

Will County Health Department

Cancer Incidence, Childhood Cancer Mortality, Infant Mortality, Low Birth Weight (LBW) and Congenital Anomalies in Will County and Braidwood, IL

Cancer Incidence & Mortality:

- According to the US census data, the population of Braidwood grew by 45% in the 10 year period from 1990 to 2000. During the same time period the population of Will County grew by 40%.
- Therefore, it is not surprising that cancer incidence in Braidwood increased by 40% during the period 1998 to 2002 (108 total diagnosed cancer) compared to the period 1993 to 1997 (77 total diagnosed cancer). During the same time period cancer incidence increased by 31% in Will County (9408 in 1998-2002 and 7211 in 1993-1997).

| Year 1993-1997 | Illinois | Will | Braidwood |
|--|--------------|--------------|-----------|
| Male Count | 1,39,585 | 3,603 | 45 |
| Male Rate (age-adjusted rate) | 578.4 | 536.5 | N/A |
| Female Count | 1,35,561 | 3,608 | 32 |
| Female Rate (age-adjusted rate) | 418.2 | 403.7 | N/A |

| Year 1998-2002 | Illinois | Will | Braidwood |
|--|-----------------------|---------------------|-----------|
| Male Count | 1,47,507 | 4,783 | 59 |
| Male Rate (age-adjusted rate) (% increase compared to 1993-1997) | 577.2 (0% ↑) | 564.2 (5% ↑) | N/A |
| Female Count | 1,44,234 | 4,625 | 49 |
| Female Rate (age-adjusted rate) (% increase compared to 1993-1997) | 427.4 (2.2% ↑) | 420.1 (4% ↑) | N/A |

- According to one study (<http://www.idph.state.il.us/cancer/pdf/article.pdf>) conducted for pediatric cancer incidence of two age groups, children ages 0-19 and 0-4, and the proximity to nuclear facilities in Illinois during the years 1990-1997, no statistical significance was observed between the two groups for all diagnostic cancer groups combined and for specific major diagnostic groups. This evaluation of pediatric cancer incidence and the proximity to nuclear facilities in Illinois failed to find a significant and meaningful cancer incident rate for Illinois children residing in counties with nuclear facilities as compared with those in comparable counties without such facilities.
- Pediatric cancer incidence and mortality rates for nuclear facility county group (NFCG) or nuclear facility ZIP code group (NFZG) were not significantly different from those for their comparison groups. In addition, there was no evidence of any increased trend in cancer incidence rates after the startup of nuclear power plants. The study showed that proximity to nuclear power plants was not a significant indicator of variation of cancer incidence. This study confirmed research findings reported previously in Illinois. However, continued monitoring of cancer risk in the concerned area is warranted. (Qiao B, Lehnerr M, Shen T. Pediatric Cancer Incidence and Mortality in the Vicinity of Nuclear Power Plants in Illinois. Epidemiologic Report Series 06:01. Springfield, IL: Illinois Department of Public Health, January 2006.)

Data Sources:

Illinois Cancer Registry
Illinois Department of Public Health, Division of Vital Statistics

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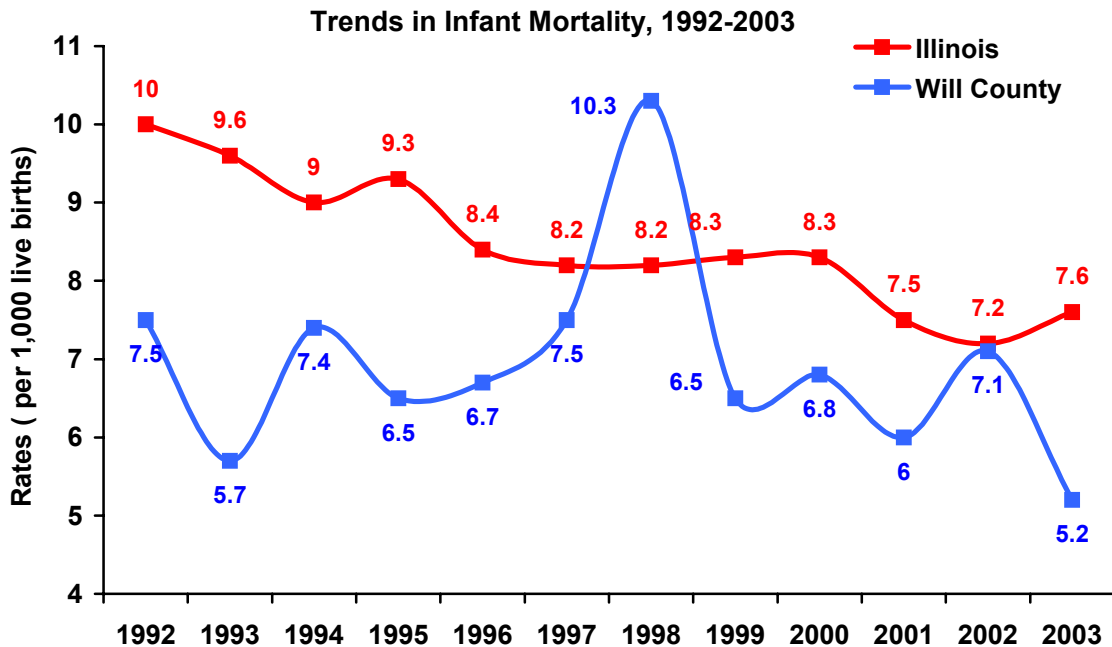
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- No children in Braidwood under age 15 have died due to cancer since 1994.
- Mortality due to cancer continues to decline in Braidwood since 2000.

| <u>Year</u> | <u>Total Deaths due to Cancer</u> |
|-------------|-----------------------------------|
| 2000 | 14 |
| 2001 | 15 |
| 2002 | 11 |
| 2003 | 11 |

Infant Mortality:

- No infants have died in Braidwood since 1996 of any cause. Only 2 infants have died in Braidwood in the 10 year period from 1991 to 2001. Will County's infant mortality rate has declined and is at the lowest in a decade (from 7.4 in 1994 to 5.2 in 2003).



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Low Birth Weight (LBW):

- Percentage of Low Birth Weight (weight < 2500 grams) babies born in Braidwood has shown periodic increases and decreases over a 10 year period from 1993 to 2003. About 70% of all LBW babies are born preterm before 37 completed weeks of pregnancy. Some of the risk factors for preterm birth are; carrying more than one baby such as twins or triplets, previous preterm birth, smoking or exposure to second hand smoke, stress, infection (some infections in pregnant women, such as bladder or vaginal infections, can cause premature labor), stressful work conditions, exposure to harmful substances and previous abortions etc.

| Year | 2003 | 2002 | 2001 | 2000 | 1999 | 1998 | 1997 | 1996 | 1995 | 1994 | 1993 |
|-------------------------|----------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|
| Braidwood LBW% | (3/70) 4.3% | (9/65) 13.8% | (8/76) 10.5% | (3/71) 4.3% | (8/71) 11.3% | (9/85) 10.6% | (7/52) 13.5% | (6/70) 8.6% | (4/65) 6.2% | (4/57) 7.0% | (4/45) 8.9% |
| Will County LBW% | 7.6% | 7.4% | 7.1% | 7.2% | 7.0% | 7.2% | 6.8% | 6.6% | 6.4% | 6.2% | 6.6% |

Congenital Anomalies:

- Will County's Congenital anomalies rate have always been low compared to surrounding counties and Illinois. Congenital anomalies may be hereditary, which means a defect in a certain chromosome that causes a certain disease, the presence of hereditary disease in the mother or father's family, maternal infection with certain organisms during pregnancy or activation of certain organisms that affected the mother before pregnancy, drug abuse during pregnancy, diabetes (is the cause of 70% of the congenital anomalies), pregnancy after 40 years of age and many more.

| | Illinois | | Will County | |
|------------------|----------|-------------------------------|-------------|-------------------------------|
| | Count | Rate (per 10,000 live births) | Count | Rate (per 10,000 live births) |
| 1998-2002 | 5,951.6 | 325.5 | 262 | 319 |
| 1993-1997 | 5,512.0 | 296.5 | 170.2 | 263.5 |

5 year average rate and average number per year

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