



Supporting Evidence-Based Home Visiting to Prevent Child Maltreatment



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In 2008 the Children's Bureau (CB) within the Administration for Children and Families (ACF) at the U.S. Department of Health and Human Services funded 17 cooperative agreements to support building infrastructure for the widespread adoption, implementation, and sustaining of evidence-based home visitation programs. Grantees are leveraging their grant funds with other funding sources to implement programs with fidelity to their evidence-based models. Grantees are also conducting local implementation and outcome evaluations. CB/ACF has funded Mathematica Policy Research and Chapin Hall at the University of Chicago to conduct a cross-site evaluation of the grantees' programs. This is the third in a series of briefs from the cross-site evaluation.

For more information about EBHV, including earlier evaluation briefs, go to: <http://www.supportingebhv.org/>

Replicating Evidence-Based Home Visiting Models: A Framework for Assessing Fidelity

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The Maternal, Infant, and Early Childhood Home Visiting Program, authorized by the Patient Protection and Affordable Care Act of 2010, represents a major expansion for evidence-based home visiting services. Over the next five years, the program will provide \$1.5 billion to states to invest in selected home-based services to promote early childhood health and development and, ultimately, improve outcomes and opportunities for children and families. To maximize the return on this major public investment, the legislation places particular emphasis on building states' capacity to assess the fidelity and quality of the replication and expansion of evidence-based home visiting models. Fidelity includes adhering to a model's staff training, certification, and supervision requirements; delivering family-level services at the specified intensity (dosage); and covering the prescribed content. Quality refers to how effectively the content is conveyed to families; for example, whether the home visitor engages parents during the visit and whether this engagement is evidence of a positive, trusting relationship between the home visitor and the parents. This brief presents a framework for monitoring fidelity to home visiting program models developed as part of the Supporting Evidence-Based Home Visiting to Prevent Child Maltreatment (EBHV) initiative's cross-site evaluation.

Maintaining fidelity to a program's design is critical both for achieving effective outcomes and for taking initiatives to scale. Despite the benefits of implementing programs as designed, many social service models have been taken to scale without sufficient attention to fidelity. Systematically monitoring implementation can help maintain program consistency and quality and identify any need to adjust the model's protocols. Indeed, agencies often modify program standards and content to fit local participants' needs, organizational capacity, and community context. In some cases, agency staff identify changes needed to accommodate the characteristics of their community and target population. In other cases, funding cuts or staff shortages drive the need for modifications. Although some model modifications can strengthen a program's effects, others, particularly unplanned changes, can have detrimental effects and may reduce the likelihood of achieving maximum impact. This brief reports on the fidelity monitoring system Mathematica Policy Research and Chapin Hall at the University of Chicago

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developed for the cross-site evaluation of the EBHV initiative (Boller et al. 2010; Koball et al. 2009). It provides a set of indicators state planners can use in crafting their own fidelity monitoring systems and assessing the implementation of home visiting models across different communities.

Defining Fidelity

Researchers use several theoretical frameworks to define fidelity. In summarizing work in this area, Carroll and colleagues identified five elements of implementation fidelity: (1) adherence to the service model as specified by the developer; (2) exposure or dosage; (3) the quality or manner in which services are delivered; (4) participants' response or engagement; and (5) the understanding of essential program elements that are not subject to adaptation or variation (Carroll et al. 2007). For the EBHV initiative, we adapted the following definition of fidelity: "Fidelity is the extent to which an intervention is implemented as intended by its designers. It refers not only to whether or not all the intervention components and activities were actually implemented, but also to whether they were implemented properly." The concept includes two components:

1. Structural aspects of the intervention that demonstrate adherence to basic program elements such as reaching the target population, delivering the recommended dosage, maintaining low caseloads, and hiring and retaining well-qualified staff.
2. Dynamic aspects of the participant-provider interaction.

It is important to consider both aspects of fidelity to determine whether a home visiting model has been implemented as designed. Moreover, evidence-based programs must maintain model fidelity to achieve their intended outcomes. Many program evaluations focus on documenting the service delivery process and opening the "black box" of the service experience (Chen 2005; Hebbler and Gerlach-Downie 2002; Lee et al. 2008; Paulsell et al. 2010). Understanding both the structural elements and the manner in which services are delivered is particularly important in relationship-based programs such as those being implemented by the 17 EBHV grantees.¹ For example, the quality of the relationship between the home visitor and the parent may influence the effectiveness of home visiting services and the extent and quality of parent engagement and involvement (Korfmacher et al. 2007; Korfmacher et al. 2008; Roggman et al. 2008).

The home visiting models the EBHV grantees are implementing include Healthy Families America (HFA), Nurse Family Partnership (NFP), Parents as Teachers (PAT), SafeCare, and Triple P.² These models represent many of the core operating principles that researchers have associated with more robust outcomes (Daro 2006). These and other national models have articulated specific expectations with respect to service dosage and duration, qualifications for home visitors, training for home visitors and supervisors, supervisory standards, and core characteristics of a high-quality participant-provider relationship. In addition, the models set management and financial stability standards applicant organizations must fulfill. These existing requirements served as the foundation upon which Mathematica and Chapin Hall built the cross-site fidelity assessment system.

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Framework for Assessing Fidelity

The proposed fidelity assessment framework includes indicators that can be used to monitor fidelity to the program model, track program improvement, and conduct evaluations. Below we discuss the monitoring tools selected for the EBHV evaluation.

To ensure robust program implementation, states must determine the local sites' capacity to support the selected models and monitor their adherence to the program standards over time. National model developers play an important role in ensuring that efforts to implement their models are built on a strong foundation. However, sustaining the effort over time requires that states pay particular attention to how the models are implemented and the extent to which the programs result in a network of services that can achieve the targeted outcomes.



Initial Implementation

Although the different national model developers impose different standards on those seeking to replicate their models, all require applicants to demonstrate their capacity to successfully implement and sustain services as intended. This early vetting fosters replication and scaling up by establishing a firm foundation for subsequent implementation efforts. Sites implementing any evidence-based home visiting model typically must meet criteria such as the following:

- “Readiness” of the applicant organization to take on the task of delivering the model, including housing the service; managing the hiring, supervision, and payment of all personnel; and maintaining fiscal stability.
- Compliance with staff qualifications and training requirements for home visitors and supervisors, including education or experience, attendance at required training, and demonstration of specified key competencies.
- Capacity to identify and enroll participants in the model’s target population, including (1) evidence that the proposed service area has enough families who meet the eligibility criteria and (2) identification of appropriate linkages for securing referrals to and from the program.
- Plan to monitor ongoing implementation and “quality control” through strategies such as consistent data collection on home visit activities, detailed supervisory guidelines and expectations, or peer learning networks.
- Ability to comply with all of the national model’s data collection requirements, if applicable.

Most of the national models involved in the EBHV initiative have a procedure for documenting initial compliance with these criteria and do not allow sites to use their name until all of the requirements have been met. Thus, states that adopt any of these five models can assume that if a program site has obtained approval from the national model, it has met the relevant standards.

Meeting an evidence-based model's initial implementation criteria is only the first step in ensuring program fidelity. States also need a mechanism to track how services are delivered over time.

Implementing evidence-based models with fidelity requires attention to factors that govern the participant-provider interaction and capture the manner in which participants' needs are identified and addressed during the home visiting process.

Ongoing Fidelity Monitoring

Meeting an evidence-based model's initial implementation criteria is only the first step in ensuring program fidelity. States also need a mechanism to track how services are delivered over time. Although EBHV models differ in terms of content and structure, they share certain core principles. Among the five models being implemented by the EBHV grantees, common indicators of high-quality implementation include:

- Belief that outcomes will be influenced by such factors as relatively low caseloads for home visitors
- Strong supervision
- Ability to actually enroll a high proportion of the families referred for service
- Ability to consistently deliver home visits to enrolled families
- Relative stability among their home visitors and supervisors

In addition, many home visiting models set expectations regarding the importance of providing a sufficient service dosage to accomplish the programs' stated objectives. Several models, such as HFA, NFP, and PAT, retain participants for multiple years in order to achieve the type of attitudinal and behavioral changes identified in their respective theories of change. In other cases, service duration is determined by the point at which a program participant can demonstrate mastery of core concepts. Some families may master these skills in 2 or 3 visits, while others may take 12 visits. Despite this variation in duration and dosage, most of the models require programs to offer services on at least a weekly basis to facilitate participant engagement.

Finally, implementing evidence-based models with fidelity requires attention to factors that govern the participant-provider interaction and capture the manner in which participants' needs are identified and addressed during the home visiting process. Although there is variation across models about the appropriate content for each visit, all share common beliefs with respect to careful assessment and responsive and respectful practice. For example, SafeCare guidelines instruct the home visitors to "encourage the parent to ask questions and express concerns" and ask that the provider's demeanor communicate "empathy, warmth, and understanding." PAT requires that parent educators "build and maintain rapport through interaction that is responsive to each family member's personal style." In short, each model places high value on creating a service context governed by mutual respect and individualized service interactions.

Fidelity Indicators

Figure 1 (page 10) shows a potential framework for building an integrated cross-model fidelity data collection system. The indicators were developed collaboratively by EBHV local grantee staff (including local evaluators), representatives of the national models being implemented, and members of the cross-site evaluation team. Although the specific variables collected may vary across states depending on local capacity

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and program structure, the following indicators offer a strong foundation on which to build any local system. They cover three primary areas of focus: (1) program-level characteristics (including caseload dynamics and service structure), (2) direct service staff-level characteristics, and (3) participant-level characteristics and experiences.

Program-level characteristics describe the service delivery location, including the number of families that can be served and the expected and actual pace of referrals and enrollment. They also indicate the extent to which the location meets a model’s initial and ongoing structural fidelity guidelines. Information on funding sources and levels indicates the extent to which the service delivery site is able to secure and sustain the funding needed for full program operations (Table 1).

In addition to collecting program-level data, it is important to collect initial descriptive information on all home visitors and program supervisors as well as monthly caseload information. These **direct service staff-level characteristics** help program managers understand the relationship between staff characteristics, family retention, and ultimately, family and child outcomes (Table 1). Caseload information can be used to determine whether the service delivery location has sufficient direct service staff and supervisory personnel to ensure appropriate supervisory and home visitor caseloads. Over time, these indicators will allow states to determine (1) the extent to which service delivery locations adhere to a given model’s caseload standards and (2) whether these standards are more difficult to sustain across different models or across programs in different types of communities (urban/rural, high poverty/low poverty, and so on). These data also can be used to determine how long home visitors remain with the program and assess the effect of changes in home visitors on family retention.

Table 1. Program-Level and Direct Service Staff-Level Characteristics

Program-Level Characteristics
<ul style="list-style-type: none"> • Number of families referred to the program each month • Number of families who enroll in the program (such as those who accept and receive at least one home visit) • Any significant changes in the expected and actual pace of referrals from the service site’s referral sources • Any changes or adaptations made in the service model’s approach or content in response to participants’ needs or the local context • Any significant changes in the service site’s funding sources or level of support from each source
Direct Service Staff-Level Characteristics
<ul style="list-style-type: none"> • Demographic information such as gender, age, race/ethnicity, and education • Employment experience such as when the home visitor or supervisor began working at their current job, their completion of model-specific training, the number of hours worked in a typical week, the time spent supervising other home visitors (if applicable), and prior experience delivering home-based interventions to families • Supervisors’ monthly supervisory caseloads • Home visitors’ monthly home visit caseloads • Termination information, if applicable

Descriptive participant-level indicators can be used to monitor ongoing fidelity.

Finally, descriptive *participant-level indicators* can be used to monitor ongoing fidelity. In addition to documenting program participants' characteristics, it is important to capture how individual participants are experiencing the service delivery process and the extent to which their experience mirrors the model's intent and quality. Participant-level characteristics and service experiences capture two important features of fidelity. First, they provide state-specific information about (1) whether service delivery locations are enrolling families targeted by their respective national models and (2) whether engagement and retention rates differ across participants with different personal profiles and levels of demographic risk for poor outcomes. The data also provide information about issues that can limit parents' ability to focus on the child's needs. Such information can help inform states about the types of ancillary services communities may need to fully support parents of infants and young children. Second, data about home visits can indicate whether the content, as delivered, follows the national model guidelines. Another important element of virtually all home-based interventions is establishing a strong, positive relationship between the home visitor and her program participants. Given the centrality of relationship quality, states should assess it from both the provider and participant perspectives. Although comprehensive documentation and monitoring of service delivery is best done through the supervisory process at each site, the Mathematica and Chapin Hall team identified key indicators and data collection instruments that can provide state administrators important assessments of the structural and the dynamic elements of service quality (Table 2).

Table 2. Participant-Level Characteristics and Experiences

Participant-Level Information
<ul style="list-style-type: none"> • Referral information, such as source and date of referral into the home visiting program • Primary caretaker's relationship to the target child (such as birth mother, grandmother, or father) • Demographic information, such as gender, age, race/ethnicity, language spoken in the home, citizenship status, marital status, employment, education, receipt of public assistance, and income • Pregnancy history, such as current pregnancy status, number of pregnancies, live births, age at time of first birth, and number and ages of other children in the home
Participant Program Experiences
<ul style="list-style-type: none"> • Number of home visits offered to each participant and the number actually completed • Duration of each completed visit, location of the visit (participant home or other location), the frequency with which home visitors need to address emergency needs and concerns raised by participants, and the percentage of time spent covering various topics or activities as outlined by the evidence-based model being implemented • Quality of the home visitor-participant relationship • Date of and reason for service termination (for example, participant refused additional services, participant completed the program, or participant moved out of the service area)

Assessing the Quality of the Home Visitor-Participant Relationship

After considering a variety of approaches to assessing the home visitor-participant relationship for the EBHV cross-site evaluation, the Mathematica and Chapin Hall team selected the Working Alliance Inventory—Short Form (WAI-SF), a 10-item self-administered questionnaire completed by both the service provider and the program participant (Horvath and Greenberg 1994; Horvath 1995). Although the original questionnaire was developed to be used in therapy settings between a client and a therapist, it has been revised recently to tap the “working alliance” between the home visitor and parent (Santos 2005). The purpose of this instrument is to examine how home visitors and parents rate their level of collaboration and the extent to which they have similar goals for the home visiting services. For example, do they agree on what to work on as part of the home visiting services? Do they share common views about how to achieve this? Do they trust one another? Tracking the development and quality of this relationship over the full service period can offer state administrators and local managers insight into service quality.



Conclusion

Model fidelity is an important concept for state administrators to track when taking a home visiting initiative to scale. This brief describes how the EBHV cross-site evaluation is examining fidelity across a range of home visiting models. State administrators can use fidelity data to demonstrate that public investments are achieving required service delivery levels associated with positive child and family outcomes. Systematically monitoring implementation across models can help state and local planners maintain quality standards and identify any need for adaptation to successfully engage and retain the target population. Using a common data collection framework enables planners to achieve the most efficient mix of interventions to maximize the fit between model characteristics, community resources, and population needs.

Finally, tracking fidelity allows policy makers, program operators, and evaluators to clearly link practice to participant outcomes. In the absence of careful monitoring of program implementation, an intervention may be considered ineffective when in fact the failure lies in the implementation process (Chen 2005; Werner 2004). Regularly assessing programs and holding them to clear performance standards gives program managers the information necessary for identifying specific areas in which programs are not meeting expectations in a timely manner. In such cases, managers can provide appropriate technical assistance and enable programs to improve and succeed.

Home Visiting National Model Reporting Requirements

Monitoring program fidelity is best accomplished through a partnership between developers of evidence-based home visiting programs and state administrators who select and fund local program sites. At present, the scope and rigor of these model-specific reporting requirements vary across the national models being implemented by the EBHV grantees. Only one of the models, Nurse Family Partnership, requires all affiliates to submit participant-level data on a regular basis. Parents as Teachers and Healthy Families America ask their replication sites to submit annual program reports with some program operations data and aggregate performance data. Both of these models collect more detailed performance information during their peer review and accreditation process, which occurs every three years. SafeCare has a detailed system for assessing (1) the capacity of individual service providers to adhere to the model's core practice principles and (2) the extent to which program participants complete individual service modules and master the behaviors reflected in them. Triple P does not require local sites to provide ongoing data to the national office, but it provides those replicating their program with suggested assessment tools and performance expectations.

See the home visiting model websites for more information.

Healthy Families America: www.healthyfamiliesamerica.org

Nurse Family Partnership: www.nursefamilypartnership.org

Parents as Teachers: www.parentsasteachers.org

SafeCare: <http://chhs.gsu.edu/safecare/>

Triple P: www5.triplep.net/

Endnotes

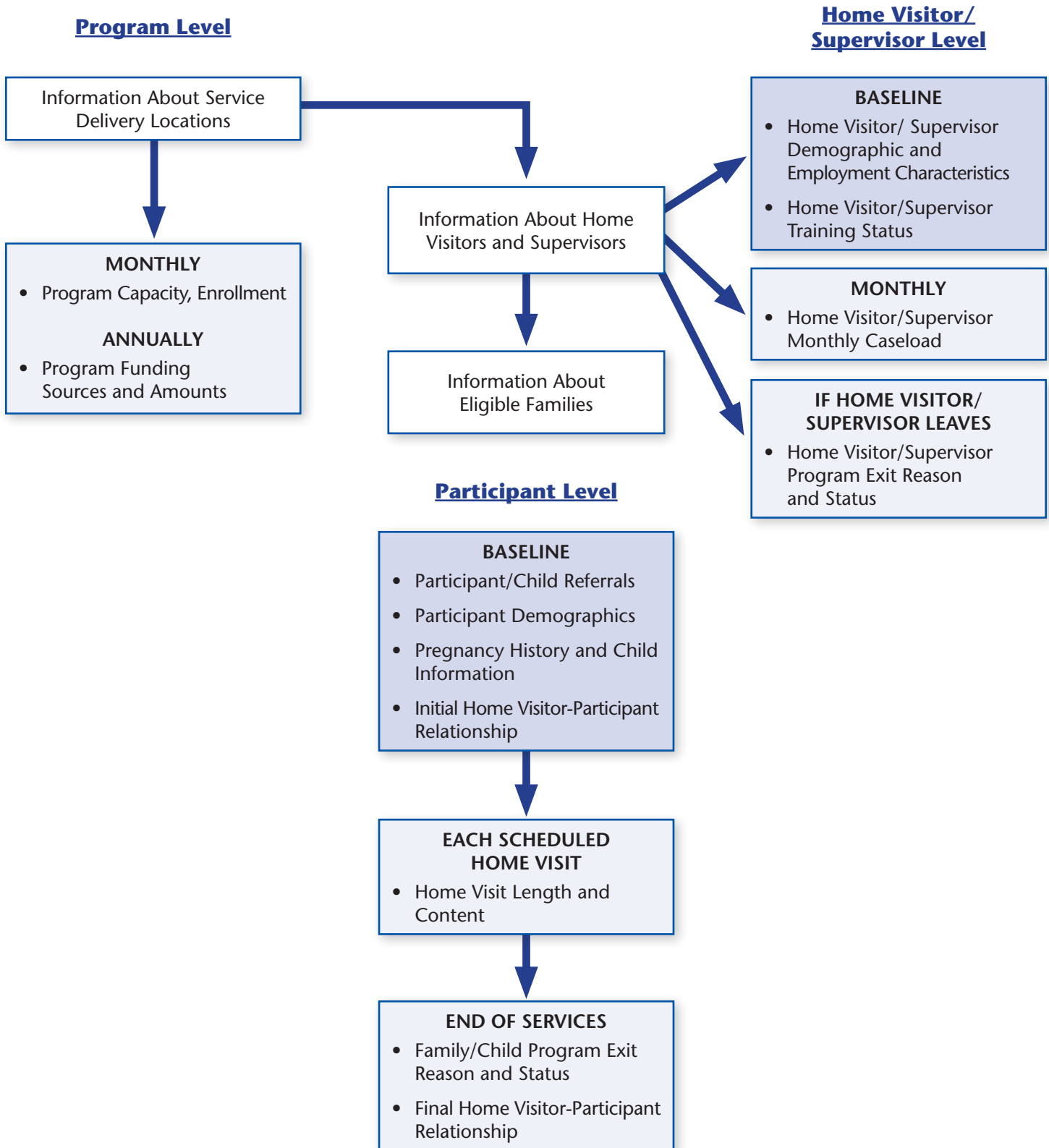
¹Some researchers refer to these two elements as implementation fidelity, capturing the structural aspects of a program such as dosage and duration, and intervention fidelity, focusing on the manner in which services are delivered. O'Donnell (2008) refers to them as fidelity to structure and fidelity to process.

²These are not the only national models in operation. Other national home visiting models with comparable goals and target populations include the Parent-Child Home Program, the Home Instruction for Parents and Young Children, and the federal Early Head Start program. The summer 2008 federal grant announcement required applicants to select home visiting programs that met specified criteria to be considered an evidence-based model. During the grant review process, an independent panel of peer reviewers evaluated applications based on the criteria listed in the announcement to determine if the program(s) proposed by the applicant met standards related to evidence-based models. The criteria used in the 2008 federal grant announcement were in no way related to the criteria for evidence of effectiveness for the Maternal, Infant, and Early Childhood Home Visiting Program included in the Affordable Health Care Act of 2010 (P.L. 111-148).

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Figure 1. Fidelity Data Element and Collection Schedule



Source: Adapted from Barrett et al. 2010.