Utilizing System Dynamics and Community Based Participatory Research to assist in the development of an Early Childhood Intervention Program

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Background

- In 2011, board members from a large Midwestern hospital system decided to develop a community health intervention program
- Large low-income population with significant health disparities within the service footprint of the hospital system
- Community members and healthcare service providers highlighted that an early childhood intervention would have the most impact
- Growing scientific evidence shows that critical periods of human brain development occur during pregnancy and in the early years of life
- Initial concepts of Raising St. Louis early childhood development program:
  - Ground program design and delivery with community input
  - Engage existing, effective organizations as core delivery service providers
- Group model building (GMB) is a participatory method for engaging stakeholders to understand dynamic systems
- System dynamics has increasingly been used in Public Health to design and inform community based interventions

Methods

Two project phases were identified:
- Provider
- Community

The first phase involved five GMB workshops with providers to understand the existing service delivery systems, identify areas of overlap and gaps, and explore design options for a “braided program.”

The second phase included three GMB workshops with community stakeholders, co-facilitated by trusted community members, to understand resources needed to raise a child and identify meaningful services. Community organizations identified and recruited key individuals to participate in the GMB sessions.

Results

Phase 1 (Provider Phase): Group Model Building (March, 2013)

Phase 2 (Community Phase): Group Model Building (July, 2013)

Conclusion

With input from the provider and community GMB sessions, the Raising St. Louis team:
- Developed the Service Delivery Model for the program
- Clarified and refined program goals and objectives
- Informed the design of the program’s evaluation plan

This participatory work helped to formalize sustained relationships with key provider and community stakeholders.

The Raising St. Louis early childhood initiative launched in January 2014 and is actively recruiting and serving families in six zip codes in North St. Louis city.

References


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