

Maternal, Infant, and Early Childhood Home Visiting Evaluation

Secretary's Advisory Committee Meeting
December 6–7, 2011

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Agenda

- ❑ Overview of change to the evaluation design and timeline
- ❑ Site recruitment process
- ❑ Key outcomes guiding measure development
- ❑ Baseline family data
- ❑ Measuring community resources
- ❑ Implementation study

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Broad HHS goals for the national evaluation

Legislative requirements:

- ▶ Use a rigorous design for assessing effectiveness overall and variations across programs and populations
- ▶ Learn about effectiveness in all ACA domains
- ▶ Reflect the national diversity of communities and populations

Additional goals:

- ▶ Gain information to strengthen future programs

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Three components of the evaluation design

- ▶ Analysis of state needs assessments
- ▶ Effectiveness study
 - Reports variation in impacts for sites and populations with different characteristics
 - Incorporates study of health disparities and outcomes
 - Includes implementation study
 - Analyzes links between features of programs and implementation with program impacts
 - *New:* Impacts by national program model where feasible
- ▶ Economic evaluation

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Phase 1 of the national evaluation

- Update of design based on state plans
- Site selection
- Enrollment of families into study
- Collection of baseline family data
- Collection of implementation data
- Report to Congress in 2015
 - Analysis of state needs assessments
 - Description of families at baseline
 - Description of MIECHV programs in evaluation

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Phase 2 of the national evaluation

- ▶ Expected to start late 2012
- ▶ Follow-up data collection around child's 1st birthday
- ▶ Report in 2017 includes analysis of:
 - Implementation
 - Impacts at 12 month follow-up
 - Health disparities
 - Links between program features, implementation, and impacts
 - Program costs and economic analysis

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Key Dates for Phase 1

- ▶ Early December 2011: First federal register notice for data collection
- ▶ February 2012: Begin site visits
- ▶ Late February 2012: Second federal register notice
- ▶ End of May 2012: OMB approval for data collection
- ▶ Late July 2012: Begin sample enrollment in first sites
- ▶ January 2013: Complete site selection
- ▶ September 2014: Final draft of 2015 report due to HHS

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Overview of Sampling Plan

- ▶ Sites concentrated in 12 states
- ▶ Decision rule: Include national program models chosen by at least 10 states
 - EHS, HFA, NFP, PAT
 - Include only families enrolled prenatally or with baby under six months old
- ▶ 5100 families across 85 sites
 - 60 families per site
 - 30 program group, 30 control group per site

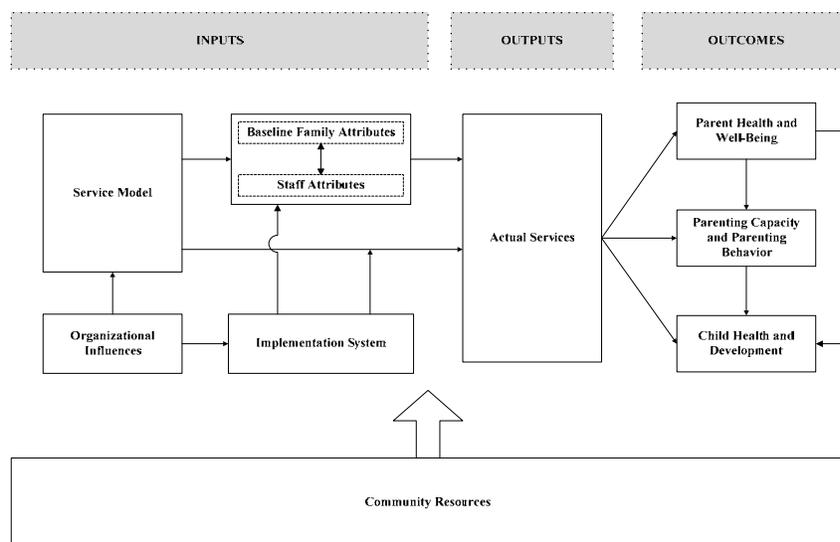
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Additional design updates

- ▶ Logic models for each hypothesized pathway for impacts are guiding measurement decisions
- ▶ Efficiencies in measurement and study procedures are aimed at minimizing cost and burden
- ▶ Substudies not included in the national evaluation
 - Frontier areas, new implementing agencies, or qualitative studies of mothers or fathers

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Conceptual framework



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Site Recruitment and Analysis of State Plans

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Site Selection Process

- ▶ Goal: to recruit 85 sites in 12 states
 - Review state plans and prioritize states based on the information
 - Introduce the evaluation to states via HRSA Regional Project Officers
 - Contact states individually to gather information about programs and implementation schedule
 - Visit key states and sites for detailed discussion of the evaluation and the programs
 - Negotiate with preferred states/sites on a rolling basis

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Criteria for Prioritizing States/Sites

States:

- Implementing key models (EHS, HFA, NFP, PAT)
- Diversity within the state (models, sites, urbanicity, administering agencies, population demographics)
- Multiple sites
- Regions

Sites:

- Experience with implemented model
- Excess demand for services
- Enrollment of 30 or more families per year
- Strong service differential

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Possible Criteria for Giving States/Sites Lower Priority

- ▶ Implementing only one program model
- ▶ Few MIECHV funded sites/very small sites
- ▶ Sites concentrated in 1–2 geographic area
- ▶ Multiple sites administered by one organization

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Priority Outcomes Guiding Measure Development

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Rationale for Priority Outcomes

- ▶ Include all ACA benchmarks and participant outcomes
- ▶ Achieve appropriate emphasis across benchmarks and participant outcomes
- ▶ Balance depth and breadth of data collection while minimizing respondent burden
- ▶ Parallel structure in data collection activities

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Organization of Priority Outcomes

- ▶ Organized within the three main outcome categories of the conceptual framework
 - Parent health and well-being
 - Parenting
 - Child health and development
- ▶ Emphasis on positive vs. negative outcomes

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Priority Outcomes – Parent Health and Well-Being

- ▶ Maternal health
 - Prenatal health
 - Reproductive health
 - Substance use
 - Psychological
- ▶ Parent well-being
 - Healthy adult relationships
- ▶ Family economic self-sufficiency

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Priority Outcomes – Parenting

- ▶ Parent support for child learning
- ▶ Parent–child relationship
- ▶ Child maltreatment
- ▶ Safe home environment

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Priority Outcomes – Child Health and Development

- ▶ Birth outcomes
- ▶ Injuries
- ▶ Avoidable illness
- ▶ Physical growth and development

- ▶ Communication, language and literacy
- ▶ General cognitive skills
- ▶ Approaches to learning
- ▶ Social behavior and emotional well-being

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Baseline Family Data

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Purposes of baseline family data

- ▶ Define key subgroups
- ▶ Improve precision of impact estimates
 - Esp. baseline measures of key outcomes
- ▶ Describe the study sample

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Sources of baseline data

- ▶ One-hour parent survey by phone
 - MIECE proposal contained 4–5 hours of questions
 - Goal: cut to 75 minutes by December 13

- ▶ HOME observational assessment of home conditions and parenting practices

- ▶ Administrative data on birth outcomes, child abuse and neglect
 - To be collected at follow-up
 - Also interest in Medicaid, TANF, and SNAP

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Child health and development

- ▶ Birth outcomes
 - Birth weight, gestational age, congenital anomalies, NICU
- ▶ Infant health
 - General health, developmental delays
- ▶ Health care
 - ED use, hospital admissions, injuries, well visits, regular source of care, whether insured, immunizations
- ▶ Temperament
- ▶ Nutrition

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Parental health and well-being

- ▶ Physical health
 - General health, physical functioning, obesity, gestational diabetes
- ▶ Mental health
 - Depression, stress
- ▶ Attachment style
- ▶ Tobacco, alcohol, and drug use
- ▶ Food security
- ▶ Social support
- ▶ Maternal reproductive health
- ▶ Paternal health

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Parenting

- ▶ Parenting behavior
 - Harsh parenting, cognitive stimulation, warmth, breastfeeding
- ▶ Child maltreatment (ever involved with CPS)
- ▶ Parenting stress
- ▶ Parenting knowledge
- ▶ Parenting attitudes and beliefs
- ▶ Co-parenting
- ▶ Father involvement

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School readiness and academic achievement

- ▶ Children too young to measure this reliably at baseline
- ▶ Measure precursors (parenting behaviors, child health and development)

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Domestic violence and crime

- ▶ Domestic violence
 - Adapted Conflict Tactics Scale
 - Psychological and emotional abuse (PMWI-SF)
- ▶ Crime
 - Ever arrested or convicted

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Family economic self-sufficiency

- ▶ Employment
- ▶ Income
- ▶ Educational attainment, currently in education
- ▶ Receipt of public assistance (TANF, SNAP, WIC)
- ▶ Health insurance
- ▶ Financial support from noncustodial father

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Social services

- ▶ Alcohol and drug treatment
- ▶ Counseling for domestic violence
- ▶ Mental health counseling
- ▶ Education and training
- ▶ Housing
- ▶ Legal aid
- ▶ Child care assistance
- ▶ Respite care
- ▶ Counseling for co-dependence

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Demographics

- ▶ Household composition
- ▶ Race and ethnicity
- ▶ Age
- ▶ Marital status
- ▶ Languages spoken at home
- ▶ Acculturation

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Reducing the number of questions

- ▶ Drop some questions that are not age appropriate
 - Not age appropriate, e.g., nutrition for infants under 6 months old
 - Short forms available, e.g., 6-item food security scale
 - Questions that lack predictive validity, e.g., parenting knowledge
 - Duplicative questions, e.g., overlap between parenting attitudes and beliefs
- ▶ Planned missingness
 - If purely descriptive, ask of 1000 parents
 - Random subset of scales asked of each individual
 - For covariates, ask for partial sample

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Community Measurement

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Purposes of community measurement

- ▶ Describe communities and neighborhoods
- ▶ Determine availability and accessibility of community services
- ▶ Define levels of service coordination
- ▶ Begin documenting the counterfactual

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Guiding principles for data collection

- ▶ Collect high quality data
- ▶ Collect data as efficiently as possible
- ▶ Triangulate across multiple data sources

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Sources of community data

- ▶ Community characteristics
 - Field staff ratings of the neighborhood environment
 - 2010 Census
- ▶ Service availability, accessibility, coordination
 - Web-based surveys of home visiting supervisors and community service providers
 - Explore feasibility of using data from the National Center for Charitable Statistics (NCCS)

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Community service domains

- ▶ Prenatal care
- ▶ Early childhood care and education
- ▶ Early intervention
- ▶ Pediatric primary care
- ▶ Family planning and reproductive health care
- ▶ Substance abuse treatment/mental health
- ▶ Services for victims of domestic violence

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Service availability/accessibility

- ▶ Overall rating of service availability
- ▶ Home visiting program knowledge of community services
- ▶ Frequency and volume of referrals
- ▶ Barriers to accessibility
 - Waiting lists, fees, hours of operation, language, location

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Service coordination

- ▶ Between home visiting program and community service providers
- ▶ Use of MOUs and designated points of contact
- ▶ Frequency and types of communication
- ▶ Shared activities

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Documenting the counterfactual

- ▶ Top 5 home visiting programs in community
- ▶ Eligibility criteria
- ▶ Length of enrollment and frequency of visits
- ▶ Model/curricula used
- ▶ Funded enrollment
- ▶ Years of operation

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Measuring Program Implementation

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Components to Measure 1. Inputs

- ▶ **Community Context**
 - Community characteristics
 - Availability of resources
- ▶ **Influential Organizations**
 - Program site's definition of service model
 - Program site's implementation system
- ▶ **Key Participants**
 - Characteristics that influence behavior

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Components to Measure

2. Outputs

- ▶ Dosage
- ▶ Content and Techniques
- ▶ Quality of Delivery
- ▶ Family Responsiveness

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Basic Premise #1

- ▶ Some inputs and outputs are common across all priority outcomes
 - Examples
 - Input – service model definition of eligible families
 - Output – actual total number of visits
- ▶ Some inputs and outputs are specific to individual priority outcomes
 - Examples
 - Input – priority given to specific outcome
 - Output – specific activities to achieve outcome

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Basic Premise #2

- ▶ HV impacts parent outcomes directly.
- ▶ HV impacts child outcomes indirectly, through its impacts on parent outcomes.
- ▶ There are multiple pathways to many of the parent outcomes and child outcomes
- ▶ To understand program impacts on an outcome, we must study each pathway to it.
- ▶ This begins by defining the set of pathways to each outcome.

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Eight Logic Model Pathways

- ▶ Principles for developing the pathways
 - Make sure all priority outcomes are included.
 - Incorporate MIECHV benchmark and participant outcome indicators.
 - Be mindful of the pathways specified in the national HV models.
 - Use a common framework across pathways.
 - Tailor the content of each pathway to reflect its unique inputs and outputs.

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The Logic Model Pathways

- A. Maternal Health – Prenatal Health
- B. Maternal Health – Postnatal Health
- C. Maternal Health – Substance Use
- D. Maternal Health – Stress and mental health
- E. Parent Well-Being – Healthy Adult Relationships
- F. Family Economic Self-Sufficiency
- G. Parenting to Promote Child Development
- H. Parenting to Promote Child Health

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| Priority Outcomes | Logic Models | | | | | | | |
|-----------------------------------|--------------|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H |
| Maternal prenatal health | X | | | | | | | |
| Maternal postnatal health | | X | | | | | | |
| Maternal substance use | X | | X | X | | | | |
| Maternal stress and mental health | | | X | X | X | X | | X |
| Healthy adult relationships | | | | | X | | | |
| Economic self-sufficiency | | X | | | | X | | |
| Parenting to support development | | X | X | X | X | X | X | |
| Parenting to promote health | | | X | | | X | | X |
| Child maltreatment | | | X | X | X | X | X | |
| Birth outcomes | X | | X | | | X | | |
| Injuries | | | X | | | X | | X |
| Avoidable illness | | | X | | | X | | X |
| Physical growth | | | | | | X | | X |
| Communication | | X | X | X | | X | X | X |
| General cognitive skills | | X | X | X | | X | X | X |
| Approaches to learning | | X | X | X | | X | X | X |
| SE well-being | | X | X | X | X | X | X | X |

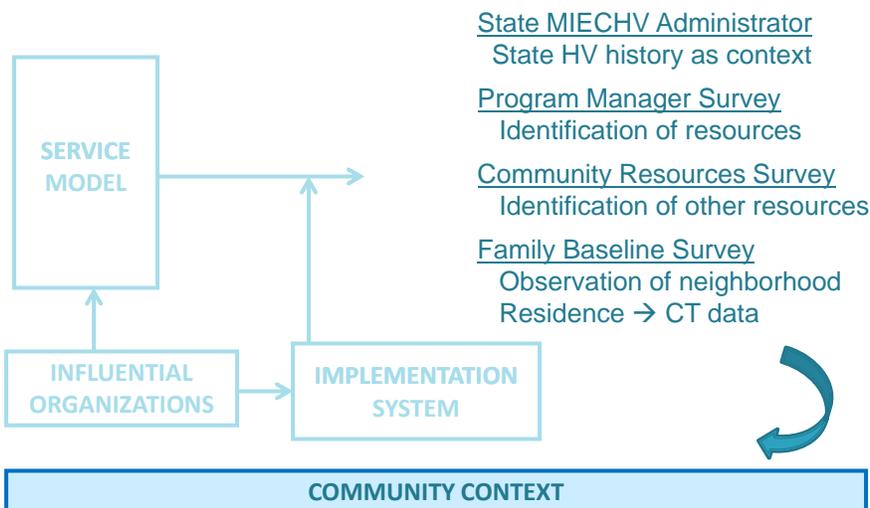
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Basic Pathway Components

| Inputs | Outputs | Outcomes | |
|---|--|----------|-------|
| | | Mother | Child |
| <u>Service Model</u> <ul style="list-style-type: none"> • Intended outcomes • Intended services • Intended staffing | <u>Assessment</u> <ul style="list-style-type: none"> • Strengths / risks • Stage of change • Predisposing factors | | |
| <u>Implementation System</u> <ul style="list-style-type: none"> • Staff development • Clinical supports • Administrative supports • Systems interventions | <u>Education</u> <ul style="list-style-type: none"> • Outcomes of behaviors • Strategies for change | | |
| <u>Community Resources</u> <ul style="list-style-type: none"> • Availability • Accessibility | <u>Referral</u> <ul style="list-style-type: none"> • Health care coverage • Needed Services | | |
| | <u>Coordination</u> <ul style="list-style-type: none"> • Reinforcement, facilitation to promote adherence to recommendations | | |

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Implementation Measurement Using a Logic Model Example



Implementation Measurement Using a Logic Model Example

