Innovation Station

Sharing Best Practices in Maternal & Child Health

Superior Babies Program

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BACKGROUND
When the program began in 1998, Minnesota ranked 4th in the nation for frequent drinking in childbearing women (CDC, BRFSS, 1995). Chronic drinking among childbearing women: 18-24 years (42.4%), 25-34 yrs (25.6%). 35-44yrs (15.5%) (Block, Bridge to Health Survey 2000). Additionally, alcohol and alcohol related problems ranked as the #1 problem affecting residents of St. Louis County according to a 2003 county assessment. Fetal Alcohol Spectrum Disorder (FASD) cases in the U.S. range from 0.5-1.5 per 1,000 births, but it is estimated that there are at least three times as many children with Fetal Alcohol Related Diagnoses (CDC 2008). Each year an estimated 400,000 to 440,000 infants (10-11%) are affected by prenatal alcohol or illicit drug exposure. (NCSACW, National Center on Substance Abuse and Child Welfare).

The Superior Babies Program is a collaboration between St. Louis County Public Health & Human Services and the Arrowhead Center LLC and was established to reduce the devastating effects of prenatal alcohol and substance use by promoting healthy prenatal and parenting behavior in the target population.

PROGRAM OBJECTIVES
The overall program goal is:

- To reduce the incidence of FASD and other prenatal drug related effects in children of St. Louis County Minnesota by identifying and serving pregnant women suspected of or known to use or abuse alcohol and other drugs.

Additionally, the program aimed to increase positive birth outcomes, normal growth and development and children free of maltreatment, and also work with women to access appropriate community resources, support recovery, and set goals for self sufficiency

TITLE V/MCH BLOCK GRANT MEASURES ADDRESSED
#1: Percent of women with a past year preventive visit. **#4:** A) Percent of infants who are ever breastfed and B) Percent of infants breastfed exclusively through 6 months. **#14**: A) Percent of women who smoke during pregnancy and B) Percent of children who live in households where someone smokes. **#15**: Percent of children 0 through 17 years who are adequately insured.

TARGET POPULATION SERVED
The target population is pregnant women who live in northern St. Louis County, Minnesota and are at risk to use drugs or drink alcohol during pregnancy. This includes women who have a significant use history, but quit when they found out they were pregnant, or women who admit to using during the three months prior to conception, or women who need additional support to quit while pregnant. St. Louis County is a rural county with a population of around 200,000 with about 2,000 annual births. Throughout the years, due to this transient and high risk population, only one-third to one-half of all referrals received were enrolled. About 20 women are served per year with about 10 babies being delivered each year.

PROGRAM ACTIVITIES
Grounded in the Social Cognitive Theory, as well as population-based public health nursing interventions at the individual, community and systems level of practice, the program offers an intensive home visiting model with a collaborative, case management team approach. Because Social Cognitive Theory highlights the concept of reciprocal determinism or the interaction between people and their complex environments (Glanz et al., 1997), it can be utilized as a guiding framework for intensive home visiting as a proven strategy to effect behavioral change in the target population. Both disciplines utilize relationship based practice principles which are used to teach and support nurturing parent child interactions.

The Superior Babies program promotes sobriety during pregnancy to decrease the adverse effects of prenatal exposure to drugs and incidence of Fetal Alcohol Spectrum Disorder. It is voluntary and free of charge. Staff provide comprehensive, on-going assessments, interventions, education, and referrals for pregnant clients with chemical use issues addressing a broad spectrum of topics. Scheduled home visits are made by both the public health nurse (PHN) and licensed alcohol and drug counselor (LADC) during pregnancy and up to two years after the birth of the baby. Visit frequency is established between the client and staff and can increase in times of crisis. The staff will work with the client to establish an individualized culturally sensitive plan of care with ongoing reassessment and evaluation using best practice assessment tools and protocols. Standard protocol includes random, full screen urinalysis (UAs) for toxicology performed by staff throughout client's enrollment. Toxicology screens are requested for all Superior Babies mothers and newborns at birth. The toxicology results are part of the data-gathering process that will impact future program planning and determine client and child interventions. Superior Babies staff encourages and support the client's relationship with health care providers resulting in greater number of prenatal, postpartum, and well child medical visits and subsequently healthier mothers and children. Sobriety promotion is ongoing.

PROGRAM OUTCOMES/EVALUATION DATA
Two formal evaluations of this program have been conducted in 2004 and 2010. Data collected included birth outcomes such as gestational age, weight, Apgar scores and birth toxicology. Client characteristics, demographics, and client use issues were also tabulated from client records. Other methods for collecting data included follow-up interviews with participants after program completion, and information from key information interviews of program staff and partners.

The 2004 evaluation indicated that 80% of WIC participants were screened, but few WIC participants were referred to SB. Positive outcomes were documented for those participants for whom data were available. All 20 pregnancies resulted in live births, and Apgar scores were generally good. Where toxicology results were available, 90% of the mothers and 100% of the babies yielded negative toxicology test results at the time of birth. Birth weight and gestational age were normal 90% of the time. Only two babies required intensive care within the first two weeks after birth. Additionally, participants reported positive experiences with the program. The relationship with staff was rated as outstanding or very good by 86% of participants, and 80% reported the overall benefits of the program as outstanding or very good. Thirteen of 15 women (87%) reported their life was much better since being first contacted by SB staff. Most participants reported that they reduced their use of drugs and alcohol and improved their parenting skills.

The 2010 evaluation data showed positive outcomes on a number of criteria for 31 babies who were born while their mothers were in the program, including that 96% or more of the babies had normal birth weight, achieved normal APGAR scores, and tested negative on toxicology tests. Additionally, 96% of the mothers tested negative on the toxicology tests, when a negative test result is a positive outcome in that no drug use was identified in the tests. Outcomes at discharge indicated that: 58% had completed parenting training, 21% ended involvement with child protection, 50% were using mental health services, and 42% were in 12-step program. Additionally, of 26 clients for whom information was available at discharge, 96% were using birth control.

Almost all client reported excellent relationships with Superior Babies staff, reported changing in positive ways because of the program, had generally lessened their use of alcohol or drugs, believed other families in similar situations could benefit from the program, described the overall benefits of the program for them and their family as very good or outstanding, felt that the program has helped them with their parenting, were currently using birth control, and reported that their life was much better than it was prior to being contacted by the program.

PROGRAM COST
The program costs less than $100,000 per year, which includes funds for a 50% FTE LADC, 50% PHN, 20% PHN II and PHN Supervisor that serve an ongoing caseload of 8-12 families at any given time. In addition to personnel and travel costs, the budget included minimal amounts for incentives and toxicology fees. The cost of lifetime services for a child with FASD averages $2 million, therefore if only one FASD birth is prevented every 20 years, the program more than pays for itself. It is very likely more savings occur, as well as improved quality of lives.

ASSETS & CHALLENGES
Initially, there were 2 programs in St. Louis County, one in (rural) northern SLC and one in southern (urban) SLC. They were funded by multiple sources and had different disciplines involved in the two sites. Intensive efforts were made to standardize the program. Initially, the program started with three disciplines – PHN, LADC, and social worker. The best success was found to be utilizing the LADC/PHN combination. With limited funding sources, only one site was able to be funded. Staff decided to adapt the program to utilize the social worker position through consultation.

Staff referred and collaborated on cases through the county Health and Human Services network. There have been on-going differences in the two disciplines offering services (PHN and LADC). This was a definite strength in offering support to these high risk families. Team building was

incorporated into staffing conferences, which strengthened the work of both disciplines. Staff also recognized that the use of random UA's for toxicology is a very important tool strategy for both the recovering woman and the staff providing education and support. Staff now use more random UA's to confirm abstaining from use and celebrate those successes with personal incentives that support recovery.

LESSONS LEARNED
The only thing we would change is to fulfill our desire to have an informal support group for women that is more oriented to socialization. We attempted to get enrolled clients and their families together for summer picnics to support networking and social support, but that was not successful. Transportation is an issue in a large rural catchment area.

FUTURE STEPS
St. Louis County Health and Human Services will continue to prioritize funding for this program due to its proven effectiveness. The program advocates that on-going evaluation should continue. Currently, future funding will come out of Title V funding.

COLLABORATIONS
The Arrowhead Center, Inc. is the primary agency of collaboration providing the LADC. The program partnered with physicians to write protocol for screening pregnant women both verbally and with initial toxicology, thereby identifying at risk pregnancies, and worked with area hospital OB units to have written protocol for screening women who come in with pre-term or suspicious labor. The program also has strong collaborations with primary care providers of the children, WIC, County Initial Intervention and Child Protection units, probation officers and judges, and Drug Court in coordinating case management with probation

Additionally, Early Head Start and area mental health providers can be added to the extensive list of partners. Children with developmental delays were referred to primary care providers, as well as the early childhood services available in the area.

PEER REVIEW & REPLICATION
The program has been presented at various conferences, including the American Public Health Association Annual Conference (2004) and Association of Maternal & Child Health Programs Annual Conference (2010).

RESOURCES PROVIDED
Several resources from the program are available, including program data, evaluation reports, success stories and PowerPoint presentations.

All resources are available online at www.d.umn.edu/~dfalk/SBeval.html.

Key words: Birth Defects Prevention, FASD, Substance and Tobacco Use, Health Screening, Primary/Preventive Health Care, Home Visiting

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★This program was highlighted at AMCHP's 2013 Annual Conference with an Emerging Practice award.