II. PREGNANCY & BIRTH

The health of mothers and their babies is critical to the health of a community and future generations. Healthy infant, child and adult development depend upon health-enabling environments that support healthy parenting and child development, and minimize risk-taking behaviors, such as smoking, alcohol and other drug use, and late prenatal care. Key health outcomes and behaviors in this stage of the life-course are births, teen births, prenatal care, low birth weight, premature birth, maternal depression, and breastfeeding.

Highlights

- Disparities in timely prenatal care have disappeared
- Berkeley continues to have one of the lowest teen birth rates in California, though births to African American teens are higher than in other groups
- African Americans continue to have far higher rates of low birth weight infants and premature births as compared to all other race/ethnic groups
- Berkeley has a high percentage of infants exclusively breastfed.
Births

Why is This Important?

The nature and characteristics of births in Berkeley are important as indicators of population growth and future demographic trends.

Births in Berkeley

The annual number of births declined slightly in the past decade.

White babies accounted for the majority of births in Berkeley. There was a slight decline in the proportion of African American births from 2001 to 2005 and an increase in the proportion of White births.

In this time period, nearly three quarters of the babies were born at Alta Bates Hospital, 7% at Kaiser Permanente, 5.5% at Summit Medical Center, 4% at California Pacific Medical Center, and 3% were born at home.
Teen Births

Why is This Important?

Births to teenagers are a key concern because teen mothers are at high risk for having low birth weight babies, late initiation of prenatal care, and related birth complications. Teen mothers have more trouble completing school and finding a job, and are more likely to live in poverty and need public assistance. Children of teen mothers have a higher risk for child abuse, neglect, and behavioral and educational problems. Strategies to prevent teen pregnancy and births address risk factors such as poor financial and emotional support, low levels of education, few positive role models, lack of after-school activities, substance abuse, a need for teen-appropriate reproductive health services, low self-esteem and unequal decision-making power about contraceptive use.56

Overall, the teen birth rate in Berkeley has declined since 1991.

Due to small numbers, there is year to year fluctuation in the statistical downward trend for African Americans.

**Figure 2.3 – Birth Rates in Females 15 to 19 Years Old by Race/Ethnicity, Berkeley, 1991-2006 (2-year intervals)**


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**Program Highlight: Berkeley High School Health Center**

The Berkeley High School Health Center offers a comprehensive approach to protecting the health of teens by providing physical, emotional, and social health services including physical exams, referrals to public health nursing case management, reproductive health services, immunizations, individual and classroom based pregnancy/STD prevention education, youth development programs, mental health counseling, and crisis intervention services.

In 2005-2006, 61% of Berkeley High School students visited the Berkeley High School Health Center. Of those visits, 58% were for medical/first aid services, 22% were for mental health services, and 20% were for health education services. Over 60% of the clients receive a complete psychosocial screening, a process that often leads to medical and mental health referrals both within the Health Center and to external community providers.
Despite the downward trends, large racial and ethnic disparities persist in teenage birth rates.

The average teen birth rate from 2002 to 2004 was three times lower than the Alameda County average and 4 times lower than the statewide average.

Berkeley has maintained the lowest birth rate among adolescent mothers compared to all other California health jurisdictions since 1994.

**Figure 2.4 – Birth Rates in Females 15 to 19 Years Old, Berkeley, Alameda County, and California, 2002-2004 Average**

<table>
<thead>
<tr>
<th></th>
<th>African Am.</th>
<th>Asian</th>
<th>Latino</th>
<th>White</th>
<th>Berkeley</th>
<th>Alameda Co.</th>
<th>California</th>
</tr>
</thead>
<tbody>
<tr>
<td>Births</td>
<td>49.2</td>
<td>0.6</td>
<td>22.9</td>
<td>2.2</td>
<td>8.6</td>
<td>28.4</td>
<td>39.2</td>
</tr>
<tr>
<td>per 1,000 Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Berkeley Public Health Division, Birth Records, California Dept. of Finance, U.S. Census, 2002-2004 (Annual Ave.)

**Program Highlight: Vera Casey Collaborative for Pregnant and Parenting Teens**

This program – in partnership with the YMCA Early Head Start program - provides the support and resources necessary to help pregnant and parenting teens stay in school and graduate, including a full-service child care center and child development services, parenting class and social support groups for moms and dads, providing vital linkages to physical, mental, and educational health services, and public health nursing case management.
Prenatal Care

Why is This Important?

Preconception and prenatal care is the health care a woman gets before and during pregnancy. Both address the mother’s health needs, and provide an opportunity to address health risks (such as smoking, alcohol, and other drug use), nutrition and physical activity, what to expect during the birth process, the mother’s emotional health, and basic infant care. This care allows monitoring of the well-being of the developing fetus, as well as the mother. Prenatal care is most effective if started early in the first trimester.

Prenatal Care in Berkeley

In 2005, 90% or more of pregnant mothers initiated prenatal care in the first trimester of pregnancy. In 2003-2005, there were no race/ethnicity disparities. The disparities seen through the 1990s have disappeared.

Figure 2.5 – Percent of Pregnant Mothers Receiving Prenatal Care in 1st Trimester by Year of Birth, Berkeley, 1995-2005

Program Highlight: Centering Pregnancy Program

Lifelong’s West Berkeley Family Practice and Berkeley Primary Care Access Clinic offer high quality prenatal care in a group setting. This creates support within a stable group of women, families/friends and babies to increase participant’s sense of community and empowerment as health care consumers. The program also provides medical risk assessment, health education and social support. Participants learn and practice simple relaxation and stress reduction techniques.
Low Birth Weight

Why is This Important?

Low birth weight (LBW) is defined as a birth weight less than 2,500 grams, or 5.5 pounds. LBW is increasing in the U.S., from 7% in 1990 to over 8% of all pregnancies in 2004.\(^5\) Smoking accounts for 20 to 30 percent of all LBW births in the United States.\(^5\) Other risk factors include premature birth, teen pregnancy, and stress – including stress associated with racism and poverty.\(^5\) The smallest babies (less than 1500 grams) have an increased risk of infant death and of developmental disabilities.\(^5\)

Low birth weight occurred in 6.7% of live births from 2002 to 2004.

Program Highlight: Black Infant Health Program

This program (see picture of BIH staff above) aims to improve birth outcomes for African American women in Berkeley through intensive prenatal outreach and education, prenatal and postpartum peer support groups, and community/family education about current health issues and how to navigate social service systems to improve health care access, parenting skills, and self-improvement techniques. As was recommended in a previous City of Berkeley report on Low Birth Weight,\(^5\) women need interconceptional care (health care between pregnancies) to reduce risk factors, in addition to screening and comprehensive services for substance abuse problems.
Low birth weight declined in African Americans during the 1990s but has increased again in recent years. The proportion of low birth weight babies is still twice as high in African Americans compared to other groups.

Due to small numbers, the apparent increase in 2005/06 may be random variation.

![Figure 2.7 – Low Birth Weight by Race/Ethnicity and Year of Birth, Berkeley, 1990-2006](source: Berkeley Public Health Division, Vital Statistics; Birth Records)

**Health Inequities: Perinatal Risk Factors**

The health of a baby is strongly related to health and behaviors during pregnancy. Obesity can cause serious pregnancy-related complications, and during the earliest stages of human development it can have lifelong impacts on the development of chronic disease. Appropriate weight during pregnancy is highly related to the baby’s birth weight and is impacted by whether nutritious food and safe exercise opportunities are accessible. Strategies to improve healthy eating and exercise include culturally-appropriate social norm change campaigns that reduce the barriers for poor and minority women, and initiatives that alter the physical environment to improve access to health-promoting resources such as fresh produce and safe parks and recreational facilities.

Alcohol, tobacco and other drug use during pregnancy are leading preventable causes of birth defects and developmental disabilities in the United States. In California, the rate of drinking during pregnancy (19%) is two times higher than the national rate and women in the Bay Area reported the highest rates of alcohol use during pregnancy in California. Effective strategies to reduce the impact of tobacco, alcohol and drug use during pregnancy include education about the importance of early prenatal care, universal screening for perinatal drug use, counseling and treatment specifically for pregnant women with a positive screen, and environmental changes such as reducing marketing of alcoholic beverages to young women and the number of liquor stores in poor and minority neighborhoods.
PrematureBirths

Why is This Important?

A baby born before 37 weeks of pregnancy is considered a premature birth. Prematurity is the leading cause of neonatal death not associated with birth defects. The rate of premature births is higher in African Americans than Whites across the U.S. Risk factors for prematurity include use of alcohol, tobacco, or other drugs during pregnancy, low pre-pregnancy weight or low weight gain during pregnancy, vaginal infections during pregnancy, and domestic violence. Premature babies are likely to have a low birth weight and almost all very low birth weight babies are premature.

From 2002 to 2004, African American babies were twice as likely to be born premature as White, Latino, or Asian babies.

Throughout the 1990s the percentage of premature births declined overall. In recent years, the trend has reversed in African Americans.
Maternal Depression

Why Is This Important?

Depression is a mood disorder in which feelings of sadness, loss, anger, or frustration interfere with everyday life for an extended time. Depression that occurs during pregnancy or within a year after delivery is called maternal depression - the “baby blues.” Some women with depression have difficulty caring for themselves during pregnancy, difficulty parenting their newborns, and are more likely to use harmful substances, like tobacco, alcohol, or illegal drugs as attempts to self-medicate.\textsuperscript{65,66}

Maternal Depression in Berkeley

In 2006, of new mothers who were receiving Family Support Services and received a home visit by a public health nurse, 41% were screened for depression. Of those screened, approximately 18% screened positive for depression.

Figure 2.10 – Maternal Depression Screening in Post-Partum Visits, Berkeley, 2004-2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Screened</th>
<th>Positive for Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>n=248</td>
<td>20%</td>
</tr>
<tr>
<td>2005</td>
<td>n=148</td>
<td>10%</td>
</tr>
<tr>
<td>2006</td>
<td>n=158</td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: Berkeley Public Health Division, Every Child Counts, 2004-2006

Program Highlight: Public Health Nursing Case Management

Case management by nurses provides comprehensive support, education and referrals for new moms for such issues as maternal depression. Over 150 new mothers were screened for depression and referred to appropriate care in 2006. There is a need to develop a system to ensure every new mother is screened and referred as needed to appropriate support or mental health services.
Breastfeeding

*Why Is This Important?*

Breastfeeding is the best way of nourishing infants. Exclusive breastfeeding in the first 6 months reduces childhood infections and may help prevent childhood obesity among other chronic diseases. Women who breastfeed also experience less breast and ovarian cancer. Nationally, African American, poor and less educated women have lower rates of breastfeeding.

**Breastfeeding in Berkeley**

Alta Bates Hospital is one of the top 15 hospitals in California for the percent of mothers that exclusively breastfeed their infants when they take them home from the hospital. Exclusive breastfeeding rates were highest in White mothers and lowest in African American mothers.

In the first few months after birth, low-income African American infants in the Women, Infant, and Children (WIC) program were less likely to be exclusively breastfed in 2006 than infants of other race/ethnicity groups.

**Figure 2.11** – In-Hospital Exclusive Breastfeeding Rates at Alta Bates/Summit Hospital, Berkeley, 2001-2004

**Figure 2.12** – Exclusive Breastfeeding in WIC Infants by Race/Ethnicity and Months Post-Partum, Berkeley, 2006
Program Highlight: Women, Infants and Children Program

This program provides food vouchers, nutrition and breastfeeding counseling and education, and referrals to relevant resources (see pictures below). The Breastfeeding Program supports breastfeeding with culturally relevant peer education, collaboration with lactation specialist public health nurses, counseling, assistance, and classes. WIC also offers electric pump loans, and works to eliminate formula distribution in hospitals.