)		✓		✓

^a This table represents the interests expressed by those stakeholders engaged during this project. Additional boxes would likely have been checked if the project team had spoken with additional federal staff, state administrators, or LIA stakeholders.

^b LIAs included non-tribal and tribal LIAs.

^c Others included technical assistance (TA) providers (including TA providers focused on tribal communities), model developers, social justice advocates, researchers, and tool developers.

Data Sources Identified

The project team reviewed each stakeholder interest to determine what type of information would be necessary to address that interest. Table 2 describes the data sources the team identified that could provide necessary information to address several of the stakeholders' interests.

Table 2. Potential Data Sources Identified to Address Stakeholders' Interests

Information sought based on stakeholder interests	Relevant stakeholder interests addressed (see Table 1)	Potential data sources identified		
Information about community service providers (e.g., name, location, services provided, hours of operation)	1, 3, 4, 7, 9, and 10	 2-1-1 websites (a nationwide service supported by the United Way that includes information about community service providers) Google Places data The Substance Abuse and Mental Health Services Administration's (SAMHSA) facility locator map Aunt Bertha (a website that compiles information about community resources) One Degree (a website that provides information about nonprofits providing free or low-cost services to low-income families in California) 		
Number of staff employed by community service providers (a proxy for capacity) 7 and 9		IRS Form 990 filings submitted by tax- exempt organizations		
Needs of populations in neighborhoods and counties	2, 3, and 9	 Area Deprivation Index³ Individual indicators from the U.S. Census at the tract level Various sources used by states to complete their MIECHV needs assessment for HRSA 		

³ The Area Deprivation Index (ADI) ranks U.S. Census block groups from 1 to 100, where 100 represents the greatest disadvantage. The ADI is calculated using 17 poverty, education, housing, and employment indicators (University of Wisconsin School of Medicine and Public Health, 2018).

Information sought based on stakeholder interests	Relevant stakeholder interests addressed (see Table 1)	Potential data sources identified
Physical accessibility of providers	1, 4, and 9	Google Maps
Home visiting client demographics, referrals, and screener results	2, 3, 5, and 9	 LIA-level data collected by MIECHV state awardees to complete three performance measurement forms (forms 1, 2, and 4) required by HRSA. The MIECHV state awardees may have access to this LIA-level data. Administrative data from home visiting model developers and LIAs

Beyond the existing data sources described in Table 2, the project also considered the possibility of crowdsourcing data (i.e., stakeholders provide data themselves). Crowdsourced data could provide information about client referrals and screener results (interests 2, 3, 5, and 9), providers with which LIAs have a MOU (interests 6 and 9), and client satisfaction metrics (interests 8 and 9). However, due to concerns regarding the burden of vetting and managing crowdsourced data, the project team did not propose the use of crowdsourcing.

Although the project team found numerous data sources, these sources are fragmented, with each providing only a subset of the data needed to meet stakeholders' interests. However, it is possible to merge some of these data sources to address some stakeholder interests. For instance, by combining data from 2-1-1 websites with data used to populate the MIECHV needs assessment, one could understand gaps between available providers and community needs. Due to the poor quality of some data sources, however, the team cannot recommend using all of the initially identified data sources to populate the tool.

Moreover, some stakeholder interests cannot be addressed because relevant data simply do not exist; in addition, other data exist but not in a way that can be aggregated at community, state, or national levels to meet stakeholder interests. For example, several stakeholder interests require data that LIAs do not systematically collect from clients, such as the reason(s) a client did not follow through with a referral. Other stakeholder interests require data that LIAs do not track in a uniform way, such as the name of a provider to which a client was referred. This makes data compilation and consistency difficult to achieve.

Data Quality and Fragmentation

In some cases, data exist to meet stakeholders' interests, but are not readily accessible to most stakeholders. To understand the limitations of aggregating and sharing administrative home visiting data with stakeholders, the project team interviewed several representatives of LIAs and home visiting models. While some LIAs have data to meet stakeholder interests, compiling the data for use outside the LIA would be a challenge due to variation in how LIAs manage data. Certain types of information are especially limited due to challenges of aggregating data, including the following:

- The number of referrals to each community service provider. Stakeholders expressed interest in knowing to which providers home visitors referred families, as a means of understanding whether some providers are over- or underutilized, and where new resources could be located and funded. Home visitors often track referrals to providers on paper rather than with a computerized tracking system, so compiling a list of providers (and the frequency with which clients are referred to them) would place an administrative burden on LIAs. Even when LIAs use digital systems to track referrals, the name of the provider to which a client was referred is typically entered in a text box, which makes exporting clean, consistent data challenging because the text box allows users to enter the referral information any way they like. It would be resource-intensive for LIAs to compile data on referrals made to each community service provider, given that providers' names may be written several different ways (e.g., abbreviated, misspelled, or with a colloquial name instead of a provider's official name).
- Results from client screeners and the number of clients referred for services, by each service type (e.g., mental health). LIAs and home visiting models vary in the way home visitors record the results from screeners and the type of service to which a client was referred. Many LIAs would not be able to prepare a dataset with this information—even aggregated across clients without a substantial investment of time. Currently, LIAs collect results of three screening categories (tobacco use, developmental delays, and intimate partner violence) and four referral categories (tobacco cessation, child development, intimate partner violence, and depression); the state MIECHV awardee then gathers that information to report at an aggregate level to HRSA. The project team learned, however, that stakeholders want to know about clients' needs in several additional categories (e.g., clients' needs for housing and child care). Many LIAs administer additional screeners that address these stakeholder interests, such as the Life Skills Progression (assessing families' education, employment, housing, food, and child care access) and a general anxiety assessment. In addition, LIAs make referrals to other types of community service providers, such as housing assistance. Because there are no HRSA measurement or reporting requirements for these additional screeners and referrals, LIAs may measure screening/referral categories differently and/or may not have systems in place to aggregate these data across clients. Therefore, while the information LIAs currently collect to fulfill HRSA reporting requirements could be used, it does not address all the stakeholder interests. Compiling data from these additional screener and referral categories

would place a significant burden on LIAs given the need for consistency in measurement and the need to aggregate data across clients.

- Activities to develop partnerships between LIAs and community service providers. While
 stakeholders expressed interest in obtaining information about the nature of collaborative
 activities between LIAs and providers, none of the LIAs interviewed knew of an official, up-todate record of their partnership-building activities, such as MOUs or in-person meetings with
 community service providers.
- Disaggregated data by client race, ethnicity, gender, and language spoken. The variation in
 data collection and management systems means that it would be a burden to provide any of
 the above data disaggregated by demographic group (e.g., number of positive depression
 screens for clients who are Hispanic and non-Hispanic). For some LIAs, this task would involve
 going through client records by hand to break out data points by demographic group.
- Clients' follow-through on referrals. Stakeholders were very interested in knowing which community service providers are most successful at engaging clients in services. However, during conversations with representatives from two home visiting models, the team learned that obtaining data on clients' follow-through on referrals would burden some LIAs and be impossible for others. LIAs often do not systematically track the name of the provider to which clients were referred (see above). The varying requirements for tracking the completion of referrals add to this challenge. For example, the Healthy Families America home visiting model does require LIAs to record when clients complete a referral, but Healthy Families America does not require LIAs to record this information in any particular format. As a result, many home visitors simply make notes about their clients' completion of referrals in the narratives they write after home visits. In other words, while some LIAs implementing Healthy Families America may have designed their own systems to track clients' completion of referrals and may be able to aggregate the data, others would need to review every narrative written by a home visitor to do the same. As another example, Parents as Teachers offers LIAs free use of its Penelope data management software. Penelope includes a function that allows, but does not require, home visitors to check boxes when each stage of a referral has been completed ("contact attempted," "contact made," "services initiated," "on wait list," and "not eligible/unable to attend"). Since checking these boxes is optional, it is not clear how many LIAs complete the information.

While LIAs may have data that could help promote the understanding of community connections in home visiting, the information is not collected uniformly and is therefore fragmented. As a result, the data in its current form cannot be used at a community, state, or national level to address several stakeholder interests.

Data Availability

From the inception of the project, the project team intended to capitalize on existing data as much as possible. As described above, the team identified existing data sources to address many stakeholder interests, but was not able to identify data to address every interest. This section of the brief describes the data that were desired but were not possible to include because, to the project team's knowledge, they do not exist.

- Community service provider capacity. A common frustration among home visitors is that community service providers exist but are not accepting new clients. For example, one identified interest was to understand service providers' capacity in order to reduce wait times for families. The project team was unable to find a source that would provide data on the number of new clients that providers can serve. The team explored the potential of using publicly available IRS Form 990 filings to determine the number of employees at each nonprofit service provider, to be a proxy for the capacity of that provider. However, connecting programs from 2-1-1 to their IRS data would require considerable effort due to differences in the way provider names are recorded. Furthermore, at the end of that process, it would still be difficult to determine the size of a program because of limitations with the IRS data (e.g., not all nonprofit providers complete the IRS Form 990; nonprofit providers who do complete the information may not be linkable to the correct provider in 2-1-1; and nonprofit providers who operate at multiple locations can report their capacity with a single IRS Form 990, making it impossible to know the capacity at individual locations) or a lack of IRS data (i.e., IRS Form 990 is not required for public and for-profit providers).
- Quality of community service providers. Many stakeholders wanted information about the quality of community service providers. The project team considered using data from platforms that feature rating systems, such as Yelp and Facebook, but the team learned that these ratings often come from volunteers or others in the community rather than clients. These ratings may also be unrepresentative of the average client experience. Furthermore, the social services field lacks a clear definition for the quality of community service providers, making it challenging to systematically make ratings of key dimensions of quality in a fair, consistent way.
- Client reasons for not following through with referrals. Stakeholders wanted to understand
 why clients do not use the services to which they are referred. For example, are there long
 waitlists? Do the providers not speak the client's primary language? Was there some other
 reason? This type of information, typically gathered anecdotally during meetings with the
 client, is generally not recorded anywhere.
- An accurate list of community service providers, along with accurate information on hours
 of operation, eligibility criteria, insurances accepted, services offered, and languages
 spoken. The project team determined that 2-1-1 is the best source for information about
 community service providers because it offers the best balance of information on the
 comprehensiveness of listed providers, the relevance of providers to the needs of home

visiting clients, and the accuracy of information provided. However, 2-1-1 data have several limitations (i.e., lack of timely updates, incomplete information, inconsistencies by locale). As a result, real-time information on providers is not available. One potential alternative is Google Places, which captures information on local businesses, such as address and hours of operation, and includes both community service providers and other businesses. Service providers continually update Google Places data. However, the project team found that a Google Places search returned many extraneous listings (e.g., a search for housing services also yields listings for apartment complexes), making it difficult to search for specific types of services.

Future Opportunities

As described previously, the project team found data to address many stakeholder interests despite the data limitations. When specific data sources were not available, the team developed alternative or broader ways to address some interests whenever possible (as described in the report [Rosinsky et al, 2019]). For example, in the absence of data from LIAs on the number of clients with positive screens for alcohol and illicit drug use, the team recommended using county-level substance use data for the county in which the LIA is located. This approach allows the stakeholder to recognize the potential need for substance abuse treatment providers in the LIA service area in the absence of LIA-specific screener data.

That said, there are future opportunities for improving data availability, accessibility, and quality to understand community connections in home visiting, including the following:

- Enhance data about available community service providers. Additional research is needed to (1) better understand the comprehensiveness of 2-1-1 provider listings and what information gaps may exist; (2) explore the potential of alternative sources, like Google Places, to supplement or replace 2-1-1 data; and (3) monitor the cost and availability of similar data sources, such as Aunt Bertha or One Degree.
- Support systematic data collection strategies across LIAs. Stakeholders could work together to develop common methods for tracking certain data. Of note, data tracking could be improved via adoption of data interoperability standards for screening and referral data to facilitate data sharing and aggregation. That is, every LIA could use their own data system to manage their caseloads and enter client data. With an interoperable data system, client-level data could be integrated and shared across systems using common data definitions and formats. A benefit of data interoperability is that more information would be available at the client level across programs, satisfying one of the stakeholder interests to present results separately for different subgroups of interest.

In the absence of interoperable data used by all LIAs, LIAs can nevertheless improve the data available by expanding or altering the types of data they systematically collect on all referral needs and sources. Specifically, data collection on clients' needs in the following categories would be useful, along with referrals to relevant agencies:

- Early care and education
- Housing assistance
- Food assistance
- Career assistance
- Mental health other than depression (e.g., anxiety)
- Binge drinking, painkiller abuse, and illicit drug use

Stakeholders communicated a strong desire to find answers to important questions about referrals and coordination. Increasing the amount and consistency of data on these topics will help address these questions. While these suggestions would provide more robust data needed for home visiting stakeholders, they would place a higher burden on LIAs, which would become responsible for collecting these additional data and adjusting their data systems.

Conclusion

The goal of the AMC-HV project was to design a prototype of a tool to help home visiting stakeholders better understand community connections in the MIECHV context. Through the process of designing this prototype, the project team learned about existing data sources and the feasibility of addressing stakeholder interests related to community resources and referrals at the national, state, and community levels. Some data simply do not exist, while other data do exist but not in a format that can be aggregated to meet stakeholder interests.

All home visiting stakeholders play a role in addressing the opportunities highlighted in this brief. With all stakeholders working toward improving data availability, uniformity, and integration, these stakeholders will be more likely to get answers to their pressing questions about how to improve community connections for the benefit of families served by home visiting programs.

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