MOPHIMS NEWSLETTER

DECEMBER EDITION

happy holidays

Bringing you the 33rd issue of the MOPHIMS Newsletter. Check out the featured article, new MOPHIMS data updates and more!

HOW ARE WE DOING?

COMMUNITY DATA PROFILES

DATA MICAS

ENVIRONMENTAL TRACKING

Featured Article

Check out the featured article on influenza and pneumonia. Follow along to discover how to build tables on graphs on death-related data.

READ MORE

EPHT

The Environmental Public Heath Tracking Program put together some winter tips and resources to help you stay protected from the elements with the right precautions and preparations.

READ MORE

STAYING HEALTHY THIS WINTER

BACK TO TOP

As 2024 comes to an end, our days begin to fill up with fun winter activities and gatherings with family and friends. But, it is important not to overlook our health amongst the hustle and bustle. The end of the year also brings colder temperatures and, with that, cold and flu season. Taking steps to stay healthy this winter can help protect against those winter illnesses, allowing us to enjoy all the fun activities.

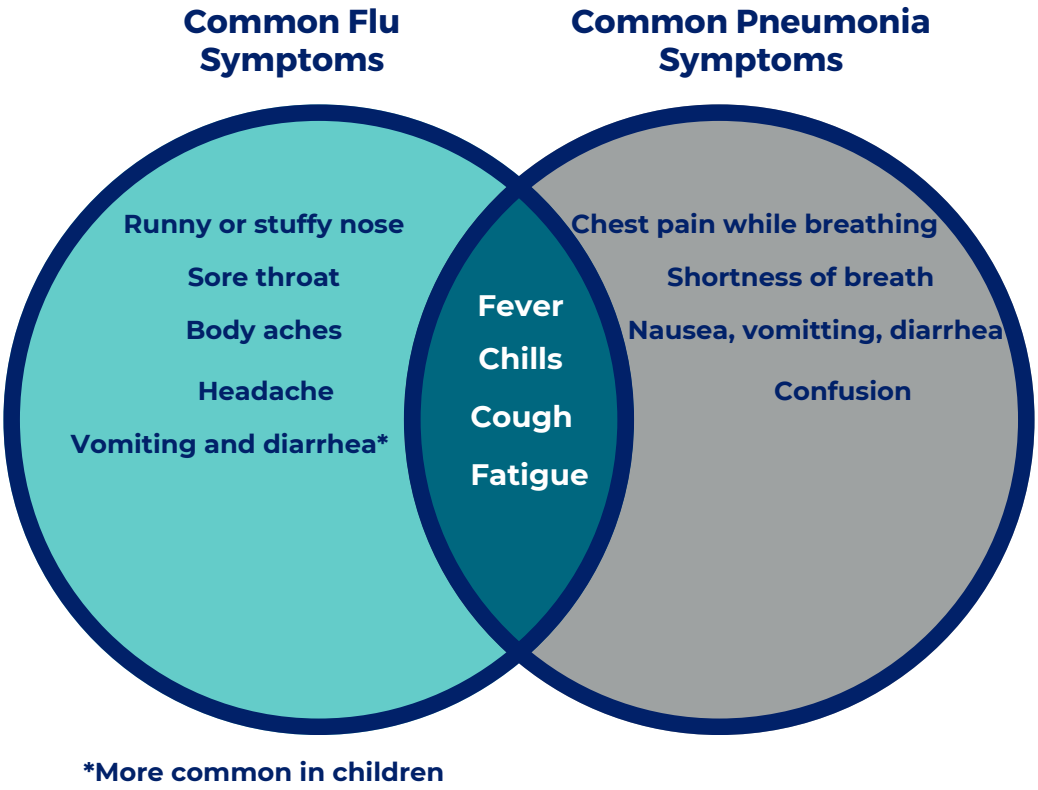
What is Influenza?

Influenza, commonly called the flu, is a respiratory illness infecting the nose, throat and sometimes the lungs. It is a contagious illness caused by four influenza viruses: A, B, C and D.[1] Influenza A and B viruses contribute to the seasonal epidemics every winter, known as the flu season. Influenza A viruses can also cause flu pandemics (i.e. global epidemics such as the Spanish flu). Influenza C virus infections typically result in mild illness and are not thought to cause human epidemics, while influenza D viruses affect cattle and other animals.[2]

What is Pneumonia?

Pneumonia is a respiratory illness that infects the lungs. Pneumonia causes the air sacs in one or both lungs to inflame and can become filled with fluid or pus.[3] A variety of germs such as bacteria, viruses and fungi (less common) can cause pneumonia. Pneumonia infections can range from mild to life-threatening. Additionally, pneumonia can be categorized by type of exposure: Community-acquired pneumonia, healthcare-acquired pneumonia during or following a healthcare stay, and ventilator-associated pneumonia occurring after being on a ventilator to support breathing.[4]

Symptoms of both the flu and pneumonia can range from mild to severe:



Individuals at Higher Risk

Although anyone can contract the flu or pneumonia, some individuals are at higher risk of having more severe complications. These groups include children (especially under the age of five), adults 65 years of age or older, pregnant women and those with prior chronic conditions (e.g. asthma, chronic heart disease, diabetes etc.).[1,4]

Influenza & Pneumonia Data on MOPHIMS

Influenza and pneumonia are listed together as a rankable leading cause of death according to the Centers for Disease Control and Prevention (CDC)/ National Center for Health Statistics (NCHS). This is due to the influenza virus being a common cause of pneumonia, especially for those at an increased risk of a more serious infection.

The following step-by-step tutorial will navigate users through MOPHIMS to take a more in-depth look at influenza and pneumonia deaths in Missouri.

First, users can take a look at the Community Data Profiles to see how many influenza and pneumonia deaths have occurred in the 2011-2021 period. Under Death Profiles, users can select the Leading Cause of Death Profile. Highlighted in yellow, Figure 1 shows the count and rate (per 100,000 residents) of Missouri residents who have died due to influenza and pneumonia. Comparing this category to the other rankable leading causes of death, influenza and pneumonia was the ninth leading cause of death in Missouri during that time.

State: Missouri

Leading Cause of Death Indicators

	Data Years	Count	Rate	Graphics Link	Download Data
Leading Causes of Death					
All Causes	2011 - 2021	681,258	836.57	Graphics	
Heart Disease	2011 - 2021	161,261	193.54	Graphics	
All Cancers (Malignant Neoplasms)	2011 - 2021	141,670	169.59	Graphics	
Lung Cancer	2011 - 2021	40,975	48.31	Graphics	
Breast Cancer	2011 - 2021	9,477	11.59	Graphics	
Colorectal Cancer	2011 - 2021	12,221	14.80	Graphics	
Chronic Lower Respiratory Disease	2011 - 2021	41,747	49.90	Graphics	
Total Unintentional Injuries	2011 - 2021	40,074	56.94	Graphics	
Accidental Poisoning	2011 - 2021	13,899	21.62	Graphics	
Motor Vehicle Accidents	2011 - 2021	10,094	14.79	Graphics	
Stroke/Other Cerebrovascular Disease	2011 - 2021	33,636	40.44	Graphics	
Alzheimer's Disease	2011 - 2021	25,663	30.48	Graphics	
Diabetes Mellitus	2011 - 2021	17,238	20.89	Graphics	
Kidney Disease (Nephritis and Nephrosis)	2011 - 2021	15,931	19.14	Graphics	
Pneumonia and Influenza	2011 - 2021	13,398	16.13	Graphics	
Suicide	2011 - 2021	11,769	17.25	Graphics	
Septicemia	2011 - 2021	9,412	11.40	Graphics	
Chronic Liver Disease and Cirrhosis	2011 - 2021	7,629	9.64	Graphics	
Other Causes of Interest					
Smoking-Attributable (estimated)	2011 - 2021	110,169	131.17	Graphics	
All Injuries and Poisonings	2011 - 2021	74,915	104.69	Graphics	
Homicide	2011 - 2021	6,236	9.82	Graphics	
Alcohol-Induced Deaths	2011 - 2021	6,248	8.31	Graphics	
Drug-Induced Deaths	2011 - 2021	15,533	24.04	Graphics	
Accidental Drug Poisonings	2011 - 2021	13,209	20.60	Graphics	
Injury by Firearms	2011 - 2021	12,458	18.64	Graphics	

After seeing that statistic, suppose a user is now interested in knowing how many of those nearly 13,400 deaths in Missouri were a result of influenza and how many were a result of pneumonia.

Using the Death MICA, users can create customizable tables and charts to reflect data on influenza and pneumonia deaths during this period.

In the Choose Your Data Section of the Death MICA, users can make the following selections:

Choose Your Data

Year: Single Year, Select 2011-2021

Age: Basic, Select All

Cause: De-select 'Select All Major Items'
Click the + next to Influenza and pneumonia# select influenza and pneumonia separately

Build Your Results

Create a Chart

Type of Chart: Pie

Variable Axis: Cause

Statistics: Counts

Create Chart

Missouri Resident Deaths

Data selected: Single Year(s): 2011-2021

Pneumonia

Influenza

Chart 1

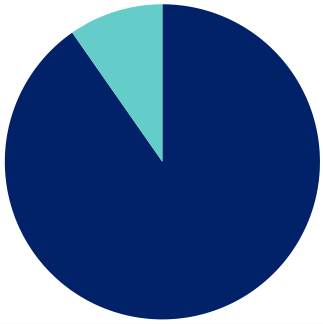


Table 1

Statistics:	Count
Cause	
Influenza and pneumonia#: Pneumonia	12,098
Influenza and pneumonia#: Influenza	1,300

Chart 1 and the associated **Table 1** show that slightly over 90% of deaths in this category are due to pneumonia while influenza accounts for just under 10% of deaths. However, it is hard to estimate how many individuals die from the flu each year. Seasonal influenza is infrequently listed on the death certificates of those who die from complications of the flu. Often, flu-related deaths occur a couple of weeks after the initial infection. This is due to an individual developing a secondary infection, or the influenza virus aggravating an existing chronic illness.[5] Often, individuals who die from the flu are not tested for the flu or tested later in their illness when the virus cannot be detected.[5] This is why we will look at the influenza and pneumonia category together.

From the ready-made Leading Causes of Death Profile, users saw from 2011 to 2021 the rate of Influenza and Pneumonia deaths was 16.13 per 100,000 residents. How much has the rate changed year-to-year over this time period? To see this, users can return to the Build Your Results section of the Death MICA and make the following changes:

Build Your Results

Create a Chart

Type of Chart: Trend Line

Variable Axis: Year

Value Axis: Statistics

Statistics: Rates

Create Chart

Missouri Resident Deaths

Chart 2

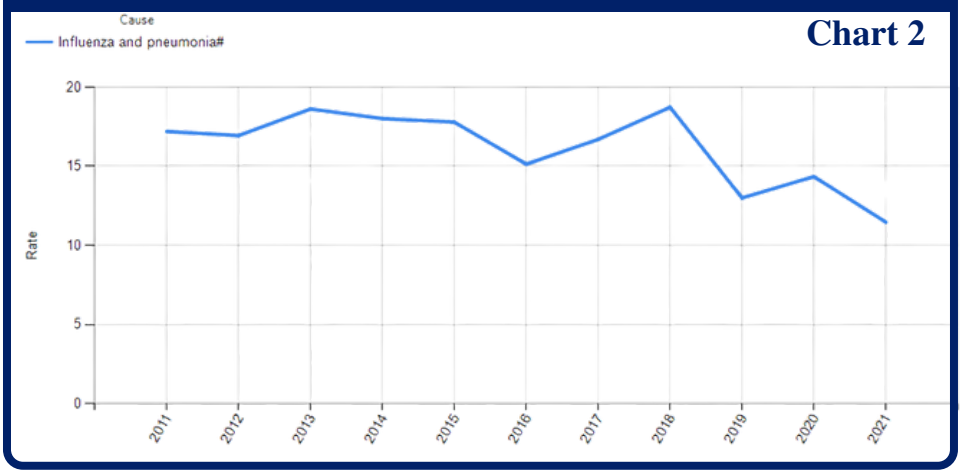


Table 2

Missouri Resident Deaths

Title:	Missouri Resident Deaths	
Data selected in addition to rows and columns below:	None	
Cause:	Influenza and pneumonia#	Influenza and pneumonia#
Statistics:	Count	Rate
Year		
2011	1,200	17.20
2012	1,211	16.94
2013	1,347	18.62
2014	1,317	18.01
2015	1,333	17.79
2016	1,149	15.14
2017	1,280	16.70
2018	1,477	18.73
2019	1,030	13.00
2020	1,169	14.35
2021	885	11.47
Rate:	Death rates are annualized per 100,000 residents and are age adjusted to the U.S. 2000 standard population.	
Source:	DHSS - MOPHIMS - Death MICA	
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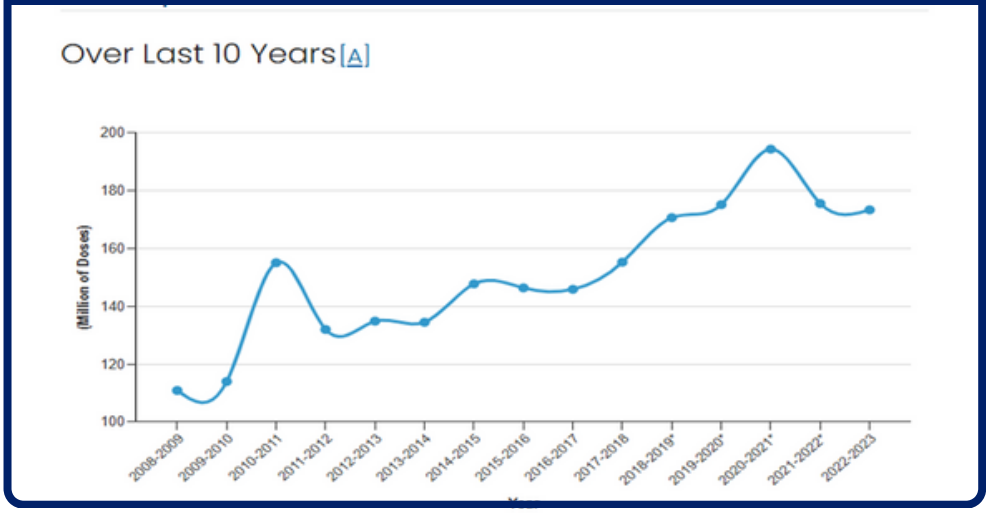
Chart 2 and the associated **Table 2** show that 2018 featured the highest influenza and pneumonia death counts and rates of the last decade. The lowest count and rate occurred in 2021 with 885 deaths and a death rate of 11.47 deaths per 100,000 residents. Flu activity was low during the 2020-2021 flu season nationwide, leading to fewer flu illnesses, hospitalizations and deaths when compared to other flu seasons.[6] Possible explanations of this decline may be due in part to the precautions taken during the COVID-19 pandemic: face masks, reduced travel, increased hand washing, social distancing and increased ventilation of indoor spaces.[6] In addition, as seen on the graph below, a record number of 193.8 million doses of the influenza vaccine were distributed during the 2020-2021 flu season.[6]

Comparison of Total Doses Distributed



HEALTHY WINTER TIPS AND RESOURCES

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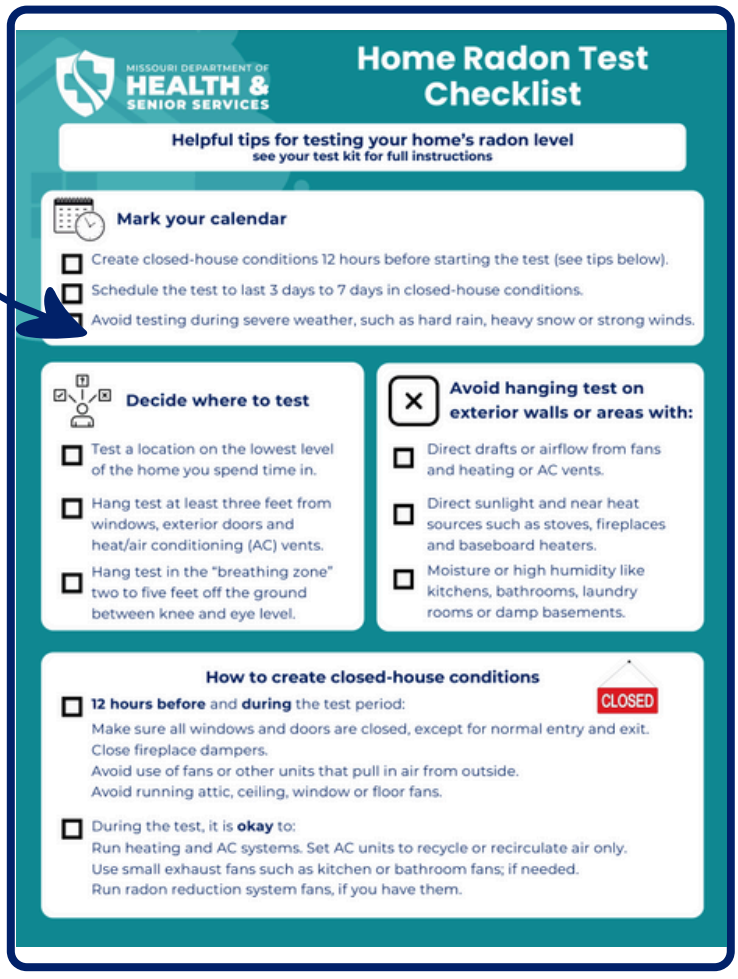
The wintertime is often joyful and challenging in equal measure. The Environmental Public Health Tracking Program (EPHT) created our "Healthy Winter" webpage to inform the public on how to stay protected from the elements with the right precautions and preparations. "Healthy Winter" emphasizes that it's best to plan ahead and inform others if you are going to get out and explore. Having someone aware when you are out is a good safety measure. EPHT also recommends that if it is too cold to be outside, watching nature from the warmth of your home is mood boosting too.

Near the top of the page, users can find resources on ways to learn the signs and symptoms of cold stress and hypothermia. EPHT also provides a link to warming centers across Missouri, which can be accessed from here: MISSOURI WARMING CENTERS. These are followed by a dropdown menu of WARMUP tips to reduce cold-related illness.

As we turn on our furnaces, fireplaces, and stoves, it's good to be aware of potential carbon monoxide poisoning. Information on installing and maintaining carbon monoxide alarms is in the middle of the webpage.

As we close our doors and windows during this time of year, winter is an ideal time to test for radon gas in our houses. Radon gas occurs naturally in the soil and rocks below our homes. It tends to travel upward and may make its way into buildings. In some situations, this radon gas may accumulate to unsafe levels that, over time, can lead to the development of lung cancer.

Scrolling near the bottom of the page, users can request a free radon test kit from the Missouri State Radon Program at the following link: REQUEST A RADON TEST KIT. Also, users can download a HOME RADON TEST CHECKLIST with tips on how to achieve the most accurate reading from test kits.



At the bottom of the page, users can browse additional links on winter storm preparedness, Missouri Department of Transportation's road condition map, and farm safety.

MISSOURI DEPARTMENT OF HEALTH & SENIOR SERVICES
Environmental Public Health Tracking
EPHTN@health.mo.gov
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MOPHIMS PRACTICE EXERCISE

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You have been asked to present on heart disease in Missouri. You decided to use the Death MICA to find demographic information on heart disease deaths by county.

Set up your query to determine the count and rate of heart disease deaths in 2021 for all 115 counties.

Hint:

Step One: Choose Your Data

Step Two: Build Your Results

Step Three: Submit Query

Step Four: Table Results

Pro Tip: Save the table as an Excel file for easier sorting

Questions:

Which county had the highest rate of heart disease deaths? _____

How many deaths were attributed to heart disease in Randolph County? _____

Heart disease death rates are annualized per _____ residents.

What is the heart disease death rate for Clay county? _____

Using the Make a Map tab under Build Your Results, create a map showing heart disease death rates for all 115 counties using rates and quartiles.

CHECK YOUR ANSWERS HERE

AVAILABLE DATA

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Maternal, Infant and Child Health MICAs

- Birth 2021
- Fertility and Pregnancy Rate 2021
- Pregnancy 2021
- WIC Child 2023
- WIC Infant 2023
- WIC Prenatal 2021
- WIC Postpartum 2021
- WIC Linked Prenatal-Postpartum 2021

Chronic Disease MICAs

- Cancer Incidence 2021
- Chronic Disease Death 2021
- Chronic Disease Emergency Room 2015
- Chronic Disease Inpatient Hospitalization 2015

Injury MICA

- Injury 2015

Death MICA

- Death 2021

Hospital and Emergency Room Visit MICAs

- Emergency Room 2015
- Inpatient Hospitalizations 2015
- Preventable Hospitalizations 2015
- Procedures 2015

Population MICA

- Population 2021

If you need more current data than what is available, please reach out and we will do our best to complete your request. Hospital-based datasets are not being updated online yet, but we do have provisional data through 2023 available upon request. The same is true of 2023 BRFSS survey data.

INTERESTED IN COUNTY LEVEL STUDY DATA? VISIT MOHEALTHDATA.ORG

For an overview of the MOPHIMS system, Profiles, MICAs and information on how to become a registered user, you can watch the MOPHIMS Demo Webinar on the department website under 'Community Health Assessment Intervention Planning' located **HERE**

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TELL US WHAT YOU THINK!

Give us feedback and help us improve

START

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SOURCES

1 Influenza (Flu). About Influenza. CDC. Accessed 2024.

2 Influenza (Flu). Types of Influenza Viruses. CDC. Accessed 2024.

3 Pneumonia. Overview. Mayo Clinic. Accessed 2024.

4 Pneumonia. About Pneumonia. CDC. Accessed 2024.

5 Flu. Burden. Why CDC Estimates the Burden of Seasonal Flu in the US. CDC. Accessed 2024.

6 Influenza (Flu) 2020-2021 Flu Season. CDC. Accessed 2024.

7 Influenza (Flu). Historical Reference of Seasonal Influenza Vaccine Doses Distributed. CDC. Accessed 2024.

8 Winter Wellness: 7 tips for staying health during the holidays. May Clinic Health System. Accessed 2024.

9 Influenza (Flu). Who Needs a Flu Vaccine. CDC. Accessed 2024.

MOPHIMS PRACTICE EXERCISE ANSWERS

PRACTICE

Questions:

Which county had the highest rate of heart disease deaths? **Pemiscot (523.30)**

How many deaths were attributed to heart disease in Randolph county in 2021? **45**

Heart disease death rates are annualized per **100,000** residents.

What is the heart disease death rate for Clay county? **143.38 deaths per 100,000 residents**

Using the Make a Map tab under Build Your Results, create a map showing heart disease death rates for all 115 counties using rates and quartiles.

Heart Disease Death Rates 2021