

COVID-19 Data Update

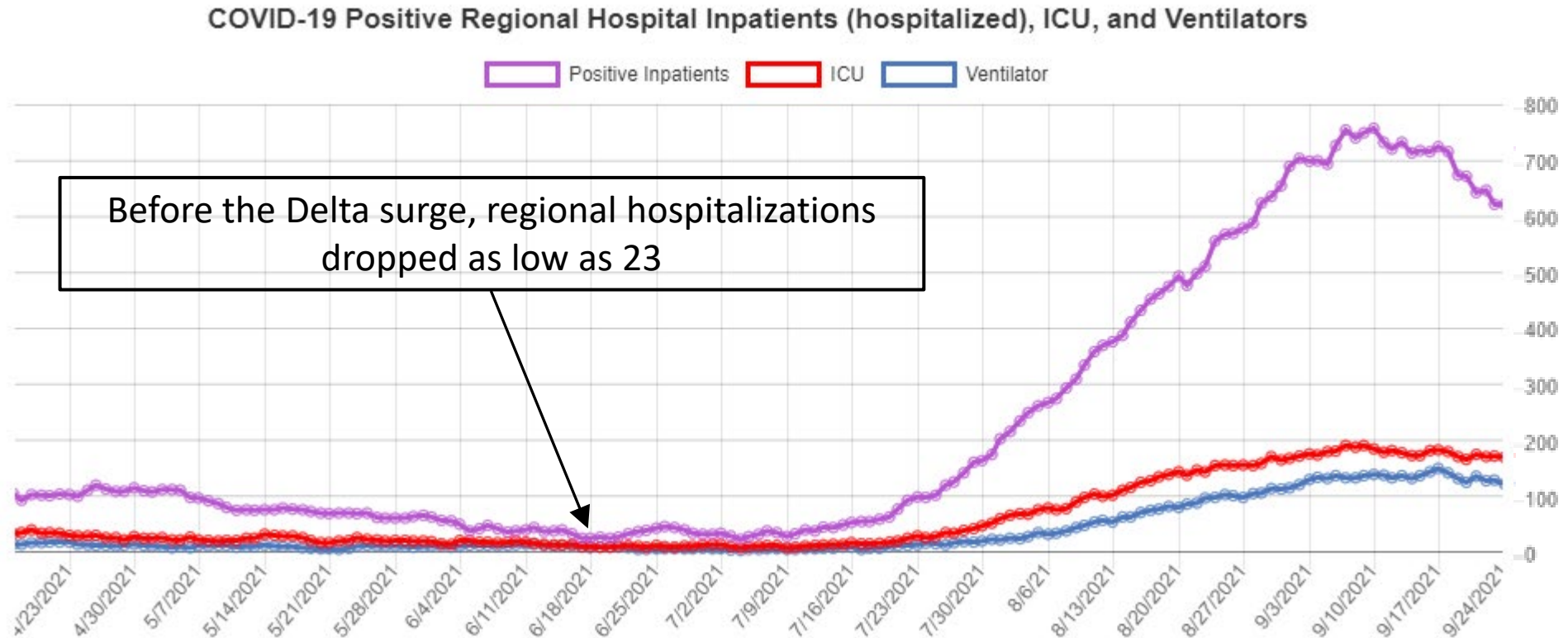
December 22, 2021

Knox County Advisory Board of Health

Outline

- Current regional hospital status
- Omicron – What to expect
- Current Influenza status
- The Current State of National Healthcare Staffing
- What Does this All Mean?
- Community Next Steps

East TN Region COVID Hospitalizations April 2021 to September 2021

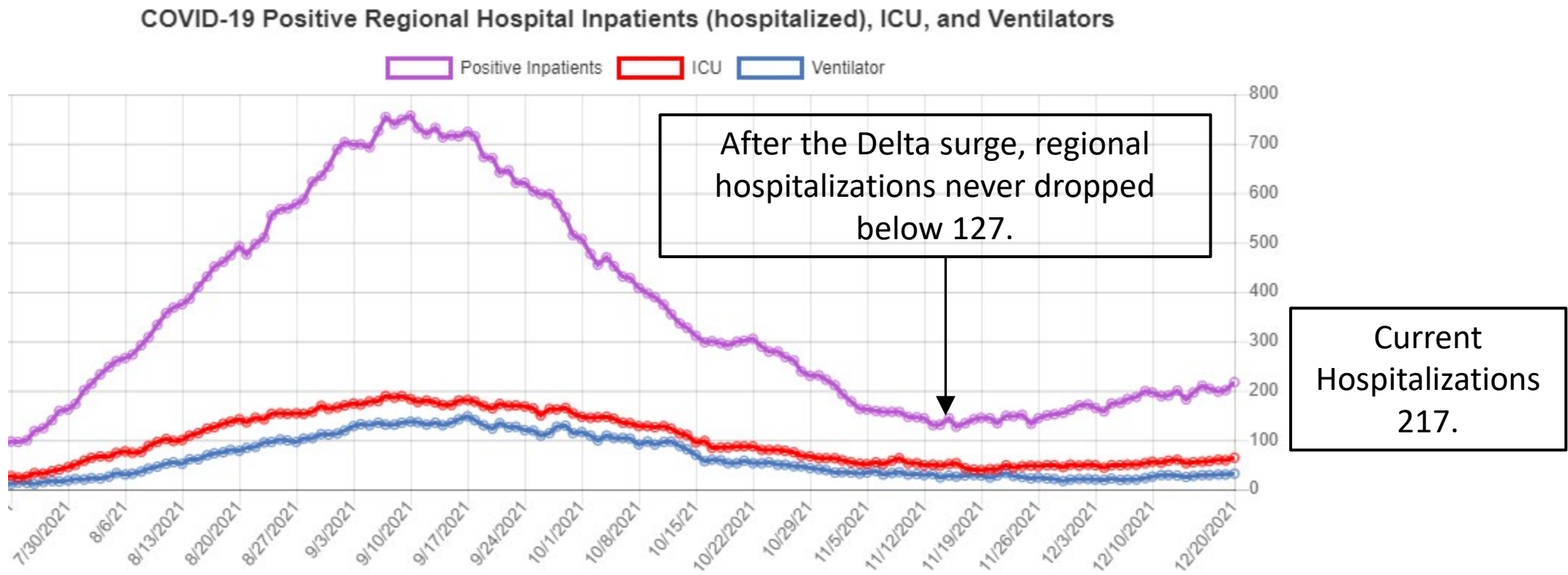


Data/Graphic from Knox County Health Department Website

[Knox County COVID-19 Case Count - COVID-19 - Health Department - Knox County Tennessee Government \(knoxcountyttn.gov\)](https://www.knoxcountyttn.gov/COVID-19-Case-Count)

East TN "Region" Defined Counties
Anderson-Claiborne-Union-Grainger-Hamblen-Jefferson-Cocke-Sevier-Knox-Blount-Monroe-Loudon-Roane-Morgan-Scott-Campbell

East TN Region COVID Hospitalizations August 2021 to Current



Data/Graphic from Knox County Health Department Website
[Knox County COVID-19 Case Count - COVID-19 - Health Department - Knox County Tennessee Government \(knoxcountyttn.gov\)](https://www.knoxcountyttn.gov/health-department/covid-19-case-count)

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COVID-19 Census Profile

COVID-19 Daily Dashboard

Data as of December 22, 2021 at 6:45am

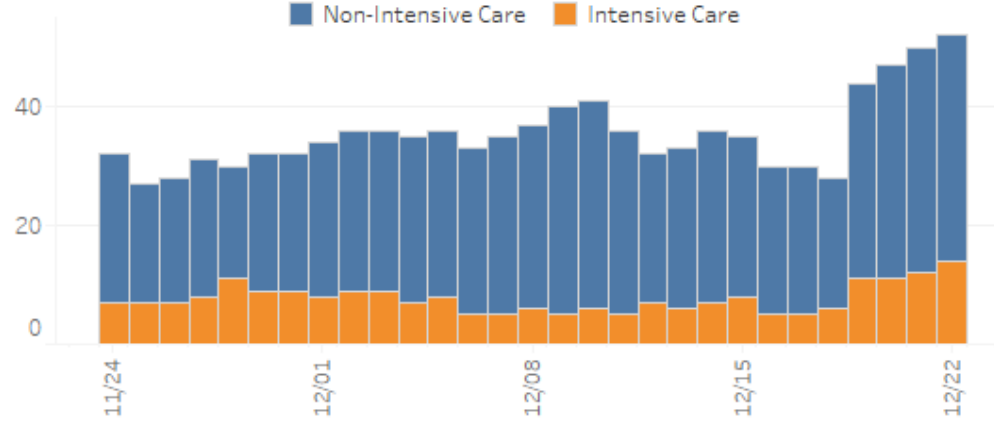


COVID-19 Hospitalizations

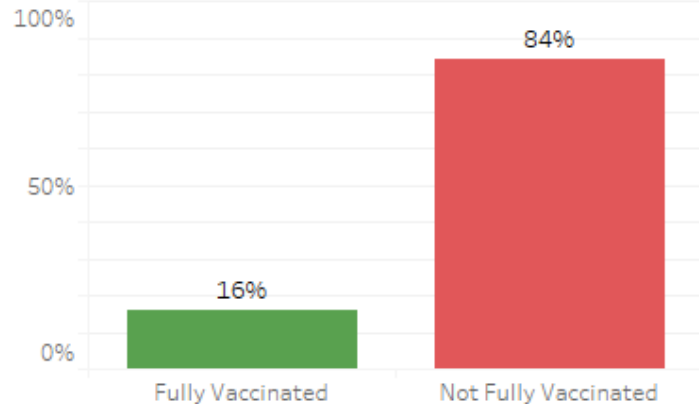
52

COVID-19 Hospitalization 30-Day Trend

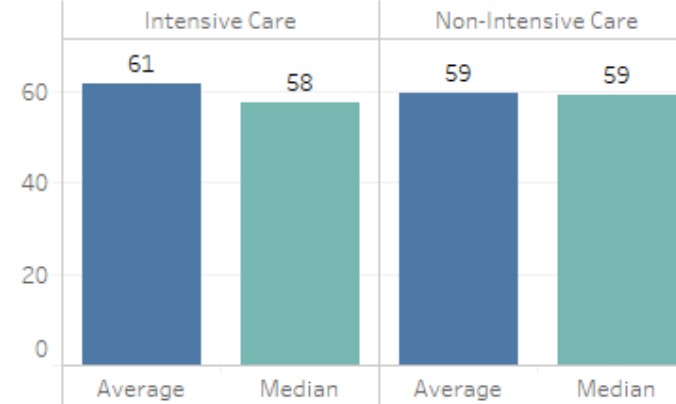
■ Non-Intensive Care ■ Intensive Care



COVID-19 Hospitalized Patient Vaccine Status



COVID-19 Hospitalized Patient Ages



New COVID-19 Variant of Concern - Omicron

- What we know so far – we still need more data to be certain.
 - People with infection-induced immunity are not well protected from Omicron
 - Increased risk of re-infection: 3-8 times higher than Delta
 - Doubling time is **EXTREMELY** rapid, every 3-4 days
- Is it milder? Maybe.
 - World Health Organization December 20. “...It is probably unwise to sit back and think this is a mild variant, it’s not going to cause severe disease, because I think with the numbers going up all health systems are going to be under strain.” World Health Organization Chief Scientist Soumya Swaminathan
- Unclear that currently available monoclonal antibodies are effective treatment

What about vaccines?

- Immune evasion will lead to an increase in new infections across the board regardless of vaccine status
 - Previously vaccinated or infected patients may not produce enough antibodies for Omicron
 - There is hope that T-cells will maintain ability to prevent severe disease
 - Recent recipients of boosters demonstrated increased neutralizing antibodies against Omicron
- Early data - so far Vaccine efficacy against symptomatic Omicron infection:
 - After 2 doses: 30-50%
 - After 3 doses (booster): 70%
 - Vaccination DOES appear to provide protection against severe disease

Influenza

- Nationwide, influenza hospitalizations are increasing
- State of TN:
 - 8.42% of lab-confirmed flu tests are positive (Dec 5-11,2021)*
 - Flu A (H3N2) is predominant strain
 - This time last year there were no flu cases
- UTMC:
 - 5.07% of lab-confirmed flu tests are positive (Dec 5-11, 2021)
 - All positives identified are flu A
 - This time last year there were no flu cases
 - 2021-2022 season so far, 94 lab-confirmed positive flu tests
 - 20 flu admissions since 11/13

*CDC's FluView

The Current State of National Healthcare Staffing

Healthcare Staffing

- The U.S. healthcare sector has lost nearly half a million workers since February 2020 (Bureau of Labor Statistics)
 - 18% of healthcare staff have quit since the pandemic began
 - Between 35-54% of U.S. nurses and physicians already felt burned out before the pandemic (National Academies of Sciences)

[About 1 in 5 healthcare workers have left medicine since the pandemic began — Here's why \(beckershospitalreview.com\)](#)

ANA Urges US Department of Health and Human Services to Declare Nurse Staffing Shortage a National Crisis

Sep 1st 2021

[ANA Urges US Department of Health and Human Services to Declare Nurse Staffing Shortage a National Crisis \(nursingworld.org\)](#)

Healthcare Staffing

- Dr. Victor Dzau, president of the National Academy of Medicine –
- The situation has deteriorated further since the start of the pandemic with some 60-75% of clinicians reporting symptoms of exhaustion, depression, sleep disorders, and PTSD.
- Nurses are equally if not more stressed. About 20% of health care workers have quit during this period, and 4 out of 5 of those who remain say that staff shortages have affected their ability to work safely and to satisfy patient needs.

Situational Awareness

LOCAL

Gov. Andy Beshear declares an emergency over Kentucky's pandemic nurse shortage

Bruce Schreiner Associated Press

Published 7:10 p.m. ET Dec. 9, 2021

[View Comments](#)



FRANKFORT, Ky. (AP) — Kentucky's governor declared the state's chronic nursing shortage to be an emergency Thursday, taking executive actions amid the ongoing coronavirus pandemic to boost enrollment in nurse-training programs.

Kentucky is projected to need more than 16,000 additional nurses by 2024, to help fill gaps caused by retirements and people leaving the profession, Gov. Andy Beshear said. His new executive order includes "immediate actions that we believe will provide some relief," the Democratic governor said. "Obviously long term there is a lot to do."

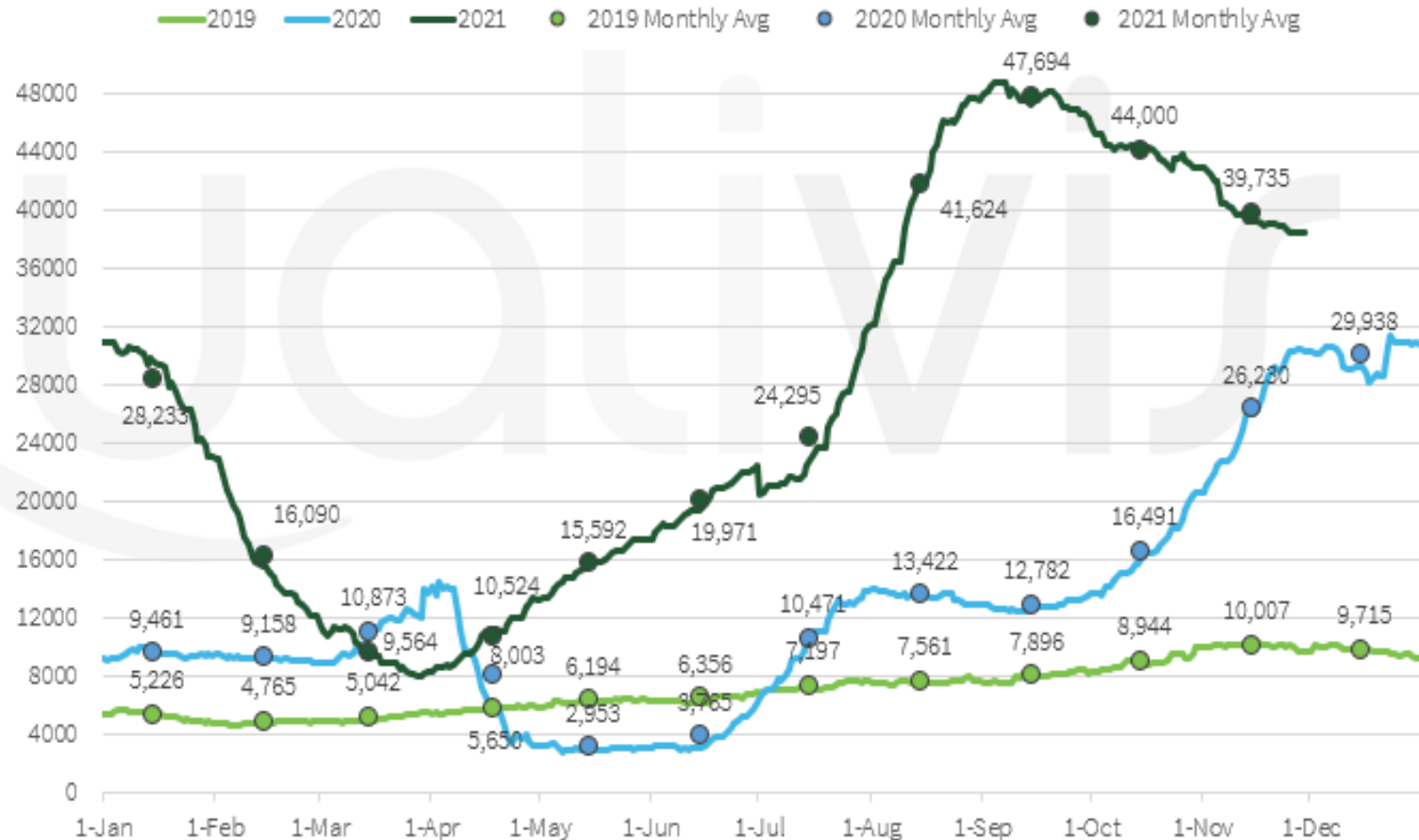
The nurse staffing emergency in Kentucky reflects a national epidemic created by the pandemic. Health leaders say the problem is twofold: Nurses are quitting or retiring, exhausted or demoralized by the crisis. And many are leaving for lucrative temporary jobs with traveling-nurse agencies.

National Travel Nursing Demand

YEAR OVER YEAR



- ▶ 38,376 Open Nursing Travel Jobs as of 11/29/2021.
- ▶ Open Nursing jobs are 26% higher today than on this day in 2020.



- Data is as of 11/29/2021 and is based on Lotus Workforce Solutions data including direct contracts, managed service contracts, and support of third-party staffing programs.
- Travel RN Jobs include all open jobs for travel, contract, EMR, and Strike needs for RN, LPN, and CNA.

What Does this All Mean?

- Many individuals, both vaccinated and not, are likely to be infected with Omicron in the coming weeks
- Boosters are your best protection from avoiding it altogether
- Those who have not been vaccinated are at significant risk in the coming weeks
- Holiday gatherings may accelerate and worsen the situation
- Healthcare and hospital access may again become a significant concern in the coming weeks
 - Potential for absences in vaccinated staff for mild Omicron
 - Possible surge of patients with Omicron
 - Current staffing challenges which are being seen nationally

Community Next Steps

- Regardless of vaccination status
 - Renew mask wearing, especially in large groups
 - Consider taking an at-home test before holiday gathering
 - Re-consider large in-person gatherings, especially if older or at-risk individuals are present
- Obtain Influenza vaccines and the initial COVID-19 vaccines
- Restimulate immunity with COVID-19 boosters
- If you have symptoms, get a COVID test