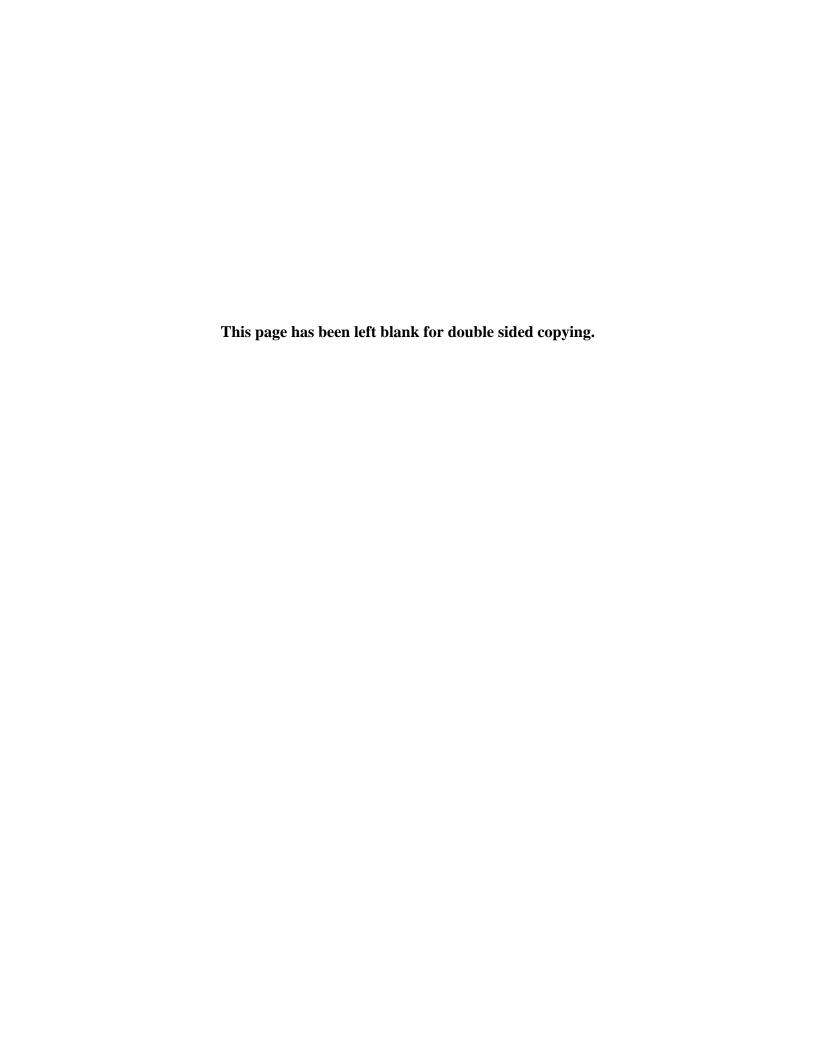
## APPENDIX C CONCEPTUAL FRAMEWORKS AND RESEARCH QUESTIONS



### Inputs

Resources, assets, contributions, and information available to achieving program goals

### Community

- · Strengths and needs
- Resources
- Services

### **Program**

- · Service option
- · Services provided by partners
- Program structure and features aligned with needs
- Resources and funding
- · Management and support systems
- · Program policies

### Staff

- Demographics
- · Culture and language
- · Qualifications/ experience
- · Physical and mental health
- · Attitudes and beliefs
- · History of leadership

### **Child and Family**

- Demographic and socioeconomic characteristics
- Culture and language
- · Special needs
- · Risk factors

### **Activities**

Plans and activities, services, and processes designed to achieve program goals

### **Community Engagement**

- Service coordination
- Referrals

### **Program Processes**

- Implementation of Early Head Start management and support systems
- Organizing data to inform decisions
- Planning for implementation of new initiatives and policies
- EHS-CCP and other partnerships
- Leadership
- Staffing and professional development

### **Core Services**

- Child development and family support services
- · Center-based caregiving
- Home visits
- · Family child care
- Services for pregnant women

### **Outputs**

Direct, tangible results of program efforts, such as level of service delivery and participation

### **Comprehensive Services**

- · Partnerships and linkages
- Coordinated and complementary services
- · Ease of access to needed services

### **Program Functioning**

- · Quality of program processes
- Programmatic decisions supported by data
- New initiatives and policies implemented
- · Organizational climate
- Leadership
- Staff retention
- · Staff trained
- · Staff competencies

### **Service Characteristics**

- Quality of services
- · Data-based individualized services
- Use of curriculum and assessment
- · Continuity of care
- · Caregiver-child relationship
- Parent-staff relationship
- Engagement of families
- · Services offered and received

# Enhanced Outcomes Benefits of program participation for children and families

### Infant/Toddler Development and Learning

- · Safety and health
- · Approaches to learning
- Social and emotional development
- Language and literacy
- Cognition
- Perceptual, motor, and physical development

### Family Wellbeing and Efficacy

- · Parent wellbeing
- Self-sufficiency
- Family resources and competencies
- Parenting and parent-child relationship
- Home environment

Note: Some of the input factors, for example, child and family characteristics, may directly influence other layers of the framework in addition to Activities. Child and family outcomes learned may also influence the inputs and the activities that programs will take.

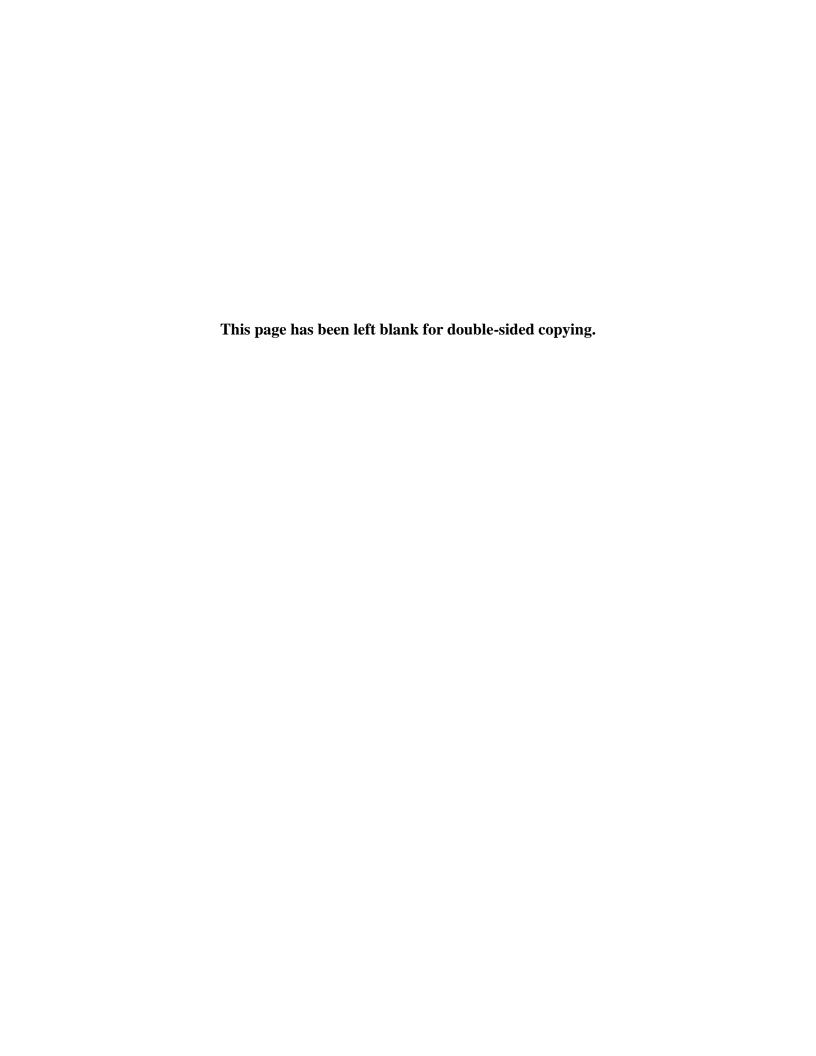
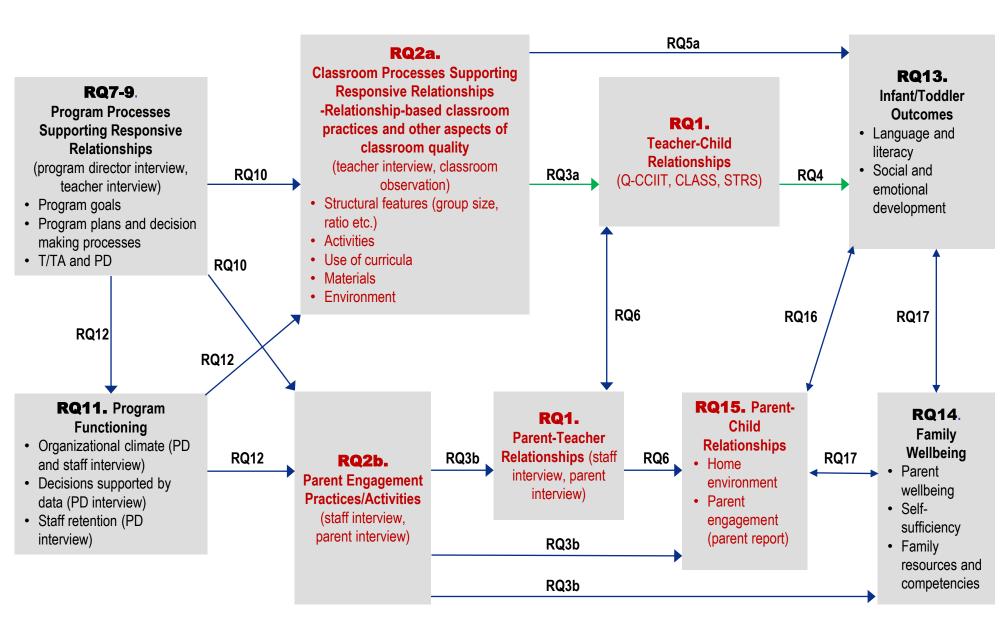
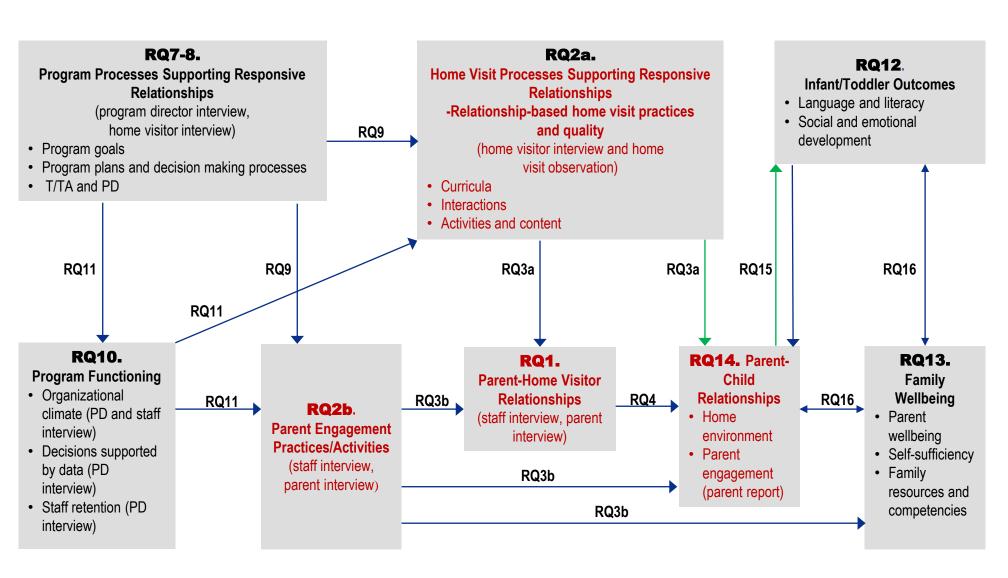


Figure 2. Understanding Classroom Processes That Support Responsive Relationships in Early Head Start



<sup>\*</sup>As an example of mediation, green path shows teacher-child relationships mediate the associations between classroom processes and infant/toddler wellbeing (RQ5b).

Figure 3. Understanding Home Visit Processes That Support Responsive Relationships in Early Head Start



<sup>\*</sup>Green path shows parent-child relationships mediate the associations between home visit processes and infant/toddler wellbeing (RQ5).

### Table 1. Research questions for Baby FACES 2018—pathways for center-based programs

### Service characteristics

- 1. What does relationship quality look like in center-based Early Head Start?
  - Teacher-child relationships
  - · Parent-teacher relationships
- 2a. How are relationship-based approaches to supporting infant/toddler development embedded in classroom practices, such as interactions, activities, use of curricula and materials, and other features of the environment?
- 2b. What do parent engagement practices and activities look like?
- 3a. How do classroom practices and other aspects of classroom quality relate to teacher-child relationships?
- 3b. How do parent engagement practices and activities relate to parent-teacher relationships, parent-child relationships, and family well-being?
- 4. Are teacher-child relationships associated with infant/toddler outcomes?
- 5a. Are classroom practices or other aspects of classroom quality associated with infant/toddler outcomes?
- 5b. Do teacher-child relationships mediate the associations between classroom practices and other aspects of classroom quality and infant/toddler outcomes?
- 6. How do parent-teacher relationships relate to teacher-child relationships and infant/toddler outcomes?

### **Program processes**

- 7. Are program goals aimed at supporting relationships between caregivers (parents/staff) and infants/toddlers?
- 8. Do program plans and decision-making processes reflect support for relationship-based practices and activities?
- 9. How do staff training, technical assistance, and professional development activities target practices that support the development of nurturing, responsive relationships between caregivers (parents/staff) and infants/toddlers?
- 10. How do program processes and supports (e.g., goals, plans, training and technical assistance, and professional development) relate to quality of practices in the classroom, teacher-child relationship quality, parent engagement practices and activities, parent-teacher relationships, and parent-child relationships? Do classroom practices and quality mediate the associations between program processes and supports and teacher-child relationship quality? Do parent engagement practices and activities mediate the associations of program processes and supports with parent-teacher relationships and parent-child relationships?

### **Program functioning**

- 11. What are the features of program functioning (such as organizational climate, staff retention) in center-based Early Head Start programs?
- 12. How do features of program functioning mediate the associations between program processes and classroom practices and quality, and associations between program processes and parent engagement practices?

#### Infant/toddler outcomes

13. How are Early Head Start infants and toddlers faring in key domains of development and learning (e.g., language and social-emotional development)?

### Family well-being

- 14. How are Early Head Start families functioning (e.g., social/economic well-being, family resources and competencies)?
- 15. What do parent-child relationships and home environment look like among Early Head Start families?
- 16. How are parent-child relationships associated with infant/toddler outcomes?
- 17. How is family well-being associated with parent-child relationships and infant/toddler outcomes?

### Table 2. Research questions for Baby FACES 2018—pathways for home-based programs

### Service characteristics

- 1. What does relationship quality look like in home-based Early Head Start?
  - Parent-home visitor relationships
- 2a. How are relationship-based approaches to supporting infant/toddler development embedded in home visit practices, such as interactions, activities and content, and use of curricula? How are parent-home visitor relationships and parent-child relationships supported in home visits?
- 2b. What do parent engagement practices and activities look like?
- 3a. How do home visit practices and quality relate to parent-home visitor relationships and parent-child relationships?
- 3b. How do parent engagement practices and activities relate to parent-home visitor relationships, parent-child relationships, and family well-being?
- 4. How do parent-home visitor relationships relate to parent-child relationships?
- 5. Do parent-child relationships mediate the associations between home visit practice quality and infant/toddler well-being?

### **Program processes**

- 6. Are program goals aimed at supporting parent-home visitor relationships and parent-child relationships?
- 7. Do program plans and decision-making processes reflect support for relationship-based home visit practices and activities?
- 8. How do staff training, technical assistance, and professional development activities target practices that support the development of nurturing, responsive relationships between parents and home visitors and between parents and infants/toddlers?
- 9. How are program processes and supports (e.g., goals, plans, training and technical assistance, and professional development) associated with quality of practice in home visits, parent engagement practices and activities, parent-home visitor relationships, and parent-child relationships? Do home visit practices and quality mediate the associations of program processes and supports with parent-home visitor relationships and parent-child relationships? Do parent engagement practices and activities mediate the associations of program processes and supports with parent-home visitor relationships and parent-child relationships?

### **Program functioning**

- 10. What are the features of program functioning (such as organizational climate, staff retention) in home-based Early Head Start programs?
- 11. How do features of program functioning mediate the associations between program processes and home visit processes and quality, and associations between program processes and parent engagement practices?

### Infant/toddler outcomes

12. How are Early Head Start infants/toddlers faring in key domains of development and learning (e.g., language and social-emotional development)?

### Family well-being

- 13. How are Early Head Start families functioning (e.g., social/economic well-being, family resources and competencies)?
- 14. What do parent-child relationships and home environment look like among Early Head Start families?
- 15. How are parent-child relationships associated with infant/toddler outcomes?
- 16. How is family well-being associated with parent-child relationships and infant/toddler outcomes?

Table 3. Research questions for center-based programs, domains and constructs, and measures

Research questions	Constructs	Measures recommended	Source of data
What does relationship quality look like in center-based Early Head Start?     Teacher-child relationships     Parent-teacher relationships	Teacher-child relationships Closeness and conflict Support for social-emotional, cognitive, and language and literacy development Number of months teacher has been working with the child	Teacher-child relationships  Student-Teacher Relationship Scale, Short Form (STRS-SF)  CLASS-Infant; CLASS-Toddler  Q-CCIIT  Survey item	Teacher-child relationships Classroom observation, staff child report – teachers
	<ul> <li>Parent-teacher relationships</li> <li>Support, endorsement, undermining, agreement</li> <li>Trust, clarity of communication,</li> <li>Language of communication</li> <li>Ability to understand one another</li> </ul>	Parent-teacher relationships Cocaring Relationship Questionnaire (CRQ) NCEDL home-school relationship measure	Parent-teacher relationships Parent survey, staff child report – teachers
2a. How are relationship-based approaches to supporting infant/toddler development embedded in classroom practices and features?	Classroom features and practices  Staff:child ratios and class size  Physical environment and practices  Implementation of curricula and assessment  Use of data for planning and individualization  Languages used for communication and instruction	Classroom features and practices Survey items Adapted Baby FACES 2009 Teacher Survey Adaptation of select Language Interaction Snapshot (LISn) items	Classroom features and practices Classroom observation, staff survey – teacher, center director survey
2b. What do parent engagement practices and activities look like?	Parent engagement practices Family's level of engagement in program Involvement in program activities	Parent engagement practices  NCEDL family involvement measure  Survey items	Parent engagement practices Parent survey, staff child report – teachers
3a. How do classroom practices and	d other aspects of classroom quality relate to teacher	-child relationships?	see above for same constructs, measures, and data source

Research questions	Constructs	Measures recommended	Source of data
3b. How do parent engagement practices and activities relate to parent-teacher relationships, parent-child relationships, and family well-being?	Parent-child relationships Parents' perception of closeness and conflict Parent-child interactions	Parent-child relationships Child-Parent Relationship Scale, Short Form (CPRS-SF) Healthy Families Parenting Inventory (HFPI)	Parent-child relationships Parent child report
	<ul> <li>Home environment</li> <li>Bookreading/storytelling, home learning activities</li> <li>Household chaos</li> <li>Family routines, screen time</li> </ul>	<ul> <li>Home environment</li> <li>Confusion, Hubbub, and Order Scale (CHAOS)</li> <li>Baby FACES 2009 parent interview</li> <li>Survey items</li> </ul>	Home environment Parent survey
	Parent well-being  Health, depressive symptoms, substance abuse  Parenting stress, family conflict, economic stress, social support  Self-sufficiency	Parent well-being Center for Epidemiological Studies-Depression (CESD) Parenting Stress Index (PSI-SF), Family Environment Scale (FES), Economic Strain Questionnaire (ESQ), Healthy Families Parenting Inventory (HFPI) Baby FACES 2009 parent interview Survey items	Parent well-being Parent survey, parent-child report
Are teacher-child relationships associated with infants' and toddlers' outcomes?	Infant/toddler outcomes  Expressive and receptive vocabulary  Gestures, combining words, grammatical complexity (age specific)  Behavior problems and emotional competence	Infant/toddler outcomes Child Development Inventory (CDI) age specific forms Brief Infant Toddler Social Emotional Assessment (BITSEA)	Infant/toddler outcomes Parent child report, staff child report – teachers
•	r aspects of classroom quality associated with infant ediate the associations between classroom practice	s' and toddlers' outcomes? es and other aspects classroom quality and infants' and	see above for same constructs measures, and data source
6. How do parent-teacher relationsh	ips relate to teacher-child relationships and infants'	and toddlers' outcomes?	see above for same constructs measures, and data source
7. Are program goals aimed at supporting relationships between caregivers (parents and staff) and infants and toddlers?	Program goals related to supporting responsive relationships and how they are developed and met  Setting program goals Evaluating progress toward goals	Program goals related to supporting responsive relationships and how they are developed and met  • Survey items	Program goals related to supporting responsive relationships and how they are developed and met Program director survey
8. Do program plans and decision- making processes reflect support for relationship-based practices and activities?	Program processes supporting responsive relationships     Considerations in assigning primary caregivers     Processes for facilitating relationship with primary caregiver	Program processes supporting responsive relationships  • Survey items  • Continuity of Care scale (Ruprecht)	Program processes supporting responsive relationships Center director survey, staff child report – teachers

Research questions	Constructs	Measures recommended	Source of data
How do staff training, technical assistance, and professional	Program processes supporting responsive relationships	Program processes supporting responsive relationships	Program processes supporting responsive
development activities target practices that support the	<ul> <li>Supervision</li> </ul>	<ul> <li>Adapted Baby FACES 2009 PDI</li> </ul>	relationships
development of nurturing,	<ul> <li>Mentoring/coaching</li> </ul>	<ul> <li>Adapted FACES 2014 Center Director SAQ</li> </ul>	Center director survey, staff survey – teacher
responsive relationships between	Training	Survey items	curvey toucher
caregivers (parents and staff) and infants and toddlers?	Classroom observation		
quality of practices in the classroom, parent-child relationships? Do classroom practices and quality n	teacher-child relationship quality, parent engagement endiate the associations between program process	chnical assistance, and professional development) relate to ent practices and activities, parent-teacher relationships, and es and supports and teacher-child relationship quality? Do ses and supports with parent-teacher relationships and	see above for same constructs, measures, and data source
11. What are the features of	Program functioning	Program functioning	Program functioning
program functioning (such as	Organizational climate	Organizational climate	Center director survey
organizational climate and staff retention) in center-based Early Head Start programs?	Leadership, communication, supportiveness and collaboration	TCU-Survey of Organizational Functioning (Cohesion, Communication, Stress, and Satisfaction subscales)	Staff survey – teacher
rieau otait programs:	Staff stress, staff satisfaction	<ul> <li>Organizational Climate Description Questionnaire for Elementary Schools [OCDQ-RE] (Supportive behavior)</li> </ul>	
	Data-supported decision making	Data-supported decision making	Data-supported decision
	<ul> <li>Availability of data, uses of data for program</li> </ul>	Survey items	making
	planning		Program director survey
	Barriers and supports for data use		
	Staff retention	Staff retention	Staff retention
	Turnover	Adapted from Baby FACES 2009 PDI	Program director survey, center
	Positions unfilled		director survey
	Hiring practices		
12. How do features of program functioning mediate the associations between program processes and classroom practices and quality and associations between program processes and parent engagement practices?	see above	see above	see above
13. How are EHS infants/toddler faring in key domains of development and learning (for example, language and social-emotional development)?	see above	see above	see above

Research questions	Constructs	Measures recommended	Source of data
14. How are EHS families functioning (for example, social and economic well-being and family resources and competencies)?	see above	see above	see above
15. What do parent-child relationships and home environment look like among Early Head Start families?	see above	see above	see above
16. How are parent-child relationships associated with infants' and toddlers' outcomes?	see above	see above	see above
17. How is family well-being associated with parent-child relationships and infants' and toddlers' outcomes?	see above	see above	see above

Table 4. Research questions for home-based programs, domains and constructs, and measures

Research questions	Constructs	Measures recommended	Source of data
What does relationship quality look like in home-based Early Head Start?     Parent-home visitor relationships	Parent-home visitor relationships Parent-home visitor collaboration Support, Goal setting, Tasking, Bonding Trust, Clarity of communication Parents' satisfaction with home visit	Parent-home visitor relationships Cocaring relationship questionnaire (CRQ; parents only) Working Alliance Inventory (WAI) NCEDL home-school relationship measure Parent's satisfaction with home visitor and home visit	Parent-home visitor relationships Parent survey, staff child report – home visitors
	Parent-home visitor communication  Communication between visits (how often and mode)  Language of communication  Ability to understand one another	<ul> <li>Parent-home visitor communication</li> <li>Survey items</li> <li>Mother and Infant Home Visiting Program Evaluation (MIHOPE) weekly log (adapted)</li> </ul>	Parent-home visitor communication Parent survey, staff child report – home visitors
2a. How are relationship-based approaches to supporting infant/toddler development embedded in home visit practices, such as interactions, activities and content, and use of curricula? How are parent-home visitor relationships and parent-child relationships supported in home visits?	Curriculum use and home visit plans  Curriculum and assessment use and home visit plans  Use of data for planning and individualization	Curriculum use and home visit plans  • Survey items	Curriculum use and home visit plans Staff survey – home visitor, program director survey
	Home visit alignment	Home visit alignment	Home visit alignment
	<ul> <li>How well did the home visit align with visitor's lesson plan for the visit? If not aligned, why not?</li> </ul>	Content and Characteristics Form (adapted)	Staff child report – home visitors
	<ul> <li>Home visit length, content, and language</li> <li>Topics and activities addressed with family, referrals made for family</li> <li>Who participated in home visit, parent engagement, and parents' follow-through from previous visit</li> <li>Language of home visit, if interpreter used</li> </ul>	<ul> <li>Home visit length, content, and language</li> <li>MIHOPE weekly log (adapted)</li> <li>Content and Characteristics Form (revised)</li> </ul>	Home visit length, content, and language Staff child report – home visitors, staff survey – home visitor
	Home visit dosage	Home visit dosage	Home visit dosage
	-	Survey items	Parent survey
	Continuity of care	Continuity of care	Continuity of care
	Time home visitor has been working with the family	Survey items	Staff child report – home visitors

Research questions	Constructs	Measures recommended	Source of data
2b. What do parent engagement practices and activities look like?	Parent engagement practices Family's level of engagement in program Involvement in program activities	Parent engagement practices  • Survey items	Parent engagement practices Parent survey, staff child report – home visitors
3a. How do home visit practices and quality relate to parent-home visitor relationships and parent-child relationships?	Parent-home visitor relationship see above	Parent-home visitor relationship see above	Parent-home visitor relationship see above
	Parent-child relationships Parents' perception of closeness and conflict Parent-child interactions	<ul> <li>Parent-child relationships</li> <li>Child-Parent Relationship Scale, Short Form</li> <li>Healthy Families Parenting Inventory (HFPI)</li> </ul>	Parent-child relationships Parent child report
	<ul> <li>Home environment</li> <li>Bookreading/storytelling, home learning activities</li> <li>Household chaos</li> <li>Family routines, screen time</li> </ul>	Home environment  Baby FACES 2009 parent interview  CHAOS  Survey items	Home environment Parent survey
3b. How do parent engagement practices and activities relate to parent-home visitor relationships, parent-child relationships, and family well-being?	Parent-home visitor relationship see above	Parent-home visitor relationship see above	Parent-home visitor relationship see above
-	Parent-child relationships	Parent-child relationships	Parent-child relationships
	see above	see above	see above
	Parent well-being	Parent well-being	Parent well-being
	<ul> <li>Health, depressive symptoms, substance abuse</li> </ul>	<ul> <li>Center for Epidemiological Studies-Depression (CES-D)</li> </ul>	Parent survey, parent-child report
	<ul> <li>Parenting stress, family conflict, economic stress, social support</li> <li>Self-sufficiency</li> </ul>	<ul> <li>Parenting Stress Index (PSI-SF), Family Environment Scale (FES), Economic Strain Questionnaire, Healthy Families Parenting Inventory</li> </ul>	
		<ul><li>Baby FACES 2009 parent interview</li><li>Survey items</li></ul>	
4. How do parent-home visitor relations	hips relate to parent-child relationships?		see above for same constructs, measures, and data source
5. Do parent-child relationships	Infant/toddler outcomes	Infant/toddler outcomes	Infant/toddler outcomes
mediate the associations between home visit practice quality and infants' and toddlers' well-being?	Expressive and receptive vocabulary, gestures, combining words, grammatical complexity Behavior problems and emotional competence	<ul> <li>Child Development Inventory (CDI) age specific forms</li> <li>Brief Infant Toddler Social Emotional Assessment (BITSEA)</li> </ul>	Parent child report, staff chil report – home visitors

Research questions	Constructs	Measures recommended	Source of data
6. Are program goals aimed at supporting parent-home visitor relationships and parent-child relationships?	Program goals related to supporting responsive relationships and how they are developed and met  • Setting program goals  • Evaluating progress toward goals	Program goals related to supporting responsive relationships and how they are developed and met  Survey items	Program goals related to supporting responsive relationships and how they are developed and met Program director survey
7. Do program plans and decision- making processes reflect support for relationship-based home visit practices and activities?	Program processes supporting responsive relationships  • Program policy about home visitor continuity	Program processes supporting responsive relationships  • Survey item	Program processes supporting responsive relationships  Program director survey
8. How do staff training, technical assistance, and professional development activities target practices that support the development of nurturing, responsive relationships between parents and home visitors and between parents and infants and toddlers?	Program processes supporting responsive relationships Supervision Mentoring/coaching, including methods and topics covered in, frequency and usefulness of mentoring/coaching Training, including topics covered in, and usefulness of training Observation of home visits Program support for home visitor's safety	Program processes supporting responsive relationships  Adapted BFACES 2009 PDI Adapted FACES 2014 Staff Survey Survey items	Program processes supporting responsive relationships Program director survey, staff survey – home visitor
with quality of practice in home visits, pa Do home visit practices and quality med	rent engagement practices and activities, parent-hom iate the associations of program processes and support ent practices and activities mediate the associations of	assistance, and professional development) associated e visitor relationships, and parent-child relationships? orts with parent-home visitor relationships and parent-f program processes and supports with parent-home	see above for same constructs, measures, and data source
10. What are the features of program functioning (such as organizational climate and staff retention) in homebased Early Head Start programs?	Program functioning Organizational climate  Leadership, communication, supportiveness and collaboration  Staff stress, staff satisfaction	Program functioning Organizational climate  TCU - Survey of Organizational Functioning (Cohesion, Communication, Stress, and Satisfaction subscales)  Organizational Climate Description Questionnaire for Elementary Schools [OCDQ-RE] (supportive behavior)	Program functioning Staff survey – home visitor
	<ul> <li>Data-supported decision making</li> <li>Availability of data</li> <li>Uses of data for program planning</li> <li>Barriers and supports for data use</li> </ul>	Data-supported decision making  • Survey items	Data-supported decision making Program director survey

Research questions	Constructs	Measures recommended	Source of data
10. What are the features of program functioning (such as organizational climate and staff retention) in homebased Early Head Start programs? (continued)	Staff retention     Turnover     Positions unfilled     Hiring practices	Staff retention  • Adapted Baby FACES 2009 PDI	Staff retention Program director survey
11. How do features of program functioning mediate the associations between program processes and home visit processes and quality and associations between program processes and parent engagement practices?	see above	see above	see above
12. How are Early Head Start infants and toddlers faring in key domains of development and learning (for example, language and socialemotional development)?	see above	see above	see above
13. How are Early Head Start families functioning (for example, social andeconomic well-being, family resources, and competencies)?	see above	see above	see above
14. What do parent-child relationships and home environment look like among Early Head Start families?	see above	see above	see above
15. How are parent-child relationships associated with infants' and toddlers' outcomes?	see above	see above	see above
16. How is family well-being associated with parent-child relationships and infants' and toddlers' outcomes?	see above	see above	see above