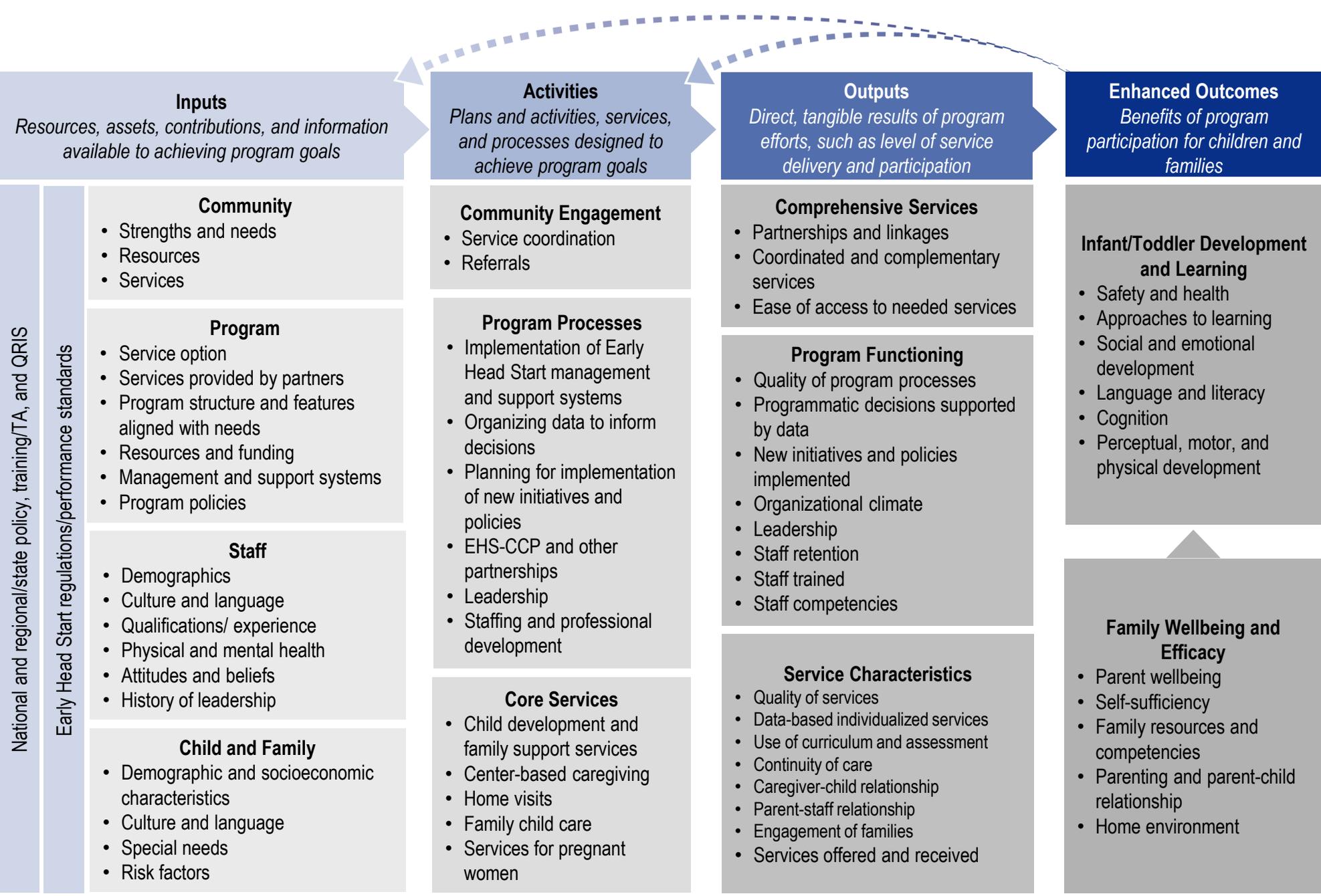


APPENDIX C

CONCEPTUAL FRAMEWORKS AND RESEARCH QUESTIONS

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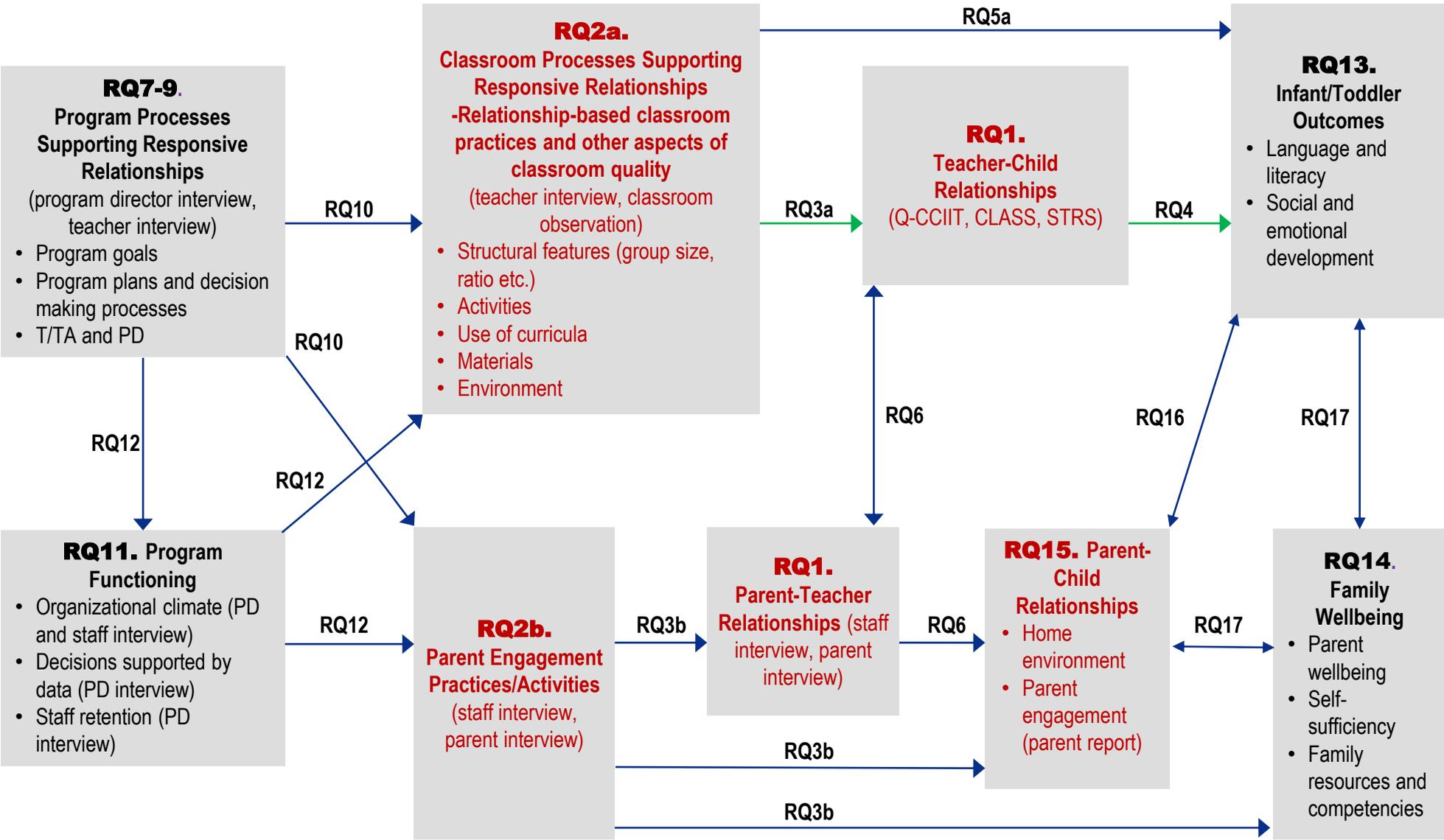
Figure 1. Conceptual Framework for Early Head Start



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.

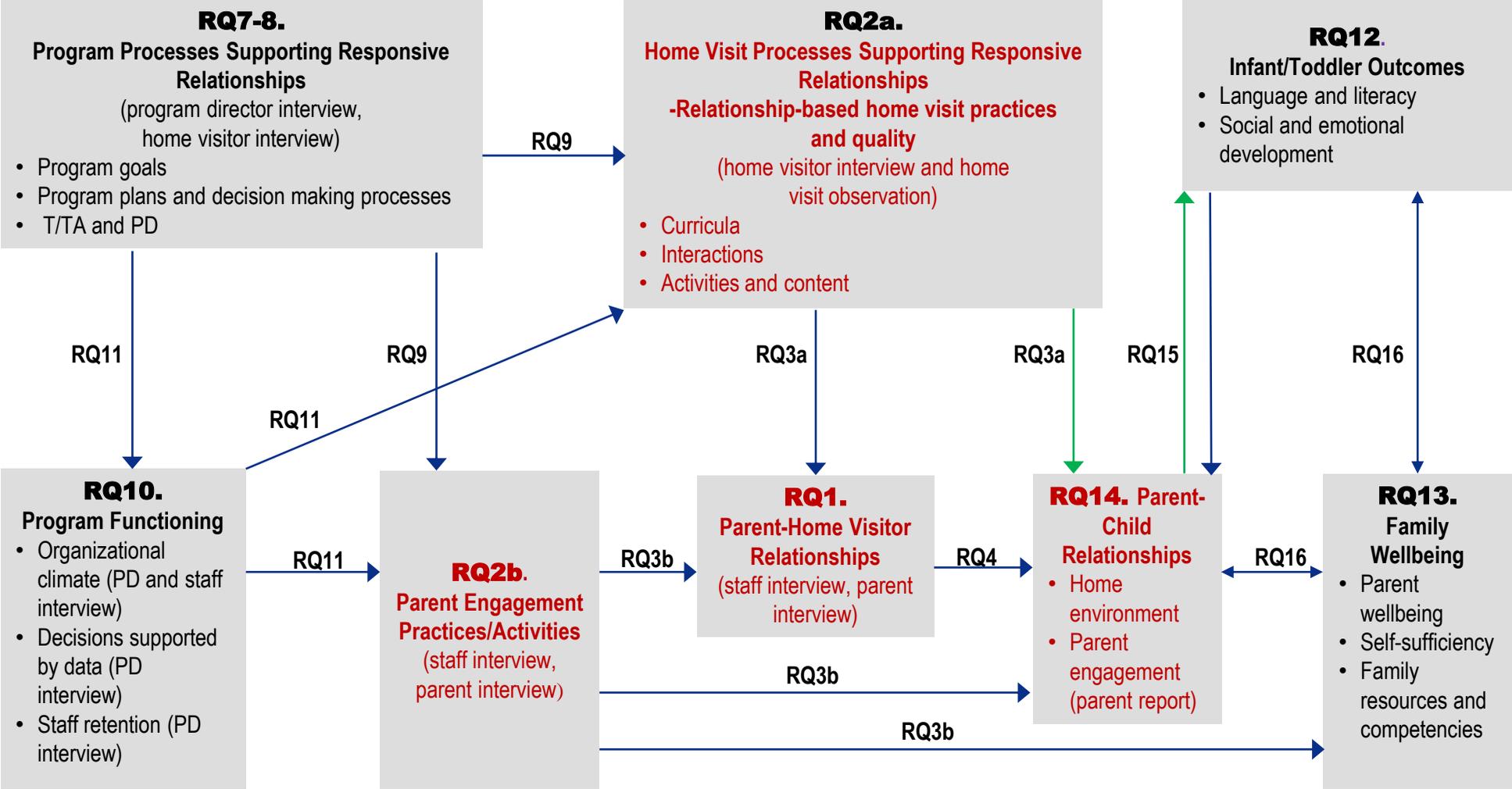
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Figure 2. Understanding Classroom Processes That Support Responsive Relationships in Early Head Start



■ *As an example of mediation, green path shows teacher-child relationships mediate the associations between classroom processes and infant/toddler wellbeing (RQ5a).

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—pathways for center-based programs

Service characteristics	
1.	What does relationship quality look like in center-based Early Head Start? <ul style="list-style-type: none"> • 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? <ul style="list-style-type: none"> • 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
<p>1. What does relationship quality look like in center-based Early Head Start?</p> <ul style="list-style-type: none"> • Teacher-child relationships • Parent-teacher relationships 	<p>Teacher-child relationships</p> <ul style="list-style-type: none"> • Closeness and conflict • Support for social-emotional, cognitive, and language and literacy development • Number of months teacher has been working with the child <p>Parent-teacher relationships</p> <ul style="list-style-type: none"> • Support, endorsement, undermining, agreement • Trust, clarity of communication, • Language of communication • Ability to understand one another 	<p>Teacher-child relationships</p> <ul style="list-style-type: none"> • Student-Teacher Relationship Scale, Short Form (STRS-SF) • CLASS-Infant; CLASS-Toddler • Q-CCIIT • Survey item <p>Parent-teacher relationships</p> <ul style="list-style-type: none"> • Cocaring Relationship Questionnaire (CRQ) • NCEDL home-school relationship measure 	<p>Teacher-child relationships</p> <p>Classroom observation, staff child report – teachers</p> <p>Parent-teacher relationships</p> <p>Parent survey, staff child report – teachers</p>
<p>2a. How are relationship-based approaches to supporting infant/toddler development embedded in classroom practices and features?</p>	<p>Classroom features and practices</p> <ul style="list-style-type: none"> • 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 	<p>Classroom features and practices</p> <ul style="list-style-type: none"> • Survey items • Adapted Baby FACES 2009 Teacher Survey • Adaptation of select Language Interaction Snapshot (LISn) items 	<p>Classroom features and practices</p> <p>Classroom observation, staff survey – teacher, center director survey</p>
<p>2b. What do parent engagement practices and activities look like?</p>	<p>Parent engagement practices</p> <ul style="list-style-type: none"> • Family's level of engagement in program • Involvement in program activities 	<p>Parent engagement practices</p> <ul style="list-style-type: none"> • NCEDL family involvement measure • Survey items 	<p>Parent engagement practices</p> <p>Parent survey, staff child report – teachers</p>
<p>3a. How do classroom practices and other aspects of classroom quality relate to teacher-child relationships?</p>			<p><i>see above for same constructs, measures, and data source</i></p>

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?	<p>Parent-child relationships</p> <ul style="list-style-type: none"> Parents' perception of closeness and conflict Parent-child interactions <p>Home environment</p> <ul style="list-style-type: none"> Bookreading/storytelling, home learning activities Household chaos <p>Family routines, screen time</p> <p>Parent well-being</p> <ul style="list-style-type: none"> Health, depressive symptoms, substance abuse Parenting stress, family conflict, economic stress, social support <p>Self-sufficiency</p>	<p>Parent-child relationships</p> <ul style="list-style-type: none"> Child-Parent Relationship Scale, Short Form (CPRS-SF) Healthy Families Parenting Inventory (HFPI) <p>Home environment</p> <ul style="list-style-type: none"> Confusion, Hubbub, and Order Scale (CHAOS) Baby FACES 2009 parent interview <p>Survey items</p> <p>Parent well-being</p> <ul style="list-style-type: none"> Center for Epidemiological Studies-Depression (CES-D) Parenting Stress Index (PSI-SF), Family Environment Scale (FES), Economic Strain Questionnaire (ESQ), Healthy Families Parenting Inventory (HFPI) Baby FACES 2009 parent interview <p>Survey items</p>	<p>Parent-child relationships</p> <p>Parent child report</p> <p>Home environment</p> <p>Parent survey</p> <p>Parent well-being</p> <p>Parent survey, parent-child report</p>
4. Are teacher-child relationships associated with infants' and toddlers' outcomes?	<p>Infant/toddler outcomes</p> <ul style="list-style-type: none"> Expressive and receptive vocabulary Gestures, combining words, grammatical complexity (age specific) Behavior problems and emotional competence 	<p>Infant/toddler outcomes</p> <ul style="list-style-type: none"> Child Development Inventory (CDI) age specific forms Brief Infant Toddler Social Emotional Assessment (BITSEA) 	<p>Infant/toddler outcomes</p> <p>Parent child report, staff child report – teachers</p>
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?	<p>Program goals related to supporting responsive relationships and how they are developed and met</p> <ul style="list-style-type: none"> Setting program goals Evaluating progress toward goals 	<p>Program goals related to supporting responsive relationships and how they are developed and met</p> <ul style="list-style-type: none"> Survey items 	<p>Program goals related to supporting responsive relationships and how they are developed and met</p> <p>Program director survey</p>
8. Do program plans and decision-making processes reflect support for relationship-based practices and activities?	<p>Program processes supporting responsive relationships</p> <ul style="list-style-type: none"> Considerations in assigning primary caregivers Processes for facilitating relationship with primary caregiver 	<p>Program processes supporting responsive relationships</p> <ul style="list-style-type: none"> Survey items Continuity of Care scale (Ruprecht) 	<p>Program processes supporting responsive relationships</p> <p>Center director survey, staff child report – teachers</p>

APPENDIX C: CONCEPTUAL FRAMEWORKS AND RESEARCH QUESTIONS

Research questions	Constructs	Measures recommended	Source of data
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?	<p>Program processes supporting responsive relationships</p> <ul style="list-style-type: none"> • Supervision • Mentoring/coaching • Training • Classroom observation 	<p>Program processes supporting responsive relationships</p> <ul style="list-style-type: none"> • Adapted Baby FACES 2009 PDI • Adapted FACES 2014 Center Director SAQ • Survey items 	<p>Program processes supporting responsive relationships</p> <p>Center director survey, staff survey – teacher</p>
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?	<p>Program functioning</p> <p>Organizational climate</p> <ul style="list-style-type: none"> • Leadership, communication, supportiveness and collaboration • Staff stress, staff satisfaction <p>Data-supported decision making</p> <ul style="list-style-type: none"> • Availability of data, uses of data for program planning <p>Barriers and supports for data use</p> <p>Staff retention</p> <ul style="list-style-type: none"> • Turnover • Positions unfilled <p>Hiring practices</p>	<p>Program functioning</p> <p>Organizational climate</p> <ul style="list-style-type: none"> • TCU-Survey of Organizational Functioning (Cohesion, Communication, Stress, and Satisfaction subscales) • Organizational Climate Description Questionnaire for Elementary Schools [OCDQ-RE] (Supportive behavior) <p>Data-supported decision making</p> <p>Survey items</p> <p>Staff retention</p> <p>Adapted from Baby FACES 2009 PDI</p>	<p>Program functioning</p> <p>Center director survey Staff survey – teacher</p> <p>Data-supported decision making</p> <p>Program director survey</p> <p>Staff retention</p> <p>Program director survey, center director survey</p>
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>

APPENDIX C: CONCEPTUAL FRAMEWORKS AND RESEARCH QUESTIONS

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)?	<i>see above</i>	<i>see above</i>	<i>see above</i>
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 recommended	Source of data
<p>1. What does relationship quality look like in home-based Early Head Start?</p> <ul style="list-style-type: none"> Parent-home visitor relationships 	<p>Parent-home visitor relationships</p> <ul style="list-style-type: none"> Parent-home visitor collaboration <ul style="list-style-type: none"> Support, Goal setting, Tasking, Bonding Trust, Clarity of communication Parents' satisfaction with home visit <p>Parent-home visitor communication</p> <ul style="list-style-type: none"> Communication between visits (how often and mode) Language of communication Ability to understand one another 	<p>Parent-home visitor relationships</p> <ul style="list-style-type: none"> Cocaring relationship questionnaire (CRQ; parents only) Working Alliance Inventory (WAI) NCEDL home-school relationship measure Parent's satisfaction with home visitor and home visit <p>Parent-home visitor communication</p> <ul style="list-style-type: none"> Survey items Mother and Infant Home Visiting Program Evaluation (MIHOPE) weekly log (adapted) 	<p>Parent-home visitor relationships</p> <p>Parent survey, staff child report – home visitors</p> <p>Parent-home visitor communication</p> <p>Parent survey, staff child report – home visitors</p>
<p>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?</p>	<p>Curriculum use and home visit plans</p> <ul style="list-style-type: none"> Curriculum and assessment use and home visit plans Use of data for planning and individualization <p>Home visit alignment</p> <ul style="list-style-type: none"> How well did the home visit align with visitor's lesson plan for the visit? If not aligned, why not? <p>Home visit length, content, and language</p> <ul style="list-style-type: none"> 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 <p>Home visit dosage</p> <p>Continuity of care</p> <ul style="list-style-type: none"> Time home visitor has been working with the family 	<p>Curriculum use and home visit plans</p> <ul style="list-style-type: none"> Survey items <p>Home visit alignment</p> <ul style="list-style-type: none"> Content and Characteristics Form (adapted) <p>Home visit length, content, and language</p> <ul style="list-style-type: none"> MIHOPE weekly log (adapted) Content and Characteristics Form (revised) <p>Home visit dosage</p> <ul style="list-style-type: none"> Survey items <p>Continuity of care</p> <ul style="list-style-type: none"> Survey items 	<p>Curriculum use and home visit plans</p> <p>Staff survey – home visitor, program director survey</p> <p>Home visit alignment</p> <p>Staff child report – home visitors</p> <p>Home visit length, content, and language</p> <p>Staff child report – home visitors, staff survey – home visitor</p> <p>Home visit dosage</p> <p>Parent survey</p> <p>Continuity of care</p> <p>Staff child report – home visitors</p>

Research questions	Constructs	Measures recommended	Source of data
2b. What do parent engagement practices and activities look like?	Parent engagement practices <ul style="list-style-type: none"> Family's level of engagement in program Involvement in program activities 	Parent engagement practices <ul style="list-style-type: none"> 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 <i>see above</i>	Parent-home visitor relationship <i>see above</i>	Parent-home visitor relationship <i>see above</i>
	Parent-child relationships <ul style="list-style-type: none"> Parents' perception of closeness and conflict Parent-child interactions Home environment <ul style="list-style-type: none"> Bookreading/storytelling, home learning activities Household chaos Family routines, screen time 	Parent-child relationships <ul style="list-style-type: none"> Child-Parent Relationship Scale, Short Form Healthy Families Parenting Inventory (HFPI) Home environment <ul style="list-style-type: none"> Baby FACES 2009 parent interview CHAOS Survey items 	Parent-child relationships 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-home visitor relationship <i>see above</i>	Parent-home visitor relationship <i>see above</i>
	Parent-child relationships <i>see above</i> Parent well-being <ul style="list-style-type: none"> Health, depressive symptoms, substance abuse Parenting stress, family conflict, economic stress, social support Self-sufficiency 	Parent-child relationships <i>see above</i> Parent well-being <ul style="list-style-type: none"> Center for Epidemiological Studies-Depression (CES-D) Parenting Stress Index (PSI-SF), Family Environment Scale (FES), Economic Strain Questionnaire, Healthy Families Parenting Inventory Baby FACES 2009 parent interview Survey items 	Parent-child relationships <i>see above</i> Parent well-being Parent survey, parent-child report
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 <ul style="list-style-type: none"> Expressive and receptive vocabulary, gestures, combining words, grammatical complexity Behavior problems and emotional competence 	Infant/toddler outcomes <ul style="list-style-type: none"> 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

Research questions	Constructs	Measures recommended	Source of data
6. Are program goals aimed at supporting parent-home visitor relationships and parent-child relationships?	<p>Program goals related to supporting responsive relationships and how they are developed and met</p> <ul style="list-style-type: none"> • Setting program goals • Evaluating progress toward goals 	<p>Program goals related to supporting responsive relationships and how they are developed and met</p> <ul style="list-style-type: none"> • Survey items 	<p>Program goals related to supporting responsive relationships and how they are developed and met</p> <p>Program director survey</p>
7. Do program plans and decision-making processes reflect support for relationship-based home visit practices and activities?	<p>Program processes supporting responsive relationships</p> <ul style="list-style-type: none"> • Program policy about home visitor continuity 	<p>Program processes supporting responsive relationships</p> <ul style="list-style-type: none"> • Survey item 	<p>Program processes supporting responsive relationships</p> <p>Program director survey</p>
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?	<p>Program processes supporting responsive relationships</p> <ul style="list-style-type: none"> • 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 	<p>Program processes supporting responsive relationships</p> <ul style="list-style-type: none"> • Adapted BFACES 2009 PDI • Adapted FACES 2014 Staff Survey • Survey items 	<p>Program processes supporting responsive relationships</p> <p>Program director survey, staff survey – home visitor</p>
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?			<p><i>see above for same constructs, measures, and data source</i></p>
10. What are the features of program functioning (such as organizational climate and staff retention) in home-based Early Head Start programs?	<p>Program functioning</p> <p>Organizational climate</p> <ul style="list-style-type: none"> • Leadership, communication, supportiveness and collaboration • Staff stress, staff satisfaction <p>Data-supported decision making</p> <ul style="list-style-type: none"> • Availability of data • Uses of data for program planning • Barriers and supports for data use 	<p>Program functioning</p> <p>Organizational climate</p> <ul style="list-style-type: none"> • TCU - Survey of Organizational Functioning (Cohesion, Communication, Stress, and Satisfaction subscales) • Organizational Climate Description Questionnaire for Elementary Schools [OCDQ-RE] (supportive behavior) <p>Data-supported decision making</p> <ul style="list-style-type: none"> • Survey items 	<p>Program functioning</p> <p>Staff survey – home visitor</p> <p>Data-supported decision making</p> <p>Program director survey</p>

Research questions	Constructs	Measures recommended	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>	Staff retention <ul style="list-style-type: none"> • Turnover • Positions unfilled • Hiring practices 	Staff retention <ul style="list-style-type: none"> • 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?	<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>