

Birth Defect Statistics

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GENERAL

- Definition of a birth defect: Abnormal development of the fetus resulting in death, malformation, growth retardation, and functional disorders.
- Approximately 120,000 babies are born each year with birth defects.
- Approximately 3 percent of all children born in the United States have a major malformation at birth. Many more show problems of developmental origin with time, e.g., 6 to 7 percent by one year of age and 12 to 14 percent by school age.
- Birth defects, including low birth weight, are the leading cause of infant mortality.
- About 10 percent of problems seen at birth can be traced to a specific agent (environmental agent, drug, biologic, or nutritional factor). About 20 percent are inherited or are associated with chromosomal changes. The rest (about 70 percent) are of unknown etiology, although a 1991 report from the General Accounting Office found that a majority of experts believe that a quarter or more of birth defects will be found to have been environmentally induced.
- The medical costs of care for children with disabilities resulting from birth defects have been estimated to exceed \$1.4 billion annually.
- While some types of birth defects have decreased, mainly through preventive methods, many have increased. According to a Centers for Disease Control and Prevention (CDC) study of 38 types of birth defects occurring over the period 1979–89, 27 had increased, including several cardiac defects, chromosomal defects such as trisomy 18, and fetal alcohol syndrome; nine had remained the same; and only two had decreased.

LOW BIRTH WEIGHT (LBW) BABIES

- The risk factors for babies are poor maternal nutrition, teenage pregnancy, premature birth, drug and alcohol use, smoking, and the presence of sexually transmitted diseases.
- If all women began prenatal care in the first trimester of pregnancy, the number of LBW babies would be reduced by an estimated 12,600 per year.
- LBW is associated with a significant risk of cerebral palsy,

mental retardation, retinopathy, prematurity, bronchopulmonary dysplasia (BPD), cerebral hemorrhage, deafness, autism, and epilepsy.

- The United States was ranked worse than 21 other countries in the percentage of LBW babies born in 1993.
- The high percentage of babies born of LBW in the United States is an indicator of the ineffectiveness of our healthcare system to identify and treat women at high risk.
- Hospital-related costs for LBW infants each year total over \$4 billion, at an average of \$21,000 per infant. This makes up 35 percent of the total cost for all newborns.

SMOKING

- About 12 percent of all pregnant women smoke throughout their pregnancies.
- If smoking during pregnancy were eliminated, infant mortality could be reduced by 10 percent and LBW by 25 percent.
- Women who smoke double the risk of having a LBW baby and double the risk of placental complications.
- Health care costs during the first year of life for infants born of LBW attributable to maternal smoking total more than \$1 billion.
- Smoking during pregnancy is closely associated with premature birth, increased respiratory problems in infants, and Sudden Infant Death Syndrome (SIDS).

FETAL ALCOHOL SYNDROME (FAS)

- FAS is characterized by growth retardation, cerebral involvement, and facial abnormalities.
- FAS is the leading preventable cause of birth defects and mental retardation.
- FAS is estimated to occur in the United States in one to two infants per 1,000 live births, and, for every child born with FAS, 10 more suffer from alcohol-related problems.
- Minor or major abnormalities can be seen in about one-third of the infants born to women who drank heavily during pregnancy, compared to 9 percent for nondrinkers. (Heavy drinking is defined as an average of 1 oz. or more of alcohol per day.)

- One in 30 pregnant women reports “risk drinking.”

TEENAGE PREGNANCIES

- In 1996, teenage pregnancies accounted for approximately 500,000 births or about 13 percent of all births. Another 264,000 teenage pregnancies resulted in abortions, miscarriages, or stillbirths.
- Teenage mothers are more likely to get inadequate prenatal care and are at a higher risk of poverty, inadequate weight gain, alcohol or drug use, and a nutritionally inadequate diet. All of these factors are associated with infant mortality and LBW.

DRUG ABUSE

- One recent estimate found that one in five pregnant women, or approximately 740,000 women, use one or more illegal substances during pregnancy.
- Studies have found that cocaine use among pregnant women ranges from 8 to 18 percent. Nationally, the additional medical expenses for infants who have been exposed to cocaine in utero total an estimated \$504 million per year.
- One study estimated that there are about 9,000 births per year to narcotic-addicted women.

AIDS

- In the United States, an estimated 6,000 to 7,000 women with HIV give birth each year.
- About one-third of babies born to HIV-positive mothers will develop AIDS by 18 months of age.
- AIDS is the ninth leading cause of death for children one to four years old, and it is likely to increase to one of the top five causes.

PRENATAL CARE

- Comprehensive early prenatal care is the best method for preventing infant mortality, since many birth defects develop in the first few months of a pregnancy. Up to 25 percent of all infant deaths could be prevented if pregnant women received adequate prenatal care.
- 1.3 million women receive insufficient prenatal care each year.

- The Alan Guttmacher Institute, a reproductive health research organization, reports that 16 percent of women who give birth in the United States receive inadequate prenatal care (defined as beginning in the fifth month of pregnancy or later) or make less than half the number of visits recommended by the American College of Obstetricians and Gynecologists (every four weeks for the first 28 weeks, every two to three weeks until 36 weeks, and weekly thereafter).
- Countries that have lower perinatal mortality and morbidity rates than the United States have carefully organized and universally available primary care for mothers during pregnancy and established mechanisms for referral of mothers and infants from primary care institutions to district or center hospitals when needed. They place less emphasis on tertiary or intensive care of infants because of the relatively low demand for such services. By contrast, health services in the United States place great emphasis on specialized hospital services for the newborn, while primary care services available during pregnancy are disorganized and inconsistent. The number of newborns who require intensive, in-hospital care is inversely related to the quality and availability of primary services, as well as to the general health status of the mother before pregnancy (from Neonatal Perinatal Medicine).
- In a joint CDC and Chinese study, researchers found that women who took 400 ug (0.4 mg) of folic acid daily at least 80 percent of the time before and in the early stages of pregnancy reduced their risk of having a neural tube defect-affected pregnancy by 85 percent.

CURRENT BIRTH DEFECT MONITORING SYSTEMS

- Birth defect monitoring systems hold enormous potential for tracking down the causes of birth defects. Unfortunately, few states have birth defect monitoring systems. Those states that do have programs include California, Iowa, New York, Texas, and Georgia.
- The monitoring systems that do exist suffer from delays in ascertainment, investigation, data entry, and analysis. On a national scale, the Birth Defect Monitoring Program, in operation since 1974, currently accesses only hospital discharge summary data and only on about 20 to 30 percent of U.S. births each year.