OPPORTUNITIES FOR SYSTEM INTEGRATION TO PROMOTE MATERNAL-CHILD HEALTH THROUGH SERVICE COLOCATION

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HARC Collaborative Science of Home Visiting Meeting

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Presenter
Disclosures

No relationships to disclose
1. BACKGROUND ON THE MIECHV EVALUATION IN PA

2. Qualitative and Quantitative Methods

3. Colocation Findings

4. Limitations

5. Conclusions and Next Steps
MIECHV in Pennsylvania

Four models eligible
- Early Head Start
- Healthy Families America
- Nurse-Family Partnership
- Parents As Teachers

32 LIAs selected

Urban – Rural mix
Outcomes

What are the outcomes of home visiting programs?

Maternal and child health and well-being indicators, for example:
- Appropriate health care utilization
- Smoking cessation
- Referrals to community resources

Data

What are the available data sources for outcome and contextual measures?

- Program enrollment data
- Vital statistics records
- Medicaid files
- CPS data
- Key stakeholder perspectives

Methods

What methods are most appropriate to capture and analyze these measures?

Quantitative: Observational, Quasi-experimental
Qualitative: Surveys, Semi-structured interviews

Dissemination

What findings are meaningful for translation to quality improvement efforts?

- Site-level variation in performance by geography, program model, client and staff characteristics
- Relevant community contextual factors
FOCUS ON COLOCATION

Qualitative interviews and observations
• Model colocation emerged from the data

Mixed methods evaluation
• Explored impact of other approaches to service colocation
BACKGROUND ON HOME VISITING AND COLOCATION

• Home visiting models have traditionally existed as separate entities, emphasizing distinguished target populations, curriculum, and program outcomes.

• Limited funding has often reinforced silos and inhibited collaboration.

• Recently, model leadership have called for system integration to help achieve population-level change.
1. Background on the MIECHV Evaluation in PA

2. QUALITATIVE AND QUANTITATIVE METHODS

3. Colocation Findings

4. Limitations

5. Conclusions and Next Steps
QUALITATIVE SAMPLING

Selected 11 of the 38 MIECHV-funded programs based on:

• Model type
• Geographic location and population density
• Program size
QUALITATIVE DATA COLLECTION

With input from state and program model leadership, we developed 3 interview guides

- Program Administrators
- Home Visitors
- Parents engaged in programming

Communities
- Availability of and Collaboration with Other Programs

Programs
- Program Mission
- Role, Training, and Curriculum
- Client - Home Visitor Relationship

Clients
- Personal Goals
- Perceived Impact of Services
We took a Modified Grounded Theory approach to coding.

A priori codes developed from
- Study aims and interview domains
- The Home Visiting Applied Research Collaborative Research Priorities

Additional codes emerged from interview data

HARC Research Agenda
1. Strengthen and broaden home visiting effectiveness
2. Identify core elements of home visiting
3. Promote successful adoption of home visiting innovations
4. Promote successful adaptation of home visiting innovations
5. Promote fidelity in implementing home visiting innovations
6. Build stable, competent home visiting workforce
7. Promote family engagement in home visiting
8. Promote home visiting coordination with other services for families
9. Promote the sustainment of effective home visiting
10. Build home visiting research infrastructure
Characteristics of the Intervention
- Design Quality & Packaging
- Cost

Outer Setting
- Patient Needs & Resources
- Peer Pressure

Inner Setting
- Culture
- Readiness for Implementation

Characteristics of Individuals
- Self-efficacy
- Individual State of Change

Process
- Champions
- Reflecting & Evaluating
Home visiting Nurse-Family Partnership (NFP) clients from Pennsylvania between 2006 and 2012.

Outcomes:
- Prenatal smoking cessation
- Receipt of intermediate or better prenatal care
- Recommended well-child visits

Primary data sources:
- NFP enrollment data from all 22 sites
- Birth and death certificate files
- Welfare eligibility files
- Medicaid claims data
Multisource Linked Administrative Dataset
2006 – 2012
We used Propensity Score Matching to create our study cohort

Benefits:

• Mimics randomized control trial
• Matches non-clients to clients on selected enrollment variables

Includes:

• Maternal age
• Race/ethnicity
• Maternal education
• Marital status
• TANF/food stamp receipt
• Maternal substance abuse/mental health history
• Reside in same geographical area
OVERVIEW

1. Background on the MIECHV Evaluation in PA
2. Qualitative and Quantitative Methods
3. COLOCATION FINDINGS
4. Limitations
5. Conclusions and Next Steps
## DEMOGRAPHICS OF QUALITATIVE SAMPLE

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<td>2+</td>
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<tr>
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<tr>
<td>Total</td>
<td>76</td>
<td>100</td>
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Having a number of home visiting models to choose from, agencies selected the one that matched their needs and local context

- Expanding the reach of agency by serving a new client base
- Awareness of community size and existing community services

“With the population that [model 2] has enabled us to serve, it was twofold... it was birth through 5 and it did not have an income requirement because we have too many families that may just not meet [model 1]... [W]e have such a huge population here of people in poverty that they’re always the higher priority than folks that we have in [model 2]."
Implementing models with varied eligibility criteria and curricula better served the needs of families

- Home visiting services were available to families who were not previously eligible
- Families could be matched to the curriculum that matched their needs

“[Model 1 staff] work with first time moms, so that’s awesome. But then on the flipside, if they’re not first time moms, luckily they can come to us at that point.”
A new model can benefit from existing relationships

- A new model can build from the agency’s existing reputation in the community
- Recruiting new families is facilitated by established referral relationships

“[Model 1] does a lot of outreach, they are still looking for more people to enroll, and ...they have a great reputation. ...[N]obody knows [model 2]...so people are starting to get to know... about [model 2] because of [model 1]."
The existing climate at home visiting agencies lends itself well to integrating a new model

- Administrative burdens, requirements, and workflows will serve more staff and clients
- Home visiting staff tend to be collaborative, communicative, and supportive

“I also conduct the socializations twice a month. I organize those and facilitate those [...] for the individuals who are enrolled in the program, both with [model 1] and [model 2].”

“We have learned so much from the training with [model 2] that has spilled over into our other home visiting programs, so that’s the big thing.”
PROCESS – ENGAGING

Communication and planning with staff about implementing a new model impacts buy-in

- Most sites described teamwork and cooperation between models

- At one site, relationships between home visitors from the original and new model were tense

I know [model 1], they've been doing it for a long time. And we are this brand new program that came in, and us just trying to establish who we are. And I don't – maybe they felt like we stepped on their toes here and there. ...But that collaboration I think has been hard for us. ... I'll just leave it at I believe there are tensions.
Co-located sites have the opportunity to be strategic and synergistic

- Implementing models that share a curriculum enabled the new model to serve an existing waitlist with a seamless transition later.

- Having a central intake for both models facilitated communication with referral sources, families, and prevented dual enrollment.

“We’re lucky that [model 2] families are invited to our socializations as well. So most families that come know all – the other two home visitors that they could get. They get a letter from [Administrator] saying a spot is opened up. This is your new home visitor. And then [...] our [model 2] home visitor, will say, I hear that you’re getting [model 1 home visitor name 1] or [model 1 home visitor name 2]. She’s really just looking forward to your call.”
# DEMOGRAPHICS OF MATCHED COHORT

<table>
<thead>
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<th>NFP Clients (N=1,171)</th>
<th>Comparisons (N=4,245)</th>
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<tbody>
<tr>
<td>% Under 18</td>
<td>45.5%</td>
<td>45.7%</td>
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<tr>
<td>Race/ethnicity</td>
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<tr>
<td>White</td>
<td>59.8%</td>
<td>60.1%</td>
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<tr>
<td>Black</td>
<td>25.0%</td>
<td>24.9%</td>
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<tr>
<td>Hispanic</td>
<td>21.2%</td>
<td>20.5%</td>
</tr>
<tr>
<td>Other</td>
<td>15.3%</td>
<td>15.0%</td>
</tr>
<tr>
<td>% Unmarried</td>
<td>90.0%</td>
<td>90.5%</td>
</tr>
<tr>
<td>% Smoking prior to pregnancy</td>
<td>39.3%</td>
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QUANTITATIVE RESULTS

Prenatal Care:

- Higher rates of prenatal care among colocated (77.8%) vs non-colocated (70.7%) clients
  - However, no program effect observed between colocated clients versus community comparisons (OR: 1.04, 95% CI: 0.81 – 1.34)

Well-Child Visits:

- Higher rates of well-child visits among colocated (69.0%) vs non-colocated clients (56.8%)
  - Positive program effect for colocated clients versus community comparisons (OR: 1.32, 95% CI: 1.05, 1.66)
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4. LIMITATIONS
5. Conclusions and Next Steps
LIMITATIONS

Model colocation results should be considered exploratory

Observational study design subject to bias
  • Propensity score matching minimizes bias

Duration of program enrollment
  • “Intention-to-treat” analysis
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5. CONCLUSIONS AND NEXT STEPS
CONCLUSIONS AND NEXT STEPS

• Colocation of services benefit programs and clients, including a measurable impact on healthcare utilization outcomes.

• Dialogue among model leadership, LIAs, and other health services about collaboration will improve system integration and family outcomes.

• This work informs policy across the early childhood and health systems spectrum and exemplifies novel home visiting model enhancements.
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QUESTIONS AND COMMENTS?

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