



# **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



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

## 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!*

*For information contact us at:*

*1-800-310-2332*

*[Vickye.hayter@hhs.sccgov.org](mailto:Vickye.hayter@hhs.sccgov.org)*

*[Shajmil.smith@kp.org](mailto:Shajmil.smith@kp.org)*