



Health Data and Vital Statistics

Douglas County Health Department
Richard Schultz, Supervisor



Purpose

- ✧ Administer the issuance of birth and death certificates for Douglas County
- ✧ Compile, analyze, and disseminate health statistics related to Douglas County
 - ✧ Assist various DCHD programs
 - ✧ Community Partners

Organization

✧ Birth and Death Certificates

- ✧ File over 12,000 Birth Certificates and 5,000 Death Certificates annually in Douglas County. Issue certified copies to the public.

✧ Health Data Statistical Analysis

- ✧ Compile, analyze, and disseminate Vital Statistics, BRFSS, PRAMS, STD, PPOR and other public health related data
- ✧ GIS mapping, Tables, Graphs
- ✧ Publish to Website
- ✧ Prepare formal reports

Birth Certificates

Filed 100% Electronically since 2005

✧ Key Information

- ✧ Age, Race, Marital Status of Mother
- ✧ Length of Gestation
- ✧ Month of entry to PNC
- ✧ Birth Date, Weight, Gender
- ✧ Birth Order
- ✧ Medical and Lifestyle Risk Factors of Pregnancy
- ✧ Complications of Labor and Delivery
- ✧ Congenital anomalies



*Certified
Born*

Death Certificates

Approx. 20% filed Electronically since 2005.

- ✧ Mortality Data is a Primary Measure of a Population's Health
 - ✧ Age, Sex, Race, Birthplace
 - ✧ Marital Status, Parents
 - ✧ Occupation & Education
 - ✧ Location and Method of Interment
- ✧ Cause of Death – 282 causes
 - ✧ Immediate cause of death
 - ✧ Underlying cause of death
 - ✧ Intermediate cause of death
 - ✧ Other contributing conditions



Vital Statistics Data Analysis

- ✧ Coordinate with state NHHS vital stats system which is the central repository of vital stats in Nebraska.
- ✧ Publish public health data specific to Douglas County from NHHS system.
 - ✧ Dozens of tables on birth and death statistics and demographics by age, sex, race, census tract, birth weight, prenatal care, teen births, causes of death or injury, etc.
 - ✧ Multi-year trends
 - ✧ Use Geographic Information System (GIS) to analyze implications of public health data related to location
 - ✧ Publish data on the web at <http://www.douglascountyhealth.com/statistics/index.html>

Vital Stats Data-Table

Summary of Birth Statistics of Douglas County Residents by Year										
Douglas County, NE 1998 - 2007*										
	2007 [†]	2006 [†]	2005	2004	2003	2002	2001	2000	1999	1998
Live Births	8,477	8,420	8,125	8,343	7,987	7,962	7,698	7,558	7,133	7,090
Sex:										
Male	4,304	4,320	4,093	4,290	4,156	4,030	3,937	3,860	3,629	3,688
Female	4,173	4,100	4,033	4,053	3,831	3,932	3,761	3,698	3,504	3,402
Race:										
White, not Hispanic	5,132	5,144	5,124	5,512	5,328	5,374	5,322	5,297	5,060	5,144
Black, not Hispanic	1,300	1,253	1,164	1,184	1,118	1,100	1,086	1,103	1,013	988
American Indian, not Hispanic	138	127	94	83	71	67	69	80	89	77
Asian, not Hispanic	281	289	245	231	221	209	184	203	180	152
Other, not Hispanic	114	100	47	8	3	5	1	4	17	3
Hispanic	1,511	1,520	1,451	1,324	1,246	1,207	1,036	871	774	726
Unmarried Births	3,306	3,111	2,896	2,893	2,716	2,596	2,465	2,394	2,221	2,109
Mothers, Age 17 & Less	285	243	257	262	252	288	290	283	291	279
Low Birthweight	657	696	644	654	612	610	600	590	537	532
Very Low Birthweight	128	116	101	131	108	116	122	109	93	115
Twin Live Births	322	287	273	313	293	282	238	219	228	217
Triplet Live Births	21	12	9	44	17	18	33	12	24	20
Quadruplet Live Births	2	2	2	4	0	0	4	0	4	4
Birth Rate**	17.1	17.1	16.8	17.4	16.7	16.8	16.4	16.3	15.5	15.6
Fertility Rate***	80.6	79.9	77.3	79.4	75.0	75.0	72.5	71.2	67.2	66.8

* 2006 and 2007 figures are provisional.

** Birth Rate is defined as the number of live births per 1,000 total population.

***Fertility Rate is defined as the number of live births per 1,000 females 15-44 years of age.

Rates are determined using population estimates from Woods & Poole Economics.

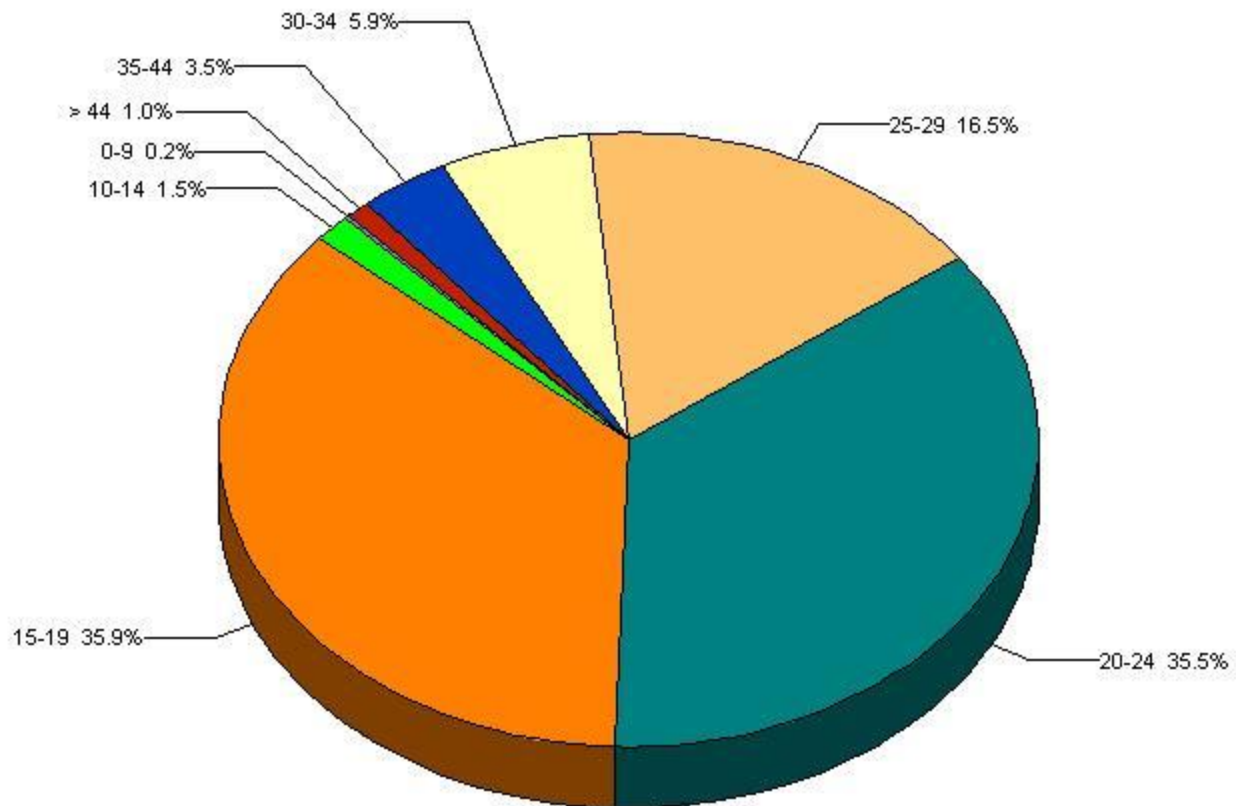
Source: NeDHHS Vital Statistics.

Douglas County Health Department 02/27/2008

Vital Stats Data- Pie Chart

Chlamydia Cases By Age Group
Douglas County, Nebraska 2007

Total Cases = 2,777

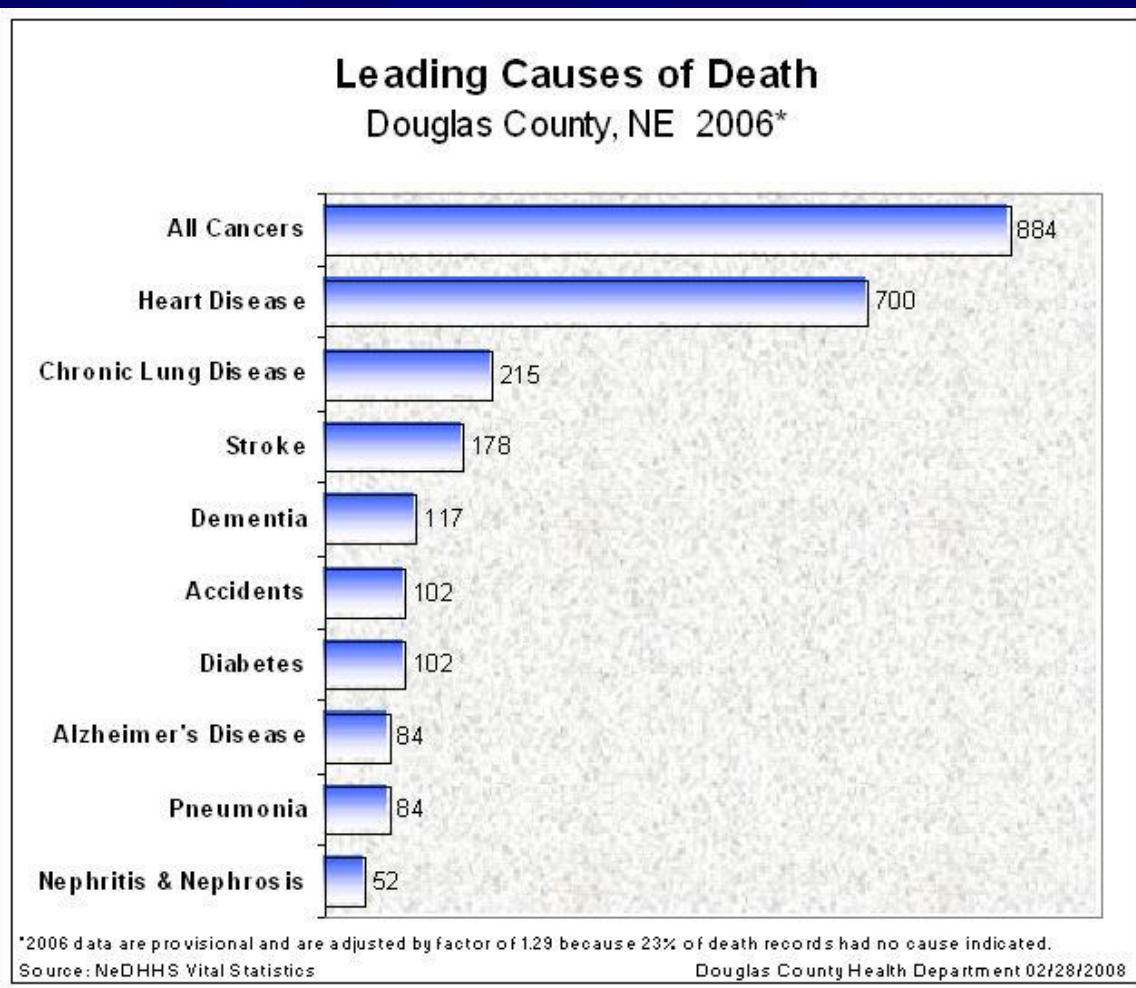


Based on Date of Diagnosis

Douglas County Health Department 03/07/2008



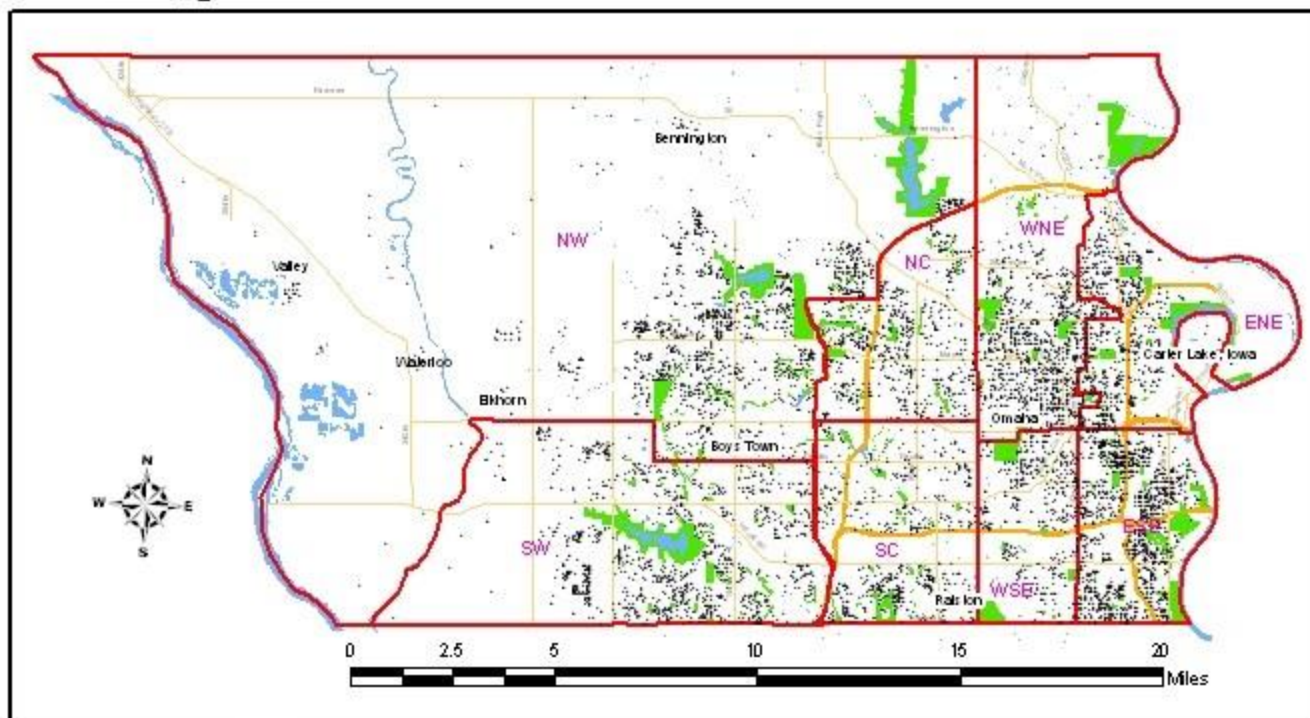
Vital Stats Data- Bar Graph



Vital Stats Data- Point Map



2006 Douglas County Births



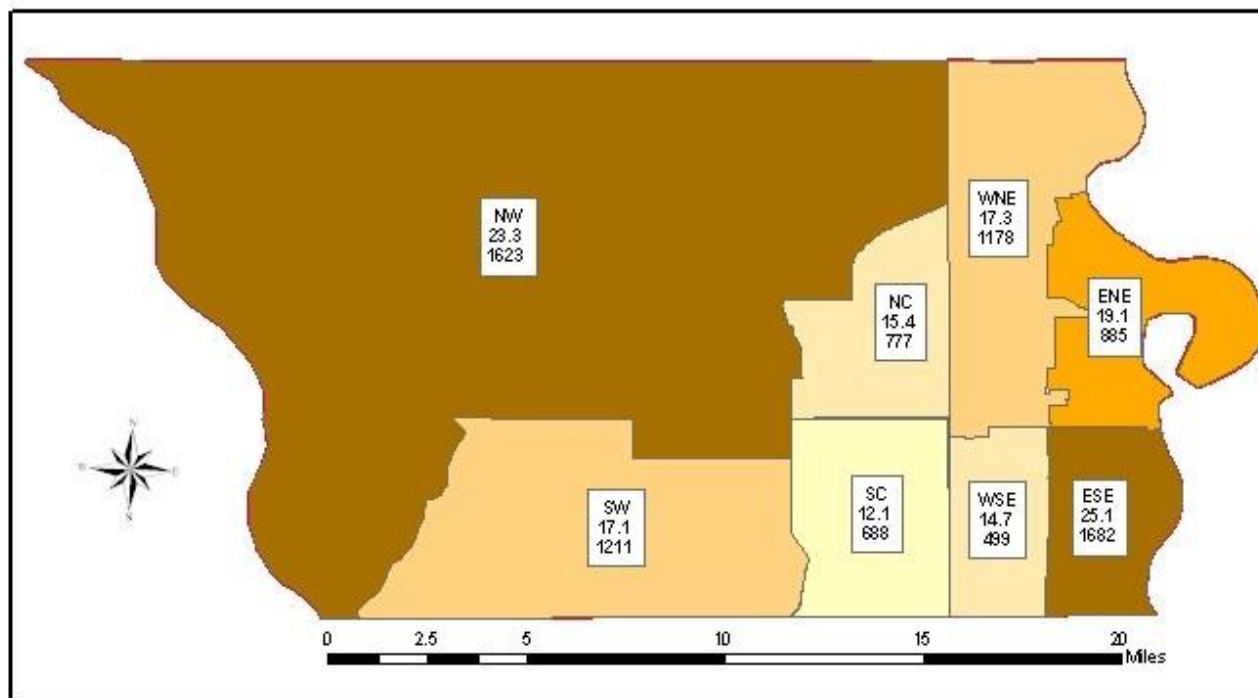
2006 Births REGION BOUNDARIES PARKS MAJOR ROADS INTERSTATES

ENE = East Northeast Region WNE = West Northeast Region NC = North Central Region NW = Northwest Region
ESE = East Southeast Region WSE = West Southeast Region SC = South Central Region SW = Southwest Region

Vital Stats Data- Region Map



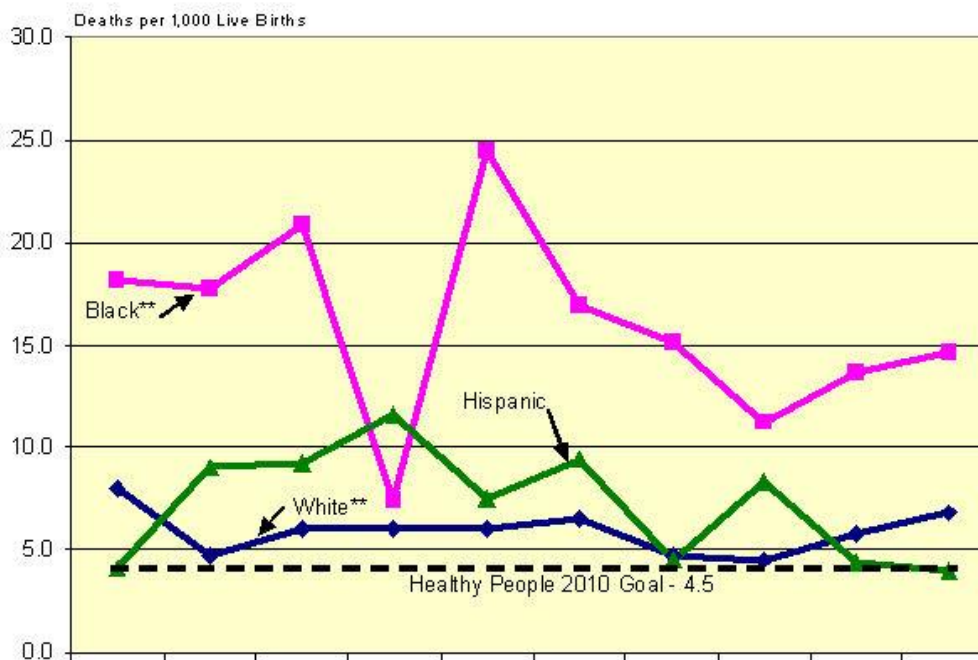
Douglas County Birth Rates and Births by Region 2006



BIRTH RATE 12.1 12.2 - 15.4 15.5 - 17.3 17.4 - 19.1 19.2 - 25.1

Vital Stats Data- Disparities

Infant Mortality Rates by Race/Ethnicity
Douglas County, NE 1998 - 2007*



	1998	1999	2000	2001	2002	2003	2004	2005	2006*	2007*
White**	8.0	4.7	6.0	6.0	6.0	6.5	4.7	4.5	5.8	6.8
Black**	18.2	17.8	20.9	7.4	24.5	17.0	15.2	11.2	13.6	14.6
Hispanic	4.1	9.0	9.2	11.6	7.5	9.4	4.5	8.3	4.4	4.0

*2007 birth and death and 2006 death data are provisional.

**White, not Hispanic; Black, not Hispanic

Source: NeDHHS Vital Statistics

Douglas County Health Department 07/29/2008

BRFSS Survey

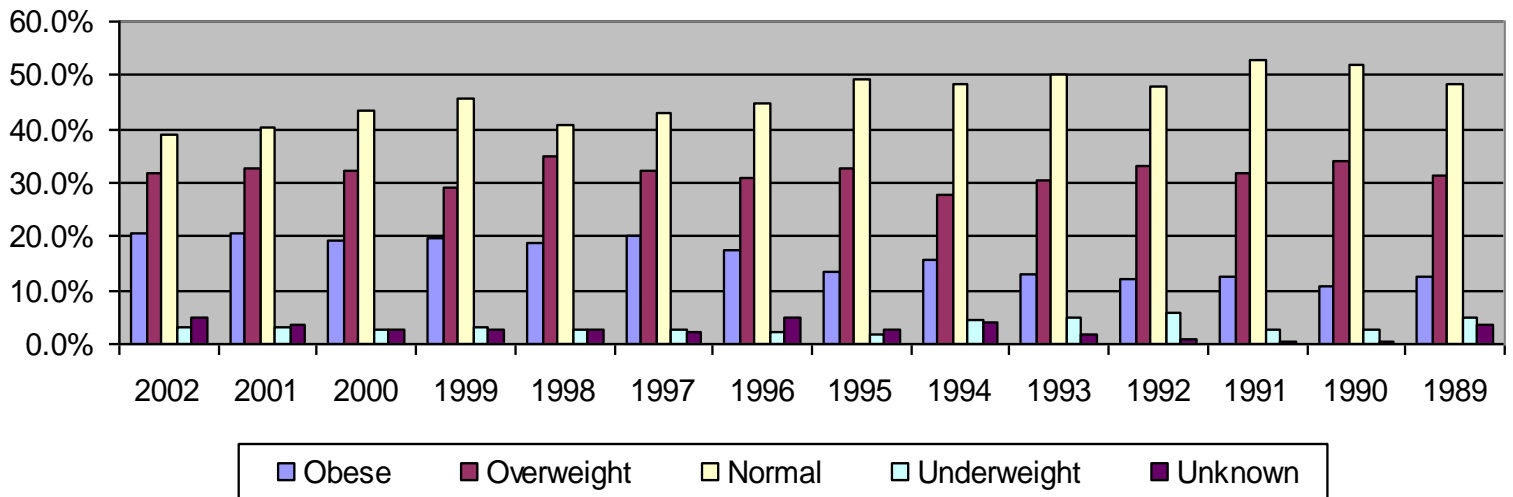
- ✧ Behavioral Risk Factor Survey System
- ✧ Nationwide telephone survey of people over 18 years old to track prevalence of personal health behaviors relating to chronic disease, and personal behavior
- ✧ CDC developed standard core questions
- ✧ Over-sample Douglas County to allow race/ethnicity analysis
- ✧ Best Source of some information

BRFSS Survey Items

- ✧ Family Planning (Pregnancy, Birth Control)
- ✧ Illness Prevention (Immunizations, Blood Pressure and Cholesterol Testing)
- ✧ Diet (Vitamins, Obesity, Weight control, Fruits/Veggies)
- ✧ Health Conditions (Asthma, Arthritis, Diabetes)
- ✧ Tobacco and Alcohol Use
- ✧ Health Care Access and Utilization
- ✧ Women's Health (Mammograms, Breast Exams)
- ✧ HIV/AIDS (Knowledge, Testing, Sexual Behavior)
- ✧ Cancer Screening

BRFSS Trend Analysis

BODY MASS INDEX CATEGORIES AS PERCENT OF POPULATION



Weight (lbs) / Height (in) squared x 703

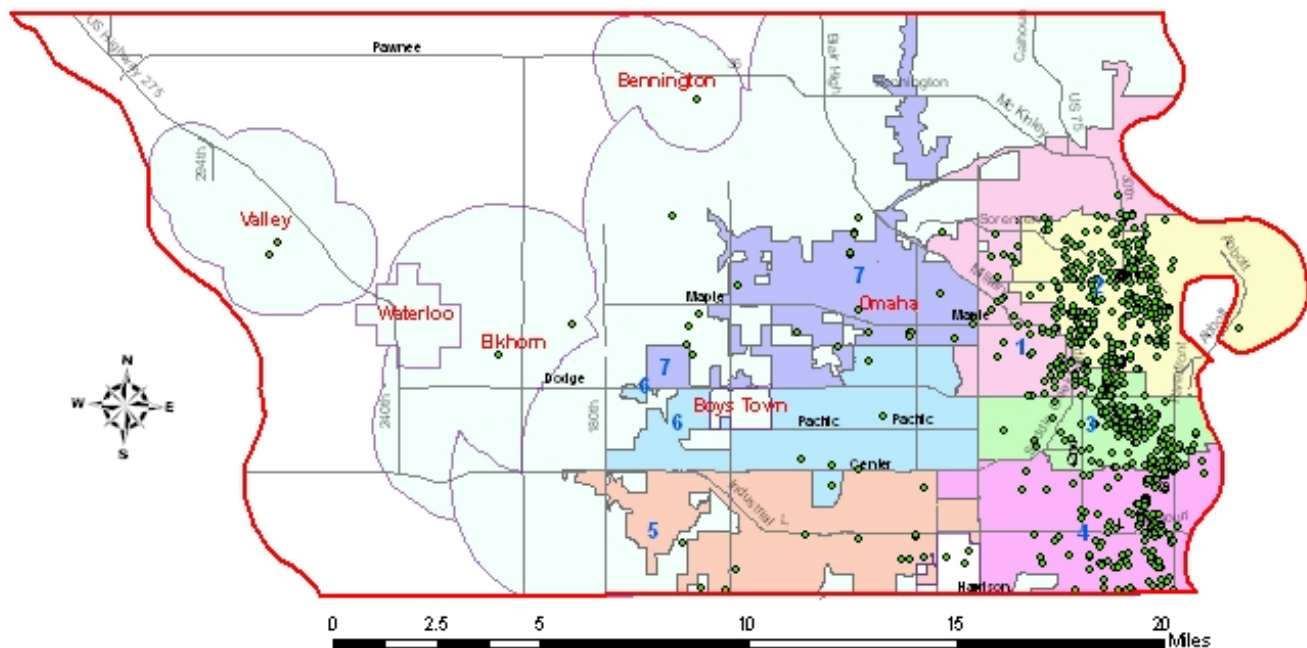
Obese = >30 Overweight 25 to 30 Normal 18.5 to 25

Health and Geography

- ✧ Provide GIS mapping support
 - ✧ Compare the distribution of people at risk versus underlying population
 - ✧ Identify concentrations community health issues from a geographic perspective
 - ✧ Monitor outcomes over time
 - ✧ Track Disease outbreaks
 - ✧ Emergency Planning

GIS in Environmental- Lead

2004-2007 EBL by Omaha Council Districts Douglas County, Nebraska



Legend

- 1: Council District 1
- 3: Council District 3
- 5: Council District 5
- 7: Council District 7

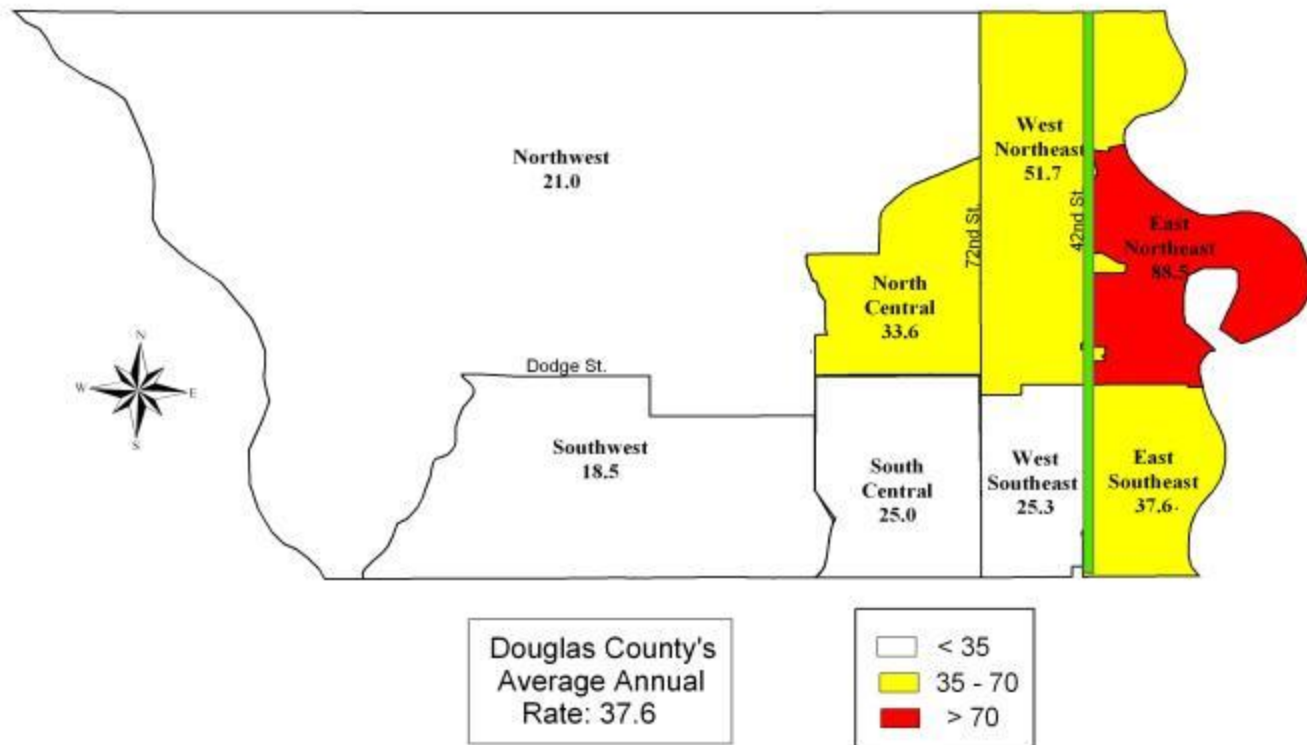


- 2: Council District 2
- 4: Council District 4
- 6: Council District 6



GIS in Health Surveillance

**Average Annual Emergency Room Visit Rates* for Asthma
By Geographic Region, Douglas County, 2000-2003**



*Rates per 10,000 population based on the 2000 Census, age-adjusted to the 2000 US Standard Population.



For More Vital Stats Information

Check our web site:

✧ www.douglascountyhealth.com

**Health Data and Vital Statistics
Douglas County Health Department
1819 Farnam Rm 403
Omaha, NE 68183
(402) 444-3542
richard.schultz@douglascounty-ne.gov**