

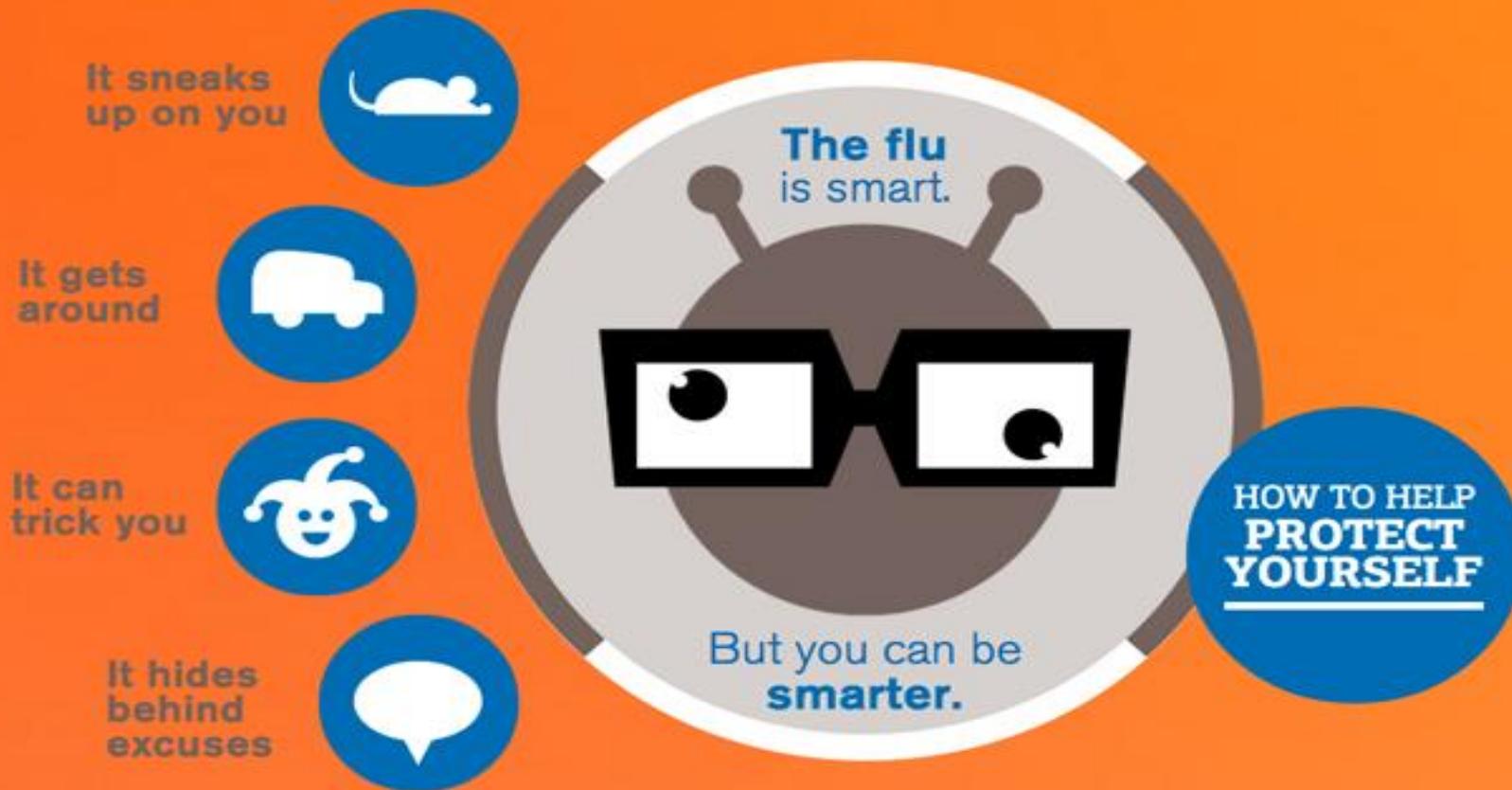
Preparing for Flu Season During the COVID-19 Pandemic

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Kentucky Public Health
Prevent. Promote. Protect.



It's more than just one virus. It spreads easily. Up to 111 million workdays in the U.S. can be lost annually because of it. Learn more about how to help protect yourself and others against the flu.

INFLUENZA

- Influenza is characterized by sudden onset of fever, chills, body aches, and fatigue. It's important to note that not all cases will exhibit a fever.
- Respiratory symptoms include cough, stuffy or runny nose, and chest discomfort.
- Prevention is achieved by proper handwashing, covering coughs and sneezes, proper disposal of used tissues, avoiding touching face, nose, or mouth, and staying home when showing flu-like symptoms.

SOUTHERN HEMISPHERE INFLUENZA ACTIVITY

- Southern Hemisphere influenza activity has been reported at much lower rates than is typical.
- Fewer countries are reporting data, and fewer viruses are being detected in general.
- Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B/Victoria viruses have co-circulated.
- Social distancing and other preventive measures to reduce spread of SARS-CoV-2 may also have helped reduce spread of influenza viruses.
- The COVID-19 pandemic also has influenza health-seeking behaviors and testing priorities and capacities, making interpretation challenging.

FLU and COVID-19

- It is unclear what impact the ongoing COVID-19 pandemic will have on the 2020-2021 influenza season in the United States.
- Flu and COVID-19 will be circulating viruses at the same time.
- In order to reduce the healthcare burden, flu vaccination efforts will need to be increased.
- Intensive Care Unit (ICU) beds, ventilators, and Personal Protective Equipment (PPE) will be spread thin.
- Co-infections of Flu and COVID-19 have the potential to be particularly deadly.

2020-2021 FLU VACCINE COMPOSITION

EGG-BASED INFLUENZA VACCINES

- Influenza A/Guangdong-Maonan/SWL1536/2019 (H1N1)pdm09-like virus;
- Influenza A/Hong Kong/2671/2019 (H3N2)-like virus;
- Influenza B/Washington/02/2019 (Victoria lineage)-like virus; and
- Influenza B/Phuket/3073/2013 (Yamagata lineage)-like virus (Quadrivalent vaccines only)

FLU VACCINE AND EGG ALLERGY

- For people with an allergy, there are vaccines now available that do not contain egg proteins.
- Anyone who has had serious complications, other than a rash, after receiving a flu vaccine should have their flu shot administered in a medical setting that has the capability of emergency intervention.
- Other allergies to keep in mind during patient screening are gelatin/red meat allergy and gluten.

2020-2021 FLU VACCINE COMPOSITION

CELL-BASED INFLUENZA VACCINES

- Influenza A/Hawaii/70/2019 (H1N1)pdm09-like virus;
- Influenza A/Hong Kong/45/2019 (H3N2)-like virus;
- Influenza B/Washington/02/2019 (Victoria lineage)-like virus; and
- Influenza B/Phuket/3073/2013 (Yamagata lineage)-like virus
(Quadrivalent vaccines only)

HIGH DOSE FLU VACCINE

- As we age, our bodies start wearing out. We have more problems with our joints, more aches and pains, and our immunity to diseases decreases.
- For those 65 and older, there is a special vaccine with four times the antigen as the normal vaccine. This takes into account the weakening immune system and makes sure there is enough protective antigen to make up the difference between the regular vaccine and what is needed to meet their needs.

TWO NEW VACCINES FOR 2020-2021

FLUZONE HIGH-DOSE QUADRIVALENT

- Approved for use in persons aged ≥ 65 years old
- Contains 4 times the antigen per vaccine than standard vaccine (60 μ g per virus versus 15 μ g in standard dose vaccine)
- ***DOSAGE CHANGE from 0.5 mL to 0.7 mL***

TWO NEW VACCINES FOR 2020-2021

FLUAD QUADRIVALENT

- Approved for use in persons aged ≥ 65 years old
- Contains adjuvant MF59, an adjuvant that is added to influenza vaccines to help stimulate the human body's immune response through production of CD4 memory cells.

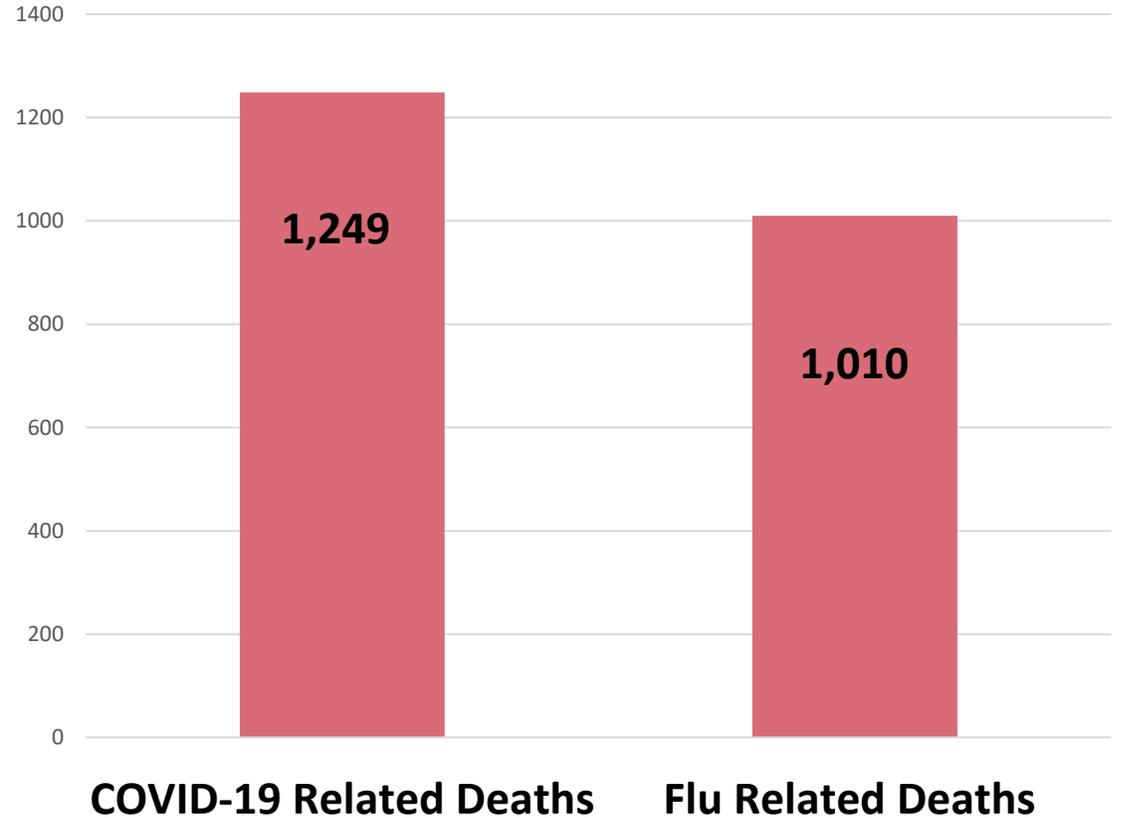
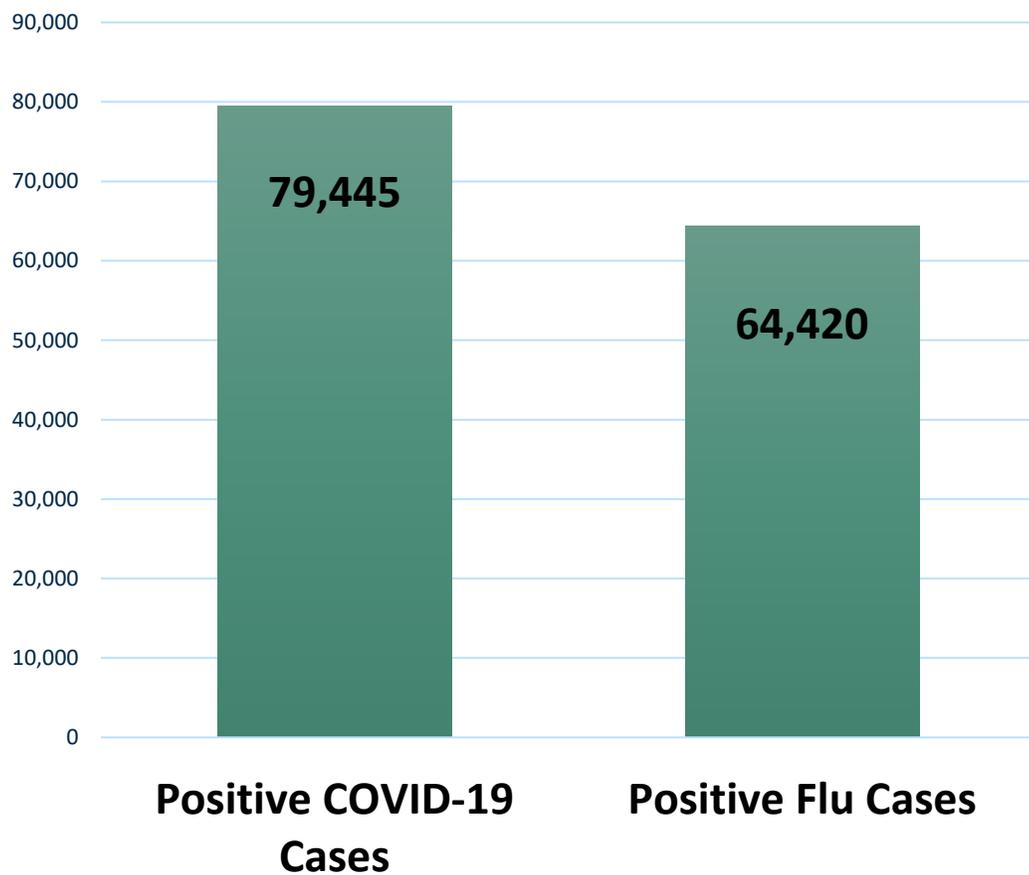
COMPARISON OF FLU SEASONS

FLU SEASON OCT THROUGH MAY	TOTAL # OF CASES	TOTAL # OF LTCF OUTBREAKS	# OF PEDIATRIC DEATHS	# ADULT DEATHS	TOTAL # OF DEATHS
2013-2014	1,700	12	1	57	58
2014-2015	1,046	92	3	143	146
2015-2016	3,087	12	3	36	39
2016-2017	3,025	82	0	76	76
2017-2018	10,489	124	5	328	333
2018-2019	17,665	75	2	194	196
2019-2020	27,408	44	6	156	162
2020-2021	89	1	0	0	0
2019-2020			2020-2021		
WEEK 43 CASES	45		WEEK 43 CASES	39	
YTD CASES	340		YTD CASES	89	
YTD DEATHS	0	0 adults/0 pediatric	YTD DEATHS	0	0 adults/0 pediatric
OUTBREAKS	0		OUTBREAKS	0	
YTD OUTBREAKS	1		YTD OUTBREAKS	1	

POSITIVE COVID-19 DATA OVER A 7 MONTH PERIOD
(Kentucky: Mar 2020-Oct 2020)

vs.

POSITIVE FLU DATA OVER A 7 YEAR PERIOD
(Kentucky: 2013-2014 season through 2019-2020 season)



MASK UP, LATHER UP, SLEEVE UP



#FIGHT FLU



BARRIERS TO FLU VACCINATION DURING THE COVID-19 PANDEMIC

- There might be fewer worksite vaccination clinics (~16% of adults receive flu vaccination at the workplace).
- People might not feel safe going into clinics or pharmacy settings.
- In-person clinic visits might be cancelled or moved to telehealth.
- Concerns about safety of COVID-19 vaccine could translate to (more) questions about safety of flu vaccine.
- COVID-19-related unemployment might impact ability to afford flu vaccination.
- Working parents have limited free time to focus on staying up-to-date on vaccinations because of work/home school/child care responsibilities.
- People might not think they need a flu vaccination this year because they are physically distancing.

<https://www.cdc.gov/flu/fluview/place-vaccination-2014-15.htm>

Considerations for Planning Curbside/Drive-Through Vaccination Clinics

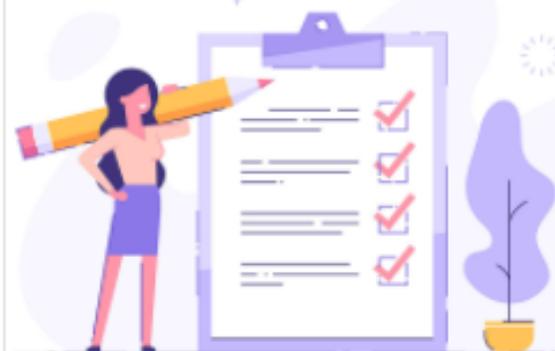
[Printer friendly version](#)  [2 pages]

Because of COVID-19, there has been a decrease in non-urgent, face-to-face, routine medical visits, including those for routine vaccinations. But unfortunately, postponing or canceling routine vaccinations for children and adults leaves individuals vulnerable to becoming infected with vaccine-preventable diseases and increases the risk of vaccine-preventable disease outbreaks. One way to ensure that people continue to receive needed vaccines is to set up a curbside or drive-through vaccination clinic. If you are planning a curbside or drive-through vaccination clinic, some issues for consideration include:

- When to screen for contraindications and precautions
- How to store, handle, and prepare vaccines properly
- How to follow infection control practices
- How to ensure patient and health care provider safety while administering vaccines
- What measures to take if the driver is being vaccinated

This guidance should be used in conjunction with [Guidance for Planning Vaccination Clinics Held at Satellite, Temporary, or Off-Site Locations](#) and [the Satellite, Temporary, and Off-Site Vaccination Clinic Supply Checklist](#).

Mass Clinic Guidance

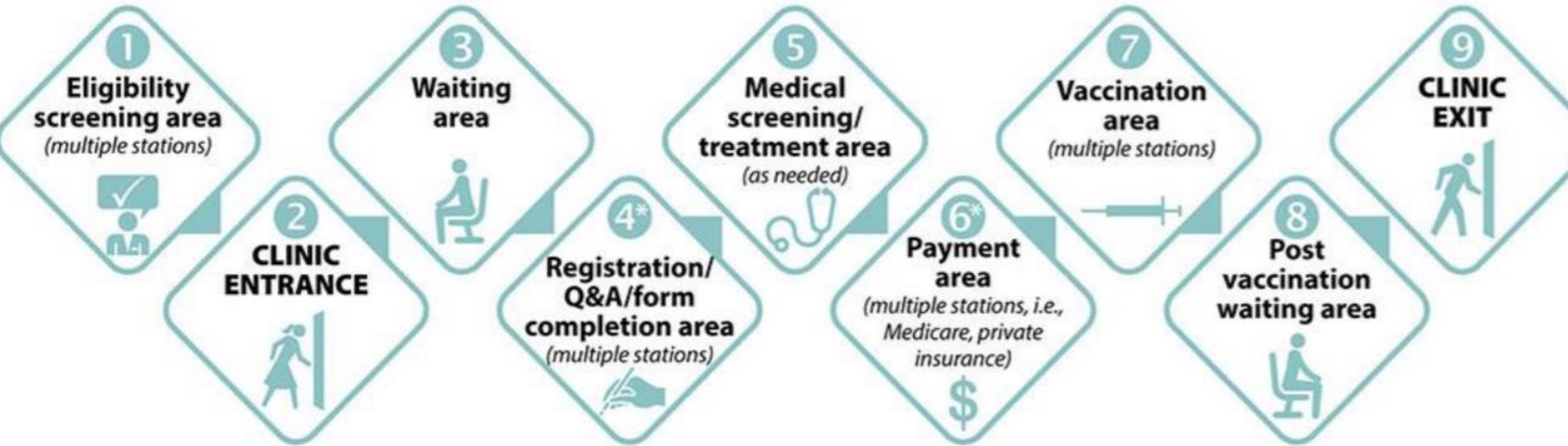


Guidance for assisting with jurisdictional planning and implementation of satellite, temporary, or off-site vaccination clinics by public and private vaccination organizations.

[More](#)

Flowchart for Vaccination Clinic Layout for Walk-through Clinics

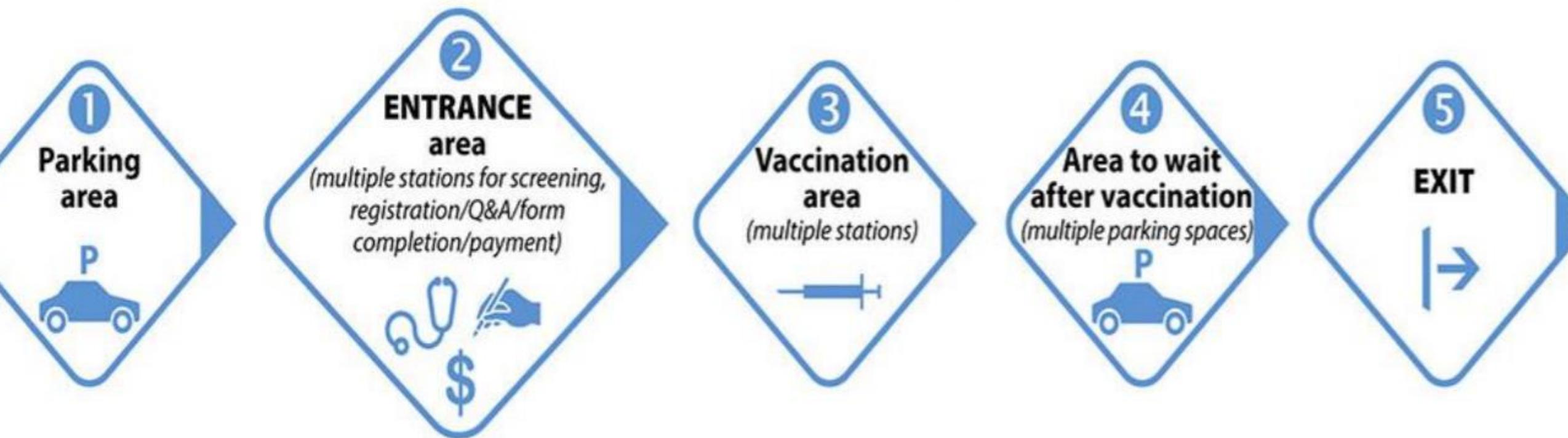
Indoor or outdoor walk-through clinics



**These activities can also be combined with activities, for example, they might be part of activity 1 or 3*

Flowchart for Vaccination Clinic Layout of Curbside Clinics

Curbside or drive-through clinics



STANDARDS FOR ADULT IMMUNIZATION PRACTICE

- All health care providers, including those who do not provide vaccination services, have a role in ensuring adult patients are up-to-date on vaccines.
- **CALL TO ACTION FOR ADULT HEALTH CARE PROVIDERS TO:**
 - **ASSESS** vaccination status of all patients at every clinical encounter.
 - **Strongly RECOMMEND** vaccines that patients need.
 - **ADMINISTER** needed vaccines or **REFER** to a vaccination provider.
 - **DOCUMENT** vaccines received by patients in state vaccine registries.

The U.S. Department for Health and Human Services (Vaccines.gov) recommends the use of VaccineFinder.org



VaccineFinder.org

IMPROVING ACCESS TO VACCINES

VaccineFinder helps find providers that offer seasonal flu vaccine and other immunizations. <https://vaccinefinder.org>

- Easy-to-use website directs patients to locations with immunizations on hand.
- Saves time and resources during a seasonal outbreak or pandemic.
- Easy for providers to enroll and manage vaccine supply.
- It's free to use for both the provider and the patient.

GET YOUR PRACTICE ON THE MAP!

- Are you a vaccine provider? Register to display your vaccination services.
- If you would like to list a pharmacy, clinic, health department or other vaccine provider, you will first need to register for an account.
- After your account is approved, you will receive instructions on how to submit information about your vaccination services.
- There is no fee to participate in HealthMap Vaccine Finder.

ACTIVITIES CRITICAL TO SUCCESSFUL FLU VACCINATION SEASON

- Coordinated messages from CDC, providers, health departments, and medical professional societies on the importance of flu vaccination (and where patients can receive flu vaccination)
- Protocols in place to ensure patients can be safely vaccinated
- Creative approaches to address access/disparity issues and common misperceptions about flu vaccination
- Information on Medicaid, Vaccines for Children, insurance subsidies, or payment options for patients who have recently lost insurance coverage or are experiencing economic hardship
- Vaccination efforts continue for the duration of the flu season

GROUPS THAT NEED SPECIAL ATTENTION

- **Elderly**
- **Pregnant Women**
- **Children ≥ 6 months of age**
- **People of Any Age who have Chronic Conditions**

INFLUENZA and COVID-19 SIMILARITIES AND DIFFERENCES IN CHILDREN

INFLUENZA

- Similar clinical presentation in respiratory and systemic symptoms, including fever or no fever
- Incubation period: 1-4 days (average 2 days)
- Virus shedding: 1 day before to ~7 days after onset of symptoms
- Transmission: Person-to-person mainly by droplets, contact, and nearby aerosols
- People at risk for complications: Youngest children < 5 years of age
- Effective treatment is available
- Effective vaccine is available

COVID-19

- COVID-19 may present with change in or loss of taste or smell
- Incubation period: 2-14 days (average 5 days)
- Virus shedding: 2 days before and at least 10 days or more than onset of symptoms
- Transmission mechanisms are similar, but COVID-19 is more contagious among certain populations than the flu
- School aged children and adolescents are at greater risk for Multisystem Inflammatory Syndrome in Children (MIS-C), a rare but serious complication of COVID-19
- No approved treatments or vaccines

INFANT MORTALITY DUE TO INFLUENZA

- Children < 6 months of age have the highest mortality rate (0.66 deaths per 100,000 children).
- Compared with children aged 13-17 years, infants aged <6months were more than 6 times as likely to have an influenza-associated death, and
- Children aged 6 to 23 months were >3 times as likely to have an influenza-associated death as children aged 13-17 years.

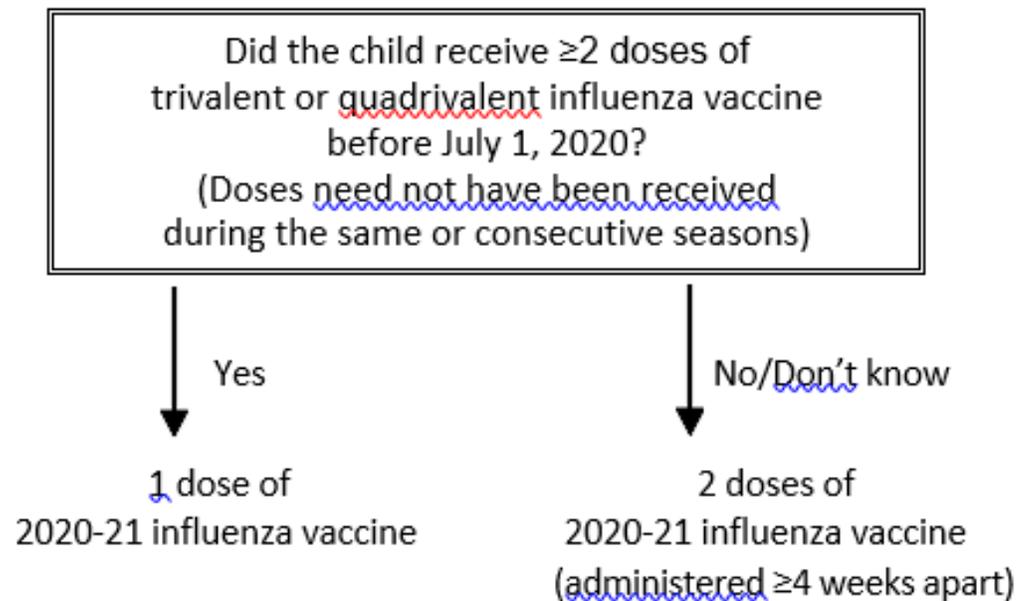
Source: Shang M, Blanton L, Brammer L, et al. Influenza-Associated Pediatric Deaths in the United States, 2010-2016. *Pediatrics*. 2018,141(4):e20172918
Epidemic Intelligence Service and Influenza Division, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia



- **Pregnant women**
- Household contacts
 - Caregivers
- Immunocompromised Contacts

NUMBER OF DOSES NEEDED FOR CHILDREN AGED 6 MONTHS THROUGH 8 YEARS

- Determine the number of doses needed based on child's age at time of first dose of 2020–21 influenza vaccine and number of doses of influenza vaccine received in previous seasons
 - For children aged 6 months through 8 years, determine the number of doses needed as shown below.
 - For children needing two doses, the second dose is recommended even if the child turns age 9 years between dose 1 and dose 2.
 - Persons aged ≥ 9 years need only one dose for 2020-21.
 - Children aged < 6 months should not receive influenza vaccine.



CDC ANTIVIRAL TREATMENT RECOMMENDATIONS

- Focus on prompt treatment of persons with severe disease and those at increased risk of influenza complications.
- **Antiviral treatment is recommended as soon as possible for any patient with confirmed or suspected influenza who is:**
 - **Hospitalized** (*without waiting for testing results*)
 - **Outpatients with complicated or progressive illness of any duration**
 - **Outpatients who are at high risk for influenza complications**

Antiviral treatment can be considered for any previously healthy, non-high-risk outpatient with confirmed or suspected influenza (e.g. with influenza-like illness) on the basis of clinical judgment, if treatment can be initiated within 48 hours of illness onset; including empiric treatment (e.g. in-person visit or via telemedicine).

RECOMMENDED ANTIVIRALS 2020-2021

- Four FDA-approved antivirals are recommended for use in the United States
- Neuraminidase inhibitors:
 - Oseltamivir (oral)
 - Zanamivir (inhaled)
 - Peramivir (intravenous)
- Cap-dependent endonuclease inhibitor: Baloxavir Marboxil (oral)

DRUG	ROUTE	TREATMENT
Oseltamivir	Oral	Any age
Zanamivir	Inhaled	≥ 7 years
Peramivir	Intravenous	≥ 2 years
Baloxavir	Oral	≥ 12 years

INFLUENZA ANTIVIRALS AND LAIV4

- Previous guidance—antivirals from 48 hours before to 2 weeks after administration of LAIV4 may interfere with vaccine
- Newer antivirals peramivir and baloxavir have longer half-lives than oseltamivir and zanamivir.
- Insufficient data available on use of LAIV4 in setting of antiviral use
- Based on half-lives and assuming normal clearance, reasonable to assume interference possible if antivirals are administered within these intervals:

ANTIVIRAL	INTERVAL
Oseltamivir and Zanamivir	48 hours before to 2 weeks after LAIV4
Peramivir	5 days before to 2 weeks after LAIV4
Baloxavir	17 days before to 2 weeks after LAIV4

317-FUNDED ADULT VACCINE

The CDC has given special approval to offer and administer 317-funded adult influenza vaccine* to **ALL** adults – regardless of insurance status.

* Normal CDC criteria for 317-funded vaccine is a person 19 years or older who is uninsured, underinsured, or indigent. The 317-funded vaccine can also be used for anyone in the event of a disease outbreak.

KENTUCKY DEPARTMENT FOR PUBLIC HEALTH

“FLU CREWS”

- Ten regional teams, consisting of one RN and one LPN, will partner with Immunization Field Representative and the Local Health Departments in that area. They are called “Flu Crews.”
- The Flu Crews are developed as part of the CDC Flu Expansion Project.
- The Flu Crews can schedule and staff flu clinics, enter vaccination data into the Kentucky Immunization Registry (KYIR) on behalf of the LHD/clinicians, and provide additional staffing for scheduled flu activities.
- Services provided at no charge.
- Contact: FluCrews@ky.gov

THE DANGERS OF INFLUENZA (FLU): WHY ADULTS WITH CHRONIC HEALTH CONDITIONS NEED TO GET VACCINATED

During the 2017-2018 flu season, highest hospitalization rates were among **adults age 50-64 and 65+**

US adults with chronic health conditions are at high risk for flu-related complications

- Exacerbation of chronic health conditions
- Permanent physical decline
- Risk of heart attack or stroke
- Death



90% of flu-related deaths occur in adults 65+



15+ million have heart disease and are **10x** more likely to have a heart attack within **3 days** of flu infection



31+ million have asthma and/or COPD putting them at greater risk of serious flu-related complications



30+ million have diabetes and are at **6x** increased risk of flu-related hospitalization



Annual flu vaccination is the best way to protect patients with chronic health conditions from serious long-term complications of flu

Visit www.nfid.org/flu-chronic-health-conditions for additional resources



CORRELATION BETWEEN FLU AND ITS EFFECT ON CHRONIC CONDITIONS

- Adults are **6-10 times more likely to suffer a heart attack** within the first week after having lab-confirmed flu.
- Adults were shown to be **8 times more likely to suffer a stroke** in the first 3 days after having lab-confirmed flu.

ESTIMATES OF THE EFFECTIVENESS OF FLU VACCINE IN PREVENTING ACUTE MYOCARDIAL INFARCTION (AMI)

CORONARY INTERVENTION	INTERVENTION EFFICACY/EFFECTIVENESS AGAINST AMI
Smoking cessation	32%-43%
Statins	19%-30%
Antihypertensive drugs	17%-25%
Influenza vaccines	15%-45%

IN A STUDY OF PEOPLE WITH DIABETES, FLU MAY BE ASSOCIATED WITH

- **3 times** the risk of Hospitalization
- **4 times** the risk of ICU Admission
- **2 times** the risk of Death

FLU VACCINE REDUCED HOSPITALIZATION AND DEATH IN PEOPLE WITH TYPE 2 DIABETES

DISEASE	REDUCTION
Stroke	30%
All-Cause Death	24%
Heart Failure	22%
Acute Myocardial Infarction	19%
Pneumonia or Influenza	15%

SIGNS AND SYMPTOMS	COMMON COLD	INFLUENZA	COVID-19	NOROVIRUS
Symptom onset:	Gradual	Abrupt	2-14 days after exposure	12 to 48 hours after exposure
Fever	Rare	Usual; lasts 3-4 days	Usual	Sometimes
Aches	Slight	Usual; often severe	Usual	Common
Chills	Uncommon	Fairly common	Usual	
Fatigue, weakness	Sometimes	Usual	Usual	
Sneezing	Common	Sometimes	-----	
Chest discomfort, cough	Mild to moderate; hacking cough	Common, can be severe	Usual	
Stuffy nose	Common	Sometimes	Sometimes	
Sore throat	Common	Sometimes	Common	
Headache	Rare	Common	Usual	Common
Shortness of breath or difficulty breathing			Usual	
New loss of taste or smell			Common	
Nausea or vomiting			Sometimes	Usual
Diarrhea			Sometimes	Usual
Stomach pain				Common
Dehydration				Common
MODE OF TRANSMISSION	COMMON COLD	INFLUENZA	COVID-19	NOROVIRUS
	Close contact with sick people	Can spread it to others from up to 6 feet away due to coughing, sneezing, or talking	Close contact from person-to-person	Infected person touches food with bare hands that have poop or vomit particles on them
	Touching a surface or object that has virus on it	Touching a surface or object that has virus on it	Touching surface or object that has virus on it	Food is placed on surface that has poop or vomit particles on it
	Touching eyes, nose, and mouth with unwashed hands	Touching own mouth, nose, mouth, or possibly their eyes	Touching own mouth, nose, or possibly their eyes	Drops of vomit spray through the air and land on food
				Food is grown or harvested with contaminated water (e.g. oysters, fruit, vegetables)

PROTECTION

- People are much more likely to get infected with the flu from being around other sick people than they are from touching virus-laden surfaces.
- Do not leave the house for any reason other than to seek medical treatment or prescriptions.
- If the patient leaves the house, they should wear a mask.
- Separate the sick person from the healthy members of the household.

CREATE A SICK ROOM

- Choose one caregiver. The caregiver may want to wear a mask and disposable gloves.
- Avoid having other people enter the sick room. They should stay at least 6 feet away from the patient, don't touch anything, and keep their visit brief.
- Ask the ill person to continue covering coughs and sneezes and to dispose of used tissues in the trash.
- Try to keep everything you'll need in the room, including the thermometer.
- Provide the patient their own towel and washcloth, glasses, dishes, and eating utensils.

HAND WASHING

- Wash hands for 20 seconds (sing the “Happy Birthday” song twice) by using soap and water to scrub the backs of your hands, between your fingers, and under your nails. Dry thoroughly.
- Hand sanitizer that is at least 60% alcohol is also acceptable.
- Remember to wash your hands after touching the sick person's laundry, dishes, or devices.
- When drying your hands, don't use the same towel that the sick person in your house has been touching.
- Consider using more disposable paper towels than you normally would to avoid swapping germs.

DISINFECTING

- Make sure the label on your cleaning product says it will kill the flu virus.
- You can make your own solution by mixing 1/4 cup of household bleach and a gallon of water.
- Avoid using sponges or dishcloths due to spreading germs.
- Paper towels = spray, wipe, and remove disinfectant.
- Disposable disinfectant wipes are ideal as air drying allows disinfectant more time to kill the virus.

ITEMS TO DISINFECT AT LEAST ONCE A DAY

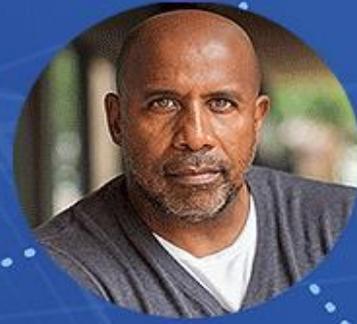
- Door knobs
- Remote controls
- Bedside tables
- Faucet handles
- Phones
- Computers
- Gaming controls
- Stuffed animals and toys
- Tables
- Counters
- Bathroom

IMPORTANT FOLLOW-UP TO NEGATIVE COVID-19 RESULT

- Once the diagnosis of COVID-19 has been ruled out, it's important to continue efforts to identify the illness, especially in congregate settings or in suspected outbreaks of disease.
- **Norovirus** illness is commonly referred to the “stomach flu.” However, Norovirus is not related to the flu (influenza).
- Though they share some of the same symptoms, **Flu is a respiratory illness** caused by the **influenza** virus.
- **Norovirus is a gastrointestinal illness** transmitted by food or water that has been contaminated by infected feces.

REPORTING FLU

- Flu Reporting of suspected or potential flu outbreaks can be emailed to FluReporting@ky.gov or by calling (502) 564-4478 and speaking with someone in Flu Surveillance.
- Flu Reporting can also be accomplished by contacting the Local Health Department in which the patient or facility is located.
- Weekly reports detailing Kentucky's flu activity can be viewed at <https://chfs.ky.gov/agencies/dph/dehp/Pages/influenza.aspx>



FLU VACCINE:

We all have a role in protecting each other

#FIGHT FLU



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- The Symptoms of Norovirus. www.cdc.gov/norovirus/about/symptoms.html

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NEW: Flu Reporting Mailbox is: FluReporting@ky.gov