Visualizing the Florida Maternal, Infant, and Early Childhood Home Visiting Program with Progressive Statistical Software

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PROGRAM DESCRIPTION

What is the program?
The Florida Maternal, Infant, and Early Childhood Home Visiting (MIECHV) initiative is a federally funded program based on three evidence-based home visiting models:
- Parents as Teachers (PAT)
- Healthy Families Florida (HFF)
- Nurse-Family Partnership (NFP)

Eleven communities from 16 counties are included in the program.

What does the program do?
Florida MIECHV provides families from high-risk communities with:
- Social support
- Linkage with public and private community services
- Ongoing health, development, and safety education

What is its vision?
The vision of Florida MIECHV is to ensure that children are healthy, safe, nurtured, and live in stable homes and environments that promote well-being.

What is the role of the University of South Florida (USF) in the program?
- The USF Florida MIECHV evaluation is a multi-component, multi-level, mixed-methods, theory-based evaluation that examines processes and outcomes of a number of Florida MIECHV initiatives.
- The USF evaluation team uses a public health approach, rigorous methodology, and cutting edge techniques to examine, describe, and disseminate information about the various components of the Florida MIECHV program.

EVIDENCE OF PROGRAM IMPACT

- Home visitation incorporates a life-course approach to providing integrated services.
- Home visiting programs can induce positive outcomes in high-risk families in areas of health care usage, child development, and child maltreatment.
- These programs can increase parental self-efficacy, social support, knowledge on child rearing, exclusive breastfeeding rates, condom usage, and birth-related complications.

CHALLENGES IN SERVING FAMILIES AND YOUNG CHILDREN

The Florida MIECHV Program

Goals	Challenges
Expand families' access to Florida MIECHV program services by increasing number of at-risk families receiving services and communities providing programs. →	Measuring the characteristics of program participants can tell us who are in the program, but it does not inform us whether the program is serving the intended target population (families in at-risk communities).
Develop an integrated system of care for young children and their families through coordination of the MIECHV program with other community services that promote child well-being. →	Measuring the number of community partners that the program is collaborating with does not provide information on the type and quality of collaboration.

TOOLS/MATERIALS USED FOR SUCCESS

A picture is worth a thousand words.

1. Social Network Analysis (SNA) Maps using the Program to Analyze, Record, and Track Networks to Enhance Relationships (PARTNER) Tool.
2. Geographical Information System (GIS) maps using ArcGIS software, census data, and MIECHV data.
3. Scatter plots using statistical software like SAS, R, or SPSS.

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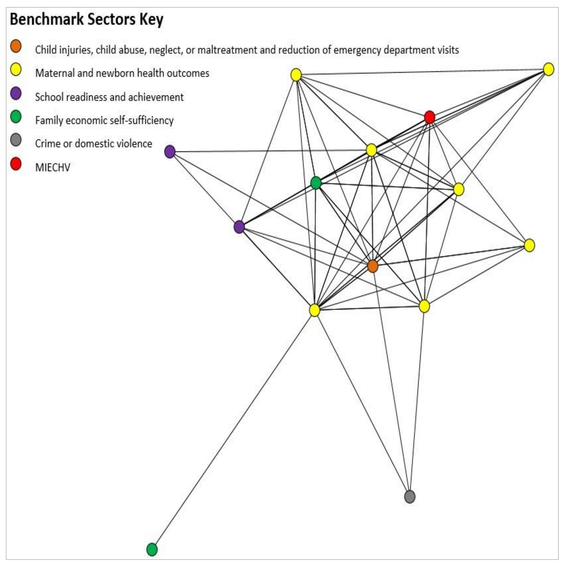
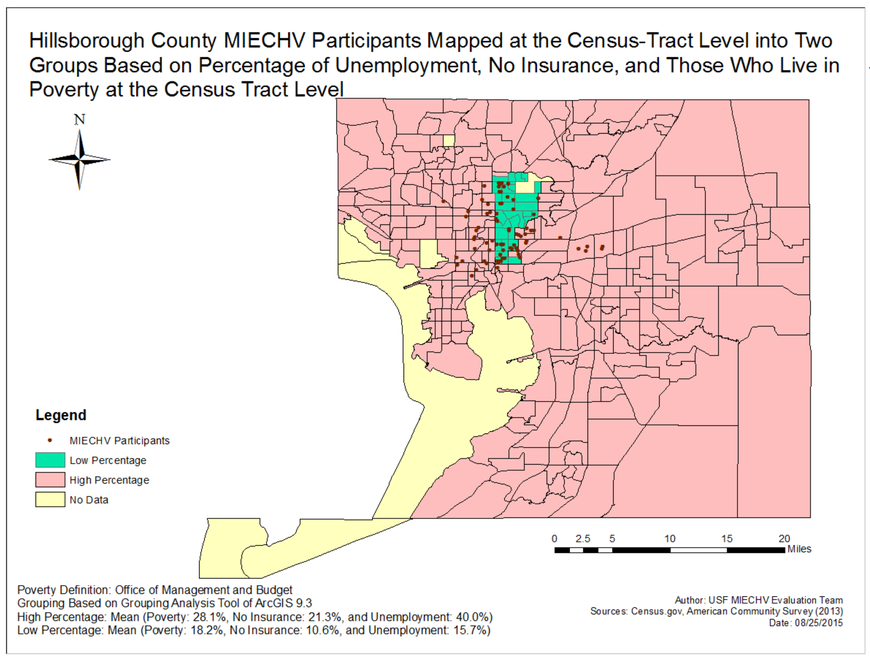
HOW THE TOOLS ARE USED



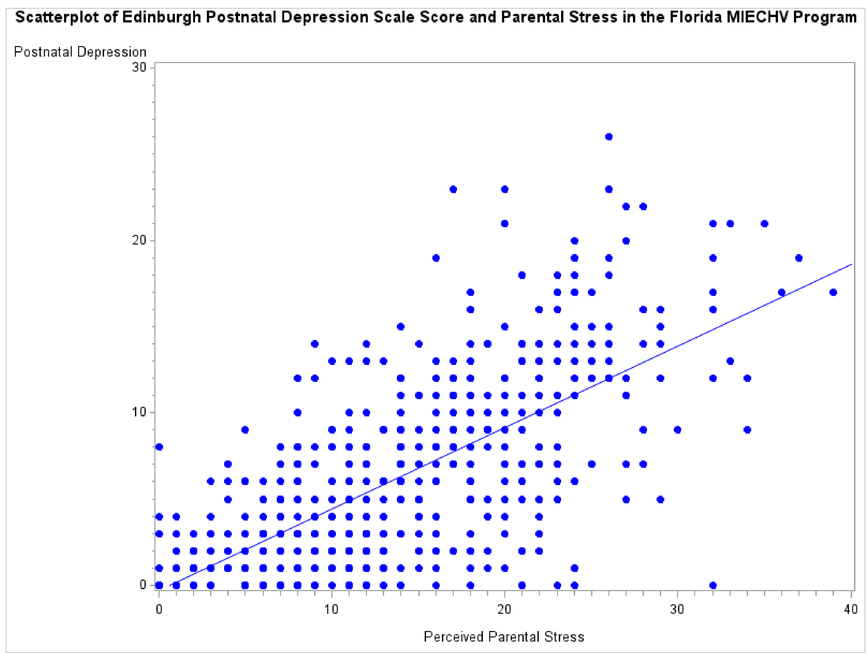
In this SNA map

1. No central community partner is observable in the network map.
2. Some partners appear to be well-connected, but some appear isolated.
3. Partners classified based on certain sectors, like the maternal and newborn health outcomes appear to be well-connected, but certain ones like the crime or domestic violence and family economic self-sufficiency appear to be sparsely connected.



In this GIS map

Most of the MIECHV participants in Hillsborough County are from areas with high percentage of unemployment, no insurance, and poverty (areas of high-need).



In this scatterplot

Increased parental stress is associated with increased postnatal depression among MIECHV participants.

HOW THESE TOOLS ARE SUCCESSFUL IN ADDRESSING CHALLENGES

SNA Maps
1. Visualizing these partnerships allows MIECHV program staff to better identify where collaborations are thriving and where collaborations need to be strengthened.
2. Enabling resources to be allocated more effectively and efficiently when deciding where efforts for improvement need to be made within the program.

GIS Maps
1. GIS maps may potentially enable MIECHV program staff to focus on enrolling participants from areas that currently lack important resources like medical clinics, daycare centers, or grocery stores for example.
2. Using visual data through GIS may enable MIECHV to save a substantial amount of time and resources when deciding where to target the services.

Scatterplot
1. MIECHV program stakeholders can determine the risk or protective factors for certain outcomes that can help to focus on the important ones.
2. Scatterplots can be compared at various time points to identify the effectiveness of the program.

Overall use of these tools for MIECHV programs
1. To better understand populations.
2. To describe program outcomes.
3. To communicate with partners for community planning.
4. To communicate needs and outcomes to funders.
5. To reflect on data with staff.

LIMITATIONS

Visual representation of data…
1. May be misinterpreted if excessive information is included or parameters are ill-defined.
2. Only portrays a condensed portion of a larger story due to space limitations.
3. Reflects available data and may not account for underlying differences in missing data.
4. Often Illustrates a single point in time that may not reveal long-term trends.
5. Is more useful in generating questions than answering them.
6. Can be misused by agencies or stakeholders for inappropriate reasons.
7. Is context-specific, not a comprehensive portrayal of a topic.

TAKE-AWAY MESSAGES

- Visual data is an appealing and efficient way to disseminate statistics to stakeholders, MIECHV program staff, and the broader community.
- Network, GIS maps, and scatterplots offer a creative way to present what represents several pages of complex data into one impactful visual depiction of a program.

CONTACT INFORMATION

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