



Mother and Infant Home Visiting Program Evaluation

Impact Analysis

Outcomes

Data sources

- One-hour family follow-up survey
- Video-recorded parent child interaction (Three bags and clean-up tasks)
- Direct assessment of children's receptive language skills (PLS-5)
- Height and weight of mother and child
- Home environment (IT-HOME)
- Administrative data (child welfare, Medicaid, earnings, birth records)



Framework for choosing confirmatory outcomes

- Confirmatory outcomes
 - Short list
 - Presented in Executive Summary table
 - Adjust for multiple outcomes in drawing inferences
- Criteria for choosing confirmatory outcomes
 - Evidence of effects in prior studies
 - Quality of measurement (observations preferred)
 - Policy and research interest
- Exploratory outcomes
 - Of interest but did not meet criteria for confirmatory
 - Presented in body of report without adjustment



Confirmatory Outcomes: Maternal Health

- Benchmark area
- Priority varies across national models
 - Only one rates maternal health as high priority
 - Seen as way to improve child health and development
- Two confirmatory outcomes
 - **New pregnancy after study entry (survey)**
 - Variation in emphasis placed on birth spacing
 - 2 of 9 prior estimates statistically significant
 - **Maternal health insurance (survey, Medicaid)**
 - Gateway to accessing affordable health care
 - 0 of 1 prior estimates statistically significant



Confirmatory Outcomes: Child Health

- Benchmark area, high priority for all 4 models
- Three confirmatory outcomes
 - Number of well-child visits (survey, Medicaid)
 - 1 of 14 prior estimates statistically significant
 - May be increased emphasis under MIECHV
 - Infant health insurance (survey, Medicaid)
 - 2 of 4 prior estimates statistically significant
 - Important mediator of infant health care
 - Any infant ED use (survey, Medicaid)
 - 2 of 12 prior estimates statistically significant



Confirmatory Outcomes: Child Development

- Benchmark area, high priority for all 4 models
- Two confirmatory outcomes
 - Behavior problems total score (BITSEA)
 - 4 of 14 prior estimates statistically significant
 - Risk factor for mental health and academic difficulties
 - Language skills in normal range (PLS-5)
 - 4 of 13 prior estimates statistically significant
 - Linked to school readiness and later achievement



Confirmatory Outcomes: Child Maltreatment

- Benchmark area, high priority for all 4 models
- Three confirmatory outcomes
 - Frequency of minor physical assault (CTS-PC)
 - 3 of 12 prior estimates statistically significant
 - Precursor to more serious behaviors
 - Frequency of psychological aggression (CTS-PC)
 - 2 of 14 prior estimates statistically significant
 - More common than reports of contact with CPS
 - Any health care encounter for injury or ingestion (survey, Medicaid)
 - 4 of 13 prior estimates statistically significant
 - More objective measure when measured through Medicaid



Confirmatory Outcomes: Parenting

- Benchmark area, high priority for all 4 models
- Two confirmatory outcomes
 - **Quality of home environment (IT-HOME)**
 - 4 of 13 prior estimates statistically significant
 - All 4 models have found improvements
 - Important mediator of child development
 - **Parental supportiveness (Three-Bags)**
 - 0 of 8 prior estimates statistically significant
 - But important mediator of child development



Confirmatory Outcome: Family Economic Self-Sufficiency

- Benchmark area, high priority for all 4 models
- One confirmatory outcome
 - Receiving education or training (survey)
 - 9 of 25 prior estimates statistically significant
 - Improvements in all four models
 - Important predictor of subsequent economic outcomes



Crime or Domestic Violence

- Benchmark area
- No confirmatory outcomes
 - Crime
 - No model lists reducing crime as one of their goals
 - Effects on crime only examined previously in older children
 - Domestic violence
 - Effects on DV only previously found when children are older



School Readiness and Academic Achievement

- No confirmatory outcomes
 - No measures available for very young children
 - Outcomes in areas of parenting and child development may be important predictors
 - May be measured in longer-term follow-up



Questions for the Committee

With regard to the confirmatory outcomes:

- Does the committee agree with the proposed confirmatory outcomes (keeping in mind the considerations and constraints in selecting these outcomes)?
- Should the outcome “any health care encounter for injury or ingestion” be placed in the domain for *child health* or for *child maltreatment*?





Mother and Infant Home Visiting Program Evaluation

Impact Analysis

Subgroups

Framework for choosing subgroups

- Select small number of confirmatory and exploratory subgroups
- Use three lenses to identify subgroups
 - Prior studies' use of subgroups and findings
 - Policy relevance: high-risk groups identified in authorizing legislation
 - National model relevance



Characteristics of *confirmatory* subgroup constructs

- Have support from the 3 lenses
- Have sufficient sample size (at least approximately 1,000 per subgroup)
- Specify before estimating impacts for the full sample
- Adjust statistical tests for multiple comparisons
- Include results in main report



Many subgroup constructs used in prior research

- Maternal demographic characteristics
 - Age, partner status, first-time-mother, race & ethnicity, primary language, SES, education level, employment
- Maternal physical or mental health
 - Pregnancy status, depression, attachment style, psychological resources, family stress, substance abuse
- Presence of domestic violence or child abuse
 - Current home
 - Mother's home when she was a child



Proposed Confirmatory Subgroup Constructs

1. Pregnancy Status at Time of Enrollment
2. Whether the Mother is a First-Time Mother
3. Whether the Mother has Low Psychological Resources
4. Whether the Mother is Both Depressed and Exhibits Relationship Insecurity
5. Presence of Domestic Violence
6. Presence of High Demographic Risk



Confirmatory Subgroup Construct: Pregnancy Status at Time of Enrollment

- 3 subgroups
 - Enrolled before 28th week of pregnancy
 - Enrolled after 28th week of pregnancy
 - Enrolled after birth of child
- Authorizing legislation: “Pregnant women who have not attained age 21”
- Emphasized by all four national models



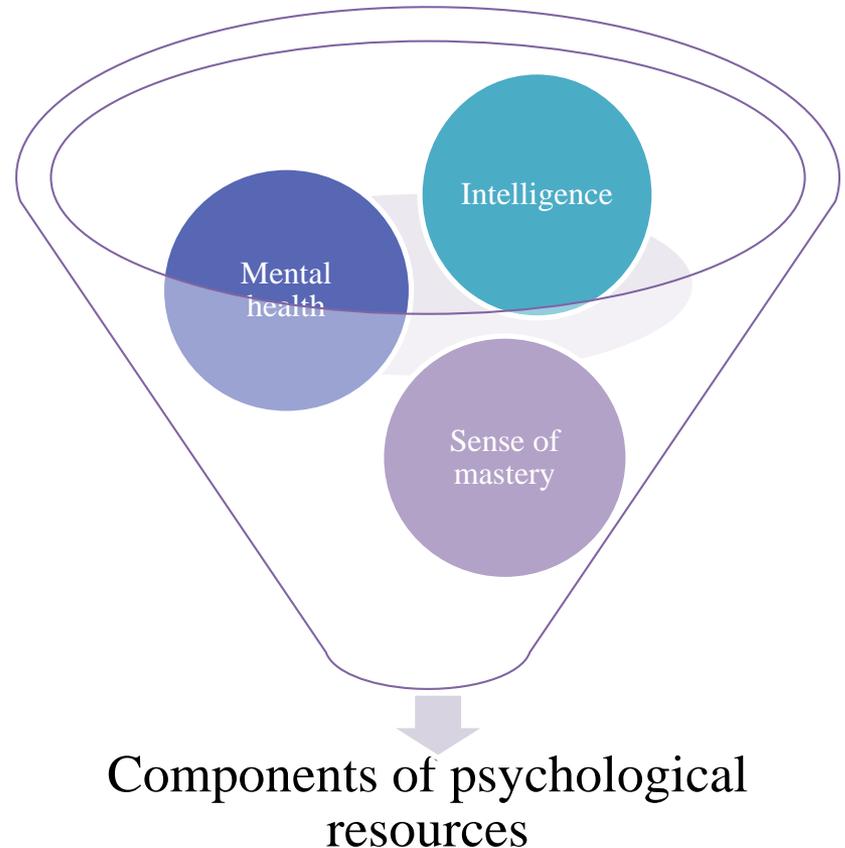
Confirmatory Subgroup Construct: Whether the Mother is a First-Time Mother

- 2 subgroups
 - First-time mother at time of enrollment
 - Not first-time mother at time of enrollment
- Emphasized by at least one national model
(local programs may choose to emphasize)



Confirmatory Subgroup Construct: Mother has Low Psychological Resources

- 2 subgroups
 - Low psychological resources
 - “Not low” psychological resources
- WAIS, CES-D, GAD-7, Pearlin Mastery Scale
- Only family subgroup to be included in the HomVEE review



Confirmatory Subgroup Construct: Maternal Attachment Style and Depression

- 2 subgroups
 - Mother is both depressed and exhibits relationship insecurity
 - Mother is not both depressed and exhibits relationship insecurity
- CES-D and ASQ
- Emphasized by at least two national models (local programs may choose to emphasize); attachment theory underlies home visiting



Confirmatory Subgroup Construct: Presence of Domestic Violence

- 2 subgroups
 - Presence of domestic violence by or toward mother
 - No presence of domestic violence by or toward mother
- Conflict Tactics Scale
- Legislation mentions history of child abuse as “high risk” but not domestic violence
- Emphasized by at least one national model (local programs may choose to emphasize)



Confirmatory Subgroup Construct: Maternal High Demographic Risk

- 2 subgroups
 - High Risk (all four of following):

Younger than
age 21

Does not live
with child's
father

Receives any
form of public
assistance

Work or
education
status

- Lower Risk (three or fewer of above)
- Characteristics emphasized by both ACA & national models (local models may choose to emphasize)



Estimation strategy for confirmatory subgroup impacts

- Test whether subgroup impacts within a construct differ from each other
- Use a multiple comparison statistical adjustment
- Use two-tailed statistical tests
- Include statistical controls for national models
- Estimate 2 ways:
 - Split-sample
 - Pooled sample with full interactions



Next steps

- Confirm sufficient sample size is available for each subgroup within each confirmatory subgroup construct
- Finalize confirmatory subgroups based on feedback from SAC



Questions for the Committee

- Does the Committee agree with the process we used to identify confirmatory subgroups?
- Does the committee agree with the constructs and definitions of the proposed confirmatory subgroups?
- Should the number of confirmatory subgroup tests be reduced?

