Maternal, Child, and Adolescent Health

"If we are looking at children's issues . . . we have to look at how these issues affect and motivate the parents and grandparents of kids. Children's issues are best thought of as 'family issues'."

– Glen Bolger, Partner, 1998

The health of a community is directly related to the health of the families that make up that community. The family, no matter how small or how extended, is the fundamental social unit of a community; therefore healthy families are key to healthy communities. In this chapter we will discuss and identify health problems for the most vulnerable sectors of our community: pregnant women, infants, children, and adolescents. Additional chapters in this book will discuss the many other issues related to healthy families and healthy communities.

Achieving the goal of healthy families begins with preventing infant death, preterm birth, and low birth weight births. Accessible and adequate prenatal and preventive pediatric care is vital, along with the education of women on the importance of early prenatal care and healthy prenatal behaviors. Community leaders and planners will want to explore ways to provide social, emotional, and psychological support to pregnant women and families with young children.

DID YOU KNOW?

In 2002 Louisiana Ranked

- *49th in low birth weight rate*
- *46th in Infant Deaths*
- *45th in Child Deaths*
- *18th in women initiating prenatal care in the first trimester*

DHH/OPH Maternal & Child Health Program

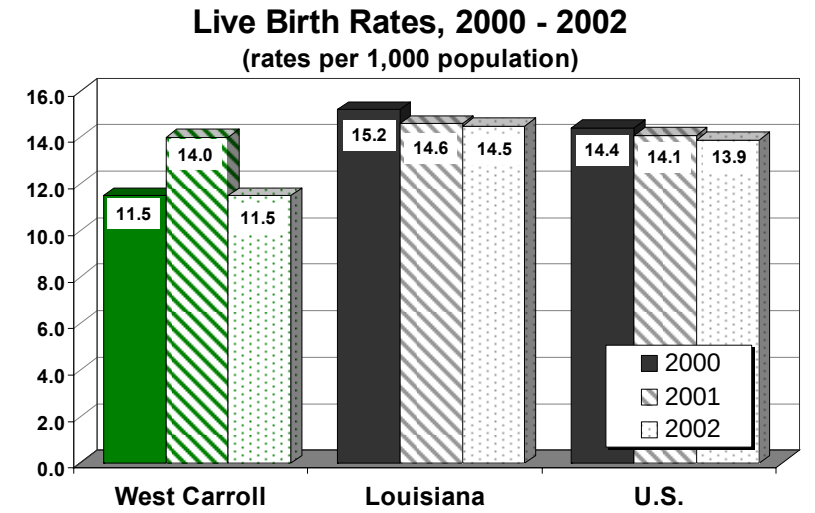
This chapter follows the natural life cycle of a child from birth to adolescence. Most of the health information presented is collected by the various offices of the Louisiana Department of Health and Hospitals. **The following indicators addressed in this section are:**

- Birth rates
- Infant mortality rate
- Percent of women receiving adequate prenatal care
- Percent of babies born with low and very low birth weights
- Newborn screenings
- Immunization rates for children under 24 months of age
- Nutrition information on percentages of breastfed infants, underweight, at risk for overweight, and overweight children
- Rate of babies born to teens

Other data and information on child and adolescent deaths, unintentional injury, child abuse, neglect, and domestic violence are discussed in the Community Safety Chapter. Women's and men's health issues, such as prevention and screenings, are discussed in the Chronic Disease and Leading Cause of Death chapter.

Having Healthier Babies

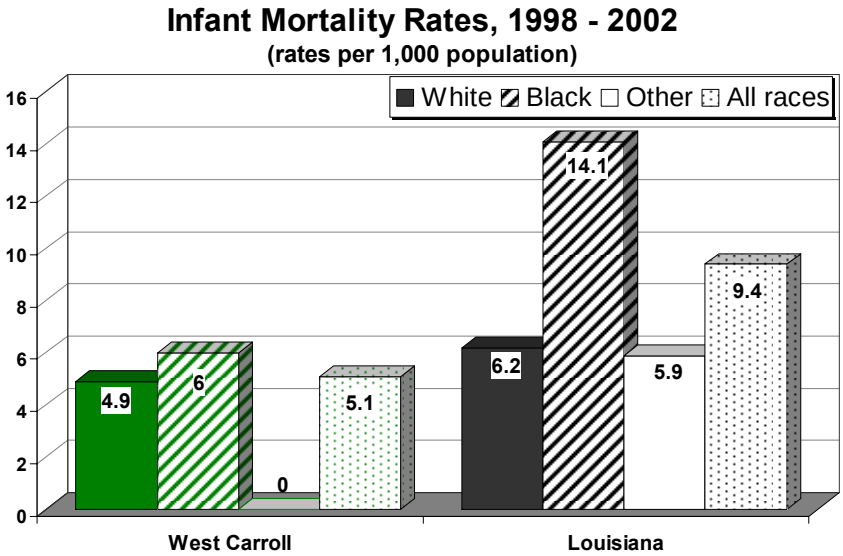
The birth rate is a useful measure of one of the components of population growth. Birth rates are useful for community planners to meet the childcare, educational, and health needs of its citizens now and in the future. In 2002, there were 64,755 live births to Louisiana residents for a rate of 14.4 births per 1,000 persons. **In 2002, there were 141 live births to West Carroll Parish residents for a birth rate of 11.5 per 1,000 persons.**[1]



Source: Louisiana Center for Health Statistics <www.oph.dhh.louisiana.gov> keywords: Data & Statistics
National Vital Statistics Reports, Vol. 52, No. 19, May 10, 2004: Table 2

Infant Mortality

The infant mortality rate is an indicator of the health and well being of mothers and children. Infant mortality measures deaths within the first year of life for each 1,000 infants born in a year. The Healthy People 2010 objective is to reduce the infant mortality rate to no more than 4.5 per 1,000 live births.[2]



Data Source: DHH/OPH, Louisiana Center for Health Statistics

In Louisiana for 2002 the infant mortality rate was 10.2 per 1,000 live births. **In West Carroll Parish the rate was 14.2 per 1,000 live births.**[3] Infant mortality rates differ by race. In Louisiana in 2002, the black infant mortality rate was just over two times the rate for white infants.[4]

Maximizing the health of infants from the beginning should be a community priority. This section will discuss factors that result in healthier babies: prenatal care, birth weight, infant mortality, and the importance of screening newborns.

Prenatal Care

Babies have a better chance of being born healthy when their mothers are also healthy. Because of the special risks and needs of pregnancy, women need prenatal care. Getting quality care within the first three months and continuing throughout the pregnancy are very important. Prenatal care may reduce the risk of infant death and low birth weight. In prenatal care, women with high-risk pregnancies are identified early and are more likely to receive the special care they need for a healthy birth. For every $1 spent on prenatal care, $3 are saved in hospital costs related to premature and low birth weight.[5]

For every $1 spent on prenatal care, $3 are saved in hospital costs related to premature birth and low birth weight.

DID YOU KNOW?

Five tips for having a healthy baby are:

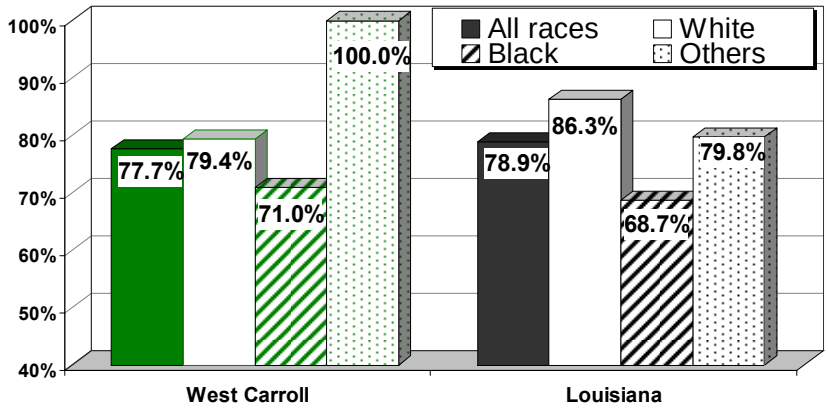
1. *Eat a balanced diet;*
2. *Get moderate exercise;*
3. *Give up smoking, alcohol and illegal drugs;*
4. *Get regular prenatal care; and*
5. *Reduce stress and fatigue.*

DHH/OPH Maternal & Child Health Program

"Adequate" prenatal care is a combination of getting care within the first trimester, called early care, and receiving scheduled follow-up care throughout the pregnancy. The first component of "adequate" prenatal care is that it begins early—in the first trimester. The Healthy People 2010 goal is that at least 90 percent of women will enter prenatal care within the first three months of pregnancy.[6] Two populations at risk for not receiving early prenatal care in Louisiana are African-American women and mothers under the age of 15.

In Louisiana for 2002, only 74.7 percent of African-American women and 49.2 percent of mothers under age 15 began prenatal care in the first trimester.[7] **In West Carroll Parish for 2002, 78.1 percent of African-American women began prenatal care in the first trimester, compared to 85.2 percent of White women.**[8]

Percent of Mothers Receiving Adequate Prenatal Care, 2002
(Modified Kessner Index)



Source: DHH/OPH Maternal & Child Health Program, 2004

The Modified Kessner Index is used to measure adequacy of prenatal care, meaning that the first prenatal visit was in the first three months of the pregnancy and that the number of prenatal visits was appropriate to the gestational age of the baby at birth. **In West Carroll Parish for 2002, 77.7 percent received adequate prenatal care.**[9]

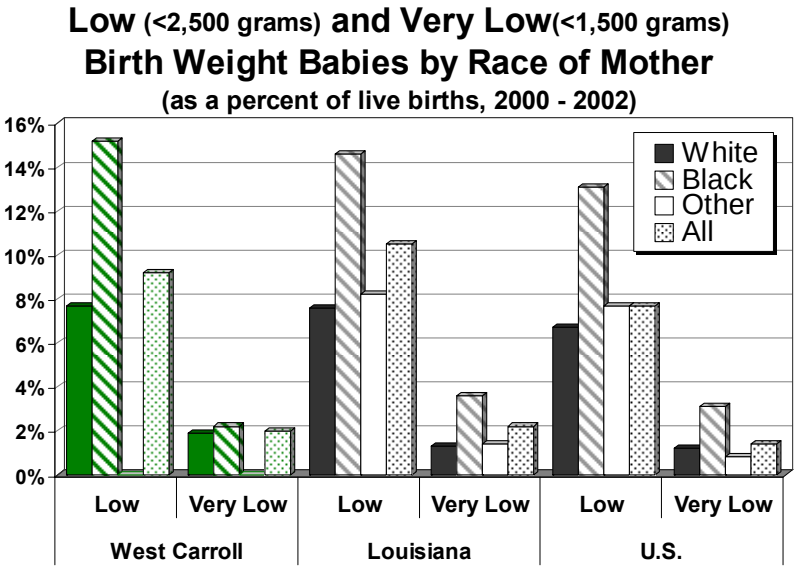
Prenatal care, however, is more than just a clinic visit. It is practicing healthy behaviors, such as eating properly, getting enough rest, and exercising moderately. It is also refraining from such risky health behaviors as smoking, drinking, or using illegal drugs. Prenatal care during a pregnancy also involves testing and screening for other health problems such as diabetes or syphilis. If a medical condition is detected, both the mother and child can receive early treatment interventions. For some women getting prenatal care is dependent upon her knowledge of the services available and how to access those services, her attitude toward her pregnancy, and her support system—family, friends, or employer. For more information on healthy prenatal care, call the Partners for Healthy Babies helpline: 1-800-251-BABY (1-800-251-2229).

Low Birth Weight

One of the problems associated with high-risk pregnancies or a mother's poor health is the insufficient weight of the infant at birth. A baby's weight is directly tied to the baby's overall health and survival through the first year of life: the lower the birth weight, the greater the chances of death within the first year. These babies are at greater risk for cerebral palsy, developmental delays, and mental retardation; and in general they will be more likely to have difficulties in their lifelong health.[10]

There are many factors that cause or influence low birth weight including little education, poor maternal health or health habits. A complicated pregnancy or a genetic risk for a disorder is a predictor of low birth weight. Low-income status, race, access to care, and young motherhood are also among the factors associated with low birth weight.

In Louisiana the low birth rate percentage for African-American infants is twice that of white infants, which also has an impact on the infant mortality rates in those populations.[11] **From 2000-2002 combined, 9.2 percent of babies born in West Carroll Parish were of low birth weight, compared to 10.5 percent in the state and 7.7 percent nationally.**[12] The percent of babies born at low birth weight varies from year to year. Trend data is reported in the Louisiana Health Report Card published by the Louisiana State Center for Health Statistics on line at www.oph.dhh.louisiana.gov.



Sources: DHH/OPH Maternal & Child Health Program, 2004
National Vital Statistics Reports, Vol. 52, No. 19, May 10, 2004: Table 2

Newborn Screening

Screening newborns is important for early detection and treatment of diseases that could compromise the health of the child throughout his life.[13] The state-mandated Newborn Screening Program ensures that all newborns are screened for phenylketonuria (PKU), congenital hypothyroidism, biotinidase deficiency, galactosemia, and sickle cell disease before being discharge from the hospital. There were 433 cases of these diseases detected through newborn screening in Louisiana from 2000 to 2002.[14]

A newborn with any of these diseases is immediately referred for specialized care. In the case of PKU and congenital hypothyroidism, early detection coupled with treatment prevents profound mental retardation. For babies detected with a sickle cell disease, early detection and immediate enrollment into specialized care reduces illness and death.

Hearing Screening

Hearing loss is the most frequently occurring birth defect, occurring in about 3 per 1,000 births.[15] Research has shown that children who are screened before 1 month of age, identified before 3 months of age and receive appropriate early intervention by 6 months of age can develop age-appropriate language, social, and educational skills.[16] More than one in 25 preschoolers suffers from a speech, language or hearing problem.[17]Louisiana law mandates universal newborn hearing screening prior to discharge from the birthing hospital. Louisiana's early hearing detection and intervention (EHDI) program, "Sound Start," is working with primary care physicians, Early Steps, parents, and educators to coordinate and provide needed follow-up services for those children identified with hearing loss. In Louisiana for 2003, 56,299 infants were screened. The state rate for hospital screenings of newborns has increased from 56.6 percent in 2000 to 89.9 percent in 2003. [18]

REGION 8
Percent of Newborns Screened for Hearing Loss by Parish of Birth, 2003

Caldwell	*
East Carroll	*
Franklin	*
Jackson	*
Lincoln	96.8%
Madison	*
Morehouse	93.0%
Ouachita	90.4%
Richland	*
Tensas	*
Union	*
West Carroll	*

* No birthing hospitals in the parish
Source: DHH/OPH
Childrens Special Health Services, 2004

Taking Care, Taking Control:
Family Literacy Project in Vermilion Parish

"We Can Make It" is a six-week series of programs for at-risk families offered at the Abbeville Branch of the Vermilion Parish Library. A key objective of the program is to make caregivers aware of important issues and community resources related to children's health, education and safety. Community partners include the Vermilion Parish Health Unit, the Acadiana Works Boys & Girls Club, the Vermilion Parish School Board, and local fire and police departments. This program was 1of 12 family literacy projects across the nation chosen to receive support thorough the national Center for Books at the Library of Congress in 2004-2005.

State Library of Louisiana, *Communiqué,'* November/December 2004, Vol. 20, No. 6. 14 June 2005, <http://www.state.lib.la.us/empowerlibrary/11,12-04%20Communique.pdf>.

Healthier Children

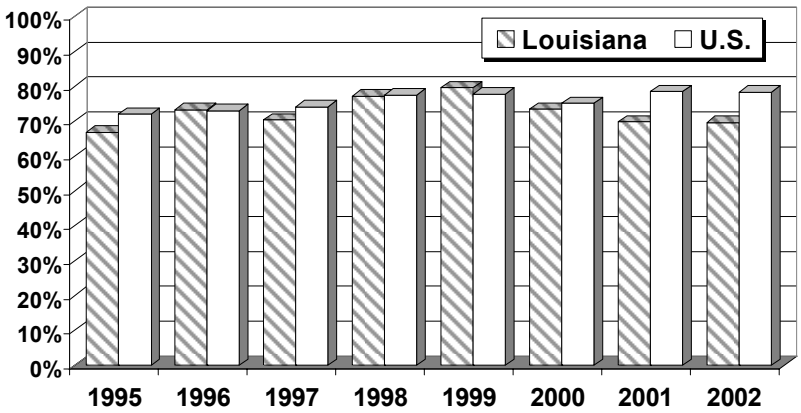
Child Deaths – Ages 1 to 14

The leading cause of death for this age group is unintentional injuries including motor vehicle deaths, suffocation, drowning, fires, and others. The following topics in this chapter focus on other health risks and preventive health measures for children ages 1 to 14 years old. Additional information on deaths, unintentional injury, child abuse, neglect, and domestic violence is discussed in the Community Safety chapter.

Immunizations

Children are required by Louisiana law to be immunized before entering school or childcare. However, it is important that this is done before the age of two, when children are most vulnerable to disease. Currently, there are 10 diseases from which children are routinely protected through the use of standard childhood immunizations: diphtheria, tetanus, pertussis (whooping cough), polio, measles, mumps, rubella (German measles), hepatitis B, *Haemophilus influenzae B* (bacterial meningitis), and varicella (chickenpox). Drastic reductions in the occurrence of these serious diseases have taken place since the introduction of vaccines. For example, in Louisiana there were no reported cases of measles in 2001 and 2002.[20] People may not be worried about these diseases because the rates are now so low; however, these diseases are serious and could return and threaten the health of children unless they are immunized on time.

Immunization Rates for 24 Month Olds for 4 DTP, 3 Polio, 1 MMR
(percent fully immunized)



Source: National Immunization Survey <www.cdc.gov/nip/coverage/NIS/02/toc-02.htm>

DID YOU KNOW?

Every dollar spent on Immunization saves $10 to $12 in direct medical and hospitalization costs.[19]

Taking Care, Taking Control:
Collaboration Brings Immunizations to Schools in St. Tammany Parish

The St. Tammany Parish Social Services Agency partnered with the St. Tammany Parish School Board, St. Tammany Parish Hospital, and the state Department of Health and Hospitals to bring immunizations to school-age children throughout the parish. The parish's command center information van stopped at eight St. Tammany Parish schools in the month of May. Nurses from St. Tammany Parish Hospital and the Department of Health and Hospitals were in the van to administer the immunizations which included all childhood vaccines and those that prevent chicken pox and hepatitis B.

Ackel, L., "Immunizations Coming to Kids Around Parish", News Banner, 2 May 2005, 14 June 2005, <http://www.newsbanner.com/articles/2005/05/02/news/news02.txt>.

Nutrition

Improper and inadequate nutrition can affect infants, children, and adults. Mothers that do not eat well-balanced meals while pregnant are more likely to give birth to premature or very low birth weight babies, which may involve further health complications. These infants can more easily contract other diseases, some of which could be life-threatening. If a breastfeeding mother does not eat adequately, she may not produce enough breast milk. If children do not eat enough for long periods of time, they may weigh less, have stunted growth, or have slower mental and physical development. These children may perform poorly academically, may have memory loss or a short attention span, and may be easily distracted. Good nutrition throughout childhood helps ensure good brain development.[22]

DID YOU KNOW?

The Healthy People 2010 goal is to increase the percentage of mothers who breastfeed their babies in early postpartum period to 75%. [21]

Louisiana offers two supplemental food programs for low income pregnant and postpartum women, infants, and children. The first is the Special Supplemental Nutrition Program for Women, Infants, and Children, popularly known as WIC, offering medical and nutritional services and, when medically needed, a food package to children up to the age of five. WIC also provides vouchers for foods high in protein, vitamin A, vitamin C, calcium and iron, nutritional screening and assessment, nutritional education, and breastfeeding guidance. The second supplemental program is the U.S. Department of Agriculture, Commodities food program, which supplements the diets of the elderly and children up to the age of six.

Available Data – The CDC Pediatric Nutrition Surveillance System (PedNSS) and the Pregnancy Nutrition Surveillance System (PNSS) are national surveillance systems that collect and report national, state and parish level program data to monitor the nutritional status of low-income infants, children, and women in federally funded maternal and child health programs, including WIC. These systems were not developed to provide data representative of the general population or even all low-income women and children. They do, however provide information about the women and children served by public health programs. This information can be used to make comparisons across geographic areas, (e.g. parish to parish, parish to state, state to state, and state to nation.)[23] Additional data, explanations, and suggestions for use of data are available online at www.cdc.gov/pednss/.

PedNSS is used by the DHH/OPH Nutrition Services Program to monitor the pediatric patients at high nutrition risk who attend WIC clinics. The PedNSS high-risk nutrition indicators include being underweight, overweight, short in stature, or having low iron, indicating potential concern for anemia. The WIC program uses this surveillance tool to ensure that children with the greatest nutritional counseling needs will receive counseling with a qualified nutritionist. The following data presented are from the 2001 – 2003 PedNSS report for Louisiana.[24] The three-year aggregate data is used to provide a large enough sample to report data for each of the 64 parishes.

Breastfeeding – It is recommended that infants should be exclusively breastfed during the first 4 to 6 months of life. Ideally, breastfeeding should be continued through the entire first year of life. Breastfed infants experience fewer cases of infectious and noninfectious diseases, as well as less severe cases of diarrhea, respiratory infections, and ear infections.[26] A woman's ability to optimally breastfeed her infant depends on the support she receives from those around her, including her family and the community. The overriding principle is to make breastfeeding as easy as possible for the mother rather than to discourage her, either intentionally or unintentionally, from breastfeeding.

For West Carroll Parish, among infants reported in PedNSS from 2001 to 2003, 27.4 percent were ever breastfed, 1.0 percent were breastfed for at least 6 months, and only 0.3 percent were breastfed for at least 12 months.[27]

Overweight and Underweight Children – In Louisiana and the United States, the percent of overweight children participating in the WIC program has increased.[28] Targeting overweight children can impact and prevent adult overweight and obesity. A child is considered at risk for overweight if he/she is in the 85th to 94th percentile and overweight if he/she is at or above the 95th percentile of the gender-specific Body Mass Index (BMI) for-age growth charts. Once overweight is established during childhood or adolescence, it is likely to remain in adulthood. The probability that overweight school-age children will become obese adults is estimated at 50 percent. In Louisiana over the last decade (1991 to 2001), the percent of overweight and/or obese adults increased from 49 percent to 60 percent.[29] **From 2001-2003, for West Carroll Parish, of children 2 years to 5 years reported in PedNSS, 18.2 percent were at risk for overweight and 17.6 percent were overweight.**[30]

DID YOU KNOW?

The Healthy People 2010 goals are to reduce both the proportion of children ages 6 to 11 years who are overweight or obese and those who are at risk of overweight to 5%.[25]

Underweight children are also a measure of the health of children. A child is considered underweight if he/she is below the 5th percentile of the gender-specific Body Mass Index BMI for-age growth charts. **From 2001 to 2003, for West Carroll Parish, among children ages 2 to 5 years reported in PedNSS, 3.1 percent were underweight.**[32]

Anemia – Iron deficiency is the most common known form of nutritional deficiency. Because of rapid growth and increased iron requirements, young children are at great risk of iron deficiency. In infants and young children, iron deficiency causes developmental delays and behavioral disturbances and can lead to enhanced lead absorption. Primary prevention of iron deficiency in infants and preschool children should be achieved through diet. **In West Carroll Parish from 2001 to 2003, 8.9 percent of infants and children under 5 years of age reported in PedNSS had iron-deficiency anemia.**[33] In Louisiana, the percent of infants and young children participating in the WIC Program with iron-deficiency anemia has increased from 12.5 percent in 2000 to 14.9 percent in 2003.[34]

DID YOU KNOW?

The Healthy People 2010 goal is to reduce iron-deficiency among young children aged 1 to 2 years to 5% *and among children aged 3 to 4 years to 1%.*[31]

Oral Health

Healthy teeth and gums are very important for a healthy life. Healthy teeth are pain-free and secure. Good dental health means that children are less likely to be distracted at school or feel bad about their appearance. They will also be able to eat a variety of foods all through their lives. Oral health habits are often set in childhood. The things that make teeth healthy include good diets, tooth-brushing and regular check-ups. These habits need to begin early. More importantly, healthy teeth are linked to the health of the overall body. Diseases of the mouth remain as our number one chronic childhood disease.[35]

DID YOU KNOW?

Louisiana received an overall grade of D+ on the 2003 Oral Health Care Report Card

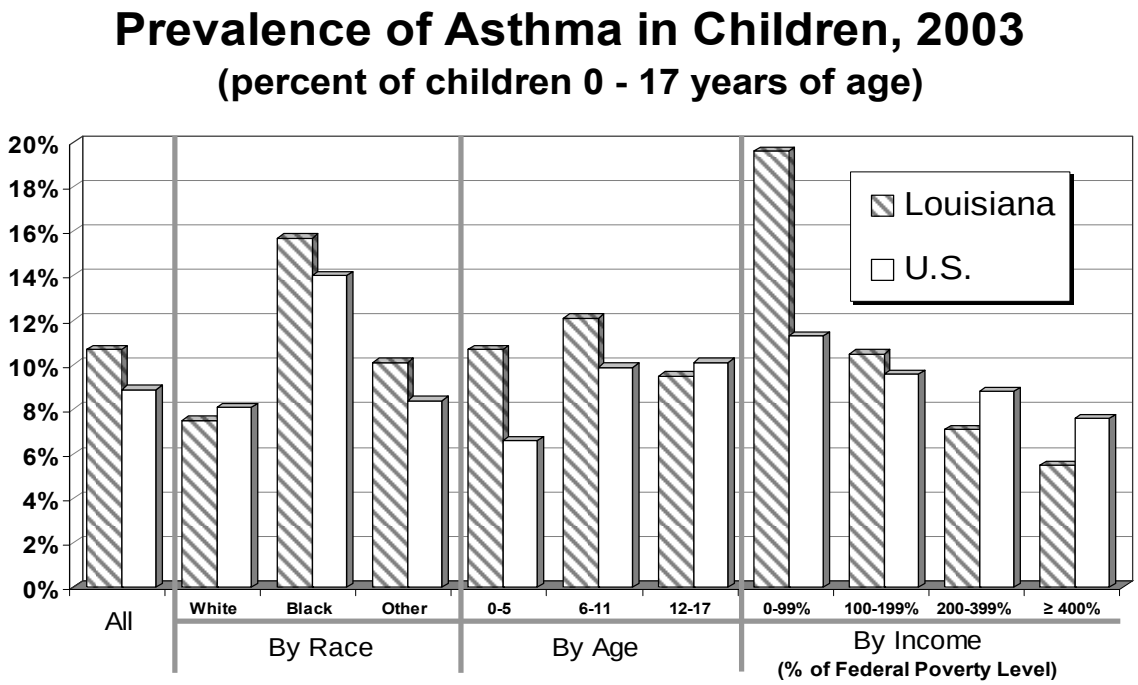
- *F Prevention—Community Water Fluoridation and Sealant efforts.*
- *C Dentist Availability, including Pediatric Dentists*
- *C Medicaid Providers*
- *C- Overall Access*
- *C+ Infrastructure—Planning, Budget and Data Use*
- *D+ Overall Health Status*
- *D+ Policies*[36]

The Healthy People 2010 goal is for 75 percent of the population to receive optimally-fluoridated water.[37] The recommended level of fluoride for Louisiana is 0.9 parts per million based on the ambient air temperature and guidelines set by the U.S. Public Health Service.[38] Based on the 2000 Louisiana Census, approximately 45.5 percent of Louisiana residents are served by water systems that adjust fluoride levels to the optimal level. Also, 8.4 percent of the population has naturally occurring fluoride levels in their water systems. Therefore, 53.9 percent of Louisiana's population receives the benefits of optimally-fluoridated water.[39]

Asthma

While asthma in children is rarely fatal, its impact in terms of limited activity, missed school days, and total costs is quite significant. Nationwide, approximately 6.3 million children ages 0 – 17 have asthma and approximately 4.2 million of these children had an asthma attack last year. In schools, nearly 1 in 3 children are diagnosed with asthma and this disease accounted for more than 14 million missed school days in 2000. The rate is rising more rapidly in preschool aged children than in any other age group. Asthma related episodes account for almost 5 million physician visits and more than 200,000 hospitalizations of children per year, with related costs due to asthma (health care costs and lost productivity) totaling $14 billion in 2002.[40]

The asthma data presented in this Profile is from the National Survey of Children's Health. This data quantifies the overall prevalence of asthma in children in Louisiana and provides an indication of differences by race, age, gender, and income. It is estimated that 10.7 percent, or 125,649 children in Louisiana have asthma. The prevalence of asthma among children varies by race, age, and income. By race, the prevalence is highest among blacks with 15.7 percent of black children reported to have asthma, compared to 7.5 percent of whites, and 10.1 percent of other races. By age the highest prevalence is found in the 6 to 11 age group at 12.1 percent. The prevalence of asthma also increases with decreasing levels of income, with the highest prevalence rate of 19.6 percent among persons below the federal poverty level.[41]



Source: National Survey of Children's Health, Data Resource Center on Child and Adolescent Health website. Retrieved 08/04/05 from www.nschdata.org

While asthma-specific parish level data are currently limited, surveillance systems such as the Behavior Risk Factor Surveillance System (BRFSS) and Youth Tobacco Survey (YTS), which incorporates the International Study of Asthma and Allergies in Childhood (ISAAC) asthma model, are being used in the state to collect data and monitor asthma trends within Louisiana. The DHH/OPH Community Health Promotion and Chronic Disease Section has been working towards expanding these data sets. The YTS will be conducted again in the fall of 2005, and data from the recently expanded sample size of the 2004 BRFSS will provide regional level data—available by the end of 2005.

Management and Prevention – Most asthma attacks and emergency room visits are preventable. Asthma can be controlled through proper medical treatment, disease management and elimination or reduction of environmental triggers. These triggers can be found indoors and outdoors—including, ozone, secondhand smoke, fragrances, paint and gasoline fumes, cockroaches and other pests, dust mites and house dust, molds, and pets and other animals. Secondhand smoke is especially dangerous for asthma sufferers. Secondhand smoke can both trigger and increase the severity of asthma attacks. Secondhand smoke can also serve as a risk factor for new cases of asthma in children who previously exhibited no asthma symptoms.[42]

The ultimate goal should be primary prevention and reduction of the onset of asthma. This can be accomplished in a number of ways. Communities can work with their schools to develop educational programs for educators, parents, and caretakers of asthmatic children on how to improve indoor air quality and environmental health in schools, in the home, and wherever children congregate. Communities can also work to reduce outdoor environmental triggers in their communities by educating the public and policy makers on the relationships between exposure to air pollutants and asthma, and the need for control measures to reduce environmental factors.[43]

Adolescent Health

The teen years are an exciting time. They present new opportunities to learn and grow. While most teenagers do not seek out or create trouble, teenagers take risks that may have unhealthy results such as drug and alcohol use, anti social behavior, and teen pregnancy.

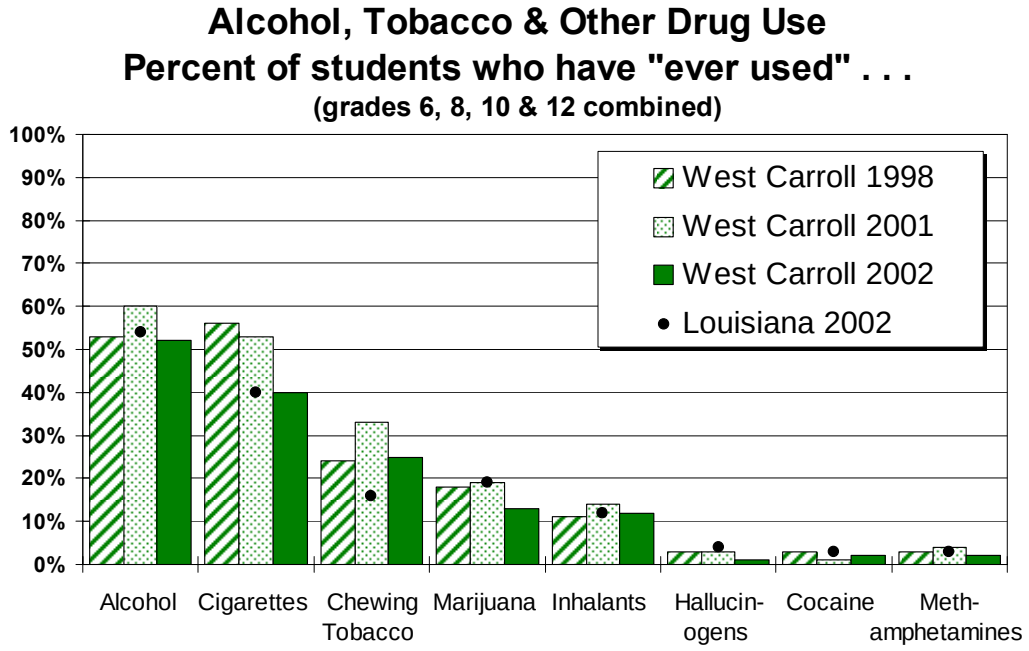
The Louisiana Department of Health and Hospitals, Office of Addictive Disorders and the Louisiana Department of Education survey youth in grades 6, 8, 10 and 12 every other year. This survey provides information and indicators of adolescent behaviors and factors influential in the lives of adolescents in four settings defined as school, family, community and peer/individual. In 2002, the survey, Communities that Care (CTC), was conducted in all but three parishes.[46] This Profile presents composite data for all grades combined as an initial indicator of two risk factors: Alcohol, Tobacco and Drugs (ATOD) and Peer/Individual Risk and Protective Factors. The detail data by individual grade can be obtained from the complete survey reports for the parish, region, and the state at www.dhh.louisiana.gov/reports.asp, DHH Office for Addictive Disorders.

DID YOU KNOW?

Louisiana adolescents, aged 10 to 19, are the most underserved population in health education and health services.[44] *School-Based Health Centers (SBHC) provide access to comprehensive primary and preventive physical and mental health services for school-age children.* ***There are currently no school-based health centers located in West Carroll Parish.***[45] *More information on SBHC can be found in the Access to Appropriate Health Care chapter.*

Alcohol, Tobacco and Other Drug Use

For West Carroll Parish in 2002, 52 percent of students reported ever using alcohol, as compared to the statewide rate of 54 percent; the percent of students ever using cigarettes was 40 percent for the parish and 40 percent for the state. The percent of students ever using marijuana in their lifetime was 13 percent and 19 percent for the parish and state respectively.[47] Additional parish data on adolescent tobacco usage can be found in the Chronic Disease and Leading Cause of Death chapter of this Profile.

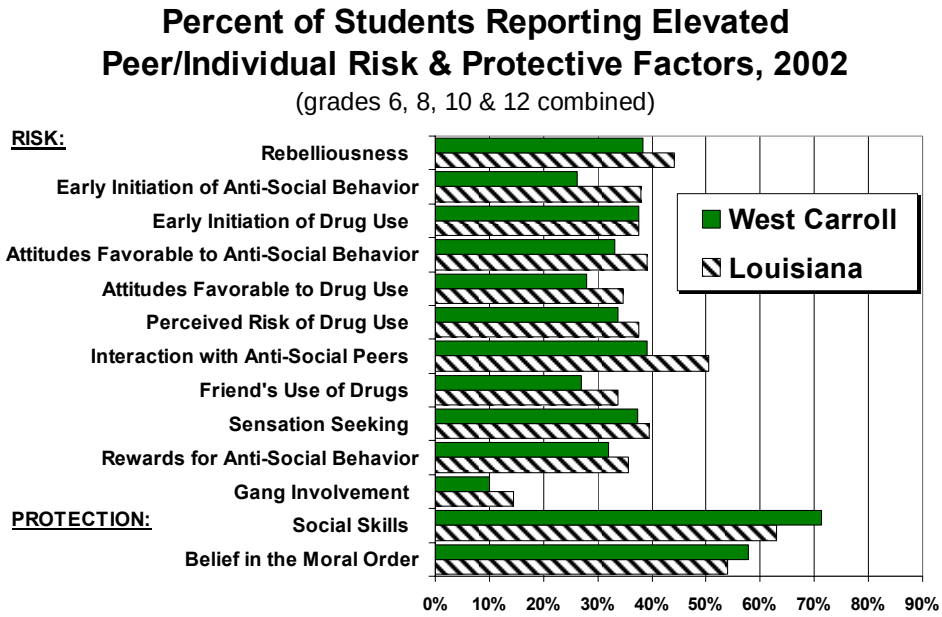


Source: DHH/OAD Communities That Care Survey Report, 2002

Peer and Individual Risk and Protective Factors

The CTC survey collects and reports data on risk and protective factors that have been shown to be related to youth behavior problems. Knowledge of these factors can help guide communities in identifying opportunities to address adolescent health and behavior problems. The aim is to reduce risk and increase protection.

The risk and protective factors for the Peer/Individual domain for all four grades combined is presented here as an initial comparison of the parish to the state. Since these risk and protective factors vary with age, users should refer to the complete CTC report for breakdowns by age.

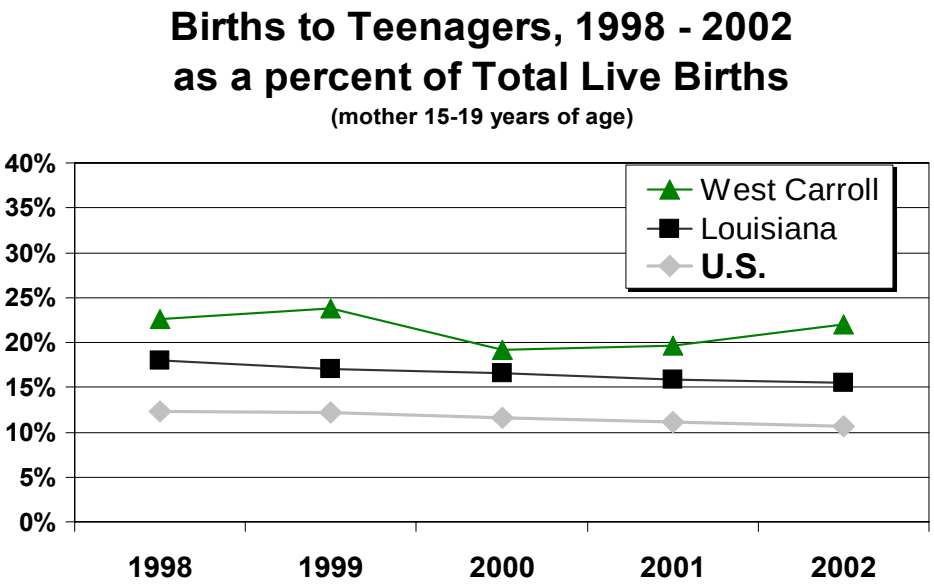


Source: DHH/OAD Communities That Care Survey, 2002

Teenage Pregnancy

Teen pregnancy can complicate the lives of young women and their babies. Young men and women may not be emotionally prepared for sex, much less pregnancy. Early childbearing reduces the overall number of school years completed by almost three years.[48] Nationally, the poverty rate for children born to teen mothers who have not married and did not graduate from high school is 78 percent while the child poverty rate for children born to married high school graduates over 20 is only 9 percent.[49]

A third of pregnant teens receive inadequate prenatal care, and babies born to young mothers are more likely to be low birth weight, to have childhood health problems, and to be hospitalized than are babies born to older mothers.[50]



Source: Louisiana Center for Health Statistics <www.oph.dhh.louisiana.gov> keywords: Data & Statistics

All through the 1990s, rates of teen pregnancy have been dropping both nationally and in our state. However, the U.S. still has one of the highest teen pregnancy rates in the developed world, and Louisiana still ranks high within the U.S. In Louisiana for 2002, 15.5 percent of all births were to teenagers 15 to19 years of age. **In West Carroll Parish for 2002, 22.0 percent of live births were to teenagers 15 to 19.**[51] The reductions in teen pregnancy over the past decade are due to a combination of factors. Studies show that when teenagers are educated about abstinence and safe sex, they are more likely to begin having sex at a later age and to use contraception when they do have sex.[52] The National Longitudinal Study of Adolescent Health (AddHealth) found that increasing teens' connections to, "their family and home, their school, and their community is essential for protecting teenagers from a vast array of risky behaviors, including sexual activity."[53] Parents often need support and information to facilitate taking on the role of health educators with their children.

Teen pregnancy is not easily addressed, often requiring multilevel interventions. Family planning programs try to educate young teens about preventing pregnancy by many methods, especially abstinence, and the importance of involving parents in their health decision-making. Many factors influence teens' decision to have sex. These factors include economic status, self-worth, family structure, faith systems, peer pressure, amount of supervision, and boredom. Teen pregnancy happens in all communities, but teens who give birth are more likely to come from poorer and more disadvantaged families and neighborhoods. Other characteristics associated with low-income homes, like low educational attainment, lack of employment and single parenthood may also be significant. Many researchers suggest that addressing broader social and environmental factors is critical to achieving further reductions in teen pregnancy.

DID YOU KNOW?

- *"Close to 80%t of teen mothers will require welfare assistance."* [54]
- *"Four out of every ten American females will become pregnant before the age of 20. . . . Most of these pregnancies are unintended."* [55]

Family Planning

Family planning strategies and services provide individuals and families the information and means to exercise personal choice in determining the number and spacing of their children. These strategies can reduce teen pregnancy and reduce female and infant mortality and morbidity. For the health of both the mother and the newborn, most public health recommendations suggest a minimum of two years between pregnancies as being ideal. The proportion of all women in the United States ages 15 to 44 years, who are currently practicing contraception, including sterilization, rose from 56 percent in 1982 to about 64 percent in 1995.[58] With the high rate of people living without health insurance in Louisiana, a family planning visit may be the only time that a woman ever has a preventive health clinic visit. Therefore, it is important to provide overall health information in a family planning clinic.

DID YOU KNOW?

- *An estimated 1.3 million unintended pregnancies, many of which might lead to abortion, are prevented each year through publicly funded family planning services.*[56]
- *Only 6% of family planning clients nationwide are men. Less than 13% of family planning clinics have a client base that is more than 10% male.*[57]

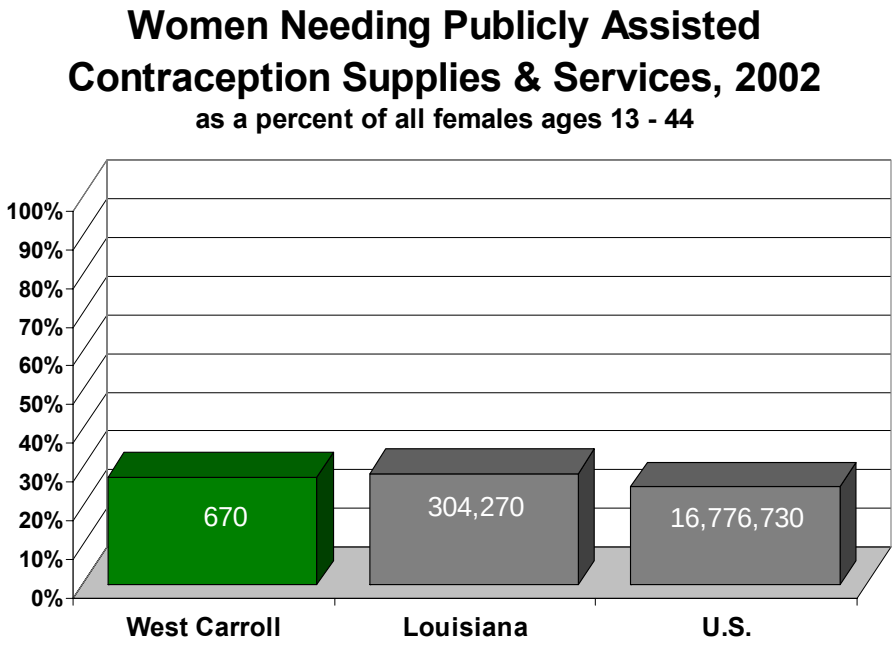
Family Planning Services

The DHH/OPH Family Planning Program provides holistic care and ongoing education focusing on a woman's needs for more than just birth control methods. Most of the client services will relate to fertility regulation. Wherever possible, the program provides health maintenance services and counseling directed toward health promotion and disease prevention. Issues including mental health, financial security, safety, healthy relationships, nutrition and fitness, breast and cervical cancer screening, education and disease prevention knowledge, STD and HIV/AIDS awareness and prevention, reproductive rights and decision making are all related to the health of women. In Louisiana, 80 percent of clients at public health family planning clinics are at or below the federal poverty level. In the U.S., 39 percent of publicly funded clinic patients are at or below this poverty level. These clients have the least financial access to the health care system, insurance and Medicaid.[59]

Unintended Pregnancy

Unintended pregnancy is the unrecognized, poorly understood root cause of several social issues currently generating much controversy, such as teenage pregnancy, births to unmarried women and abortion. In the United States nearly half of all pregnancies are unintended. Unintended pregnancies can be pregnancies that occur at the wrong time or are completely unwanted. Almost half of these pregnancies end in abortion. Unintended pregnancies occur among women of all socioeconomic, marital status and age groups. Unmarried women, poor women and very young or older women are especially likely to become pregnant unintentionally.[60]

A woman with an unintended pregnancy is less likely to seek early prenatal care and is more likely to expose the fetus to harmful substances, such as tobacco or alcohol.[61] The child of an unwanted conception is also at risk. For example, children of unintended pregnancies are less likely to be breastfed.[62] The mother may be at greater risk of depression and of physical abuse herself, and her relationship with her partner is at greater risk of dissolution. Both mother and father suffer economic hardship and may fail to achieve their educational and career goals. Such consequences impede the formation and maintenance of strong families.



Source: Alan Guttmacher Institute, 2004. <www.guttmacher.org/pubs/win/index.html>

While many factors help to explain the high level of unintended pregnancy, the most obvious causes are failure to use contraceptive methods carefully and consistently, and actual technical failures of the methods themselves. However, these factors come into play only once access to contraceptive services and/or supplies is assured, a vital first step. In Louisiana, for 2002, there were an estimated 515,960 women, ages 13 to 44 years, needing contraceptive services and supplies. Of those, 59 percent needed publicly supported services. **In West Carroll Parish, it is estimated that of the 980 women needing contraceptive services and supplies, 670 (68 percent) were in need of publicly supported services and supplies.**[63]

The Community Can . . .

Improve the access and usage of prenatal care

- Support and develop Nurse-Home visitation programs.[64]
- Support the delivery of prenatal care in school-based health centers.[65]

Toolkits & Guides:

Invest in Kids, Nurse Family Partnership, www.iik.org/nursefamilyinit.htm.

Substance Abuse and Mental Health Services Administration (SAMHSA), Nurse-Family Partnership Program, modelprograms.samhsa.gov/pdfs/FactSheets/NurseFP.pdf.

All Children Thriving: Pre-Birth Through Age Three Initiative, W.K. Kellogg Foundation www.wkkf.org/Pubs/YouthEd/PB3/Pub725.pdf.

Reduce health-compromising personal behaviors in pregnant women[66]

- Offer smoking cessation interventions to pregnant women.[67]
- Conduct a community awareness campaign on alcohol and other drug-related birth defects.[68]

Toolkits & Guides:

National Council on Alcoholism and Drug Dependence, Inc, NCADD Awareness Activities, www.ncadd.org/programs/awareness/index.html.

Reduce the incidence of childhood asthma[69]

- Target asthma interventions at schools
  - Improve asthma management through the presence of school nurses and allow children to have access to prescribed asthma medication during the school day.[70]
  - Remove environmental asthma triggers such as mold and mildew.[71]
  - Reduce exposure to diesel exhaust pollution from school buses.[72]
- Establish maintenance and management practices in existing schools to improve indoor air quality.[73]

Toolkits & Guides:

Fighting Childhood Asthma: How Communities Can Win, www.policylink.org/Research/ChildhoodAsthma.

Indoor Air Quality Tools for Schools Kit, www.epa.gov/iaq/schools/tools4s2.html.

Asthma Regional Council of New England, Toolkit for Reducing Diesel Emissions, Resources for School Communities, www.asthmaregionalcouncil.org/about/_BusToolkit.htm.

Asthma Regional Council of New England, Implementing a Statewide School Bus Idling Program, Sample Action Plan, www.asthmaregionalcouncil.org/about/_BusToolkit.htm, Implementation Strategies

Improve oral health

- Support school-based or school-linked sealant programs.[74]
- Fluoridate the community water supply to recommended levels of fluoridation.[75]

Improve both access and community demand for immunizations through multicomponent interventions[76]

- Promote and encourage the vaccination of low-income children in non-medical settings such as WIC program.
- Initiate and support a client reminder/recall system to increase community demand for vaccinations.

Improve adolescent health through school-based interventions

- Support school-based programs for youth before initiation of tobacco use and continue these programs throughout high school.[77]
- Support school-based programs aimed at preventing substance abuse of anabolic steroids among student athletes.[78]
- Support school-based programs designed to stop or prevent the initiation of inappropriate dating behaviors.[79]

Toolkits & Guides:

Guidelines for School Health Programs to Prevent Tobacco Use and Addiction, www.cdc.gov/mmwr/PDF/RR/RR4302.pdf.

Athletes Training and Learning to Avoid Steroids (ATLAS), SAMHSA Model Programs, modelprograms.samhsa.gov/template_cf.cfm?page=model&pkProgramID=6.

Safe Dates, SAMHSA Model Programs, modelprograms.samhsa.gov/template_cf.cfm?page=model&pkProgramID=228.

References

1. Louisiana Department of Health and Hospitals, Office of Public Health (DHH/OPH) , *2004 Louisiana Health Report Card*, Louisiana State Center for Health Statistics. Louisiana 2005.
2. U.S. DHHS, HP 2010.
3. DHH/OPH, 2004 Louisiana Health Report Card.
4. DHH/OPH, 2004 Louisiana Health Report Card.
5. Louisiana Department of Health and Hospitals, Office of Public Health (DHH/OPH), Maternal and Child Health Program, 2004.

6. U.S. Department of Health and Human Services (US DHHS). *Healthy People 2010*. 2nd ed. With Understanding and Improving Health Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.
7. DHH/OPH, *2004 Louisiana Health Report Card*.
8. DHH/OPH, Maternal and Child Health Program.
9. DHH/OPH, *2004 Louisiana Health Report Card*.
10. DHH/OPH, Maternal and Child Health Program.
11. DHH/OPH, 2004 Louisiana Health Report Card
12. DHH/OPH, Maternal and Child Health Program.
13. Department of Health and Hospitals, Office of Public Health (DHH/OPH), *Issue Brief*. Genetic Disease Program. 2004.
14. DHH/OPH, 2004 Louisiana Health Report Card.
15. DHH/OPH, Hearing, Speech and Vision Program.
16. DHH/OPH, Hearing, Speech and Vision Program.
17. Department of Health and Hospitals, Office of Public Health (DHH/OPH), Maternal and Child Health – Hearing, Speech and Vision Program, 2004.
18. DHH/OPH, Hearing, Speech and Vision Program.
19. DHH/OPH, 2004 Louisiana Health Report Card.
20. DHH/OPH, 2004 Louisiana Health Report Card.
21. U.S. DHHS, HP 2010.
22. DHH/OPH, Nutrition Services and Chronic Disease Control Program.
23. Pediatric and Pregnancy Nutrition Surveillance System. Center for Disease Control. 01 Feb 2005, 3 May 2005. <http://www.cdc.gov/pednss/>.
24. Polhamus B, Dalenius K, et al, *Pediatric Nutrition Surveillance 2001 - 2003 Report* (PedNSS). Atlanta: U. S. Department of Health and Human Services, Center for Disease Control and Prevention. 2004.
25. U.S. DHHS, HP 2010.
26. Department of Health and Hospitals, Office of Public Health (DHH/OPH), The Louisiana Supplemental Nutrition Program for Women, Infants and Children (WIC). 2004.
27. Polhamus B, Dalenius K, et al, *Pediatric Nutrition Surveillance 2003 Repot* (PedNSS)Atlanta: U. S. Department of Health and Human Services, Center for Disease Control and Prevention. 2004.
28. DHH/OPH, WIC Final Data 2003.
29. DHH/OPH, WIC Final Data 2003.
30. Polhamus B, Dalenius K, et al.
31. U.S. DHHS, HP 2010.
32. Polhamus B, Dalenius K, et al.
33. Polhamus B, Dalenius K, et al.
34. DHH/OPH, WIC Final Data, 2003.
35. *Keep America Smiling*: *Oral Health in America*, The Oral Health America National Grading Project. United States 2003.
36. *Keep America Smiling*: *Oral Health in America*, 2003.
37. U.S. DHHS, HP 2010.
38. DHH/OPH, Maternal and Child Health Program.
39. DHH/OPH, Maternal and Child Health Program.
40. Environmental Protection Agency. *About Asthma, 2005,* <http://www.epa.gov/iaq/asthma/about.html>.

41. Nation Survey of Children's Health, 2003. Resource Center on child and Adolescent Health. Nov 2005 <http://www.nschdata.org>.

42. Environmental Protection Agency. *About Asthma, 2005,* <http://www.epa.gov/iaq/asthma/about.html>.

43. Association of State and Territorial Health Officials. Catching Your Breath: Strategies to Reduce Environmental Factors that Contribute to Asthma in Children. May 2003.

44. Department of Health and Hospitals, Office of Public Health (DHH/OPH), Adolescent School Based Health Care (SBHC) Program.

45. DHH/OPH, SBHC Program.

46. DHH/OAD, *Communities That Care Survey, 2002.*

47. Louisiana Department of Health and Hospitals, Office of Addictive Disorders (DHH/OAD). *State of Louisiana Communities That Care Survey, 2002 State Report*. Tables 4 and 11, 30 Mar 2004, <http://www.dhh.louisiana.gov>.

48. Klepinger, DH, Lundberg, S and Plotnick, RD Adolescent Fertility and the Educational Attainment of Young Women *Family Planning Perspectives* (1995) 27, 23-28.

49. *KIDS Count Data Book 2004* Annie E. Casey Foundation.

50. *Sex and America's Teenagers* (1994) Alan Guttmacher Institute.

51. DHH/OPH, *2004 Louisiana Health Report Card*.

52. U.S. Teenage Pregnancy Statistics Overall Trends, Trends by Race and Ethnicity (2004), The Alan Guttmacher Institute.

53. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (US DHHS/CDC). *Births to Teenagers in the United States, 1940-2000,* 2001.

54. Annie E. Casey Foundation. 1998. *When Teens Have Sex. Kids Count Special Report.* Baltimore, MD. p 12.

55. Annie E. Casey Foundation. 1998. p 7.

56. U.S. Department of Health and Human Services (U.S. DHHS). 1998. Office of Public Health and Service. *Healthy People 2010 Objectives: Draft for Public Comment*. Washington, DC. p. 11-6.

57. U.S. DHHS.

58. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (US DHHS/CDC). 2004. CDC's Reproductive Health Information Source.

59. Alan Guttmacher Institute. 2003. *Women in Need of Contraceptive Services and Supplies, 2000.* <http://www.guttmacher.org/pubs/win/index.html>.

60. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (US DHHS/CDC) *Pregnancy Risk Assessment Monitoring System (PR*AMS) 1999 Surveillance Report.

61. Kost, K., Landry, DJ, Darroch, JE. "Predicting maternal behaviors during pregnancy: does intention status matter?" *Family Planning Perspectives* 1998 *30*: 79-88.

62. Dye, T, Wojtowwycz, Aubry, RH, Quade, J, Kilburn, H., Unintended pregnancy and breast-feeding behavior. *American Journal of Public Health* 1997, *82*:1709-1711.

63. Alan Guttmacher Institute. 2004. *Contraceptive Needs and Services, 2001–2002*. <http://www.guttmacher.org/pubs/win/index.html>.

64. Coalition for Evidence-Based Policy, Social Programs that Work, "Nurse-Family Partnership (nurse home visitation program of low-income, pregnant women)" 8 July 2005 <http://www.evidencebasedprograms.org/>.

65. Barnet, B., Duggan, A.K., and Devoe, M., "Reduced Low Birth Weight for Teenagers Receiving Prenatal Care at a School-based Health Center: Effects of Access and Comprehensive Care, Journal of Adolescent Health, 33(5): 349-358, November 2003, accessed on line at the Robert Wood Johnson Foundation, Key words," Research and Policy Analysis Projects, Interest Area, Vulnerable Populations, Archive 2003" <http://www.rwjf.org/research>.

66. Okah, F.A., Cai, J. and Hoff. G.L., "Term-gestation low birth weight and health-compromising behaviors during pregnancy" Obstet Gynecol. 2005 March, 105 (3):543-50. <http://www.greenjournal.org>.

67. Bull, Julie, Mulvihill, C., and Quigley, R. "Prevention of low birth weight: assessing the effectiveness of smoking cessation and nutritional interventions, Evidence briefing", Health Development Agency, United Kingdom, July 2003, 11 July 2005, <http://www.renewal.net/Documents/RNET/Policy%20Guidance/Preventionlowbirth.pdf>.

68. National Council on Alcoholism and Drug Dependence, Inc, NCADD Awareness Activities, 11 July 2005, <http://www.ncadd.org/programs/awareness/index.html>.

69. Thompson, Mildred, Phillips, R., Bell, J., "Fighting Childhood Asthma: How Communities Can Win," A Policy Link Report, Fall 2002, 18 July 2005, <http://www.policylink.org/pdfs/ChildhoodAsthma.pdf>.

70. Thompson, Mildred.

71. Thompson, Mildred.

72. Environmental Protection Agency, New England Region, Diesel Exhaust and School Bus Idling, November 2002, 18 July 2005, <http://www.epa.gov/NE/eco/diesel/assets/pdfs/Diesel_Factsheet_Schoolbus.pdf>.

73. Parker, Joan N., "Reducing Asthma Triggers in Schools: Recommendations for Effective Polices, Regulations, & Legislation, Asthma Regional Council of New England, March 2005, 18 July 2005, <http://www.asthmaregionalcouncil.org/documents/ParkerReportfinal_001.doc>.

74. Centers for Disease Control and Prevention, "School-based or School-linked Pit and Fissure Sealant Delivery Programs are Effective in Reducing Tooth Decay in Children and Adolescents,", as cited in The Guide to Community Preventive Services (Community Guide), 1 July 2005, <http://www.thecommunityguide.org/oral/oral-int-seal.pdf >.

75. Centers for Disease Control and Prevention, "Community Water Fluoridation is Effective in Reducing Tooth Decay," as cited in The Guide to Community Preventive Services (Community Guide), 1 July 2005, <http://www.thecommunityguide.org/oral/oral-int-fluor.pdf>.

76. Centers for Disease Control and Prevention, "Vaccine-Preventable Diseases: Improving Vaccination Coverage in Children, Adolescents, and Adults," MMWR Morbidity Mortality Weekly rep 1999; 48(RR-8): 1-15 as cited in The Guide to Community Preventive Services (Community Guide), 17 Jan 2003, 1 July 2005, <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4808a1.htm>.

77. Centers for Disease Control and Prevention, "Guidelines for School Health Programs to Prevent Tobacco Use and Addiction," MMWR Morbidity Mortality Weekly rep 1994; 43(RR-2): 1-18, 12 July 2005 <http://www.cdc.gov/mmwr/PDF/RR/RR4302.pdf>.

78. Substance Abuse and Mental Health Services Administration,, Model Program, Athletes Training and Learning to Avoid Steroids (ATLAS), 19 July 2005, <http://modelprograms.samhsa.gov/template_cf.cfm?page=model&pkProgramID=6>.

79. Substance Abuse and Mental Health Services Administration, Model Program, Safe Dates, <http://modelprograms.samhsa.gov/template_cf.cfm?page=model&pkProgramID=228>.