

APPENDIX C:

CONCEPTUAL FRAMEWORKS AND RESEARCH QUESTIONS

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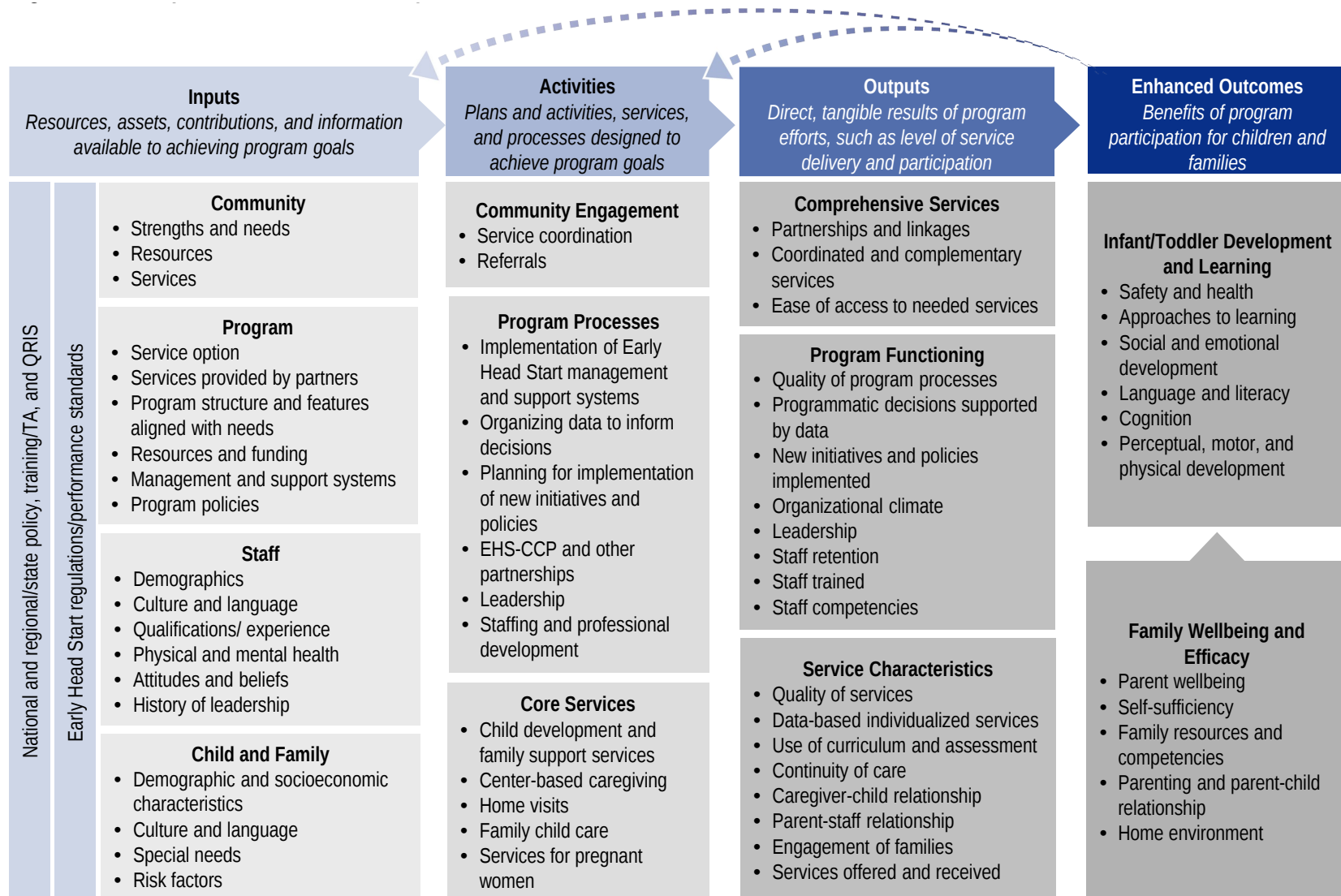
The building blocks of the conceptual framework for EHS include multiple layers: the resources, assets, contributions, and information available to achieve program goals (inputs); the plans and activities, services, and processes designed to achieve program goals (activities); the direct, tangible results of program efforts, such as level of service delivery and participation (outputs); and the benefits of program participation for children and families (enhanced outcomes). The conceptual framework shows the pathways from inputs for operating EHS programs to program goals of achieving enhanced outcomes for children and families.

Guided by the broad conceptual framework for EHS, we then developed two sub-frameworks that guide the redesign of Baby FACES (from longitudinal in 2009 to cross-sectional in 2018–2020) and serve as a road map for the topics of interest in Baby FACES 2018 and 2020. In developing these sub-frameworks, we identified constructs that are considered to be most important to capture to answer study questions. ACF’s priorities for Baby FACES 2018 and Baby FACES 2020 are the processes in classrooms and home visits that support responsive relationships: teacher–child relationships, staff–parent relationships, and parent–child relationships.

Research demonstrates that sensitive and responsive relationships between caregivers and young children are critical for healthy child development (Horm et al. 2016). For this reason, relationship-based care practices are a policy and practice priority in child care settings for infants and toddlers (Sosinsky et al. 2016). EHS relationship-based care practices are intended to support strong relationships among parents, teachers/home visitors, and children. Therefore, in Baby FACES 2018 and 2020, we measure teacher–child relationships, parent–staff relationships, and parent–child relationships. The study is designed to examine associations between program processes and functioning and the development of nurturing, responsive relationships in

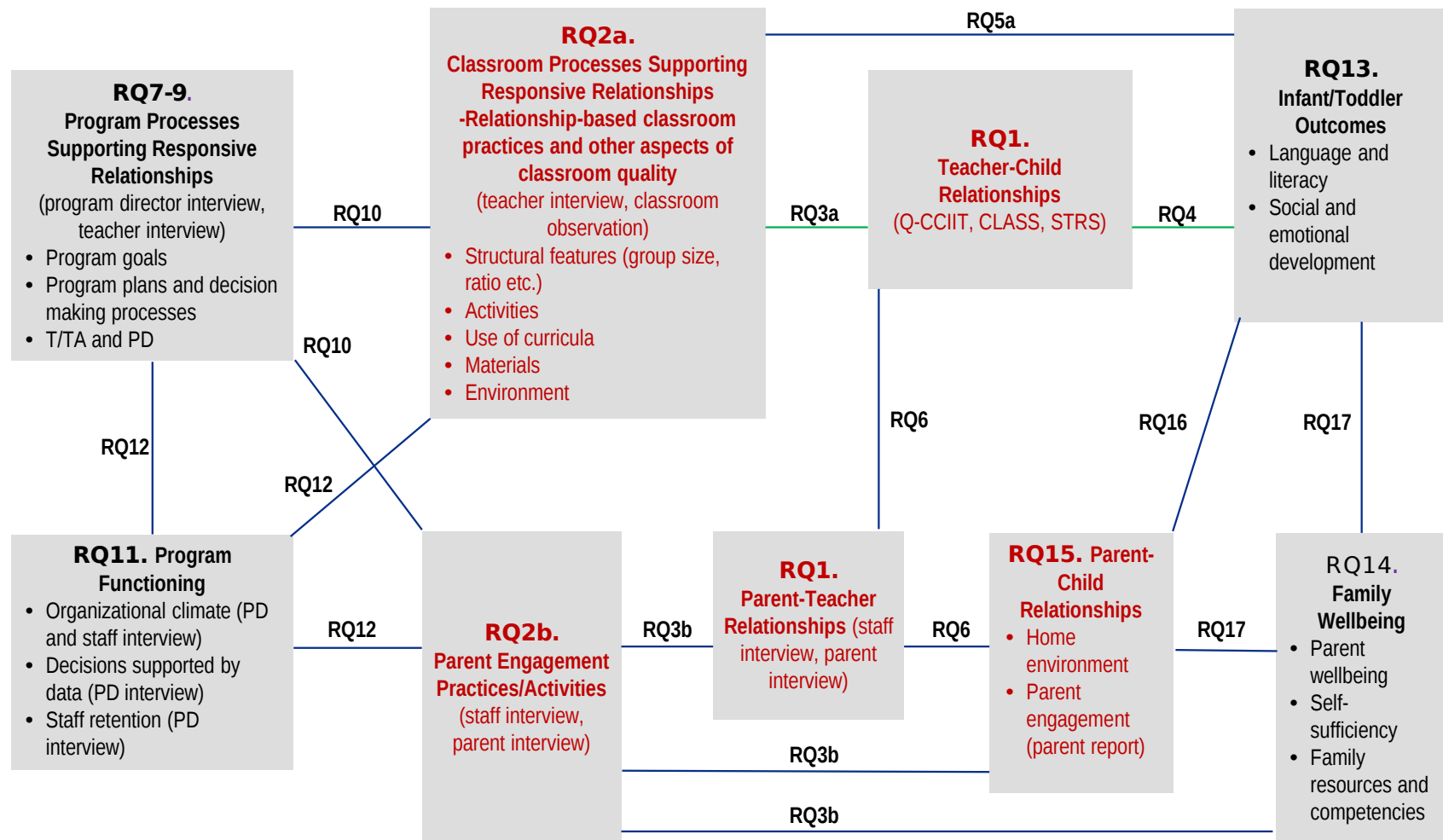
classrooms and home visits. We also address questions of how these relationships are associated with outcomes for infants and toddlers in EHS and their families.

Figure 1. Conceptual Framework for Early Head Start



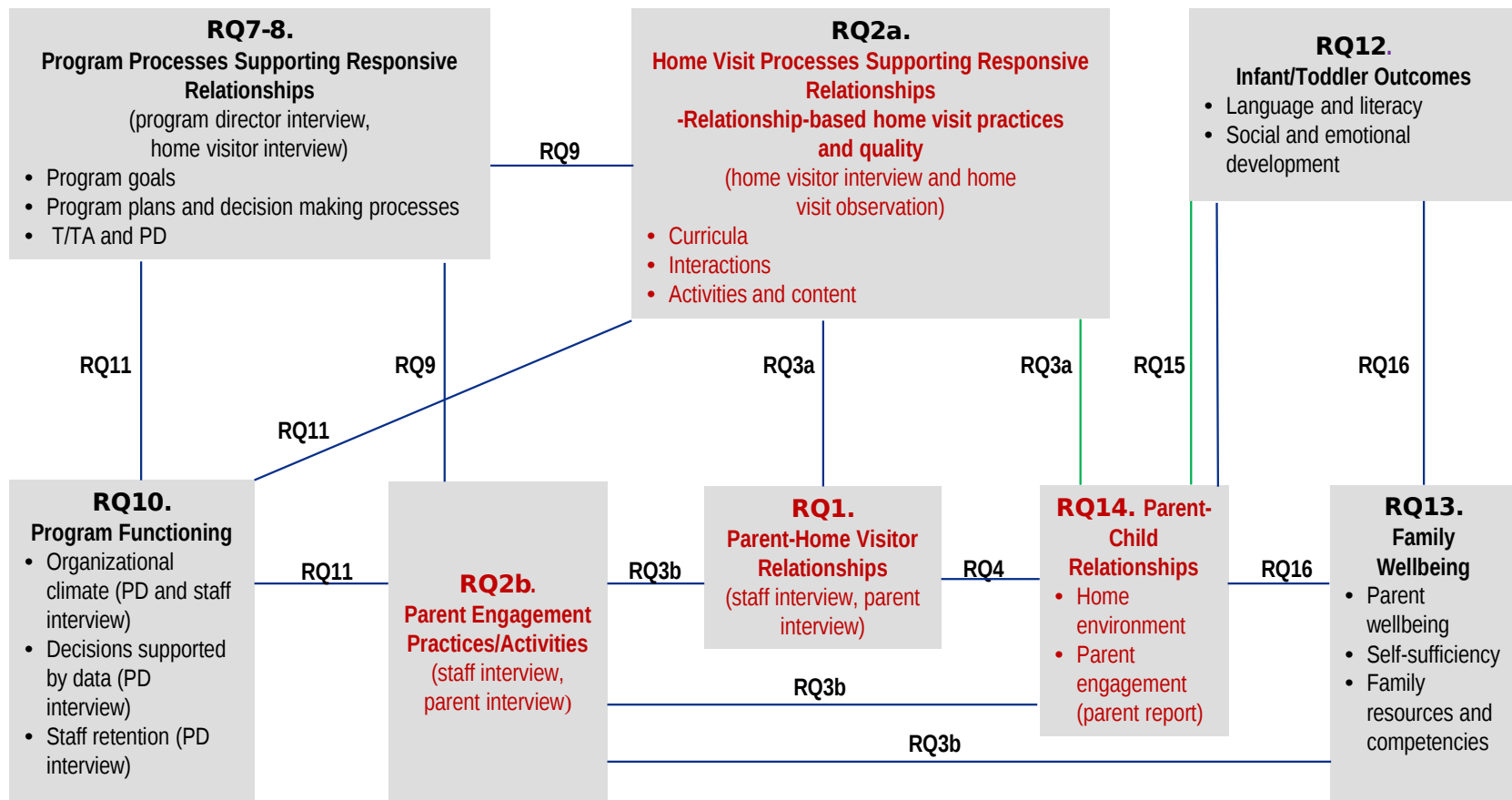
Note: Some of the input factors, for example, child and family characteristics, may directly influence other layers of the framework in addition to Activities. Child and family outcomes learned may also influence the inputs and the activities that programs will take.

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



■ *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



■ *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 2018-2020—pathways for center-based programs

Service characteristics	
1.	What does relationship quality look like in center-based Early Head Start? • Teacher-child relationships • Teacher-child 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 2018-2020—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?
17.	What can we learn by conducting two home visit observations per home visitor rather than one? That is, how much of the variance in home visit quality is between families within home visitors and between home visitors?

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

Research questions	Constructs	Measures	Source of data
1. 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 Parent-teacher relationships - Support, endorsement, undermining, agreement - Trust, clarity of communication, - Language of communication - Ability to understand one another	Teacher-child relationships - Student-Teacher Relationship Scale, Short Form (STRS-SF) - Q-CCIIT - Survey item Parent-teacher relationships - Cocaring Relationship Questionnaire (CRQ)	Teacher-child relationships Classroom observation, staff child report – teachers 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 and 2018 teacher survey items	Classroom features and practices Classroom observation, staff survey – teacher, program and 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 - Survey items - Adapted Baby FACES 2018 program director survey items	Parent engagement practices Parent survey, staff child report – teachers, center director survey, program director survey
3a. How do classroom practices and other aspects of classroom quality relate to teacher-child relationships?			<i>see above for same constructs, measures, and data source</i>
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 Home environment - Bookreading/storytelling, home learning activities - Household chaos - Family routines, screen time	Parent-child relationships - Child-Parent Relationship Scale, Short Form (CPRS-SF) - Healthy Families Parenting Inventory (HFPI) Home environment - Confusion, Hubbub, and Order Scale (CHAOS) - Baby FACES 2009 parent survey items - Survey items	Parent-child relationships Parent child report Home environment Parent survey

Research questions	Constructs	Measures	Source of data
	Parent well-being • Health, depressive symptoms, substance abuse • Parenting stress, economic stress, social support • Self-sufficiency	Parent well-being • Center for Epidemiological Studies-Depression (CES-D) • Parenting Stress Index (PSI-SF), Economic Strain Questionnaire (ESQ), Healthy Families Parenting Inventory (HFPI) • Baby FACES 2009 parent survey items • Survey items	Parent well-being Parent survey, parent-child report
4. 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
5a. Are classroom practices or other aspects of classroom quality associated with infants' and toddlers' outcomes?			<i>see above for same constructs, measures, and data source</i>
5b. Do teacher-child relationships mediate the associations between classroom practices and other aspects classroom quality and infants' and toddlers' outcomes?			<i>see above for same constructs, measures, and data source</i>
6. How do parent-teacher relationships relate to teacher-child relationships and infants' and toddlers' outcomes?			<i>see above for same constructs, measures, and data source</i>
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 • Plan to achieve goals related to responsive relationships • 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
9. How do staff training, technical assistance, and professional development activities target practices that support the development of nurturing, responsive relationships between caregivers (parents and staff) and infants and toddlers?	Program processes supporting responsive relationships • Supervision • Mentoring/coaching • Training • Classroom observation	Program processes supporting responsive relationships • Adapted Baby FACES 2009 program director survey items • Adapted FACES 2014 center director survey items • Adapted Baby FACES 2018 teacher survey items • Survey items	Program processes supporting responsive relationships Center director survey, staff survey – teacher

Research questions	Constructs	Measures	Source of data
10. How do program processes and supports (for example, 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?			<i>see above for same constructs, measures, and data source</i>
11. What are the features of program functioning (such as organizational climate and staff retention) in center-based Early Head Start programs?	Program functioning Organizational climate - Leadership, communication, supportiveness and collaboration - Staff stress, staff satisfaction Data-supported decision making - Availability of data, uses of data for program planning - Barriers and supports for data use Staff retention - Turnover - Positions unfilled - Hiring practices	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) Data-supported decision making - Survey items - Adapted Baby FACES 2018 program director survey items Staff retention - Adapted Baby FACES 2009 program director survey items - Adapted Migrant Seasonal Head Start 2017 center director survey items	Program functioning Center director survey Staff survey – teacher Data-supported decision making Program director survey Staff retention Program director survey, center director survey
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?	<i>see above</i>	<i>see above</i>	<i>see above</i>
13. How are EHS infants/toddler faring in key domains of development and learning (for example, language and social-emotional development)?	<i>see above</i>	<i>see above</i>	<i>see above</i>
14. How are EHS families functioning (for example, social and economic well-being and family resources and competencies)?	<i>see above</i>	<i>see above</i>	<i>see above</i>

Research questions	Constructs	Measures	Source of data
15. What do parent-child relationships and home environment look like among Early Head Start families?	<i>see above</i>	<i>see above</i>	<i>see above</i>
16. How are parent-child relationships associated with infants' and toddlers' outcomes?	<i>see above</i>	<i>see above</i>	<i>see above</i>
17. How is family well-being associated with parent-child relationships and infants' and toddlers' outcomes?	<i>see above</i>	<i>see above</i>	<i>see above</i>

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

Research questions	Constructs	Measures	Source of data
1. What does relationship quality look like in home-based Early Head Start? Parent-home visitor relationships	Parent-home visitor relationships - Relationship building with family, responsiveness to family strengths, facilitation of caregiver-child interaction, collaboration with caregiver - Parent-home visitor collaboration Support, Goal setting, Tasking, Bonding Trust, Clarity of communication - Empowerment, Cultural Competency, Sensitivity—Knowledge, Relationship—Supportive Parent-home visitor communication - Communication between visits (how often and mode) - Language of communication - Ability to understand one another	Parent-home visitor relationships - Home Visit Rating Scales–3 (HOVRS-3) - Cocaring relationship questionnaire (CRQ; parents only) - Working Alliance Inventory (WAI) - Strengths-Based Practices Inventory (SBPI) Parent-home visitor communication - Adapted Baby FACES 2018 parent survey and home visitor child report survey items - Mother and Infant Home Visiting Program Evaluation (MIHOPE) weekly log (adapted)	Parent-home visitor relationships Home visit observation Parent survey, staff child report – home visitors 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 Home visit alignment - How well did the home visit align with visitor's lesson plan for the visit? If not aligned, why not? Home visit length, content, and language - Topics and activities addressed with family, referrals made for family - Who participated in home visit, parent engagement, and parents' follow-through from previous visit - Language of home visit, if interpreter used Home visit dosage	Curriculum use and home visit plans - Adapted Baby FACES 2018 home visitor survey and program director survey items Home visit alignment - Content and Characteristics Form (adapted) Home visit length, content, and language - MIHOPE weekly log (adapted) - Content and Characteristics Form (revised) Home visit dosage - Adapted Baby FACES 2018 parent survey item	Curriculum use and home visit plans Staff survey – home visitor, program director survey Home visit alignment Staff child report – home visitors Home visit length, content, and language Staff child report – home visitors, staff survey – home visitor Home visit dosage Parent survey

Research questions	Constructs	Measures	Source of data
	Continuity of care Time home visitor has been working with the family	Continuity of care Baby FACES 2018 home visitor child report survey item	Continuity of care Staff child report – home visitors
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 - Adapted Baby FACES 2018 program director survey items	Parent engagement practices Parent survey, staff child report – home visitors, program director survey
3a. How do home visit practices and quality relate to parent-home visitor relationships and parent-child relationships?	Parent-home visitor relationship <i>see above</i> Parent-child relationships - Parental sensitivity, parental positive regard, parental stimulation of cognitive development, parental intrusiveness, parental detachment, quality of the relationship - Parents' perception of closeness and conflict - Parent-child interactions Home environment - Bookreading/storytelling, home learning activities - Household chaos - Family routines, screen time	Parent-home visitor relationship <i>see above</i> Parent-child relationships - Parent-Child Interaction Rating Scales (PCIRS) - Child-Parent Relationship Scale, Short Form - Healthy Families Parenting Inventory (HFPI) Home environment - Adapted Baby FACES 2018 parent interview survey items - CHAOS	Parent-home visitor relationship <i>see above</i> Parent-child relationships Observation of parent-child interaction Parent child report 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 <i>see above</i> Parent-child relationships <i>see above</i> Parent well-being - Health, depressive symptoms, substance abuse - Parenting stress, economic stress, social support - Self-sufficiency	Parent-home visitor relationship <i>see above</i> Parent-child relationships <i>see above</i> Parent well-being - Center for Epidemiological Studies-Depression (CES-D) - Parenting Stress Index (PSI-SF) - Economic Strain Questionnaire - Healthy Families Parenting Inventory - Baby FACES 2009 parent interview survey items - Adapted National Survey for Drug Use and Health survey items	Parent-home visitor relationship <i>see above</i> Parent-child relationships <i>see above</i> Parent well-being Parent survey, parent-child report

Research questions	Constructs	Measures	Source of data
4. How do parent-home visitor relationships relate to parent-child relationships?			<i>see above for same constructs, measures, and data source</i>
5. Do parent-child relationships mediate the associations between home visit practice quality and infants' and toddlers' well-being?	Infant/toddler outcomes Expressive and receptive vocabulary, gestures, combining words, grammatical complexity 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 – home visitors
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 - Plan to achieve goals related to responsive relationships - 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 Baby FACES 2018 program director 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 processes supporting responsive relationships - Adapted Baby FACES 2009 program director interview survey items - Adapted FACES 2014 staff survey items - Adapted Baby FACES 2018 home visitor survey items	Program processes supporting responsive relationships Program director survey, staff survey – home visitor
9. How are program processes and supports (for example, 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?			<i>see above for same constructs, measures, and data source</i>
10. What are the features of program functioning (such as organizational climate and staff retention) in home-based 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

Research questions	Constructs	Measures	Source of data
10. What are the features of program functioning (such as organizational climate and staff retention) in home-based Early Head Start programs? <i>(continued)</i>	Data-supported decision making • Availability of data • Uses of data for program planning • Barriers and supports for data use	Data-supported decision making • Survey items • Adapted Baby FACES 2018 program director survey items	Data-supported decision making Program director survey
	Staff retention • Turnover • Positions unfilled • Hiring practices	Staff retention • Adapted Baby FACES 2009 program director survey items • Adapted Migrant Seasonal Head Start 2017 center director survey items	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?	<i>see above</i>	<i>see above</i>	<i>see above</i>
12. How are Early Head Start infants and toddlers faring in key domains of development and learning (for example, language and social-emotional development)?	<i>see above</i>	<i>see above</i>	<i>see above</i>
13. How are Early Head Start families functioning (for example, social and economic well-being, family resources, and competencies)?	<i>see above</i>	<i>see above</i>	<i>see above</i>
14. What do parent-child relationships and home environment look like among Early Head Start families?	<i>see above</i>	<i>see above</i>	<i>see above</i>
15. How are parent-child relationships associated with infants' and toddlers' outcomes?	<i>see above</i>	<i>see above</i>	<i>see above</i>
16. How is family well-being associated with parent-child relationships and infants' and toddlers' outcomes?	<i>see above</i>	<i>see above</i>	<i>see above</i>
17. What can we learn by conducting two home visit observations per home visitor rather than one? That is, how much of the variance in home visit quality is between families within home visitors and between home visitors?	<i>see above</i>	<i>see above</i>	<i>see above</i>