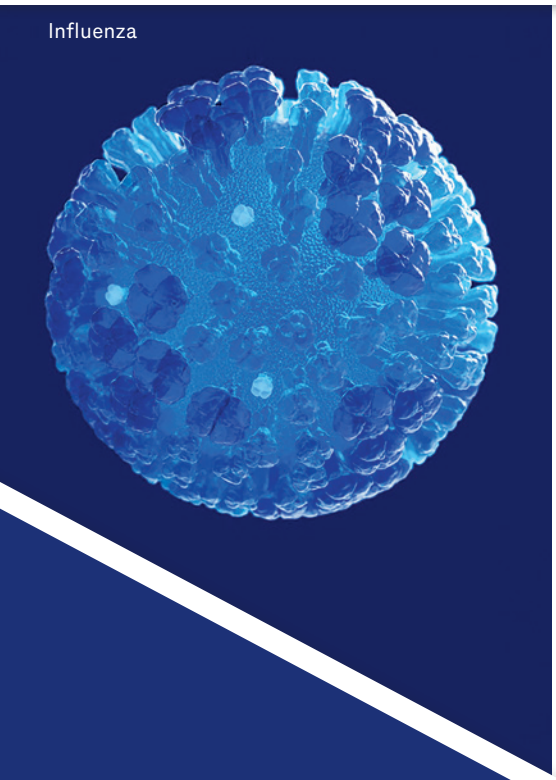
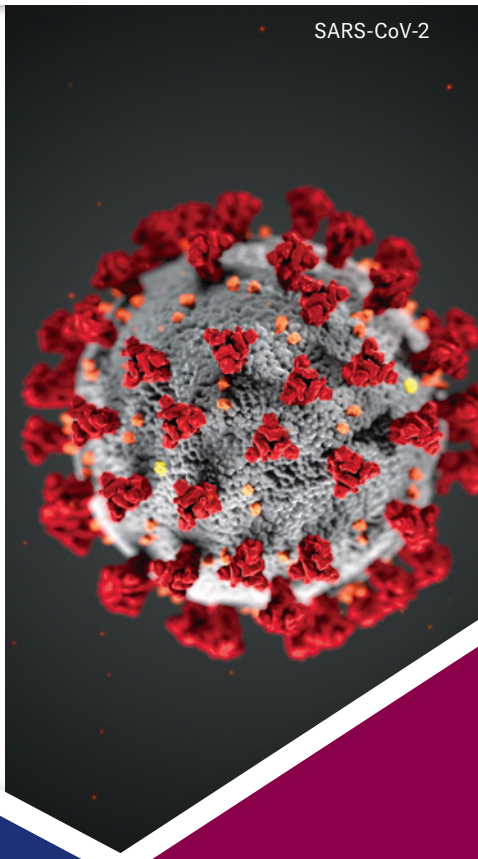
INFLUENZA AND COVID-19

A Comparative Overview

Influenza (Flu) and COVID-19 are both contagious respiratory illnesses, but they are caused by different viruses.





SIMILARITIES AND DIFFERENCES BETWEEN INFLUENZA AND COVID-19[1]

	SIMILARITIES	DIFFERENCES
 **Signs and Symptoms**	Vary from **asymptomatic to severe presentation** Both can cause **mild to severe illness**, including common signs and symptoms such as: • Fever • Cough • Dyspnea • Fatigue • Runny or stuffy nose • Vomiting & diarrhea (more common in children) • Myalgia • Sore throat • Headache	COVID-19 may include change in or loss of taste or smell
 **Incubation Period and Symptom Onset**	For both COVID-19 and flu, **1 or more days** can pass between a person becoming infected and when he or she starts to experience illness symptoms.	For flu, typically, a person develops symptoms anywhere from **1 to 4 days after infection**. If a person has COVID-19, it can take them longer to develop symptoms than if they have flu, **typically 5 days but can be from 2-14 days after becoming infected**.
 **Period of Contagiousness**	For both COVID-19 and flu, it's possible to spread the virus for at least **1 day before** experiencing any symptoms.	**Longer period for COVID-19** • **2-3 days before** experiencing signs or symptoms to at least 8 days after symptom onset. **Flu** • At least **1 day before** symptom onset • Infants and people with weakened immune systems can be contagious longer
 **Transmission**	Similar routes of transmission (contact, droplets and fomites)	COVID-19 is more contagious among certain populations and age groups than flu and has been observed to have more superspreading events than flu.

PREVALENCE OF CDC* DEFINED RISK FACTORS FOR SEVERE DISEASE DUE TO INFLUENZA OR COVID-19

HIGH RISK FACTOR	ESTIMATED US POPULATION
 **65 years and older**	54.1 million[2]
 ***Pregnant People**	3.6 million[3]
 **Asthma & Chronic Lung Disease**	37 million[4]
 **Coronary Artery Disease**	18.2 million[5]
 **Endocrine Disorders (i.e. Diabetes)**	34.2 million[6]
 **Neurologic Condition**	~14 million[7]
 **Obesity**	42.4% of adults[8]

Please note this is not an exhaustive list of high risk factors for influenza and COVID-19.

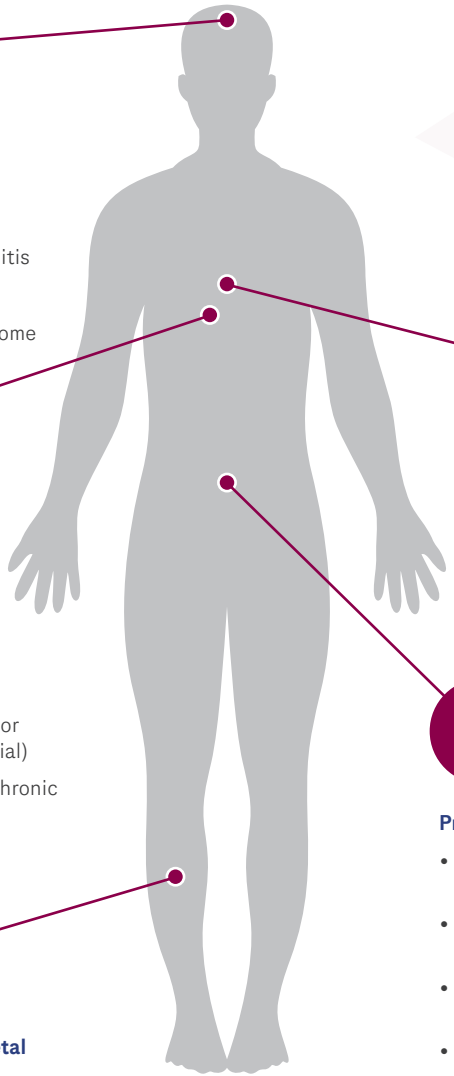
For a complete list of CDC high risk factors for influenza please visit https://www.cdc.gov/flu/highrisk/index.htm.

For a complete list of CDC high risk factors for COVID-19 please visit https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html#:~:text=Like%20adults%2C%20children%20with%20obesity,very%20sick%20from%20COVID%2D19

*Number of births used as a proxy to conservatively estimate numberof pregnant people

CDC = Centers for Disease Control and Prevention.

INFLUENZA COMPLICATIONS INCLUDE



Neurological

- Febrile convulsions*
- Reyes syndrome*
- Meningitis/encephalitis
- Transverse myelitis
- Guillain-Barre syndrome

Respiratory

- Otitis media*
- Croup*
- Sinusitis/ bronchitis/ pharyngitis
- Pneumonia (viral or secondary bacterial)
- Exacerbation of chronic lung disease

Cardiac

- Pericarditis
- Myocarditis
- Exacerbation of cardiovascular disease

Pregnancy

- Increased maternal complications
- Increased infant perinatal mortality
- Increased risk of prematurity
- Smaller neonatal size
- Lower birth weight

Musculoskeletal

- Myositis
- Rhabdomyolysis

*More common in children.[9]

CLINICAL BURDEN OF INFLUENZA

- Annually, influenza infections occur in **3–11% of the population** in the US[10]
- From 2010–2020, the CDC estimates that the United States **annual** clinical burden of seasonal influenza ranges from[11]:

9.0 - 41.0 million
illnesses

140,000 - 710,000
hospitalizations

12,000 - 52,000
deaths*

*Estimates from the 2019-2020 season are preliminary and may change as data are finalized.

1. https://www.cdc.gov/flu/symptoms/flu-vs-covid19.htm. Accessed May 23, 2022. **2.** https://acl.gov/aging-and-disability-in-america/data-and-research/profile-older-americans. Accessed May 23, 2022. **3**. https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-17.pdf Accessed May 23, 2022. **4**.https://www.lung.org/about-us/our-impact. Accessed May 23, 2022. **5.** https://www.cdc.gov/heartdisease/facts.htm. Accessed May 23, 2022. **6**. https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statisticsreport.pdf. Accessed May 23, 2022. **7**. https://www.caregiver.org/resource/incidence-and-prevalence-major-causes-brain-impairment/. Accessed May23, 2022. **8**. https://www.cdc.gov/nchs/products/databriefs/db360.htm. Accessed May 23, 2022. **9**. Ghebrehewet S et al. BMJ.2016;355:i6258 **10**. https://www.cdc.gov/flu/about/keyfacts.htm. May 23, 2022. **11**. https://www.cdc.gov/flu/about/burden/past-seasons.html. Accessed May 23, 2022

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