



BIH Wellness Project (Bi-Well)

Partnering to Improve Health and Birth Outcomes for African-American Women

**Santa Clara County Public Health Department
Black Infant Health Program**

Public Health Department

Santa Clara Valley Health & Hospital System



Introduction to Santa Clara County



- Santa Clara County is considered an affluent community and is known internationally as the “Silicon Valley”
- In the past two decades the Silicon Valley has been a leader in technological innovations and entrepreneurship
- According to the 2006 U.S. Census 1,731,281 people reside in the county
- The 2000 ethnic profile reveals residents are 40% White, 30% Asian, 3% Black, 25% Latino, 0.4% Pacific Islander, and 0.8% American Indian/Alaska Native and 2.6% Other (reported being of two or more races)

Introduction to Santa Clara County Cont.



- Santa Clara County has one of the highest personal income levels in the state with a median household income of 74,335
- In the midst of prosperity, many families continue to experience disproportionate levels of poverty and adverse health problems
- Total births in the County in 2005 were 26,553
- African American births for the same year were 536 (2% of County)

Santa Clara County Public Health Department Black Infant Health (BIH) Program



- In California and throughout the nation, the infant mortality rate among African American babies is tragic.
- In fact, Black babies die at nearly three times of the rate of other babies in their first year of life.
- Research Findings:
 - No one particular cause was noted for infant mortality rates
 - All African American women are at risk
- In 1989, the BIH Program was established in response to the alarming rate of infant mortality among African Americans in California. In 1990, \$3.4 million was allocated to fund 16 BIH sites where over 90% of African American births and deaths occurred in the state. Currently there are 17 BIH sites.

BIH Program Models



- Case Management – Public Health Nurses
- Outreach/Tracking – Community Workers
- Social Support & Empowerment – Health Educators
- Role of Men Fathers Program – Health Educators

Clients Profile



The typical BIH client profile:

- 25 years old
- Single (68.8%)
- Some college education (39.6%)
- Unemployed (70.9%)
- Primary source of income is not known (27.7%)

Obesity/Diabetes Problem Statement



- Obesity is a major problem in the United States, and an even greater problem in the African-American community.
- Studies show that obesity plays a major role in diseases such as diabetes and heart disease, which are highest in African-Americans.
- The Santa Clara County Public Health Department Behavioral Risk Factor Surveys (BRFS, 2002) found:
 - 69.2% of African-Americans are overweight or obese
 - Additionally, 56% of African American children were less likely than Caucasian children to have had breakfast on the day they were surveyed.
- Lastly, only half of all respondents received preventive health education on issues such as healthy diet, nutrition and exercise from their healthcare providers.

Paradigm Shift



Healthy Women



Healthy Mothers



Healthy Babies

Preconception Health



(Published) Perinatal Periods of Risk analysis in New York City, Tulsa, and Kansas City concluded that racial and ethnic disparities in fetal/infant mortality were largely related to maternal health, and interventions to reduce fetal/infant mortality should include preconception care and improvements in women's health.

- *Besculides M, Laraque F. Racial and ethnic disparities in perinatal mortality: applying the perinatal periods of risk model to identify areas for intervention. JAMA 2005;97:1128–32.*
- *Cai J, Hoff GL, Dew PC, Guillory VJ, Manning J. Perinatal periods of risk: analysis of fetal-infant mortality rates in Kansas City, Missouri. Maternal Child Health J 2005;9:199–205.*
- *Burns PG. Reducing infant mortality rates using the perinatal periods of risk model. Public Health Nurs 2005;22:2–7.*

Improving Pre/inter-conception Health



- Poor pregnancy outcomes continue to be at an un-acceptable level
- A good proportion of women enter pregnancy “at-risk” for adverse pregnancy outcomes
- There is evidence that intervening before and in between pregnancy improves pregnancy outcomes
- There is widespread consensus that we must act before pregnancy
- CDC and its partners are working to provide guidance on how to make it happen

Problem Statement



- BIH Needs Assessment: a review of BIH Clients health status showed:
 - 69% are overweight or obese prior to pregnancy and usually continue the same path after pregnancy.
 - Many BIH clients report issues such as poor nutrition, lack of exercise, resources, and education regarding weight management as barriers to obtaining a healthy body weight.

Program Funding & Collaboration



- Kaiser Permanente Healthy Eating - Active Living Initiative
 - Funding: Grant awarded \$40,000
- Generations Community Wellness
 - Provided trained fitness personnel and data analysis
- YMCA
 - Low-cost gym memberships
 - Usage reports

BIH Well Project Goal and Objectives



Overall Project Goal:

- To provide families with the appropriate skills, strategies and resources that will reduce obesity and improve nutrition and physical fitness.

Main Objectives:

- Provide awareness, education, and resources to African American families that assist them in making healthy nutrition choices and help them practice healthy fitness behaviors.
- Create awareness in the community about the health issues related to poor nutrition and the lack of physical fitness.
- Provide information and incentive driven activities that promote physical fitness and obesity prevention

BIH Well Program Highlights



Fitness Assessment

- Performed by PHN's and certified personal trainer
- Analysis of:
 - Weight
 - Blood pressure
 - Resting rate heart
 - Blood sugar
 - Cholesterol
 - Body fat percentage
 - Girth measurements
- Goal setting focused on:
 - Weight Loss
 - Nutrition
 - Body Composition
 - Cardiovascular fitness

Nutritional Analysis

- Performed by PHN's and nutritionist
- Analysis of current dietary/caloric intake
- Discussion of weight management/loss goals
- Development of nutrition plan with sample menus

Exercise Program

- Designed to address specific needs of post-natal women:
 - Improved body composition (Weight/Inches loss)
 - Improved cardiovascular fitness
 - Increased energy
 - Reduced stress levels
- 14-week post-natal program, 1 session per week
- Exercises designed to include infants

Program Components



The BIH Well Program is composed of two tracks:

Center-based:

- Weekly low-impact aerobics classes
- Weekly educational seminars
- BIH Well Manual
- Individual fitness assessments
- Buddy Program/ fitness challenge

Home-based:

- Home workout video
- BIH Well Manual
- Individual fitness assessments
- Monthly fitness and nutrition workshops
- Remote personal coaching
- Buddy Program/ fitness challenge

Program Schedule



| Week | Activity | Week | Activity |
|-------------|--|-------------|--|
| 1 | <ul style="list-style-type: none"> • Program Introduction, Initial Fitness and Nutritional Assessment Surveys • Preliminary Goal Setting | 8 | <ul style="list-style-type: none"> • Exercise Session • Question and Answer |
| 2 | <ul style="list-style-type: none"> • Review of Exercise Nutrition Assessments & Goal Setting • Exercise Session/Home-based Workshop | 9 | <ul style="list-style-type: none"> • Exercise Session • Question and Answer |
| 3 | <ul style="list-style-type: none"> • Exercise Session • Question and Answer | 10 | <ul style="list-style-type: none"> • Exercise Session • Question and Answer |
| 4 | <ul style="list-style-type: none"> • Exercise Session • Question and Answer | 11 | <ul style="list-style-type: none"> • Exercise Session • Question and Answer |
| 5 | <ul style="list-style-type: none"> • Exercise Session • Question and Answer | 12 | <ul style="list-style-type: none"> • Exercise Session • Question and Answer |
| 6 | <ul style="list-style-type: none"> • Exercise Session • Question and Answer | 13 | <ul style="list-style-type: none"> • 13-week Final Fitness and Nutritional Assessment/Home-based Workshop |
| 7 | <ul style="list-style-type: none"> • 7-week Mid- Fitness and Nutritional Assessment • Exercise Session/Home-based Workshop | 14 | <ul style="list-style-type: none"> • Graduation/Program Review and Evaluation |

Project Results



- All participants increased their knowledge and awareness about high blood pressure; and heart/obesity-related diseases
- All learned how to establish and maintain healthy lifestyles for themselves and family
- The lifestyle questionnaire showed improvement in knowledge from initial, mid-point and final assessment with correct answers from 33% to 61% to 67%, respectively
- Participant self report indicated their exercising three to four times per week increased from 35%, 57%, to 73% by program end
- All participant showed an increase in fruit and vegetable intake by the end of the 14 weeks

Project Results cont.



- Each participant improved their fitness level to some degree
- Highest weight loss among participants was 9 pounds in 14 weeks
- The mean weight loss for the home and center based participants was 1 and 2 pounds respectively
- Relatively, both groups showed a decrease in fat pounds and an increase in muscle mass along with improvement in cardiovascular fitness, leg endurance, and flexibility
- At three month follow-up the majority of participants reported that they were continuing with lifestyle changes learned in the project

Conclusions



- Structured classes combined with education and physical activities were essential to program success
- Assistance with overcoming barriers (i.e. childcare, transportation) increases participation and commitment
- Assessing objective and subjective data provides a reliable means for evaluating the project success
- Increasing awareness and knowledge of community resources, information and collaborative opportunities is essential to improving pre/inter-conception health

BIH Well Fitness Assessments



Mommy and Me Exercise Class



BIH Well Graduation





Thank You For Your Attention!

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