OKALOOSA COUNTY COVID-19 KEY METRICS
Week 37

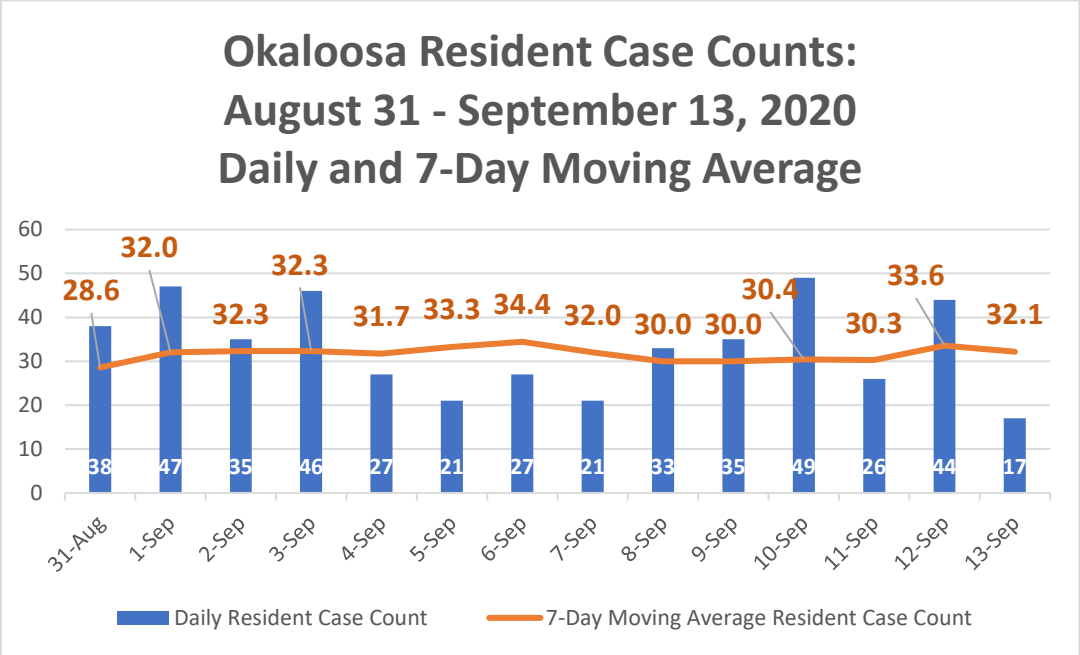
The information in this report is collected and monitored daily and updated weekly to the community. As of September 13, 2020, 4,637 COVID-19 cases are reported for Okaloosa County, an increase of 227 cases since September 6, 2020.

New Confirmed or Probable COVID-19+ Resident Cases over past 14 days:
Reports daily number and 7-day moving average of confirmed (PCR+) or probable (Antigen+) cases.

RATIONALE: Daily new cases reflect the proportion of the outbreak captured by surveillance systems. Number of new cases gives a sense of the size of the epidemic/outbreak in Okaloosa County.

TARGET: Decreasing case count over 14 days **or** at a low level (as defined by CDC* as below 10 cases per 100,000 population over 2 weeks).

*CDC Activities and Initiatives Supporting the COVID-19 Response and the President's Plan for Opening Up America Again. May 2020. Low incidence plateau defined as a very low number of new cases (below 10 cases per 100,000 population over 2 weeks with only minimal change in daily cases.



DOH-Okaloosa
Karen A. Chapman, MD, MPH, Director

New resident case counts remain static with no significant increase or decline over the past two weeks.

This lack of change is reinforced by the cases per 100,000 population also staying static over the past two weeks.

- Total Cases in 2 weeks (August 31 – September 13) = 466 (up 34 cases in a two-week period)
- Rate: **222 cases/100,000 population 2-week period**
- Okaloosa Population = 210,000

Based on the rate of cases per 100,000 population, COVID-19 disease transmission continues in Okaloosa County.

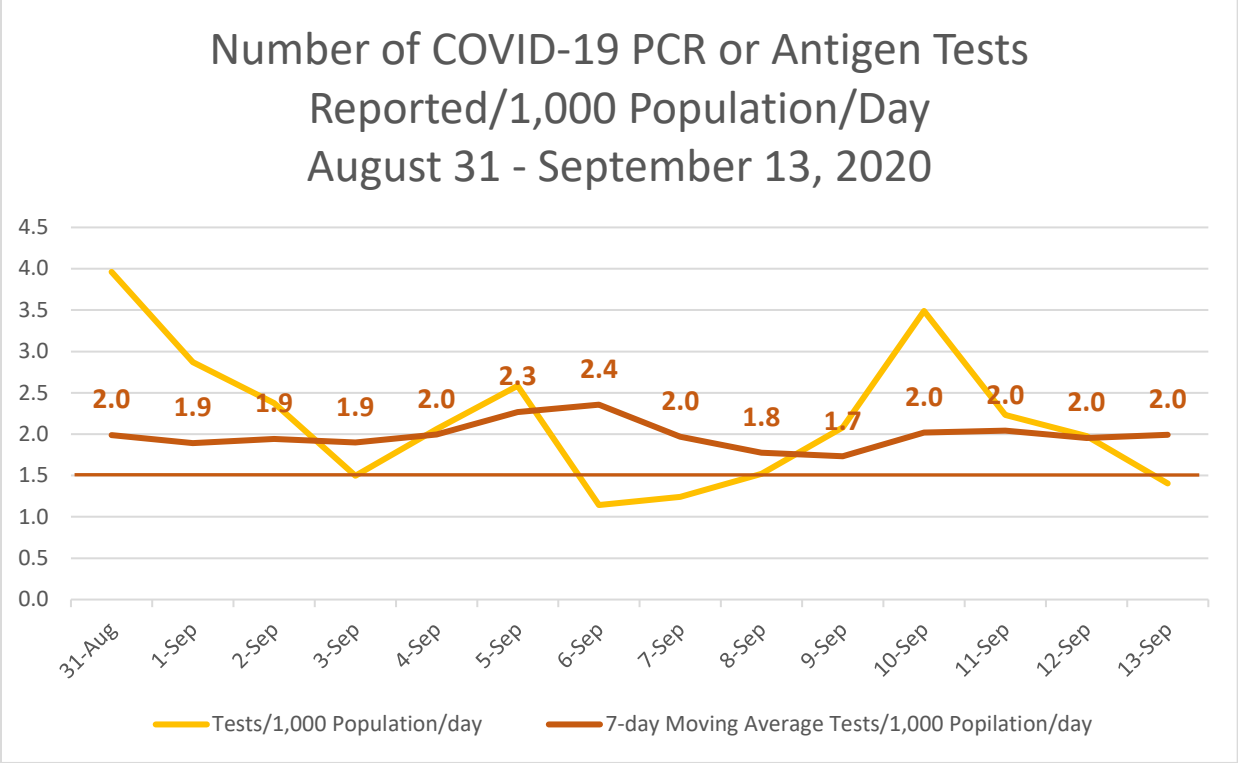
COVID-19 Diagnostic (PCR) and Screening (Antigen) Testing Per Capita

Reports daily and 7-day moving average total test results received / 1,000 population / day.

RATIONALE: The number of cases and percent of positive tests can be interpreted only with comprehensive surveillance and testing of suspect cases in the order of 1.5 /1,000 population/day.

TARGET: 1.5 tests / 1,000 population / day*

*Resolve to Save Lives. Tracking COVID-19 in the United States. Essential Indicators. July 21, 2020.



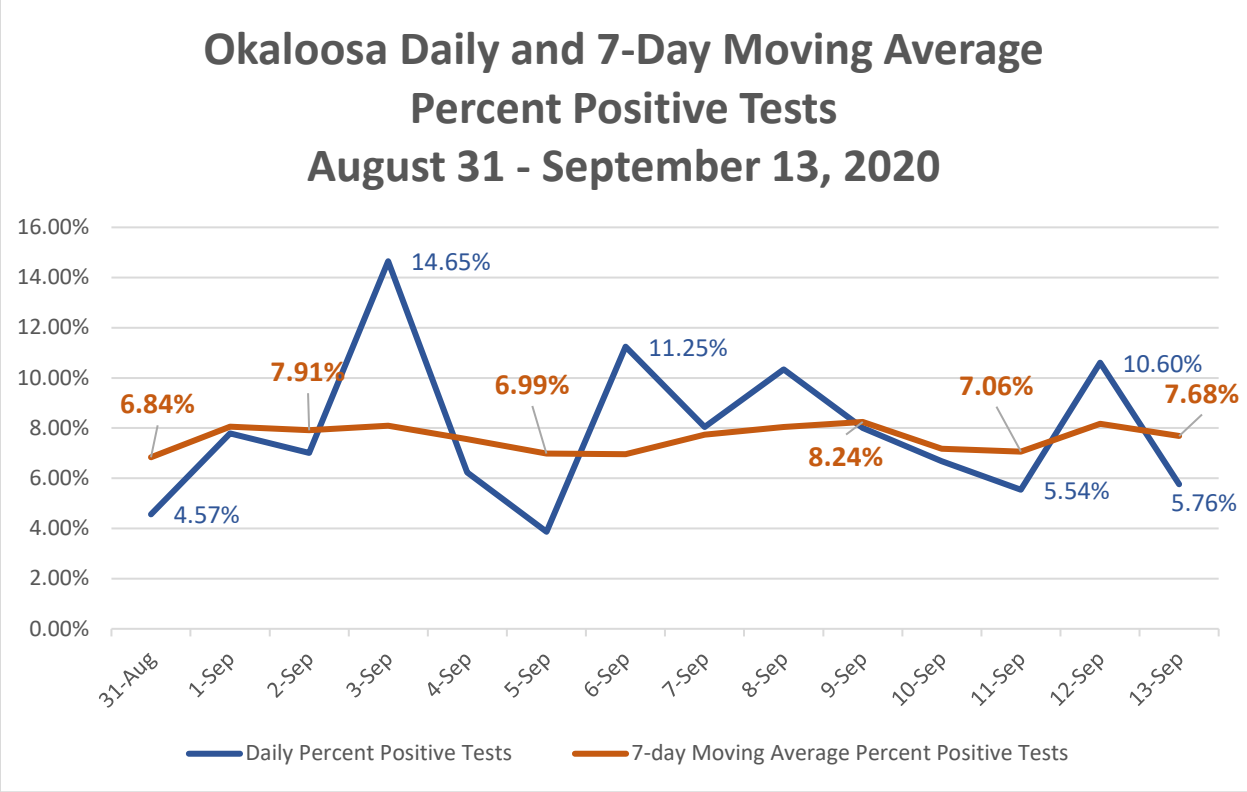
There is adequate testing (PCR or antigen) of the population to be able to interpret the burden of disease in the County based on the case count and the percentage of positive COVID-19 diagnostic or screening tests received.

<u>Percent Positive COVID-19 Tests</u>:

Reports daily and 7-day moving average percentage of all positive COVID-19 diagnostic and screening tests (regardless of provider) for Okaloosa County residents.

> **RATIONALE**: Test positivity is an important indicator of the burden of disease in the area (county). The percent of positive tests can be interpreted only with comprehensive surveillance and testing of suspect cases in the order of 1.5 /1,000 population/day, which Okaloosa County achieves (see above metric).
>
> **TARGET**: 5% or less of tests for COVID-19 are positive for at least 2 weeks.

*WHO. Public Health criteria to adjust public health and social measures in the context of COVID-19. May 2020.



This indicator is also static for the past two-week period. Okaloosa remains above the <5% target.

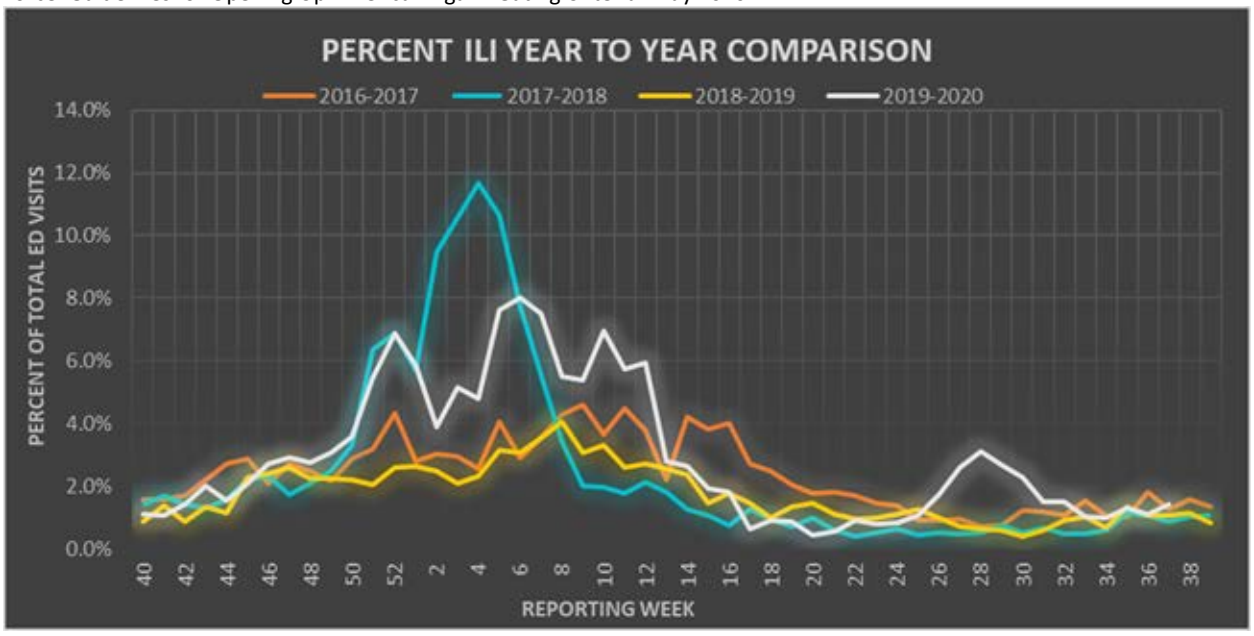
Influenza-Like Illness

Activity levels are based on the percent of emergency department visits due to influenza-like illness (ILI) compared with past year activity at the same time of the year.

RATIONALE: This type of syndromic surveillance* is used to monitor trends in emergency department visits and can be used to potentially detect a rise in COVID-19 cases before a rise in confirmed cases occurs. ILI is defined as fever (temperature of 100° F or greater with cough and/or sore throat without a known cause other than influenza).

TARGET: At or below baseline for the time of year based on past year trends for percent of ILI visits to emergency departments.

*Resolve to Save Lives. Tracking COVID-19 in the United States. Essential Indicators. July 21, 2020. White House Coronavirus Task Force. Guidelines for Opening Up American Again. Gating Criteria. May 2020.



In Week 37, percentage of emergency department visits for ILI remains at baseline for this time of year.

WEEK	VISITS ILI/Total	% ILI of Total ED Visits	WEEK	VISITS ILI/Total	% ILI of Total ED visits
Week 28	71/2274	3.12%	Week 33	21/2015	1.04%
Week 29	59/2194	2.69%	Week 34	19/1918	0.99%
Week 30	48/2117	2.27%	Week 35	26/1974	1.32%
Week 31	32/2117	1.51%	Week 36	22/1984	1.11%
Week 32	32/2107	1.52%	Week 37	30/2112	1.42%

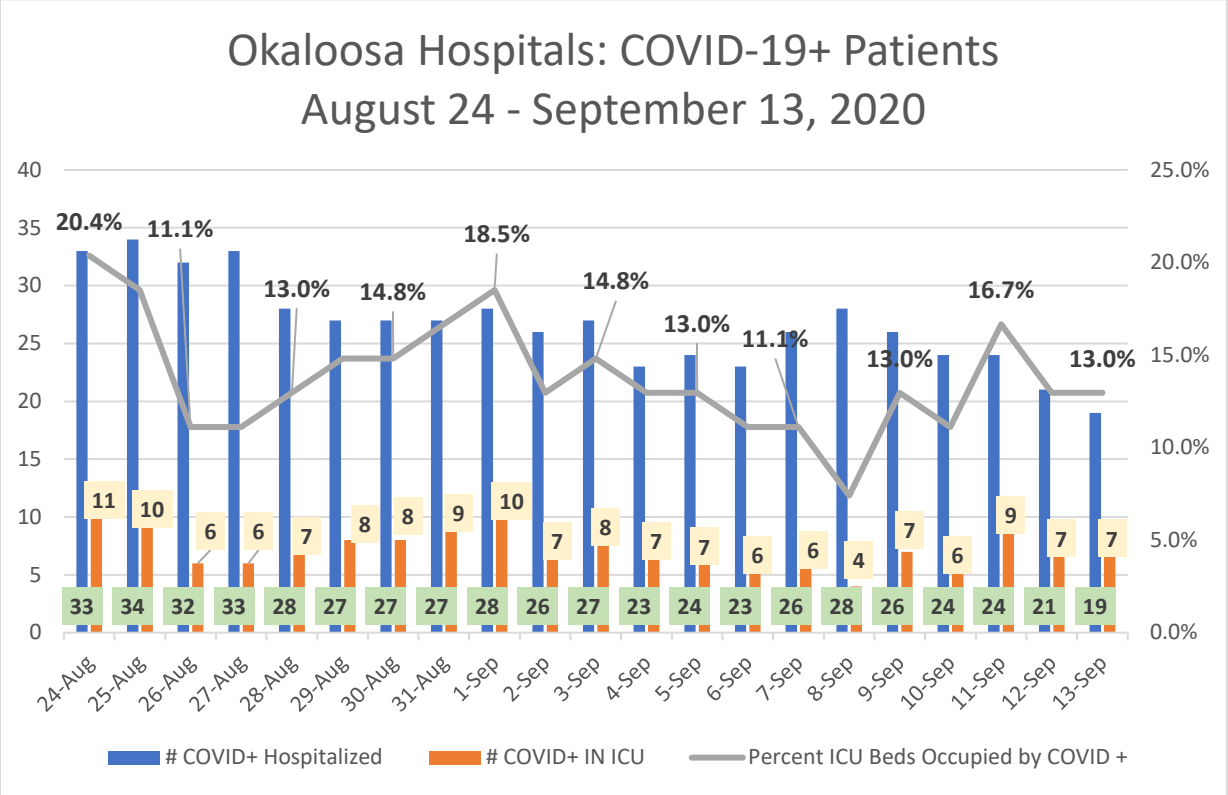
COVID-19 Hospital Admits

Number of COVID+ Hospitalized; Number of COVID+ in ICU; and percentage of ICU beds occupied by COVID+ patients.

RATIONALE*: Declining hospitalization and use of ICU beds indicates a decline in the number of cases in community, with an approximately ~1-week lag and providing that the criteria for hospitalization has not changed.

TARGET: Continuous decline in the number of hospitalized and ICU admissions of confirmed (PCR test) or probable (Antigen) COVID-19 cases for at least the past two weeks.

*WHO. Public Health criteria to adjust public health and social measures in the context of COVID-19. May 2020.



COVID-19 hospitalizations have stabilized at an average of 25 per day for the past two weeks. ICU bed utilization by COVID-19 patients remains around 12%. COVID-19 patients occupy about 4.1% of all staffed hospital beds as of September 13. This is down from 7.1% last week.

Deaths

As of September 14, 2020, Okaloosa County has 94 COVID-19 deaths. This is an increase of 6 deaths reported since Week 36. Three of the six (50%) newly reported deaths occurred to persons 85 years and older.

AGE GROUP	DEATHS	PERCENT	CHANGE FROM 8/30
25-34 YEARS	4	5%	+0
45-54 YEARS	6	6%	+1
55-64 YEARS	9	10%	+0
65-74 YEARS	12	13%	+1
75-84 YEARS	27	29%	+1
85+ YEARS	36	38%	+3
TOTAL	**94**		**+6**

Long-Term Care Facilities

As of September 13, 2020, Okaloosa has two long-term care facilities which have 11 COVID-19+ residents under their care. This is down 12 cases from last week. There is only one long-term care facility with 5 or more resident COVID-19+ cases (#10). Seven long-term care facilities have 16 COVID-19+ staff.

K-12 Public Schools

Public schools include the Okaloosa County School District, Charter Schools, and Okaloosa Technical College. The report only applies to students or staff who are attending or working in a brick and mortar school facility.

As of September 14, 2020, at 5:00 PM CT:

- Cases of COVID-19 in isolation:
    - 8 students
    - 10 staff members
- Contacts to cases of COVID-19 in quarantine:
    - 191 students
    - 12 staff members

To date, there is no evidence of disease transmission from cases to their school associated contacts.

SUMMARY

The good news this week for Okaloosa County:

- Hospitalizations for COVID-19 have not increased and are essentially stable
- COVID-19 hospitalizations are below 5% of total staffed hospital beds
- The need for ICU beds by COVID-19 patients is holding at 12%
- The number of COVID-19 positive residents in long-term care facilities continues to decline

The bad news for us all – influenza season starts on October 1. The possibility of an epidemic of influenza during the COVID-19 pandemic is chilling to public health officials and clinicians. Influenza in the United States has resulted in 12,000 to 61,000 deaths annually since 2010. Influenza is a significant source of illness and death in children. An influenza death in a child is a reportable illness nationwide. So, this is also a good time to remind everyone that it is time to get your annual influenza vaccination. Persons 6 months of age and older are eligible for the influenza vaccine.

Both viruses are spread by droplet transmission. The use of personal protective measures (or non-pharmaceutical interventions – NPIs) that public health officials and physicians promote for reducing the transmission of COVID-19 can also potentially reduce the transmission of influenza this season.

The advantage we have with influenza is there are multiple approved influenza vaccines and more than 192 million doses available this influenza season. There are also multiple FDA approved anti-viral agents that can be used in the home or hospital environment. Combining personal protective measures, with annual influenza vaccination, access to antivirals, and the personal protective strategies – we have many ways to protect ourselves from influenza. For COVID-19, we only have personal protective measures. The one antiviral approved by the FDA under emergency use authorization (EUA) for COVID-19 is an intravenous drug and only available to hospitalized patients.

As I say week after week, Okaloosa can continue to push the COVID-19 outbreak curve downward through rigorous adherence to the practice of the following personal protective measures:

- Washing hands for at least 20 seconds and washing hands often
- Avoid groups of people and close contact with others
- When outside the home practice physical distancing (at least 6 feet)
- Cover your mouth and nose with an appropriate face mask
- Cover coughs and sneezes
- Clean and disinfect frequently touched surfaces
- Monitor your health daily, which includes staying home when you have COVID-like symptoms or are waiting for results of a COVID-19 test

These protective measures all work together to reduce the spread of COVID-19 and can also help to reduce the spread of influenza. **This list of personal protective measures, however, is NOT an ala carte menu. The entire list must be practiced; all are necessary.** Using some of the practices is not enough to reduce the risk of exposure to the virus. All must be used together in order to provide personal protection for yourself and those around you.

Attached is an open source article from the Journal of the American Medical Association titled “Influenza in the COVID-19 Era.”

JAMA Insights | CLINICAL UPDATE

Influenza in the COVID-19 Era

Daniel A. Solomon, MD; Amy C. Sherman, MD; Sanjat Kanjilal, MD, MPH

The annual influenza epidemic substantially affects health care systems worldwide and has resulted in an estimated 12 000 to 61 000 deaths annually since 2010 just in the US.[1] The extent of the morbidity and mortality in any given year reflects the degree of genetic drift or shift in the dominant strain of the influenza virus and the efficacy and coverage of vaccination. With the coronavirus disease 2019 (COVID-19) pandemic, clinicians face a second respiratory virus associated with morbidity and mortality several-fold higher than that of influenza, in part due to its spread in an immunologically naive population. A looming threat of concurrent influenza and COVID-19 epidemics is a major concern for public health officials and clinicians.

Related article and JAMA Patient Page

A Population Perspective

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes COVID-19, and influenza are vastly different pathogens, but there are important areas of overlap (**Table**).[2-4] Both viruses are primarily transmitted by respiratory droplets. Thus, the adoption of nonpharmacologic interventions (NPIs), such as mandated face coverings in public, closure of schools and retail spaces, and restrictions on movement, would be expected to influence the incidence of both infections to varying degrees. Studies have consistently shown a pattern of decreased influenza incidence in 2020 (January through May) after adoption of NPIs as compared with prior seasons.[5,6] A similar trend has occurred in the US, with the number of influenzalike illnesses for the 2019-2020 season decreasing earlier than expected. Caution should be taken when interpreting these data because the rates of testing for non–SARS-CoV-2 respiratory viruses were greatly curtailed during the initial pandemic wave.

The expectation that the pattern of decreased influenza transmission will endure through the next influenza season presumes ongoing adherence to NPIs. Continued use of face coverings and reinstating local lockdowns during periods of increased transmission could substantially reduce the rates of infection for both diseases, but as restrictions on movement relax, the transmission of both influenza and SARS-CoV-2 can be expected to increase.

In addition to NPIs, there is a heightened importance for seasonal influenza vaccination to minimize the viral reservoir in the population. Despite widespread availability of multiple influenza vaccines, national vaccination coverage is consistently lower than 50% in adults. National education campaigns paired with community-based vaccination programs that focus on populations with lower access to health services and groups with historically low vaccine uptake, such as young adults, will be critical to increasing coverage above levels in previous years.

Table. Comparison Between Seasonal Influenza and SARS-CoV-2

Characteristics	Seasonal influenza viruses	SARS-CoV-2
Primary route of transmission	Droplet	Droplet (airborne, fomite, and fecal-oral transmission possible but less important)
Overall infectivity	Less contagious	More contagious
	The basic reproduction number (R_0) of both viruses is highly dependent on NPIs effective in decreasing transmission	
Dynamics of infectivity	Patients are most infectious after symptom onset	Patients are most infectious starting 48 h prior to symptom onset[2]
	Both viruses capable of asymptomatic transmission, but less than during presymptomatic and symptomatic phases	
Incubation period	1-4 d (median, 2 d)	2-14 d (median, 5 d)
Risk factors for severe disease	• Age >65 y and <2 y • Immunosuppression • Pregnancy (through 2 weeks postpartum) • Morbid obesity • Chronic lung disease, cardiac disease, advanced liver disease, chronic kidney disease • Residence in nursing home or long-term care facilities • American Indian/Alaska Native heritage	• Advanced age (risk increases with age) • Male sex • Obesity • Hypertension • Chronic lung disease, cardiac disease, type 2 diabetes, cancer,chronic kidney disease, advanced liver disease • Surgery during incubation period • Residence in nursing home • Structural racism, poverty[3]
Most common clinical manifestations	Fever, chills, headache, myalgias, cough, nasal congestion, sore throat, fatigue	Fever, chills, headache, myalgias, cough, shortness of breath, fatigue, anosmia
	For both viruses, the majority of infections are either subclinical or mild	
Pediatric disease	• Common, especially high risk in children <2 y • Children play a leading role in propagating outbreaks	• Uncommon, with typically mild disease • Multisystem inflammatory syndrome has been observed in children, but is rare • Limited evidence on children as a source of infection
Case-fatality rate	≈0.1%	≈0.25%-3.0%[4]
Dynamics of symptoms	Symptoms typically peak during first 3-7 d of illness	Symptoms can peak during week 2 or 3 of illness
Vaccine	Multiple approved	No vaccine currently licensed
Clinical diagnostics	Nucleic acid amplification and antigen-based assays from respiratory samples	• Nucleic acid amplification and antigen-based assays from respiratory samples • Serologies
Available antiviral agents	• Neuraminidase inhibitors • Cap-dependent endonuclease inhibitors • M2 channel blockers	Nucleoside analogue (remdesivir)

Abbreviations: NPI, nonpharmacologic intervention; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2.

Effects on Clinical Practice

Although no specific clinical manifestations reliably distinguish between early influenza disease and COVID-19, it will be important to identify the viral etiology in clinical practice.

First, the approach to management of the 2 viruses is different. Influenza can be treated with a neuraminidase inhibitor or a cap-dependent endonuclease inhibitor, neither of which have antiviral activity against SARS-CoV-2. Remdesivir is available for treatment of COVID-19 under an Emergency Use Authorization, but because it is administered parenterally, it is reserved for hospitalized patients. It is also essential to confirm a diagnosis of COVID-19 to encourage early participation in clinical trials, especially for patients who may have contraindications to remdesivir. Many other treatments for COVID-19 are under investigation, including oral antivirals that could have important implications for outpatient management.

Second, the syndrome caused by each virus follows a different course. Patients with influenza typically experience most severe symptoms during the first week of illness, whereas patients with COVID-19 may experience a longer duration of symptoms with a peak during the second or third week of illness. Distinguishing between the viruses could allow clinicians to provide patients with anticipatory guidance about how symptoms are expected to evolve and can help identify complications later in the disease course.

Third, correctly identifying the virus has important infection control implications, including appropriate guidance regarding isolation and quarantine, return to school and work recommendations, and COVID-19 case identification and contact tracing.

As the 2020 respiratory virus season begins, any patient presenting with the nonspecific features of a respiratory viral infection should receive testing for SARS-CoV-2 at a minimum, a break from prior practice in which such patients were often managed based solely on clinical criteria. An additional layer of complexity is that coinfection with influenza and SARS-CoV-2 has been observed, so a positive result for one virus does not exclude infection with the other.[7] It is not yet clear whether initial testing should include both viruses or whether influenza testing can be added after SARS-CoV-2 results return. The preferred diagnostic algorithm will depend on which diagnostic tests are locally available with careful consideration of test characteristics, cost, turnaround time, and supply chain issues.

Managing the pediatric population may differ because there are several unique characteristics of the viruses in children. Influenza is a source of significant morbidity and mortality in children, and individuals between the ages of 5 and 17 years are considered to play a critical role in propagating seasonal influenza outbreaks.[8] In contrast, the disease trajectory of COVID-19 in children is typically mild, and children may be less likely to be infected or infect others.[9] Therefore, while surveillance for pediatric spread of COVID-19 remains important to guide plans for school and daycare reopening, the health effects of COVID-19 in children is expected to be much lower than in older individuals.

An Evolving Diagnostic Landscape

The cornerstone of efforts to control the COVID-19 pandemic has been mass surveillance for SARS-CoV-2. Scaling up diagnostic testing can be accomplished by validation of alternative specimen types (such as anterior nasal swabs and saliva) that increase the ease of collection and dissemination of rapid point-of-care diagnostics. Both of these would facilitate serial testing, which could improve case detection, thereby reducing asymptomatic and presymptomatic spread, use of personal protective equipment, and duration of isolation. Importantly, a number of manufacturers are modifying existing assays to allow for multiplex testing of influenza, SARS-CoV-2, and respiratory syncytial virus using a single cartridge. These tests could help fill an important need for clinicians seeking to diagnose infection efficiently while minimizing risk and inconvenience to patients and staff. Further work remains to validate these assays for use with saliva and for use at the point of care.

Conclusions

Despite the rapid pace of progress in the areas of SARS-CoV-2 diagnostics, treatment, and vaccine development, the population remains vulnerable to concurrent influenza and COVID-19 epidemics. The scale of morbidity and mortality will be directly related to the strength of the public health response, which must stress the importance of the 2 most effective infection prevention tools currently available: widespread implementation of seasonal influenza vaccination and preservation of NPIs until community immunity is achieved through an effective SARS-CoV-2 vaccine and/or natural infection. As clinicians and members of local communities, physicians and other health care professionals should promote these important interventions and remain flexible in the approach to diagnosis during these times of unprecedented challenges.

ARTICLE INFORMATION

Author Affiliations: Division of Infectious Diseases, Brigham and Women's Hospital, Boston, Massachusetts (Solomon, Sherman, Kanjilal); Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Healthcare Institute, Boston, Massachusetts (Kanjilal).

Corresponding Author: Daniel A. Solomon, MD, Division of Infectious Diseases, Brigham and Women's Hospital, 75 Francis St, Boston, MA 02115 (dasolomon@bwh.harvard.edu).

Published Online: August 14, 2020. doi:10.1001/jama.2020.14661

Conflict of Interest Disclosures: None reported.

REFERENCES

1. Burden of influenza. CDC. Published April 17, 2020. Accessed July 13, 2020. https://www.cdc.gov/flu/about/burden/index.html

2. He X, Lau EHY, Wu P, et al. Temporal dynamics in viral shedding and transmissibility of COVID-19. *Nat Med*. 2020;26(5):672-675.

3. Yancy CW. COVID-19 and African Americans. *JAMA*. Published online May 19, 2020. doi:10.1001/jama.2020.6548

4. Wilson N, Kvalsvig A, Barnard LT, Baker MG. Case-fatality risk estimates for COVID-19 calculated by using a lag time for fatality. *Emerg Infect Dis*. 2020;26(6):1339-1441. doi:10.3201/eid2606.200320

5. Cowling BJ, Ali ST, Ng TWY, et al. Impact assessment of non-pharmaceutical interventions against coronavirus disease 2019 and influenza in Hong Kong. *Lancet Public Health*. 2020;5(5):e279-e288. doi:10.1016/S2468-2667(20)30090-6

6. Sakamoto H, Ishikane M, Ueda P. Seasonal influenza activity during the SARS-CoV-2 outbreak in Japan. *JAMA*. 2020;323(19):1969-1971.

7. Kim D, Quinn J, Pinsky B, et al. Rates of co-infection between SARS-CoV-2 and other respiratory pathogens. *JAMA*. 2020;323(20):2085-2086.

8. Worby CJ, Chaves SS, Wallinga J, et al. On the relative role of different age groups in influenza epidemics. *Epidemics*. 2015;13:10-16.

9. Li X, Xu W, Dozier M, et al. The role of children in transmission of SARS-CoV-2. *J Glob Health*. 2020;10(1):011101. doi:10.7189/jogh.10.011101