Mother and Infant Home Visiting Program Evaluation

# Cost Analyses

# For the Implementation and Impact Reports

# Overview of Estimates and Analyses

- For the Implementation Report
  - Total cost/MIHOPE family for 12 months after study enrollment and until the child is 15 months old
  - Aggregate cost per home visit delivered

- For the Impact Report
  - Cost-effectiveness analysis of home visiting (MIHOPE families) compared to status quo (control group)
  - Comparisons of cost effectiveness between subgroups of families or sites may be of greatest interest

# Implementation Report: Data Sources

- Family service information from the weekly logs
  - Completed by home visitors and supervisors


- Actual program expenditures, number of families served, and home visits delivered
  - Reports provided by each site for 2 full budget years

# Implementation Report: Analysis Steps

## Estimate family-level direct costs

- Collect information on direct resources (personnel time and materials) required for each family from weekly logs
- Estimate direct service costs, by applying hourly wage rates for personnel costs and reported estimates of the value of the materials

## Estimate aggregate costs per home visit and a ratio of non-direct to direct aggregate costs per site

- Collect aggregate expenditures, by resource category
- Estimate aggregate costs per home visit, by dividing aggregate expenditures by # of HVs provided
- Estimate a ratio of non-direct to direct aggregate costs

## Estimate total family-level costs

- Multiply the family-level direct costs #1, by the site-level ratio estimated in #2

# Implementation Report: Limitations

- Financial costs (expenditures) only

- Reliability of reported donated or in-kind resources

- Capital expenditures

- Training costs

- Potential for missing site cost data

# Question for the Committee: #1

- Does the proposed plan for estimating *per family cost* and *per home visit cost* correspond with questions about cost that policy makers and practitioners are most interested in, and that MIHOPE has a unique opportunity to address?

# Impact Report: Inputs

- Total cost of home visiting/program group family (from Implementation Report)
- Costs of other services received by families, program group vs. controls
- Costs of medical care received by families, program group vs. controls
- Impacts for families, program group vs. controls
  - from earlier chapters of impact report

# Impact Report: Analysis Steps

NET COST / IMPACT

NET COST = a + b + c

- a = (Costs of home visiting for program group – Costs of home visiting for control group)
- b = (Costs of other services for program group – Costs of other services for control group)
- c = (Costs of health care for program group – Costs of health care for control group)

IMPACT = Outcome Y for program group – Outcome Y for control group

# Impact Report: Strengths

- Summation of costs relative to each impact or outcome deemed important to the study

- Ability to compare cost-effectiveness of home visiting across subgroups

- Ability to address important questions such as, "Do families who cost the most to serve also accrue the most benefit by the 15-month follow-up?"

# Impact Report: Limitations

- Program costs compared separately to each individual program impact
  - impacts cannot be combined into a single net estimate of program impacts
  - difficult to make overall summary conclusions

- CEA is limited to the time horizon over which impacts are assessed

# Question for the Committee: #2

- Does the proposed plan for estimating *cost effectiveness* correspond with questions about cost effectiveness that policy makers and practitioners are most interested in, and that MIHOPE has a unique opportunity to address? Our plan is to estimate cost effectiveness for each primary impact and for the primary subgroups. Does the Committee agree with this plan?

# Question for the Committee: #3

- What differences in costs should be explored other than those of the national program models, sites, and other characteristics (family or parent) as suggested by findings of the implementation study?