AMCHP
ASSOCIATION OF MATERNAL & CHILD HEALTH PROGRAMS
Innovation Station
Sharing Best Practices in Maternal & Child Health

Every Child Succeeds ★ *Evidenced-based Home Visitation*

Location: Northern Kentucky/Southwest Ohio
Date Submitted: 08/2011
Category: **Best Practice**

TITLE V/MCH BLOCK GRANT MEASURES ADDRESSED

#4: A) Percent of infants who are ever breastfed and B) Percent of infants breastfed exclusively through 6 months
#6: Percent of children, ages 9 through 71 months, receiving a developmental screening using a parent-completed screening tool
#7: Rate of injury-related hospital admissions per population ages 0 through 19 years
#14: A) Percent of women who smoke during pregnancy and B) Percent of children who live in households where someone smokes

BACKGROUND

Every Child Succeeds (ECS) was founded in 1999 in an effort to address the emerging research of the time describing the critical nature of the 0-3 window for achieving the foundational brain development necessary for long-term successful outcomes in the lives of children. Optimal brain development is the result of proper childcare and nurturing, appropriate medical care, interactive experiences for the child and the maintenance of a safe and supportive environment during those years. Decades of research concludes that children born into high-risk homes face great challenges in achieving optimal development. In 2009, according to birth certificate records, in the seven counties ECS serves, 5,450 births were to first-time, at-risk parents (who would qualify for ECS services). The need in the community is for children born into at-risk homes to receive the safe, healthy, nurturing start they need to achieve the cognitive, physical, social and emotional development that is necessary for success in school and in life.

PROGRAM OBJECTIVES

Every Child Succeeds is a collaborative program that provides home visits focused on proper child development for first-time, at-risk mothers, their babies and families on a regular basis from the time of pregnancy until the child's third birthday. ECS's goal is to ensure that all children have an optimal start in life. Specifically, ECS works to achieve the following objectives:

1) Decrease abuse and neglect; reduce unintentional injuries;
2) Strengthen the parent-child relationship; improve utilization of diagnostic services; encourage good health practices;
3) Link families with primary care services; promote an optimal environment for learning and emotional growth; encourage the development and self-care of mothers; and
4) Begin the school readiness process.

Furthermore, ECS aims to increase its effectiveness in meeting this goal year after year, through effective business operations, sustained and improved participant outcomes, and efficiencies of program delivery and costs.

TARGET POPULATION SERVED

Every Child Succeeds operates in seven counties: Boone, Campbell and Kenton counties in Northern Kentucky, and Brown, Butler, Clermont and Hamilton counties in Southwest Ohio. Eligible first-time mothers are under the age of 18, low-income, single and/or receiving inadequate prenatal care – factors that tend to put their children at higher risk for delayed development, abuse and neglect, and poor academic achievement.

PROGRAM ACTIVITIES

ECS uses two national models of home visiting (Healthy Families America and Nurse-Family Partnership) that are augmented by organizational enhancements including continuous quality improvement, a strong public-private partnership, community collaboration, and integrated supplemental interventions (e.g., Maternal Depression Treatment Program). The home visiting models are guided by several theories of prevention science, including the ecological model which acknowledges contributions to risk and resilience from individual, family, community, and cultural sources; the transactional model from developmental psychopathology that emphasizes the dynamic interplay of risk and protective factors in child development; social learning theory that emphasizes social reinforcement and modeling as powerful tools for learning; and community participation research that underscores the importance of community involvement and collaboration for the building and sustaining of high impact social programs.

At the core of ECS' approach is a caring, trusting relationship between a home visitor and a mother. Two to four times a month, a professional home visitor comes to the mother's home to provide a number of services, including but not limited to: information regarding healthy prenatal care; parenting support and guidance; stimulating activities for baby; tracking and supporting baby's development; health and nutrition education; assessment of the home environment to ensure that it is safe and stimulating; goal setting to help parents achieve self-sufficiency; referrals to community resources; transition support for families at program graduation; and parent-aid bags with educational and useful items, including books and developmental toys, health and safety items.

Mothers also are welcome to participate in group meetings, where they can meet other first-time parents and share the joys and challenges of parenting.

PROGRAM OUTCOMES/EVALUATION DATA

ECS developed an extensive evaluation and research plan was developed to meet the multiple objectives of the organization.

Control Group and Design: A control group was important to answer specific questions about the effectiveness of the program and mediators and moderators of outcomes. Community concerns regarding a clinical trial design led to the use of a quasi-experimental design in which all participants would receive home visitation services and data would be collected with all participants.

Measures: Selection of instruments was driven by the need to measure multiple domains to document key outcomes (i.e. child health, child development, child social and emotional functioning, nurturant parenting, maternal substance use, and maternal lifecourse), feasibility, home visitor and mother burden, usefulness for home visitors in providing services, interest expressed by various ECS constituents, and cost. Measures used are: ASQ-3 Inventory, ASQ-SE Inventory, Beck Depression Inventory, Demographic Form, Edinburgh Depression Inventory, HOME Inventory, Home Safety Inventory, Infant Birth Form, Infant Health Form, Interpersonal Support Inventory, MacArthur Vocabulary Inventory, Nursery Safety Inventory, Parenting Stress Inventory-Short Form, Social Network Index, and Substance Use and Smoking Inventory. A Forms Calendar was designed to inform home visitors about when each measure is due, when it was completed, and whether or not it was in the expected interval.

Data Management: A robust and flexible data management system is essential for a successful evaluation and CQI program. A web-based system, eECS, was developed to meet the unique needs of ECS. Home visitors gather and upload data to eECS, which provides real time access to information by ECS administration and evaluators. eECS is used to provide standard reports to home visitors and agencies, generate invoices for billing, and manage data for subsequent analysis.

Quality Improvement: Using the Model for Improvement, ECS systematically collects data on multiple process and outcome indicators to reflect program impact. These data are produced monthly and quarterly in CQI formats including trend charts, red-green charts, and control charts. Data are transparent such that all agencies view their performance, as well as their peers', relative to program impacts. Improvement projects are conducted throughout the organization to conduct "small tests of change," sometimes involving a single family or home visitor. PDSA (Plan-Do-Study-Act) cycles are implemented to identify new practices to improve performance. This allows program to adapt evidence-based models to local conditions in a systematic and data-driven way.

Outcomes: An especially telling measure of ECS's effectiveness is the demonstrated reduction in infant mortality for ECS children. In a study published in Pediatrics in 2007 using ECS participants and data, the authors reported a 60% reduction in the infant mortality rate for participants, compared to matched controls.

A review of participant data collected from 2003-2008, showed encouraging long-term results. Findings include:

- Of children who were delayed at 3 or 9 months, over 72% are on-track by 27 months, or after approximately two years of home visitation.
- Over 83% of children initially behind in Language are also on-track at 27 months.
- Of those parents who displayed high-risk parenting attitudes and beliefs at two months, 43-63% move into the average to low risk range by 18 months.
- Across seven measurements, the great majority of home environments are in the low risk range at 18 months.
- Of high-risk homes at 3 months, 78-95% move into the average to low risk range by 18 months.

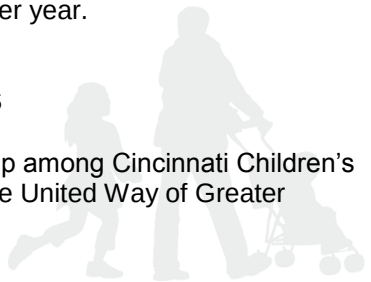
PROGRAM COST

Using a business model in a social service world has resulted in programming cost-effectiveness. The ECS program achieves its positive outcomes at an approximate cost of $2,600 per family, per year.

ASSETS & CHALLENGES

Assets

In addition to the partnership among Cincinnati Children's Hospital Medical Center, the United Way of Greater



Cincinnati and Cincinnati-Hamilton County Community Action Agency, the local business community became involved of champions of early childhood intervention, in part because the ultimate return on investment is a ready workforce. Corporate leaders made certain ECS would operate under a strict and efficient business model. As a result ECS has a strong infrastructure, effective leadership and provides an impressive ROI for its families, the community and its investors. When ECS was founded, there were also significant savings from Welfare Reform that enabled a shift in funding towards prevention. Both Ohio and Kentucky used these funds initially to support ECS.

Challenges

Challenges include external forces from funders and political entities that sometimes both added to the overall burden of the data collection and practice objectives or steered the organization in directions that were not fully consistent with its aims. ECS leadership and staff have had to be especially vigilant to resist these efforts through education and rigorous data collection which documents the outcomes of the home visiting intervention and demonstrates the problems associated with drift.

Overcoming Challenges

In ten years of operating through extensive collaboration, ECS and its partner organizations have adopted a culture of openness, accountability and a willingness to give up some autonomy at times. A key to success has been the mutual alignment to a common goal. Communication is vital and so we maintain monthly meetings with our service provider agencies, publish a monthly newsletter featuring our partners, and make sure partners are represented on the Board. With so many points of view, the leadership team must make decisions based on evidence. Through science, evaluation and the collection and analysis of data, we have ample, strong evidence to consider. We make decisions impartially, for the purpose of meeting our goals. Finally, we make sure all parties are recognized for their contributions. Adopting these principles has enabled us to see dramatic, continued improvements in outcomes among the target population.

LESSONS LEARNED

After 12 years of operation and robust data collection, ECS is in the process of reviewing its data collection and evaluation plan. There has always been a degree of tension with home visitors regarding the volume of data collection, including measurements imposed by outside entities. There is a healthy desire to collect data for clinical, evaluation and Quality Improvement; however, if we would advise similar programs to be very mindful of the implications of this tension. Private funding allows us the greatest flexibility in terms of program design and development.

FUTURE STEPS

Every Child Succeeds' strong public/private partnership ensures sustainability. The program receives 50 percent of its funding from public sources and 50 percent from private, primarily United Way. In addition, we are currently developing pathways for the creation of earned-income revenue. ECS is working with Procter & Gamble to package various aspects of the program, such as general parenting and child development education, our literacy program for 0-3 year olds and home safety guidelines, for purchase by other service providers and by individual families.

COLLABORATIONS

The United Way of Greater Cincinnati (UWGC) took the lead in identifying a community need and acting as the central organizer to pull together the community resources and leadership to address this need. UWGC brought together Cincinnati-Hamilton County Community Action Agency/Head Start (CAA), for its extensive access to at-risk families in Greater Cincinnati, and Cincinnati Children's Hospital Medical Center (CCHMC), for its research capabilities and academic rigor, to address this issue in which social health and medical health intertwine. To provide ongoing leadership, the three organizations formed one central organization – Every Child Succeeds.

Representatives from UWGC, CAA and CCHMC sit on the ECS Board of Directors, providing ongoing leadership, direction and decision-making. ECS collaborated with existing social service agencies to fulfill its need for qualified home visitors, and now partners with 14 agencies located in various communities of Greater Cincinnati and Northern Kentucky. ECS provides training and an extensive curriculum for home visitors, and provides central management: dedicated resources for leadership, long-term planning, marketing, billing, fundraising and other operational activities. Partner agencies are decentralized service providers: they provide a large client referral base, a wider reach into the community, efficient and cost-effective service delivery and professional knowledge. Agency home visitors can focus solely helping families. A managing supervisor from each agency serves on the Lead Agency Council, two members of which serve on the ECS Board. This allows for a fluid feedback loop of information between ECS partners, leaders, administration and the service providers. Sharing of best practice information and results at all levels of ECS operations ensures high-quality programming, which has ultimately resulted in incredible outcomes.

PEER REVIEW & REPLICATION
To date, ECS has produced 13 peer-reviewed articles, one invited chapter, and 46 presentations at regional and national professional conferences. A complete list is available at http://www.everychildsucceeds.org/Our-Research.aspx (link at bottom of the page).

The success of ECS' outcomes and efficiencies has led it to be the model of home visitation on which the State of Ohio bases its *Help Me Grow* program. ECS has consulted with organizations in Connecticut and Massachusetts to implement and evaluation of its Maternal Depression Treatment Program through home visitation; assisted Hawaii in improving its Healthy Start program, specifically in the area of Continuous Quality Improvement; and is currently working with an Arkansas Children's Hospital to replicate the program.

RESOURCES PROVIDED
A number of products have emerged from this program, including, but not limited to, a unique 0-3 literacy curriculum developed in partnership with the National Center for Family Literacy, a manual regarding community development and home visitation, online training modules and Home Visit Planning Guides.

For more information, visit http://www.everychildsucceeds.org/.

Key words: Home Visiting, Early Childhood, Child Development, Birth Outcomes, Infant Mortality, Data & Assessment, Service Coordination, Access to Healthcare, Prenatal Care

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This program was highlighted at AMCHP's 2012 Annual Conference with a Best Practice award.