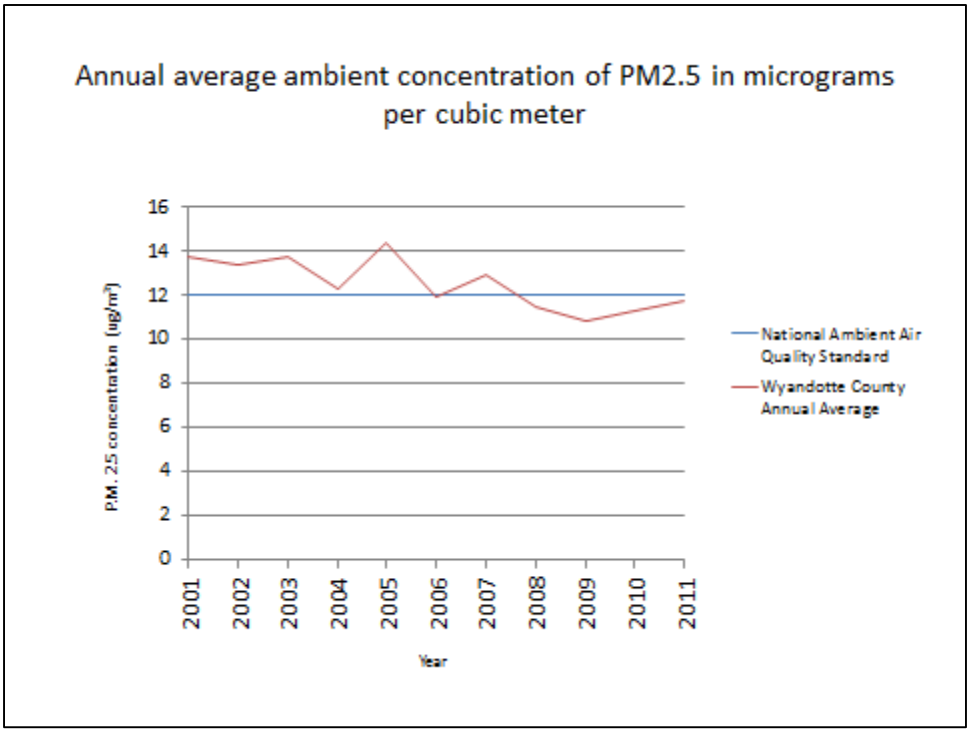
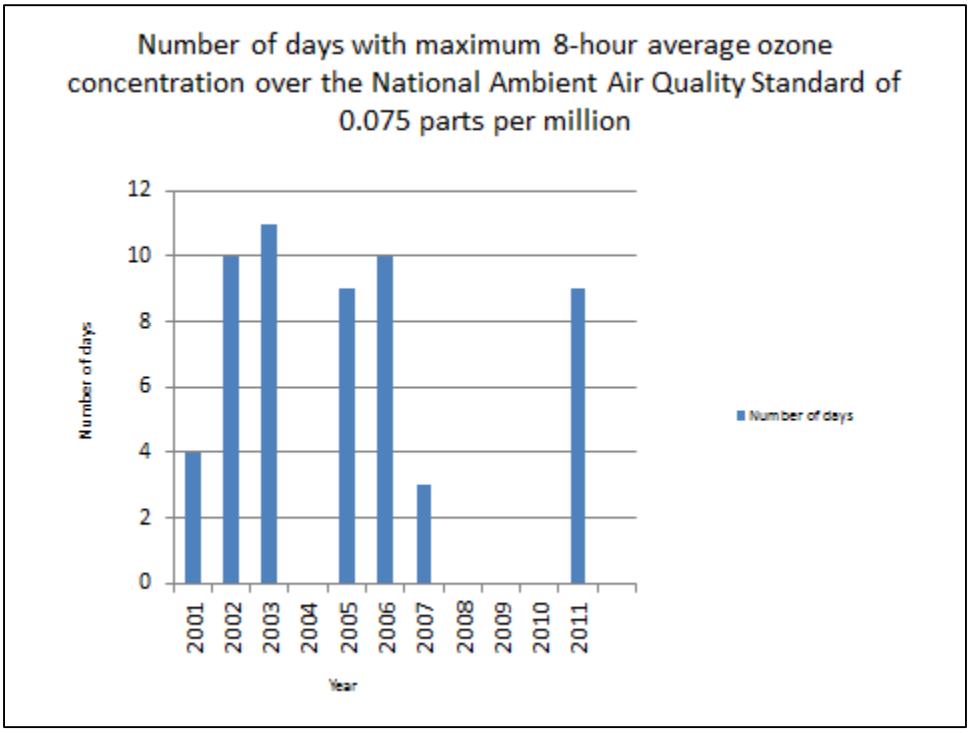
County Environmental Health Profiles
Wyandotte County, Kansas

Exposure: Outdoor Air

Air pollution means that there are substances in the air that should not be there, or should be there in smaller amounts. Two important pollutants to consider for the health of a county are fine particulate matter and ozone. Particulate matter describes particles that settle in the lungs after being inhaled. Particulate matter 2.5 ($PM_{2.5}$) refers to the size of the particles. Ozone is created as a result of emissions from vehicles and industrial facilities interacting with sunlight. Both particulate matter and ozone can trigger health problems, especially within children, the elderly, and individuals with lung disease such as asthma. The United States Environmental Protection Agency sets National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment.





Exposure: Indoor Air: Radon

Radon is a cancer-causing radioactive gas. It is tasteless, odorless, colorless, and produced naturally from the decay of uranium found in nearly all soils. Radon gas moves from the ground under and around homes through cracks and other holes in the foundation. The United States Environmental Protection Agency recommends corrective action be taken if the radon level in a home is 4 picocuries per liter (pCi/L) or higher. The only way to know what the radon level is in your home is to test.

The table below shows the average annual radon level in Wyandotte County homes in 2010 to be **4.5 pCi/L**, which is below the state average of **4.8 pCi/L**. The annual percent of radon measurements at or above 4 pCi/L for 2010 was above the state average. Wyandotte County's percent above the suggested action level was **41.9%** and the Kansas average was **41.0%**.

Exposures: Indoor Air Radon			
Indicator	**Period**	**Wyandotte County**	**Kansas**
Annual average level in tested homes (pCi/L).	2010	4.5	4.8

Annual maximum radon level reported (pCi/L).	2010	89.9	260
Annual total number of radon measurements.	2010	1,128	50,182
Annual total number of radon measurements at or above 4 pCi/L.	2010	473	20,592
Annual percent of radon measurements at or above 4 pCi/L.	2010	41.9	41.0
Source: Kansas Radon Program			

Exposure: Age of Housing

Lead is found throughout our environment. It is a naturally occurring bluish-gray metal found in small amounts in the Earth's crust. A good amount of lead in our environment comes from human activities including burning fossil fuels, mining, and manufacturing. In the United States, the most common source of exposure for lead-poisoned children is lead-based paint. Homes built before 1980 represent a potential source for lead exposure because they likely contain lead-based paint. The vast majority of homes built before 1950 contain substantial amounts of lead-based paint. The health effects of lead exposure include intellectual and behavioral deficit in children.

In 2010, **30.0%** of homes in Wyandotte County were built before 1950, compared to **25.1%** in Kansas. In 2010, the percent of homes built between 1950 and 1979 in Allen County was **50.5%**, which was higher than the **40.0%** statewide.

Exposure: Age of Housing			
Indicator	**Period**	**Wyandotte County**	**Kansas**
Number of homes built before 1950	2010	20,059	307,414
Number of homes built between 1950 and 1979	2010	33,756	489,045
Percent of homes built before 1950	2010	30.0	25.1
Percent of homes built between 1950 and 1979	2010	50.5	40.0
Source: U.S. Census Bureau			

Health Outcome: Childhood Blood Lead Poisoning

Lead poisoning is a preventable public health problem, especially in children. The United States Centers for Disease Control and Prevention now recommends that case management occur for any child with a blood lead level of 5 or more micrograms per deciliter (5 ug/dL). However, several studies have shown that there is no safe level for blood lead poisoning. Therefore, it is recommended that all children be tested for blood lead by the age of 3. Of all the children born in 2010 in Wyandotte County, **23.3%** were tested before age 3, compared to the **16.9%** of all children born in Kansas in the same year.

Health Outcome: Childhood Blood Lead			
Indicator	**Period**	**Wyandotte County**	**Kansas**
Percent of children born in the same year and tested before age 3	2010 cohort	23.3	16.9
Percent of children tested during the period with confirmed blood lead levels of 5 µg/dL or greater	2012	2.5	2.1
Source: Kansas Environmental Public Health Tracking Program, Kansas Department of Health and Environment			

Health Outcome: Carbon Monoxide Poisoning

Carbon monoxide (CO) is an odorless, colorless, tasteless gas which can cause sudden illness and even death. Carbon monoxide is produced when a fossil fuel is not burned completely. Carbon monoxide levels in the home are created by a number of different sources, including kerosene and gas space heaters, furnaces, wood stoves, generators, and other gasoline-powered equipment. Tobacco smoke also contributes to indoor CO levels.

Due to the small number of hospitalizations from carbon monoxide poisoning, the data for Wyandotte County cannot be displayed.

Health Outcome: Carbon Monoxide Poisoning			
Indicator	**Period**	**Wyandotte County**	**Kansas**

Age-adjusted rate of hospitalization for carbon monoxide poisoning per 100,000 population. §	2012	N/A	0.55 (unstable)

§ Kansas hospital discharge data. Note: Counts for the year are based on date of admission.
N/A= Statistic is "Not Available" due to very small number of events

Health Outcome: Asthma

Asthma is a chronic condition that affects the airways that carry air in and out of a person's lungs. If a person has asthma, the inside of these airways is irritated and swollen. Some people with asthma experience asthma attacks. In that case, symptoms only appear when they are exposed to something that irritates their breathing. Others have a kind of asthma that makes breathing difficult all of the time.

Wyandotte County had an age-adjusted rate of **12.2** hospitalizations for asthma per 10,000 population for the year 2012. This rate is above the state average of **8.5** hospitalizations per 10,000 population.

Health Outcome: Asthma			
Indicator	**Period**	**Wyandotte County**	**Kansas**
Age-adjusted rate of hospitalization for asthma per 10,000 population.‡	2012	18.2	8.5
Percent of adults ever diagnosed with asthma.§	2012	N/A	11.9
Percent of adults with current asthma. §§	2013	9.6	8.9
Percent of adults with active asthma with an attack in the past year. §	2011	N/A	54.1
Percent of children ever diagnosed with asthma. §	2012	N/A	13.9

‡ Kansas hospital discharge data. Note: Counts for the year are based on date of admission.
§ Kansas Behavioral Risk Factor Surveillance Survey.
§§ Kansas Behavioral Risk Factor Surveillance Survey (local Data).
N/A= Statistic is "Not Available" due to very small number of events

Health Outcome: Reproductive and Birth Outcomes

Reproduction is complex, and many factors affect a mother's ability to conceive, carry a baby to term, and deliver a baby without complications. Environmental factors such as air pollution and exposure to contaminated drinking water can increase the likelihood of low birth weight and preterm births.

The Total Fertility Rate is a measure that controls for the fact that a woman's fertility (her ability to bear children) varies over time and space. It is calculated for a cohort of 1,000 women. It is a more precise measure than the general fertility rate and allows comparison between regions and age groups.

During the 2009 to 2013 timeframe, Wyandotte County had **7.5** infant deaths per 1,000 live births. This rate was higher than the statewide rate during the same time period. From 2011-2013, Wyandotte County was above the state average for the percent of low birthweight for live, term, singleton births with **8.0%** versus the state average of **7.1%**. In 2010 the total fertility rate for Wyandotte County was **2,472.6** compared to the **2,148.8** Kansas rate.

Population: Reproductive and Birth Outcomes			
Indicator	**Period**	**Wyandotte County**	**Kansas**
Infant mortality rate per 1,000 live births ‡	2009-2013	7.5	6.4
Male to Female sex ratio§	2010	0.988	1.031
Total fertility rate per 1,000 women of reproductive age§	2010	2,472.6	2,148.8
Percent of low birthweight (less than 2500 grams) live term singleton births‡	2011-2013	8.0	7.1
‡ Kansas Department of Health and Environment § National Center for Health Statistics (NCHS). Term singleton only			

Health Outcome: Birth Defects

A birth defect is a problem that happens while a baby is developing. Most birth defects happen during the first three months of pregnancy. Major congenital birth defects are conditions present at birth causing structural changes in one or more parts of the body. A number of environmental exposures, including exposures to certain chemicals, can cause the development of birth defects.

Due to the small number of birth defects, the data for Wyandotte County cannot be displayed.

Health Effects: Birth Defects			
Indicator	**Period**	**Wyandotte County**	**Kansas**
Prevalence of anencephaly per 10,000 live births‡	2008-2012	0.0	1.7
Prevalence of cleft lip with or without cleft palate per 10,000 live births‡	2008-2012	4.2	7.6
Prevalence of cleft palate without cleft lip per 10,000 live births‡	2008-2012	Suppressed*	3.6
Prevalence of gastroschisis per 10,000 live births‡	2008-2012	Suppressed*	4.2
Prevalence of hypospadias per 10,000 live births‡	2008-2012	Suppressed*	10.8
Prevalence of trisomy 21 per 10,000 live births to mothers less than 35 years old at delivery‡	2008-2012	Suppressed*	4.6
Prevalence of trisomy 21 per 10,000 live births to mothers 35 years old or older at delivery‡	2008-2012	Suppressed*	35.8
‡ Kansas Department of Health and Environment ***** The data is suppressed to protect the privacy of the persons affected			

Health Outcome: Cancer

Cancer is a diverse group of diseases characterized by the uncontrolled growth and spread of abnormal cells. Cancer is believed to be caused by both external and internal risk factors.

During the 2007 to 2011 timeframe, the age-adjusted incidence of lung and bronchus cancer per 100,000 population for Wyandotte County was **90.8**, which was above the state average of **62.0**. Age-adjusted incidence of liver and biliary tree cancer per 100,000 population for Wyandotte County was **14.1** which was above the state average of **7.3**. Age-adjusted incidence of kidney and renal pelvis cancer per 100,000 population was **21.1** which was above the state average of **16.6**. Age-adjusted incidence of female breast cancer per 100,000 population, Age-adjusted incidence of brain cancer per 100,000 population, and Age-adjusted incidence of pancreatic cancer per 100,000 population were slightly above the state rate. All other cancers listed were at or below the state average.

Health Effects: Selected Cancer Sites			
Indicator	**Period**	**Wyandotte County**	**Kansas**
Age-adjusted incidence of female breast cancer per 100,000 female population‡	2007-2011	128.0	122.1
Age-adjusted incidence of brain cancer per 100,000 population‡	2007-2011	6.4	6.2
Age-adjusted incidence of lung and bronchus cancer per 100,000 population‡	2007-2011	90.8	62.0
Age-adjusted incidence of thyroid cancer per 100,000 population‡	2007-2011	15.6	15.6
Age-adjusted incidence of kidney and renal pelvis cancer per 100,000 population‡	2007-2011	21.1	16.6
Age-adjusted incidence of bladder cancer (in situ included) per 100,000 population‡	2007-2011	20.6	22.0
Age-adjusted incidence of leukemia per 100,000 population‡	2007-2011	12.8	13.8
Age-adjusted incidence of liver and biliary tree cancer per 100,000 population‡	2007-2011	14.1	7.3
Age-adjusted incidence of melanoma of the skin per 100,000 population‡	2007-2011	12.3	23.0
Age-adjusted incidence of pancreatic cancer per 100,000 population‡	2007-2011	12.3	10.2

‡ Kansas Department of Health and Environment

£ Unstable rate (case count less than 20)

N/A= Statistic is "Not Available" due to very small number of events

Health Outcome: Acute Myocardial Infarction

Acute myocardial infarction, or heart attacks, occurs when the vessels supplying blood to the heart become blocked. The resulting blood and oxygen shortage causes damage and potential death of heart tissue. Several factors may increase the risks of heart attacks. These factors include health, lifestyle, and environmental factors. For example, air pollution has been linked to decreases in lung function and heart attacks. In addition, research has shown that high levels of air pollution may affect people with pre-existing conditions like asthma and heart disease.

In 2012, Wyandotte County had a rate of **33.0** hospitalizations per 10,000 population, which was less than the **26.3** hospitalizations per 10,000 population rate statewide.

Health Effects: Acute Myocardial Infarction (Heart Attack)			
Indicator	**Period**	**Wyandotte County**	**Kansas**
Age-adjusted rate of hospitalization for heart attack per 10,000 population among persons 35 years old and over. ‡	2012	33.0	26.3
‡ Kansas hospital discharge data. Note: Counts for the year are based on date of admission.			

Population Characteristics

Population data, both the number of people and their location, are important for determining the impact of a disease on a community and society at large, and the trends and patterns of disease over space and time. Characteristics of the populations (sex, age, race, and ethnicity) and their socioeconomic measures (poverty) have been associated with disease incidence and prevalence.

In 2012 timeframe, the median household income for Wyandotte County was **$37,780** which is **$12,360** less than the state median household income. During the same time period, a higher percentage of people living in Wyandotte County lived in poverty than the state average.

Population: Demographic & Socioeconomic Characteristics			
Indicator	**Period**	**Wyandotte County**	**Kansas**
Estimated total population	2013	160,384	2,893,957
Median household income	2012	37,780	50,140
Percent of people aged 25 years and older with high school diploma or equivalent	2000	74.0	86.0

Percent of people in poverty	2012	23.7	14.0

Source: US Census Bureau, American Community Survey