

OCTOBER 2019 | ISSUE 2

WYCO EPI NEWS

*A quarterly e-newsletter about epidemiology in Wyandotte County
prepared by the Unified Government Public Health Department*



July-Sept. Highlights

by Elizabeth Groenweghe

Welcome to our second addition of the WYCO EPI NEWS! The purpose of this quarterly newsletter is to provide up-to-date information on the latest trends, outbreaks, and information about epidemiology in Wyandotte County.

This issue includes a request to medical providers in the community to report lab-confirmed influenza. Influenza surveillance allows local public health to better monitor influenza activity in the community. This issue also shares with you recent data about the top causes of death in Wyandotte County, including disparities in our community. Finally, a summary of the Centers for Disease Control and Prevention's newest antibiotic stewardship report is in this newsletter. As always, you will also find the updated monthly communicable disease summary at the bottom of the newsletter.

In this Issue:

- 2 Influenza Reporting
- 3-4 Top Causes of Death
- 5 Antibiotic Stewardship
- 6-7 Monthly Communicable Disease Surveillance Summary



Influenza Reporting

As influenza season approaches, the Unified Government Public Health Department's Epidemiology Program would like to remind medical providers of the Health Department's influenza surveillance system. Each influenza season, more commonly referred to as "flu season," the Epidemiology Program requests that medical providers, clinics, and hospitals report laboratory-confirmed influenza to us. We request that providers report this information for the duration of flu season, typically early October through mid-May.

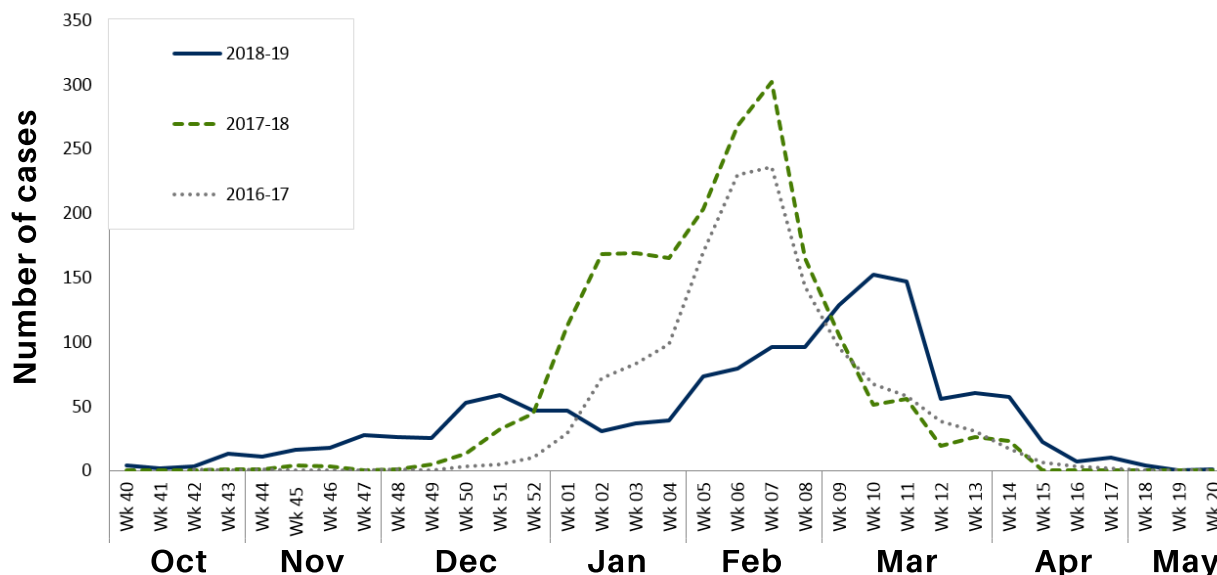
Unlike many other states, influenza reporting is on a voluntary basis in Kansas and not included in the mandatory reportable diseases regulations. Only influenza-associated pediatric mortalities and novel influenza strains are reportable by law in Kansas. However, regular reporting of influenza cases to public health serves an important purpose in surveillance activities. Using this data, the Health Department is able to track influenza activity within the county and detect any unusual increases in cases. We are also able to monitor age and geographical distributions.

Below is an example of one graph created using influenza surveillance data to compare activity between influenza seasons.

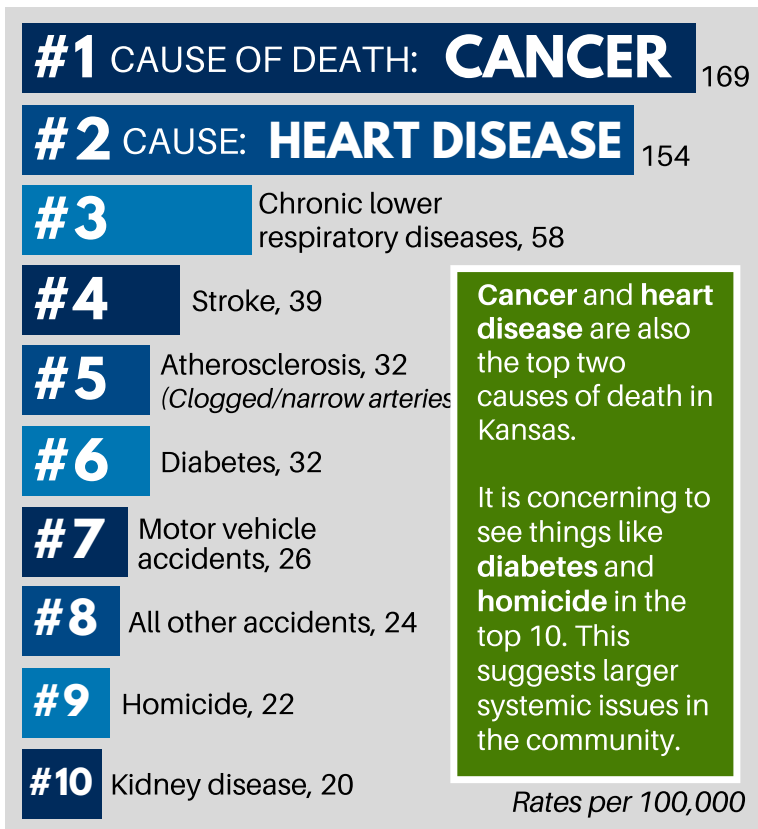
Medical providers can access the influenza form to report influenza at our website, wycokck.org/Health/Disease/Reporting. Influenza is reported aggregately, with no patient names or identifiers necessary. When filling out the reporting form, you will complete the date of diagnosis, age of patient, type of influenza (if known), and zip code of the patient. In addition, we are asking reporters to try and include information about if the patient had gotten their influenza vaccine that year. If this information is not readily available, reporters can leave this blank. It is only necessary to report lab-confirmed influenza and not patients diagnosed based on symptoms alone. Completed reporting forms can be faxed to **913-573-6744** or emailed to epidemiology@wycokck.org. To be included in the weekly influenza surveillance report, we ask that reports be sent no later than Monday at noon. Thank you for your participation in influenza surveillance in Wyandotte County!

wycokck.org/Health/Disease/Reporting

Weekly Influenza Incidence in Wyandotte County, 2016-2019



Top Causes of Death in Wyandotte County

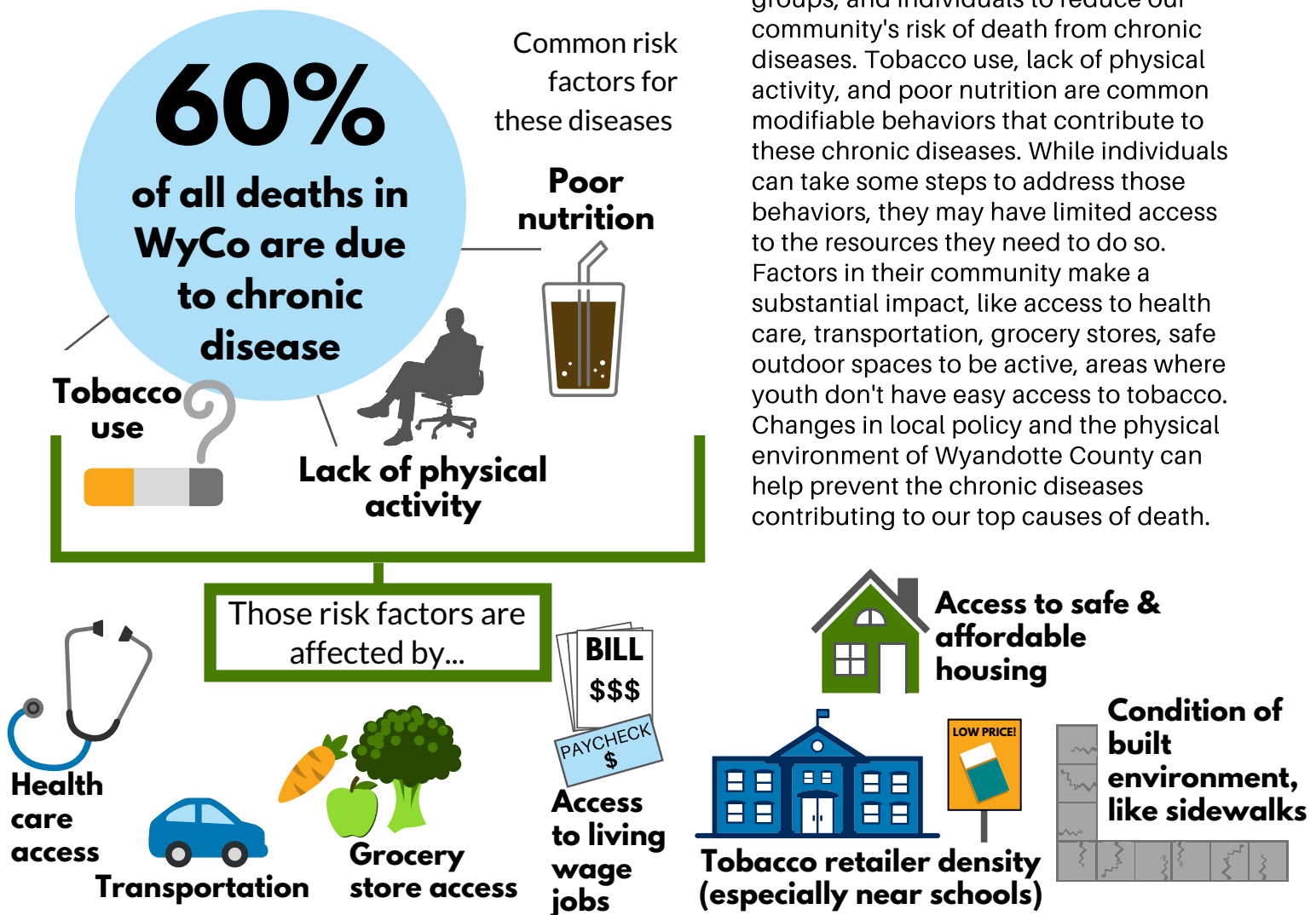


Cancer and heart disease are also the top two causes of death in Kansas.

It is concerning to see things like **diabetes** and **homicide** in the top 10. This suggests larger systemic issues in the community.

The most recent mortality data from Kansas Death Statistics revealed insights about the top causes of death in Wyandotte County in addition to some of the existing disparities. The top two causes of death in Wyandotte County are cancer and heart disease with rates of 169.1 and 153.7 per 100,000, respectively. These are also the top two causes of death in Kansas, and heart disease is the leading cause of death in the United States. The other top causes of death include chronic lower respiratory diseases, stroke, atherosclerosis, diabetes, motor vehicle accidents, all other accidents, homicide, and kidney disease.

Chronic disease accounts for 60% of all deaths in Wyandotte County. While this may seem alarming, there are measures that can be taken by area organizations, local government, neighborhood groups, and individuals to reduce our community's risk of death from chronic diseases. Tobacco use, lack of physical activity, and poor nutrition are common modifiable behaviors that contribute to these chronic diseases. While individuals can take some steps to address those behaviors, they may have limited access to the resources they need to do so. Factors in their community make a substantial impact, like access to health care, transportation, grocery stores, safe outdoor spaces to be active, areas where youth don't have easy access to tobacco. Changes in local policy and the physical environment of Wyandotte County can help prevent the chronic diseases contributing to our top causes of death.



Top Causes of Death: Disparities by Age and Race

When the death rates are broken down by age group, the differences in causes of death become more apparent. For individuals under 15, perinatal conditions are the top cause of death. Wyandotte residents who are 15-44 years old die from homicide and motor vehicle accidents most often. Furthermore, 62% of all black deaths were caused by homicide compared to 30% of all white deaths for those ages 15-24. While homicide is the number 9 cause of death for all Wyandotte residents, it primarily impacts teenagers and young adults. Cancer and heart disease are the leading causes of death for ages 45 years and older. Diabetes is the third leading cause of death for ages 45-64, which is unusual since diabetes is typically managed through treatment and support. The higher rate of death may reflect a lack of access to care, causing more complications that result in death.

The leading cause of death for 15-44 year olds in WyCo is

 **HOMICIDE**

For 25-44 year olds, motor vehicle accidents are a close 2nd on the list of top causes of death.



RACIAL INEQUITIES

62% of all black deaths ages 15-24 were caused by homicide versus 30% of all white deaths ages 15-24

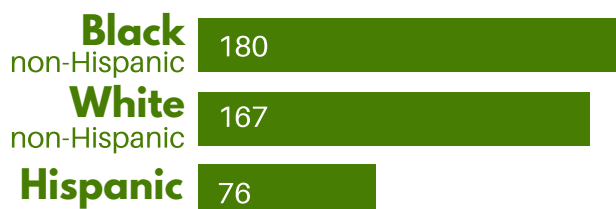
Racial and ethnic disparities are also highlighted when comparing death rates in Wyandotte County. Cancer and heart disease are the top two causes of death for blacks, whites, and Hispanics, but the rates are very different for each race/ethnicity. The cancer death rate is almost two times as high for black Wyandotte County residents (193.5 per 100,000) compared to Hispanic residents (117 per 100,000). The heart disease death rate shows even more variation by race/ethnicity with the following death rates per 100,000: black residents 180.2, white residents 166.8, and Hispanic residents 75.9. Access to care or quality of care could play a role in the differing death rates, showing the need for interventions that target specific groups with higher death rates like black residents in Wyandotte County.

#1: Cancer

Rates per 100,000



#2: Heart disease



HOMICIDE

→ **Hispanic:** #4 leading cause of death
→ **Black*:** #5 leading cause of death; death rate from homicide over 4 times as high as for white* residents

SUICIDE

→ **White*:** #10 leading cause of death; suicide death rate nearly 2 times as high as for black* residents

*non-Hispanic



Antibiotic Stewardship

Recently the Centers for Disease Control and Prevention (CDC) released their 2018 Update on Antibiotic Use in the United States as part of an ongoing antibiotic stewardship campaign. This 2018 update highlights new antibiotic stewardship data, programs, and resources as the CDC continues to work to improve antibiotic prescribing and use. Antibiotic resistance continues to rise each year and misuse and overprescribing of antibiotics by healthcare providers can contribute to this problem.

According to the CDC, at least 30% of antibiotic prescriptions are unnecessary. Prescribing practices vary by state and Kansas has one of the highest antibiotic prescribing rates with 964 prescriptions per 1,000 people in 2016. In addition, Kansas hospitals lag behind in participating in antibiotic stewardship programs. The CDC outlines seven core elements of hospital antibiotic stewardship programs and Kansas is one of the lowest with only 50% of acute care hospitals meeting all elements. These seven core elements include: leadership commitment, accountability, drug expertise, action, reporting, tracking, and education.

The 2018 CDC report also outlines opportunities for healthcare providers at all levels to improve antibiotic use. These opportunities include:

Antibiotics are often unnecessarily prescribed for common respiratory conditions in the outpatient setting.

Conditions such as the common cold or bronchitis do not need antibiotics typically. According to the report, urgent care centers prescribed antibiotics unnecessarily for respiratory illnesses 46% of the time compared to 25% in emergency rooms.

Antibiotic duration is too long in adult hospitalized patients with community acquired pneumonia.

Most adult patients need five days of antibiotic therapy for community-acquired pneumonia. However, 70% of adult patients hospitalized for this condition receive almost 10 days of treatment.

Fluoroquinolones are unnecessarily prescribed for urinary tract infections and respiratory conditions.

The report states that 5% of all fluoroquinolones prescribed were unnecessary and 20% were not the recommended first-line treatment. They are not the recommended first-line treatment for urinary tract infections but were the most commonly prescribed antibiotic for this condition. In addition, fluoroquinolones can have serious and potentially permanent side effects including damage to tendons, muscles, joints and nerves.

Nearly 70% of antibiotic courses for sinus infections were longer than recommended.

The Infectious Diseases Society guidelines recommend treating adults with uncomplicated sinus infections for five to seven days but 70% of prescriptions were for 10 days or longer.

The CDC continues to work to improve antibiotic use in the United States and mitigate antibiotic resistance. The CDC has a number of tools to help healthcare facilities and providers implement antibiotic stewardship activities. There is an online training with free continuing education hours available, along with additional resources. To view the full report and learn more about action steps please visit:

cdc.gov/antibiotic-use/stewardship-report/pdf/stewardship-report-2018-508.pdf

Monthly Communicable Disease Surveillance Summary

June-August 2019

Disease Name	June 2019	July 2019	August 2019
Enteric Diseases			
Campylobacteriosis	2	1	1
Cryptosporidiosis	1	0	0
E. coli (STEC)	0	0	0
Giardiasis	0	0	0
Listeriosis	0	0	0
Salmonellosis	0	0	0
Shigellosis	1	0	0
Hepatitis Diseases			
Hepatitis A	0	0	0
Hepatitis B, acute	1	0	0
Hepatitis B, chronic	1	2	6
Hepatitis B, pregnancy event	1	1	1
Hepatitis C, Chronic	9	13	12
HepatitisC, acute	0	0	1
Respiratory Diseases			
Haemophilus influenzae, invasive disease	0	0	1
Legionellosis	3	1	1
Measles	0	0	0
Mumps	0	0	0
Rubella	0	0	0
Pertussis	3	0	2
Streptococcal Group A, invasive	0	0	0
Streptococcus pneumoniae, invasive	1	1	0
Varicella	0	0	1
Vector-borne Diseases			
Lyme disease	0	0	2
Spotted Fever Rickettsiosis	0	1	0
Ehrlichiosis / Anaplasmosis	0	0	0
West Nile virus	0	0	0
Zika Virus	0	0	0

Monthly Communicable Disease Surveillance Summary, June-August 2019 (continued)

	June 2019	July 2019	August 2019
Other Diseases			
Acute flaccid myelitis	0	0	0
Amebiasis	0	0	0
Anthrax	0	0	0
Botulism	0	0	0
Brucellosis	0	0	0
Cholera	0	0	0
Cyclosporiasis	0	1	1
Diphtheria	0	0	0
Hantavirus Pulmonary Syndrome	0	0	0
Leprosy (Hansen disease)	0	0	0
Malaria	0	0	0
Meningitis, other bacterial	0	0	0
Meningococemia	0	0	0
Plague	0	0	0
Poliomyelitis	0	0	0
Psittacosis	0	0	0
Q Fever	0	0	0
Rabies	0	0	0
Tetanus	0	0	0
Toxic shock syndrome	0	0	0
Transmissible Spongiform Encephalopathy	0	0	0
Trichinosis	0	0	0
Tularemia	0	0	0
Typhoid fever	0	0	0

Technical Notes

Data were extracted from the Kansas electronic disease surveillance system (EpiTrax) on 10/2/2019. Case counts based on date reported to public health. Diseases marked in dark blue indicate that only cases meeting the confirmed case definition were counted; all other diseases include cases that meet confirmed and probable case definitions.

A number in parentheses and italics indicates an ongoing investigation at the time of this report. All counts are subject to revision and can increase or decrease as information becomes available.

CDC Case Definitions ([hyperlink](#))