

Arizona Birth Defects Monitoring Program 1997, 1994 Report:

In 1997, there were 1,401 infants with a reportable defect among the 75,563 live births and 637 stillbirths.

The most common defects were pyloric stenosis, orofacial clefts, obstruction of kidney/ureter, Down Syndrome, microcephaly, and hip dislocation.

Between 1986 and 1997, there has been no change in the rate of neural tube defects (anencephaly, spina bifida, or encephalocele).

Rates of orofacial clefts were statistically elevated between 1986 and 1997 in Apache and Navajo counties.

Arizona Birth Defects Monitoring Program 1995 Report:

There were 1,386 children with a reportable birth defect born to Arizona residents in Arizona in 1995, out of 72,386 live births and 497 still births. Arizona's birth defect rate is 19.0 cases per 1,000 births in 1995, which is 4.05% higher than the rate for 1992.

The most common defects were pyloric stenosis, oral clefts, obstruction of kidney/ureter, Down Syndrome, dislocation of the hip, and microcephaly.

All rates of birth defects were highest among 35 years of age and older. Trisomy 21 increased with maternal age but highest rates for gastroschisis was among young mothers.

The distribution of birth defects varied by race and ethnicity. Highest rates of microcephaly was observed among Native Americans. Pyloric stenosis rates were found highest among the Hispanics, followed by Blacks and Whites. Spina bifida was most common among Hispanics.

Analysis of birth defects rates for 1986 to 1992 and 1995 by county follow the same pattern observed in 1992, where Gila county had the highest rates of congenital anomalies and Greenlee and La Paz, the lowest.

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Arizona Birth Defects Monitoring Program 1991 Report:

For 1991, the overall birth defects rate was 31.4 per 1,000 births, including the minor defects, not reported in 1992 and 1995. This means that there were 2,148 children with a reportable birth defect born to Arizona residents, out of 68,040 live births and 409 still births. The most common birth defects observed were pyloric stenosis, microcephalus, oral clefts, dislocation of hip, and Down syndrome.

Race/ethnicity patterns indicate that the incidence rate for microcephalus was highest among Native Americans and Blacks in 1991 at 57.42/10,000 live births and fetal deaths and 43/10,000 live births and fetal deaths. In contrast, Whites and Hispanics had the highest incidence rates for pyloric stenosis. Hispanics were found to have the highest incidence of spina bifida (5.89/1000 live births and fetal deaths) , the most common neural tube defect, compared to Whites (3.38/10,000 live births and fetal deaths). Down Syndrome incidence rates among Native Americans (19.68/10,000 live births and fetal deaths) exceed the rates for Hispanics and Whites in 1991 by 33.6 and 99 percent respectively.

Analysis of the maternal age patterns show that all observed rates for birth defects were highest among women 35 years of age and older. Down Syndrome rates for women 35 years of age was 4 per 1,000 live births and fetal deaths, in contrast to 1 per 1,000 live births and fetal deaths among women who are less than 20 years of age. One exception to this pattern was observed rates for gastroschisis where the highest rates were among women who were between 20 and 24 years of age (0.8/1,000 live births and fetal deaths) and women who were less than 20 years of age (0.7/1,000 live births and fetal deaths).

An examination of birth defects data by county was first carried this year. Due to small numbers, this was done by the aggregation of birth defect cases by county for the years 1986 through 1991. Gila county exhibited the highest rate of congenital anomalies at 26.97/1,000 live births.

Arizona Gastroschisis Report 1986-1996:

Using data obtained from the Arizona Birth Defects Monitoring Program, this report describes the incidence rate of gastroschisis in Arizona between 1986 to 1996 and compares these rates to the national rate. In addition, the report discusses whether there had been a significant change in the incidence rate of gastroschisis between 1986 and 1996.

Increase over time in gastroschisis incidence was measured in two ways. First, data was grouped into two time periods, 1986-1990 and 1991-1996 and analyzed using the proportions test. Second, using a chi square trend (Mantel extension) test, odds in successive groups increase or decrease was compared to the baseline. The baseline data was the 1986 cases. Defect rates and 95% Poisson confidence intervals for the years 1986 through 1996 were also presented.

The results of the study that Arizona's statewide gastroschisis rate for 1986-1996 is 3.3 cases per 10,000 live births, which is slightly higher than the national rate of 2 cases per 10,000 live births. The proportions test indicate that a statistically significant increase in cases had occurred between 1986-1990 and 1991-1996 time periods. In addition, the chi-square test for trend (Mantel extension) show that a significant linear increase in cases over the eleven year period (1986 to 1996). It was recommended that gastroschisis rates be continually monitored and compared with the rates of other states.