# Ballad responds to low hospital ratings

#### DAVID MCGEE BRISTOL HERALD COURIER

Ballad Health System's flagship acute care hospitals again scored poorly in the Centers for Medicare and Medicaid Services Star ratings but health system officials claim the rankings are unfair, can be confusing and potentially cause consumers to make dangerous decisions.

In the most recent ratings issued July 26, Bristol Regional Medical Center and Johnson City Medical Center — two of the system's largest, most heavily staffed, tertiary care facilities — received one star on the CMS five-star scale. Holston Valley Medical Center, Ballad's third major tertiary care facility, received two stars.

It represents the latest round of poor rankings under the Star system for this region's most important health care facilities.

By contrast, Ballad's Smyth County Hospital received five stars while Indian Path in Kingsport and Sycamore Shoals in Elizabethton each received four stars, Franklin Woods in Johnson City and Lonesome Pine Hospital in Big Stone Gap each received three stars and Johnston Memorial in Abingdon received two stars.

Nationwide, 248 hospitals both large and small received one-star ratings.

In the Internet age, people go online to check and leave ratings and reviews for

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## Hospital

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practically everything — from restaurants, hotels and cruise lines to shopping preferences. Consumers often consider such ratings in making purchases and decisions.

"These are not hotels. These are really complicated organizations," said Alan Levine, president and CEO of Ballad Health System, who cautions that potentially lifesaving decisions should not be based solely on a single rating.

Ballad was established in 2018 from former rivals Mountain States Health Alliance and Wellmont Health System, in a move approved and overseen by the states of Tennessee and Virginia.

"What has changed since the merger is we have deliberately channeled our highest risk patients to JCMC, HVMC and BRMC, thus putting a disproportionate burden on those hospitals when it comes to Star ratings," Levine told the Bristol Herald Courier last week.

The complications and mortality of sicker patients are then attributed to those hospitals, which Levine calls "one of the major flaws of the rating system."

#### CMS Star rating system

The Centers for Medicare and Medicaid have issued hospital ratings since 2016. The agency began issuing similar star ratings for nursing homes in 2008.

"The overall star rating for hospitals summarizes quality information on important topics, like re-admissions and deaths after heart attacks or pneumonia," according to the CMS website." The overall rating, between 1 and 5 stars, summarizes a variety of measures across five areas of quality into a single star rating for each hospital. The five measure groups include mortality, safety of care, readmission, patient experience and timely and effective care.

"The overall rating shows how well each hospital performed on an identified set of quality measures compared to other hospitals in the U.S. The more stars, the better a hospital performed on the available quality measures," according to the Medicare website.

On the front of its ratings page, Medicare advises consumers on how to best utilize the information.

"Star ratings can give you information and help you compare hospitals locally and nationwide, but you should consider a variety of factors when choosing a hospital, like physician guidance about your care plan. Along with the overall rating, you should look at other aspects of hospital quality like rates of infection and complications, and patients' experience of care based on survey results."

Researching that data requires sifting through a series of packed spreadsheets, information about improvements and declines and an exhaustive series of web pages listing everything from patient survey results to complications and deaths.

#### Creating accountability

When it comes to evaluating health care facilities, Levine helped write the book. In 2004, as Florida's health secretary, Levine established the nation's first state reporting of hospital outcomes.

"We were the first to create hospital transparency. I created it in Florida and then brought it to Louisiana," Levine said, adding he was subsequently asked by the federal government about applying the program on a national scale.

"My advice at the time was go condition by condition, service by service and identify what characteristics hospitals do that leads to better outcomes and measure a process of care measures," he said. "They weered, at some point in 2015 or 2016, and decided they wanted to have a simple system so they created the Star ratings.

"It came out in 2016 and was widely panned. CMS went back to the drawing board and Congress acted. They asked them to delay the Star ratings but they didn't. They changed the methodology and changed it again in 2020," Levine said.

Levine argues the system — which measures only traditional Medicare patients — doesn't include socio-economic factors and health co-morbidities in its rankings.

"It would be easy to conclude I'm making excuses. I'm not. As long as the Star rating methodology is what it is now, and all these other variables are true about our region, it's not going to change dramatically. Smyth County will be five stars and Bristol and Holston Valley will be one and two stars," Levine said.

A former Medicare executive, with knowledge of the rating system, spoke with the Herald Courier on background, on the condition of anonymity, due to this person's current position.

pitals locally and nationwide, but The former official agreed with you should consider a variety of Levine's assessment "100%" that

the ratings don't take into consideration social determinants, economic levels or general health of patients.

Efforts were made to improve the rating system's ability to accurately reflect hospital outcomes but the issue is "complicated," changes occur slowly and the process can become "political."

One change to the rating process, for example, could reflect poorly on some hospitals and cast others in a better light.

"Are these ratings fair? Are they accurate? Do they really represent what is going on? I think it's fair to say they don't or that there are some caveats to all of this," the former official said.

Patients from "lower socio-economic status" or who have more social determinant issues "definitely impacts their health so they're coming in as a sicker population," the former official said.

#### The Ballad argument

In 2021, Ballad's "big three" hospitals all saw their Star ratings improve from one star to two. In an email to his board of directors at that time, Levine declined to promote the change because of ongoing concerns with the rating system.

He said this region's challenges
— including poverty, above average
rates of cancer, diabetes, obesity
and behavioral health — combine
to skew the numbers when the
sickest are combined in those three
facilities.

"I have always had concerns about oversimplifying measurements of health care organizations because I've not yet seen a methodology that adequately accounts for poverty, social determinants and the variations in the populations hospitals serve," Levine wrote in the May 2021 email to the Ballad board of directors.

As an example, he compared local results to some comparably sized Nashville hospitals that received three and four-star ratings. However they serve a population that includes 50% with commercial insurance compared to the 20% of commercially insured patients in this region, Levine said.

"The Star ratings are comparing two unlike populations," Levine said. "They're comparing Sullivan County hospitals with a 25% Medicare fee-for-service population with Davidson County, which has a 50% Medicare pay-for-service population. You can't compare that. That's only one of the issues."

This region's population also varies widely in Medicare coverage. In Washington County, Tennessee, 54% of Medicare consumers are enrolled in a managed care plan, or HMO. The rate is 63% in Sullivan County but 75% in more rural, less populated Hancock County.

The Star ratings are limited only to Medicare fee-for-service populations and don't include lower acuity, healthier patients in Medicare Advantage plans.

"The population of patients in [Ballad] hospitals are sicker, higher acuity and more likely to experience infections and other issues," he said.

One case in point is diabetes. Rates are on the rise nationally with 11% of the U.S. population diagnosed with diabetes, according to the U.S. Centers for Disease Control and Prevention.

Tennessee's diabetes incidence rate ranks among the five highest states in the U.S., at 14%. All 10 Tennessee counties within Ballad's service area ranked between 11% and 18% — at or above the national median.

Diabetes in adults, especially if untreated, can create a whole range of complications including heart disease, chronic kidney disease, nerve damage, and other problems with feet, oral health, vision, hearing, and mental health, according to the CDC.

A review shows this region has higher rates of cancer, cardiovascular and diabetes-related deaths than the rest of Tennessee or the U.S.

Suicide rates are higher here than the national median, as are the levels of opioid medication prescriptions, non-fatal overdoses and babies born with neo-natal abstinence syndrome.

#### Other sources

Both the Tennessee and Virginia Departments of Health monitor Ballad's health care and financial performance on an ongoing basis. Neither relies on the Medicare Star ratings as a measure of quality under the Tennessee COPA or Virginia Cooperative Agreement which were used to establish the Ballad system.

"For hospital quality performance, quality monitoring measures will include CMS Hospital Compare measures. Hospital Compare measures that are identified as target quality measures and measures of payment and value of care will be excluded from quality monitoring measures, according to the Tennessee Department of Health's overall evaluation document. "Quality monitoring measures will be evaluated for the entire patient population and will not be restricted based on the patient's payor status. Specifically, these measures will not be limited to the Medicare population," according to the TDH document.

In 2021, the American Hospital Association issued a statement saying, "CMS's failure to account for social risk factors in calculating measures like readmission biases the ratings against those hospitals caring for more vulnerable patients.

"Star rating methodology has changed frequently and significantly since its inception comparing a current rating to a previous rating could be very misleading," according to the association.

In 2019, the New England Journal of Medicine asserted that "all hospital rating systems are flawed." The publication ranked all of the hospital quality measuring services available and gave the CMS Star system a "C" grade, terming the system "mediocre." It rated U.S. News rankings highest with a grade of "B." Leap-Frog received a "C-minus" and Healthgrades received a "D-plus."

That report was also critical because the CMS ratings are based solely on data from patients with traditional Medicare.

Levine said Ballad hospitals have received high marks from other rating services, including U.S. News, The Joint Commission, Blue Cross-Blue Shield and Quantros. Ballad does not participate in the LeapFrog health ratings, Levine said, because the process is "extremely labor intensive" for system employees since it requires self-reporting.

The Joint Commission accredits hospitals for the Medicare program. Ballad sought and received Joint Commission special certification in specific categories for some of its hospitals, including BRMC. Additionally, Blue Cross Blue Shield identified two Ballad hospitals — Bristol Regional and Holston Valley — among just four statewide in Tennessee that it classifies as efficient.

"They can't all be wrong," Levine said. "So to simplify all of this into a star rating when all of these things are true does a huge disservice to the hospitals and to the community. Because the worst thing that can happen, if someone has chest pains but says 'Bristol has a one-star rating, I'm not going there. I'm going to Sycamore Shoals or Smyth County because they're five-star."

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## The assault on health care workers

### DAVID MCGEE BRISTOL HERALD COURIER

ABINGDON, Va. — In five years working as a registered nurse, Connie Hensley has been struck in the face, spit on, screamed at and threatened by patients or their family members while working in the emergency department of Johnston Memorial Hospital.

She is far from alone. Physical violence against health care workers nationwide — particularly in emergency departments — is at an all-time high, even in rural community hospitals like Abingdon.

"I've been struck in my face by a behavioral health patient. I've been spit in my face by a behavioral health patient," Hensley recounted for the Bristol Herald Courier.



WATCH: Videos of personal accounts of ER nurses who have been assaulted. Click the code with your

smartphone or visit the story on HeraldCourier.com. NEWSVU

Patients requiring behavioral care are far from the only offenders as many incidents involve people upset over waiting time or other aspects of their visit.

"You're trying to help somebody and they spit on you, which is the lowest thing you can do to somebody and it's very dangerous too," she said, referring to the diseases transferable by bodily fluids.

And that isn't all.

"Patients, after they assault a nurse,

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## **Workers**

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will threaten them very explicitly and specifically with what they're going to do when they come back," she said. "They threaten to physically come and kill them [nurses]. To find out where they live and kill their family. They say they will come in and blow up the facility with everybody in it."

Some 20 miles down Interstate 81 in Tennessee, Bristol Regional Medical Center's bustling emergency department typically treats over 100 patients per day and up to 1,000 per week. Violence, or the threat of violence, can occur at any moment.

Corey McKinney, an 11year staff nurse at Bristol
and Holston Valley Medical Center has been spit on,
bit, scratched and strangled
with his own stethoscope.
He said it's been a couple of
years but for "altercations
that have the potential to go
bad are like a daily occurrence, especially in the ER."

"It's typically a high intensity environment. Anger is a normal emotion during the grieving process. It's one of the first emotions people feel when something bad has happened or their health, or the health of someone they care about, isn't going well. The next person is who that gets taken out on is the person delivering their care. It's normal. It's usually just verbal. It doesn't always escalate to physical," McKinney said.

Violence, he said, is just one more thing for health care workers to deal with.

"A seasoned ER nurse will be more battle hardened. We have a certain level of tolerance because it's an everyday thing. We're nonchalant. You just grow to expect it after a while. We desensitize a lot of stuff because we see the worst possible stuff every day. You've got to be tough," he said. "It isn't just us. Its social services, or police, they get as much or more [abuse] than we do."

Nationwide, about 70% of emergency nurses and 47% of emergency physicians reported being assaulted, according to a 2018 survey by the American College of Emergency Physicians (ACEP) and the Emergency Nurses Association (ENA).

A similar 2022 survey by the same group found 66% of respondents were assaulted during the past year and more than 20% reported being assaulted more than once.

"Violence in emergency departments has reached epidemic levels and emer-

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## Workers

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gency nurses are particularly vulnerable," according to the nurses association website, which notes the healthcare industry "leads all other sectors" in the incidence of nonfatal workplace assaults.

Asked for examples, Hensley cites many.

One day a woman and her adult daughter came in while the department was busy handling multiple cases. After the woman was checked in and evaluated, she was directed to wait.

"The triage nurse went to explain what the wait was and if anything changed please let them know." Hensley said. "In the middle of explaining, the daughter punched my nurse in her face. The nurse left and security had to get involved. She came back to help the team because we were shortstaffed like everybody else doing the best we could."

Charges were filed however the nurse who was struck was later publicly vilified on social media.

"She left and will probably never be an emergency room nurse. She was a fantastic nurse so the community lost a highly trained individual," Hensley said.

They also deal with threats of escalated violence, all of which are taken seriously.

"We have so many instances where nurses have to call security as soon as they come into the parking lot and they're escorted in," she said. "I encourage our night shift team not to come in alone; wait until everybody comes in and walk in together and walk out together - there's safety in numbers."

Hospital security personnel now have a constant presence in Ballad Health emergency departments.

"In the pandemic and post-pandemic, I have found a lack of empathy and a lack of respect. And [patients] wanting an immediate response where there might not be the staff to provide that immediate response," Hensley said. "We always take the sickest people back hospital emergency rooms [first]. We always take the on its website. It also pro-

less stable, EMS trucks come to the back door of our ER so the public doesn't see what we get from EMS services."

That could include anything from heart attack or stroke victims, accident or shooting victims or other life-threatening circumstances. Health care workers can't reveal those specifics to other patients, Hensley said, which is also a source of frustration.

She compares the situation to a restaurant where patrons see a row of empty tables where no one is seated because of insufficient wait staff. Likewise, there may be emergency beds available but not enough nursing staff to attend to them all.

"To the people in the waiting room, it's your emergency and we respect that, but they aren't going to die from it," she said. "When you try to explain that to people in today's circumstances. they just hear 'you're not coming back now."

Ballad Health System lists current wait times and average visit times for all its

about wait times at all its urgent care clinics and links so non-emergency patients can speak with a health care provider online through its telemedicine program.

The longer people wait, the more their frustration or anger are likely to increase, McKinney said.

"At some point we get such an influx of patients, we run out of physical space and are treating people in issue. the waiting room - starting an IV or treating people in a hallway. We're completely overrun and just trying to do the best that we can," he said.

in and they're about to arise. meet Jesus, we'll get them ahead sooner. Oftentimes we have to use our clinical judgment on who can wait and who can't wait. That's a hard task to do sometimes," McKinney said. "You have to have nerves of steel because they all want to be seen right now. They don't care about their neighbor who is also sick. We have conditions. to have empathy for them

vides online information realistic and know what the restrictions of a busy ER and what we need to do. Those decisions have to be made on a daily basis and that leads to anger."

> Health care workers, he said, are trained to watch for behavioral keys such as tension, pacing or a raised voice.

"The first step in safety is to deescalate," he said.

Both cited multiple circumstances impacting this

- Hospitals everywhere are dealing with a worldwide shortage of health care workers.
- Many patients don't have a family doctor and rely "If somebody checks on the ER if health problems
  - Many family practice doctors/clinics aren't accepting new patients or appointments can take months.
  - Many urgent care, walk-in clinics are similarly overwhelmed.
  - People are living longer, often with more advanced disease and complex health
- The U.S. health care but, at the same time, I'm system can be complex and

difficult to navigate.

- Substance abuse remains an epidemic region-
- Untreated mental health patients comprise a portion of those coming to emergency departments.
- COVID-19 During many put off checkups, screenings and other procedures, meaning they are sicker when they finally come to the ER.

Despite the challenges both still enjoy their jobs.

"I think if you were to ask, probably 90% of the people who come through our doors are satisfied with their care. There are many who are satisfied – despite waiting times - have always been very pleasant and thankful," he said.

Hensley asks her patients for patience.

"We love you and we want to help you. Please just be patient," she said. "I promise we will take care of you but be nice, please. We're here to help. We've got you but you've got to have us too."

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Vaccines, herd immunity cut cases, but ...

DAVID MCGEE BRISTOL HERALD COURIER

More than 5,200 Mountain Empire residents have died during the three years since the COVID-19 global pandemic first arrived here.

And while the past year saw declines in

cases, hospitalizations and deaths compared to the prior year, mutations of the virus continue exacting a toll on this region.

Northeast Tennessee recorded its first diagnosed case on March 10, 2020.
Since that time more than VashIst
340,000 residents in Northeast Tennessee and Southwest Virginia have been sickened by the virus.

For some it was sniffles or a cough and fever that they recovered from in a matter of days. Others spent weeks in intensive care in hospitals region-wide — with the sickest on ventilators struggling for breath. Many survived and many did not.



The period from March 2022 to March 2023 saw an unusual summer surge — although lesser than previous winter surges — and no holiday season surge for the first time since the pandemic started.

But the virus continues to linger.

This past year the region registered about 85,000 cases — a total comparable to the 2020-21 period but with far fewer hospitalizations, according to Ballad Health System.

"We've had four big waves. One was in August-September 2021 — that was delta. And there was January-February-March of last year. That was omicron," Dr. Amit Vashist, chief clinical officer of Ballad Health, told the Bristol Herald Courier.

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# ... three years. 346,000 cases. 5,203 deaths.

"What we have seen is, gradually, the virus has been blunted. The virus itself is less but a lot of factors have happened. In our communities and our society, so many people have had COVID-19 so we've reached herd immunity - so people can get it without getting really sick — and there are vaccinations.

"I think a combination of so many people having had COVID-19 or built up herd immunity or been vaccinated have led to blunting the severity of the disease," Vashist said. "Having said that, as a medical professional, I would say we're not completely out of the woods yet. People who have immuno-suppressive conditions, cancers or advanced stages of other illness - or chronic disease like heart disease, kidney disease or scarred lungs, diabetes and the like still have a high risk of having adverse outcomes from COVID-19."

The region recorded about 1,900 COVID deaths in 2020-21 and about 2,400 last year compared to just over 800 in 2022-23 - a 66% decline, according to information from the Tennessee and Virginia departments of health.

The region's most populous counties again reported the largest numbers of cases and deaths.

In Northeast Tennessee, Sullivan and Washington counties had nearly 15,000 and more than 11,000 cases, respectively during the past 12 months. And they recorded 132 and 70 deaths, respectively. Hawkins County actually reported more deaths than Washington - 77 despite having less than half the March 21, Ballad data shows. number of cases during the period, TDH reported.

Northeast Tennessee's 10 counties finished with 64% of the region's total cases and 63.5% of the as strained as they once were. Our region's total deaths from March 2022 to March 2023.

Southwest Virginia reported more than 30,000 cases and 296 deaths during the past 12 months, compared to more than 57,500 cases and 766 deaths the prior year a 61% decline, according to the Virginia Department of Health.

All 10 counties and two cities Lessons learned reported more cases in 2022-23

than during the first year of the pandemic while only one - Dickenson County - saw more deaths this past year than during the first year of the pandemic.

Populous Washington and Tazewell counties registered the largest numbers of total cases in Southwest Virginia, with about 4,600 and 4,000, respectively. Tazewell County reported the highest number of COVID deaths in Southwest Virginia, with 43 — less than half of the 97 it reported last year while Washington declined from 106 deaths in 2021-22 to 37 last year. Wise County had the dubious honor of having the second-highest number of COVID deaths with 38, VDH data shows.

During the first three months of this year, the entire region's average number of cases has steadily fallen from over 2,000 during Jan. 1-7 compared to 699 during the week of March 5-12, Ballad Health data shows. That is down dramatically compared to the summer high point of more than 5,100 cases the week of Aug. 14-20 and the alltime record of more than 15,400 new cases in a single week during Jan. 16-22, 2022.

Multiple weeks during 2021-22, Ballad was treating well over 400 COVID patients in its hospitals, but totals from March 2022 to March 2023 never approached those levels. Ballad reported a single-day peak of 169 inpatients in August amid several consecutive weeks of about 140 to 150 hospitalizations. Inpatient totals approached 150 in January 2023 and steadily declined thus far through March - dropping from 81 on Feb. 28 to 40 on March 18 before climbing back to 52 on

"The numbers have decreased compared to last year but the severity is much more important," Vashist said. "The ICUs are not emergency departments are not as overcrowded with COVID-19 patients. The strain on our ventilators was very perceptible at that point in time as was on nursing and all those kinds of things. That has clearly eased up, but COVID-19 is not in the rearview mirror yet."

In some ways, COVID-19 supports it," Vashist said.

COVID-13 Statistics					
	2022-23			2020	23
	Cases	Deaths		Cases	<b>Deaths</b>
Bristol	1.668	17		6,026	103
Bucharian	1,359	22		6,042	147
Dickenson	1,578	16		4,793	70
Lee	2,298	- 16		6,213	121
Norton	322	2		3,586	21
Russell	2,276	23		9,272	133
Scott:	2.004	27		7.519	139
Simyth	3,443	28		11,622	181
Tazewell	4.003	45		13,743	222
Washington	4.608	37		17,670	236
Wise .	3,806	38		13,572	228
Wythe	2,291	25		5,493	109
SWVA	38,156	296		105,551	1,372
Carter	5,237	40		21,653	373
Cocke	3,363	38		14,897	245
Greene	6.643	56		28,035	418
Hamblen	5,092	41		24,763	387
Hancock	643	19		2,544	43
Hawkins	5,198	77		21,775	376
Johnson	587	23		6,119	111
Sullivan	14,027	132		60,449	1120
Unicol	1,680	13		6,827	106
Washington	11,638	70		50,040	552
NETH	54,700	511		237,200	3,431

COVID-19 statistics

Sources: Virginia and Terrenare departments of health

346,759 5,203

changed health care forever.

BARSE

Health care providers had to deal with both the virus and the public firestorm that accompanied it people both prominent and ordinary denouncing its very existence, a toxic social media climate, rumors and innuendo. All while nurses and doctors worked double shifts trying to treat the overflowing numbers of patients while taking extraordinary measures not to transport the virus home to their own families.

"There are always lessons. Some of the good lessons are trusting the science, trusting the process; the power of teamwork," Vashist said. "When COVID-19 was upon us, without the vaccine, how different stakeholders, public officials, team members, county leaders, our health care system leaders everybody came together to devise an emergency response - spreading the word around masking and social distancing - which we felt was very necessary at that point in

He said the lessons of collaboration, cooperation and education will serve as models going forward.

"Some of the lessons, unfortunately, fostered an unwelcome skepticism of science; skepticism of vaccines. It started with COVID-19 vaccines. What we worry about going forward is what affect will that have on childhood vaccinations where there are decades of science behind it - medical evidence that

There were other instances that have already taken a toll.

"We learned how rapidly scientific misinformation spreads and people died because of that," he said. "The politicization of science; the weaponization of science to suit partisan political ends on both sides. I think that was one of the most valuable lessons. I think we will be hurting from it for many, many years to come."

#### Pandemic to endemic

Vashist expects the virus won't go away soon or maybe ever.

"I think the jury is still out. When I look at the data, the coronavirus continues to evolve; changing its form or mutating itself," Vashist said. "What we expect is more of the same as the disease moves from a pandemic to an endemic [regularly occurring]. We will continue to have a definite number of patients in our hospitals. I really doubt we have those very high peaks of hospitalizations that we saw at the height of delta or omicron unless the virus mutates itself to a totally unrecognizable form.

"The severity of the virus is going to decrease but it will still cause upper respiratory symptoms, causing people to miss work or affect their quality of life. I think it will be something like the flu; the flu is typically November to March but I think COVID-19 will be year round - a few patients here, a few patients there kind of a deal."

He said Ballad Health continues treating people with "Long COVID," who deal with lingering symptoms including loss of smell or taste, extreme fatigue and brain fog and he expects they will continue seeing new patients.

#### Vaccinations & boosters

This region's residents remain among the least-vaccinated against COVID-19 in America, ranging from 45% of adults in Lee and Tazewell counties to 55% of adults in Washington County listed as fully vaccinated, according to the Virginia Department of Health. In every locality, the numbers of booster doses remain much. much lower.

The situation is similar in Northeast Tennessee but with even lower averages. About 47% of adults in @DMcGeeBHC

Sullivan and Washington counties are fully vaccinated compared to less than 40% in lightly populated Hancock and Johnson counties, according to the Tennessee Department of Health.

The U.S. Centers for Disease Control currently offers the following guidance on updated and original boosters.

"Previous boosters are called 'original' because they were designed to protect against the original virus that causes COVID-19. They also provide some protection against Omicron, but not as much as the updated boosters," according to the CDC. "The updated boosters are called 'updated' because they protect against both the original virus that causes COVID-19 and the omicron variant BA.4 and BA.5. Two COVID-19 vaccine manufacturers, Pfizer and Moderna, have developed updated COVID-19 boosters," according to CDC.

Updated COVID-19 boosters became available in 2022; on Sept. 2 for people aged 12 years and older; Oct. 12, for people aged 5-11 years and Dec. 9 for children aged 6 months-4 years who completed the Moderna COVID-19 vaccine primary series

Anyone who has received the updated booster dose is considered currently up to date. There is not a recommendation to get another updated booster dose, according to CDC. Given the region's herd immunity and because only about half its residents are vaccinated, Vashist said the "jury is still out" what happens next.

"There have been some studies that look at the level of antibodies in your system with vaccinations; how long do they persist? But different studies have had different results. Immunity is not just having antibodies circulating in your bloodstream or in your system. It's also the cells that are able to produce antibodies in response to an infection. It's a combination of various factors, he said. "If you have one of those [serious] medical conditions, by all means get a booster. That will lengthen the immunity and protect you from the severity of COVID-19."

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