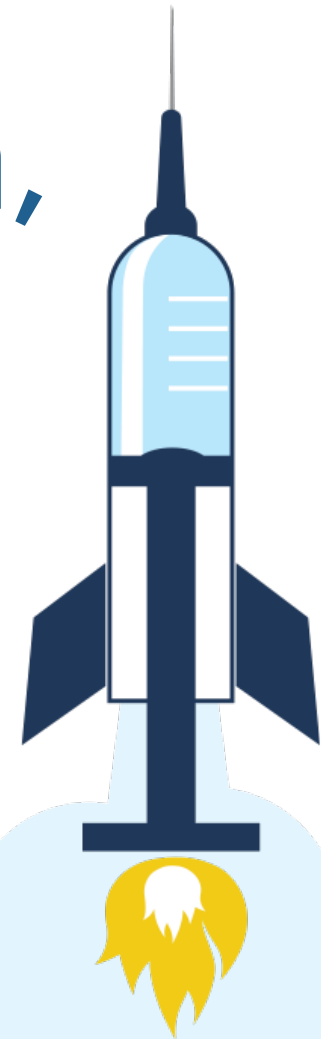


# Codifying Transmission, Containment and Prevention: Part 2

Dr. Swati Gaur, MD, MBA, CMD, AGSF  
Erica Umeakunne, MSN, MPH, APRN, CIC

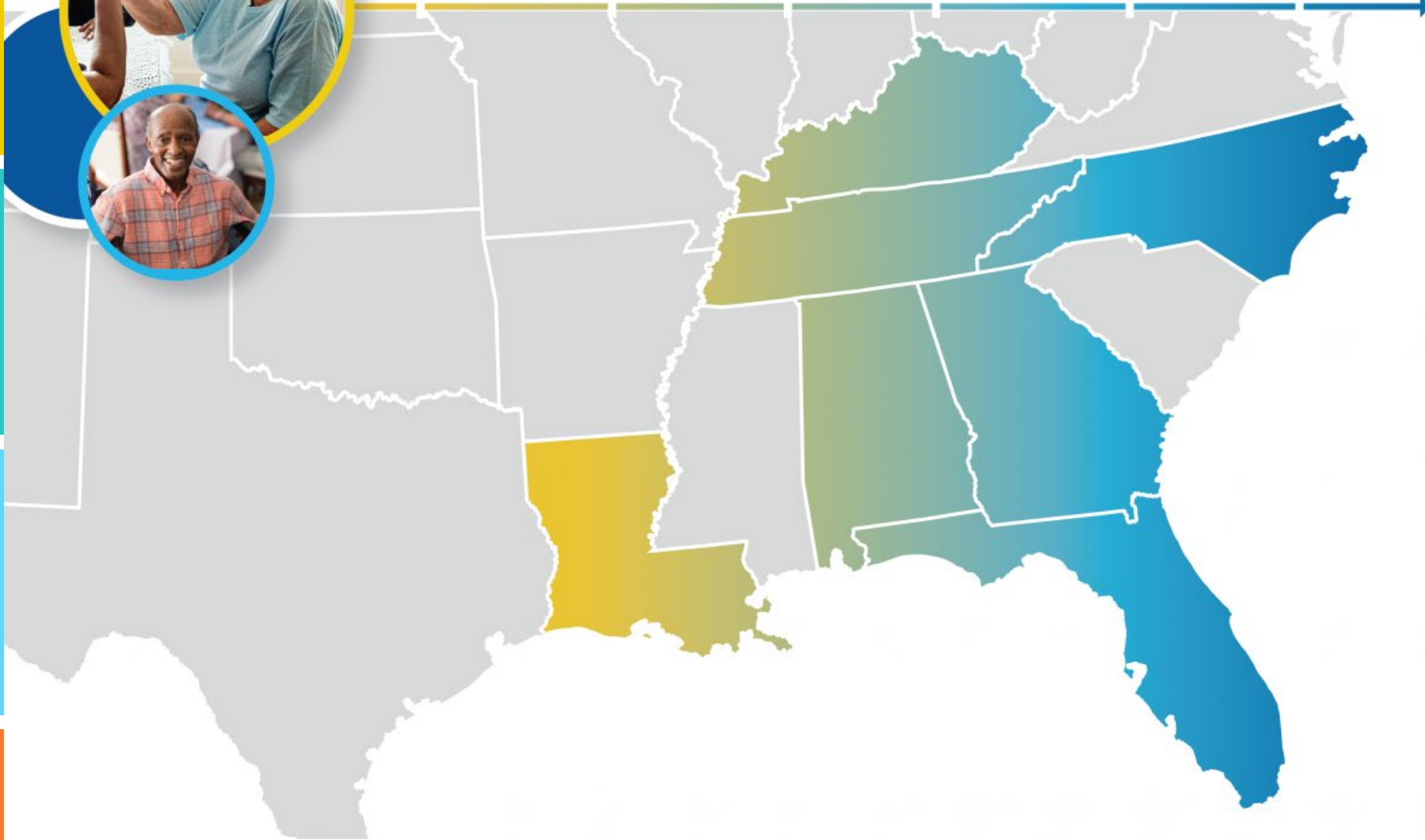
January 25, 2024



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## About Alliant Health Solutions

# Swati Gaur, MD, MBA, CMD, AGSF

**MEDICAL DIRECTOR, POST-ACUTE CARE NORTHEAST GEORGIA HEALTH SYSTEM**

Dr. Gaur is the medical director of New Horizons Nursing Facilities with the Northeast Georgia Health System. She is also the CEO of Care Advances Through Technology, a technology innovation company. In addition, Dr. Gaur is on the electronic medical record (EMR) transition and implementation team for the health system, providing direction to EMR entity adaption to the long-term care (LTC) environment. She has also consulted with post-acute long-term care (PALTC) companies on optimizing medical services in PALTC facilities, integrating medical directors and clinicians into the QAPI framework, and creating frameworks of interdisciplinary work in the organization. She established the palliative care service line at the Northeast Georgia Health System.

Dr. Gaur is an attending physician in several nursing facilities. She attended medical school in Bhopal, India, and started her residency in internal medicine at St. Luke's–Roosevelt Medical Center in New York. She completed her fellowship in geriatrics at the University of Pittsburgh Medical Center and is board-certified in internal medicine, geriatrics, hospice, and palliative medicine.

In addition, she earned a master's in business administration at the Georgia Institute of Technology with a concentration in technology management.



# Erica Umeakunne, MSN, MPH, APRN, CIC

## INFECTION PREVENTION SPECIALIST

Erica Umeakunne is an adult gerontology nurse practitioner and infection preventionist with experience in primary care, critical care, health care administration, and public health.

She previously served as the interim hospital epidemiology director for a large health care system in Atlanta and as a nurse consultant in the Centers for Disease Control and Prevention's (CDC) Division of Healthcare Quality Promotion. While at the CDC, she served as an infection prevention and control (IPC) subject matter expert for domestic and international IPC initiatives and emergency responses, including Ebola outbreaks and, most recently, the COVID-19 pandemic.

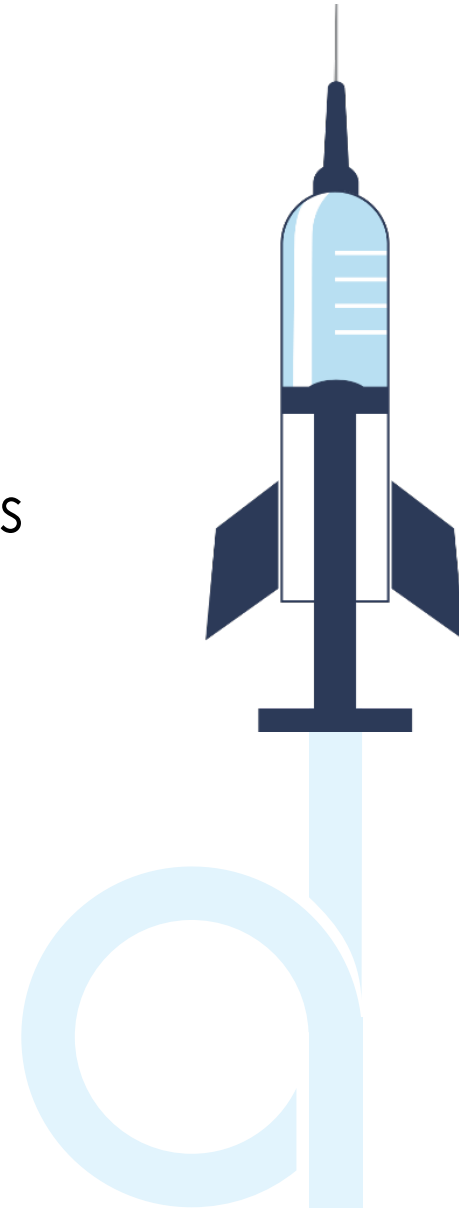
Erica enjoys reading, traveling, family time, and outdoor activities.

**Contact:** [Erica.Umeakunne@allianthealth.org](mailto:Erica.Umeakunne@allianthealth.org)

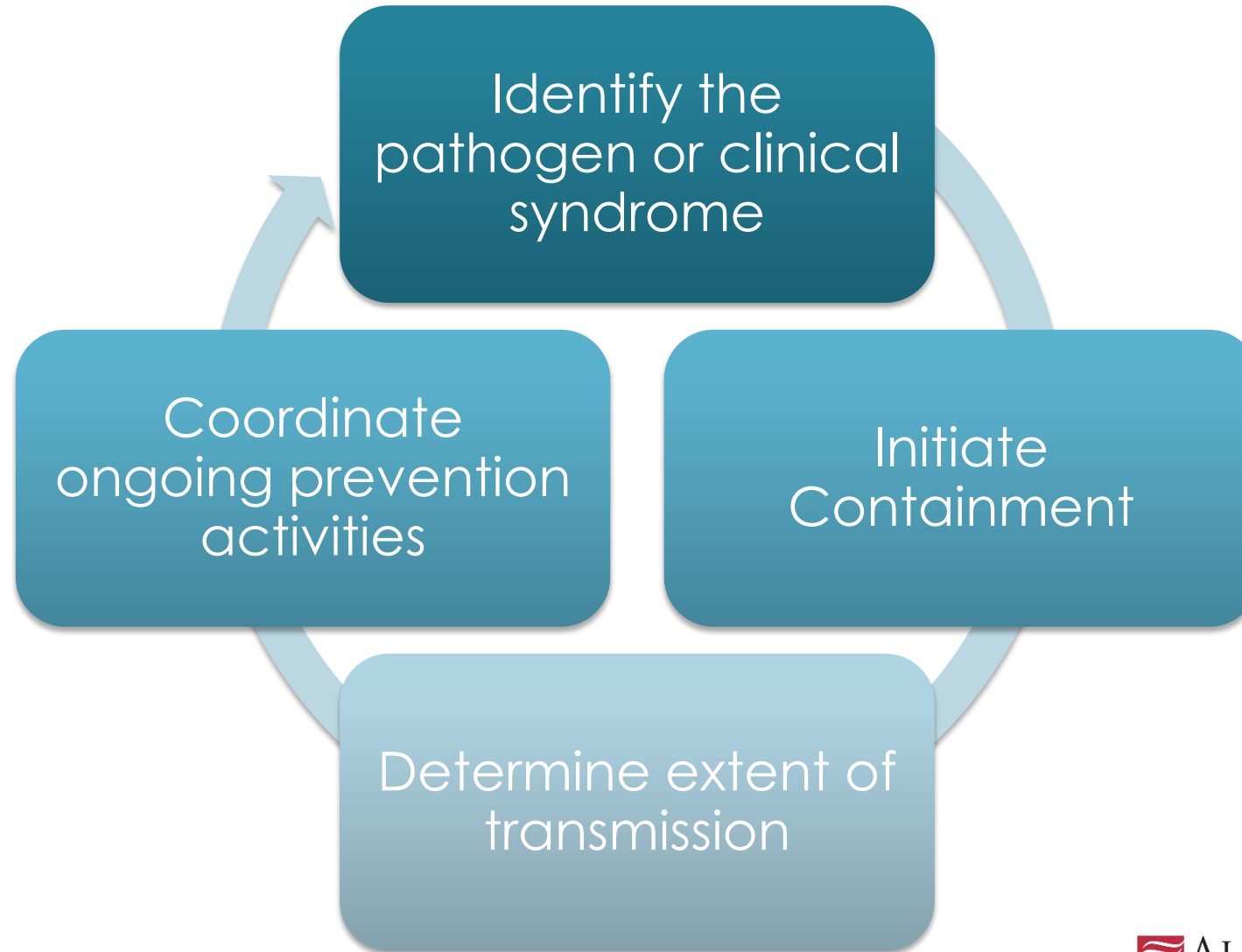


# Objectives

- Provide updates on COVID-19 and other respiratory viral threats that nursing homes are facing
- Understand the importance of implementing transmission-based precautions (TBP) to prevent the spread of pathogens
- Describe practical steps to promptly identify and contain infectious pathogens in facilities using case studies
- Highlight lessons learned from COVID-19 that apply to TBP practices



# Practical Steps to Implementing Transmission-Based Precautions



# Important Points

High degree of suspicion (Identification)

Containment (Implementation of TBP)

Surveillance and testing (Determine extent of transmission)

Mapping (Determine extent of transmission)

Risk assessment & audits (Coordinate ongoing IPC activities)

# COVID-19 Update



# CDC COVID Data Tracker

## COVID-19 Update for the United States

### Early Indicators

#### Test Positivity >

% Test Positivity

12.7%

(December 31 to January 6, 2024)

Trend in % Test Positivity

**-0.1%** in most recent week



Nov 18, 2023 Jan 6, 2024

#### Emergency Department Visits >

% Diagnosed as COVID-19

2.9%

(December 31 to January 6, 2024)

Trend in % Emergency Department Visits

**-13.1%** in most recent week



Nov 18, 2023 Jan 6, 2024

### Severity Indicators

#### Hospitalizations >

Hospital Admissions

35,801

(December 31 to January 6, 2024)

Trend in Hospital Admissions

**+3.2%** in most recent week



Nov 18, 2023 Jan 6, 2024

#### Deaths >

% of All Deaths in U.S. Due to COVID-19

4.0%

(December 31 to January 6, 2024)

Trend in % COVID-19 Deaths

**+14.3%** in most recent week



Nov 18, 2023 Jan 6, 2024

These early indicators represent a portion of national COVID-19 tests and emergency department visits. [Wastewater](#) information also provides early indicators of spread.

Total Hospitalizations

6,693,491

Total Deaths

1,167,210

CDC | Test Positivity data through: January 6, 2024; Emergency Department Visit data through: January 6, 2024; Hospitalization data through: January 6, 2024; Death data through: January 6, 2024.  
Posted: January 12, 2024 12:00 PM ET

<https://covid.cdc.gov/covid-data-tracker/#datatracker-home>

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HHS Region:

USA

Data for the 2-Week Period Ending on:

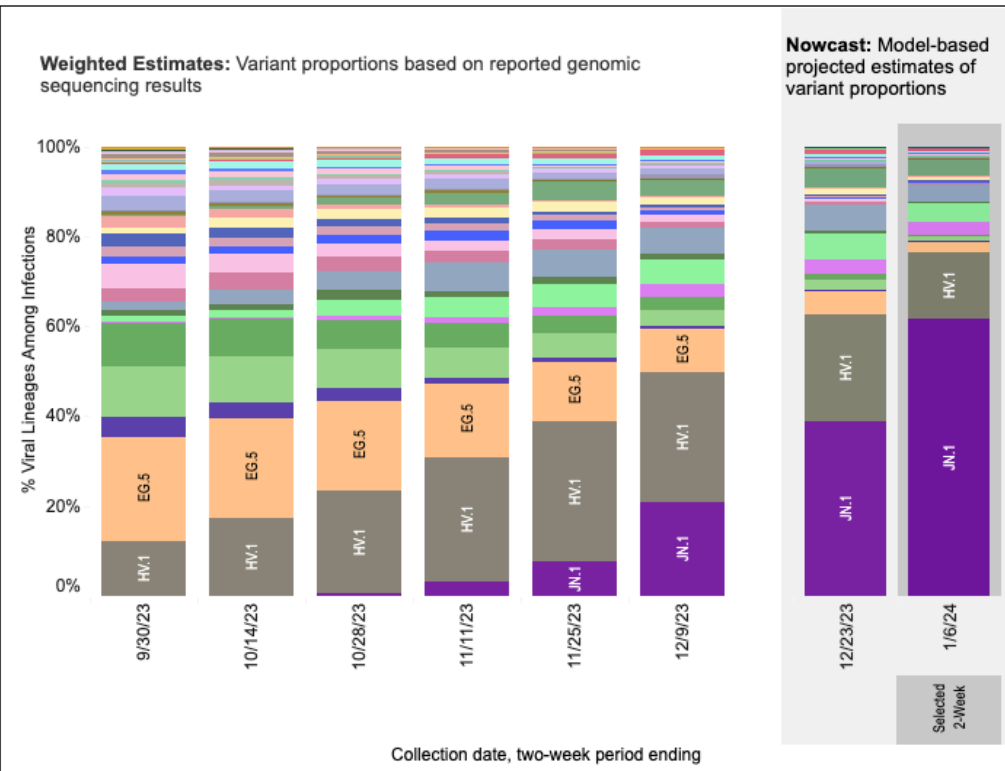
1/6/2024(Nowcast)

This shows weighted and Nowcast estimates for the United States. The table and map show estimates for the 2-week period ending on 1/6/2024(Nowcast) if available.

### Weighted and Nowcast Estimates in United States for 2-Week Periods in 9/17/2023 – 1/6/2024

### Nowcast Estimates in United States for 12/24/2023 – 1/6/2024

Hover over (or tap in mobile) any lineage of interest to see the amount of uncertainty in that lineage's estimate.



USA			
WHO label	Lineage #	%Total	95%PI
Omicron	JN.1	61.6%	54.9-67.9%
	HV.1	14.8%	12.3-17.7%
	JD.1.1	4.1%	3.4-5.0%
	HK.3	4.0%	3.4-4.8%
	JG.3	3.7%	3.0-4.6%
	BA.2.86	2.8%	1.9-4.2%
	EG.5	2.4%	1.9-3.0%
	FL.1.5.1	1.0%	0.7-1.3%
	JF.1	0.8%	0.6-1.1%
	EG.5.1.8	0.7%	0.5-1.1%
	XBB.1.16.6	0.5%	0.4-0.8%
	GE.1	0.5%	0.1-1.9%
	XBB.1.16.17	0.4%	0.2-0.9%
	XBB.1.16.11	0.4%	0.2-0.5%
	XBB.1.5.70	0.3%	0.2-0.6%
	GK.1.1	0.3%	0.2-0.4%
	HF.1	0.3%	0.2-0.4%
	BA.2	0.3%	0.1-0.9%
	XBB	0.2%	0.1-0.3%
	XBB.1.16.15	0.2%	0.1-0.3%
	XBB.1.9.1	0.2%	0.1-0.3%
	XBB.2.3	0.2%	0.1-0.2%
	XBB.1.16	0.1%	0.0-0.1%
GK.2	0.1%	0.0-0.1%	
CH.1.1	0.0%	0.0-0.1%	
XBB.1.5	0.0%	0.0-0.1%	
EG.6.1	0.0%	0.0-0.1%	
XBB.1.16.1	0.0%	0.0-0.0%	
XBB.1.9.2	0.0%	0.0-0.0%	
XBB.1.5.68	0.0%	0.0-0.0%	
XBB.2.3.8	0.0%	0.0-0.0%	
XBB.1.42.2	0.0%	0.0-0.0%	
XBB.1.5.72	0.0%	0.0-0.0%	
XBB.1.5.59	0.0%	0.0-0.0%	
XBB.1.5.10	0.0%	0.0-0.0%	
FD.1.1	0.0%	0.0-0.0%	
Other	Other*	0.0%	0.0-0.1%

\* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one 2-week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all 2-week periods displayed.  
 # While all lineages are tracked by CDC, those named lineages not enumerated in this graphic are aggregated with their parent lineages, based on Pango lineage definitions, described in more detail here: <https://www.pango.network/the-pango-nomenclature-system/statement-of-nomenclature-rules/>.

# CDC COVID-19 Variant Surveillance

<https://covid.cdc.gov/covid-data-tracker/#variant-proportions>

# Wastewater Metric Map

State or territory:

County:

[Reset Selections](#)

Time Period: Dec 25, 2023 – Jan 08, 2024

Major Cities On

Major Cities Off

**Metric:**

- Current virus levels in wastewater by site
- Percent change in the last 15 days
- Percent of wastewater samples with detectable virus

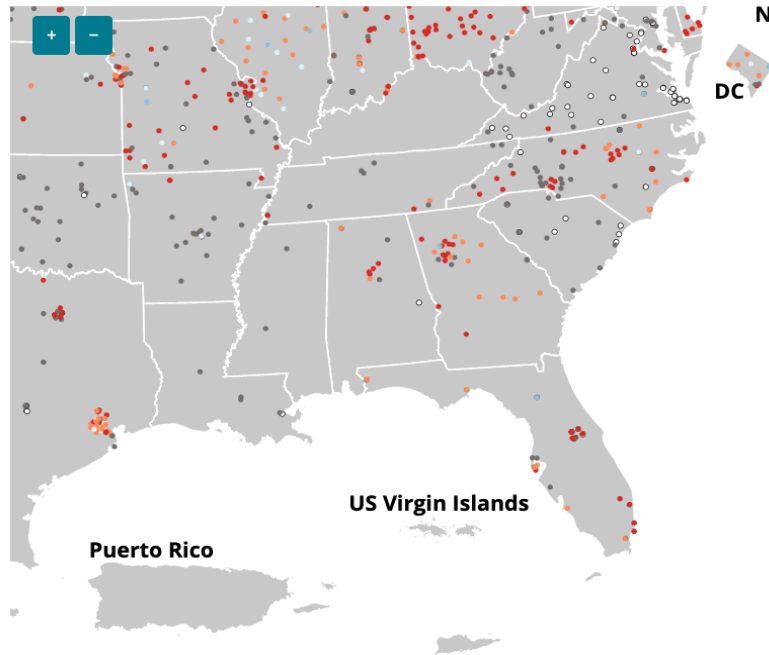
**Show:**

- Sites with no recent data
- Sites that started sampling after 12/1/21

**Current virus levels in wastewater by site**

This metric shows whether SARS-CoV-2 levels at a site are currently higher or lower than past historical levels at the same site. 0% means levels are the lowest they have been at the site; 100% means levels are the highest they have been at the site. Public health officials watch for increasing levels of the virus in wastewater over time and use these data to help make public health decisions.

**⚠ Note:** Sites began collecting data at different times. Sites that began reporting wastewater data after December 1, 2021 are not comparable to sites that started reporting data on or before December 1, 2021. The data history for these new sites is not long enough to reflect the same surges as the other sites.



Current SARS-CoV-2 virus levels by site, United States

Current virus levels category	Num. sites	% sites	Category change in last 7 days
New Site	128	12	23%
0% to 19%	3	0	-40%
20% to 39%	30	3	-17%
40% to 59%	88	8	-33%
60% to 79%	320	29	-15%
80% to 100%	529	48	6%

Total sites with current data: 1098

Total number of wastewater sampling sites: 1715

[How is the current SARS-CoV-2 level compared to past levels calculated?](#)

Select legend categories to filter points on the map.

- New site
- 0% to 19%
- 20% to 39%
- 40% to 59%
- 60% to 79%
- 80% to 100%
- No recent data

# Wastewater Surveillance

<https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance>

# Wastewater Metric Map

State or territory:

Select state or territory

County:

Select state/territory to enable

[Reset Selections](#)

Time Period: Dec 25, 2023 – Jan 08, 2024

Major Cities On

Major Cities Off

Metric:

- Current virus levels in wastewater by site
- Percent change in the last 15 days
- Percent of wastewater samples with detectable virus

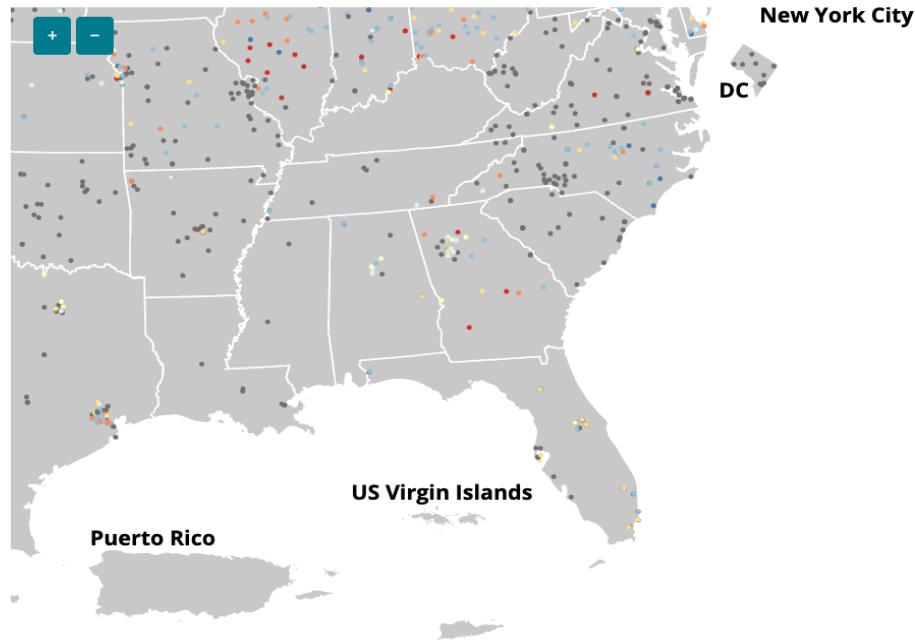
Show:

- Sites with no recent data

### Percent change in the last 15 days

This metric shows whether virus levels have increased or decreased over the last 15 days. When levels of virus in wastewater are low, a modest increase in virus level can appear much larger when you look at the percent change. This metric may be affected by how often wastewater plants collect samples or by environmental factors (such as rainfall). Wastewater data showing the percent change in virus levels should be used along with other data such as overall levels of the virus in wastewater, historical wastewater data for that location, geographical context, and clinical cases.

**Note:** This metric does **not** show overall levels of SARS-CoV-2 in wastewater.



Percent change of SARS-CoV-2 in the last 15 days by site, United States

15-day % change category	Num. sites	% sites	Category change in last 7 days
- 100%	35	4	75%
- 99% to - 10%	327	41	29%
- 9% to 0%	78	10	18%
1% to 9%	54	7	- 36%
10% to 99%	134	17	- 35%
100% to 999%	93	12	- 52%
1000% or more	83	10	- 27%

Total sites with current data: 804

Total number of wastewater sampling sites: 1715

[How is the 15-day percent change calculated?](#)

<https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance>

Select legend categories to filter points on the map.

- 100%
- 99% to - 10%
- 9% to 0%
- 1% to 9%
- 10% to 99%
- 100% to 999%
- 1000% or more
- No recent data

[< Back to Deaths](#)

# COVID-19 Monthly Death Rates per 100,000 Population by Age Group, Race and Ethnicity, and Sex

[View Footnotes and Additional Information](#)



### COVID-19 Monthly Deaths per 100,000 Population by Age, United States January 01, 2022 - November 30, 2023

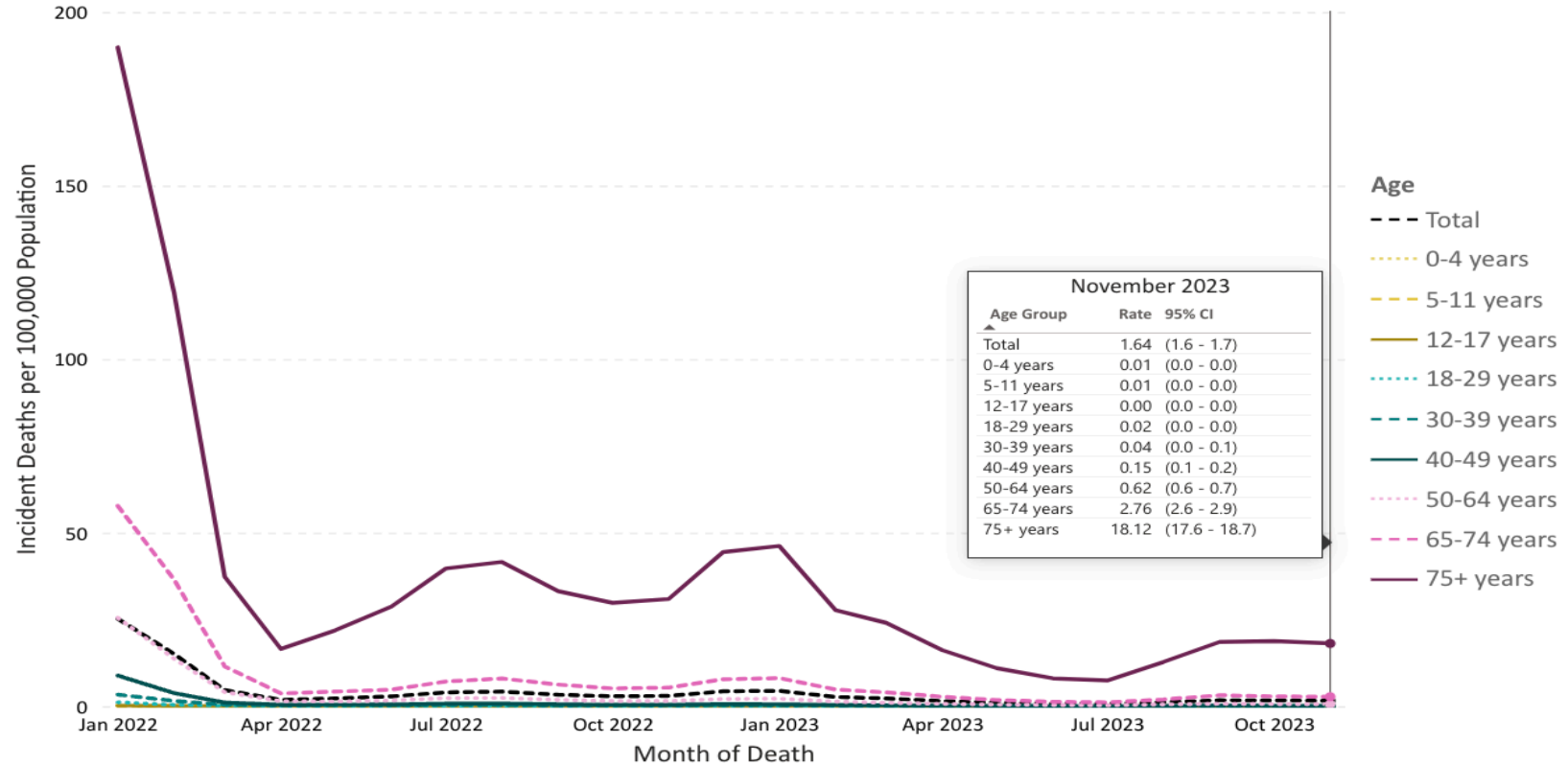


**Jurisdiction**  
United States

1/1/2022 11/30/2023

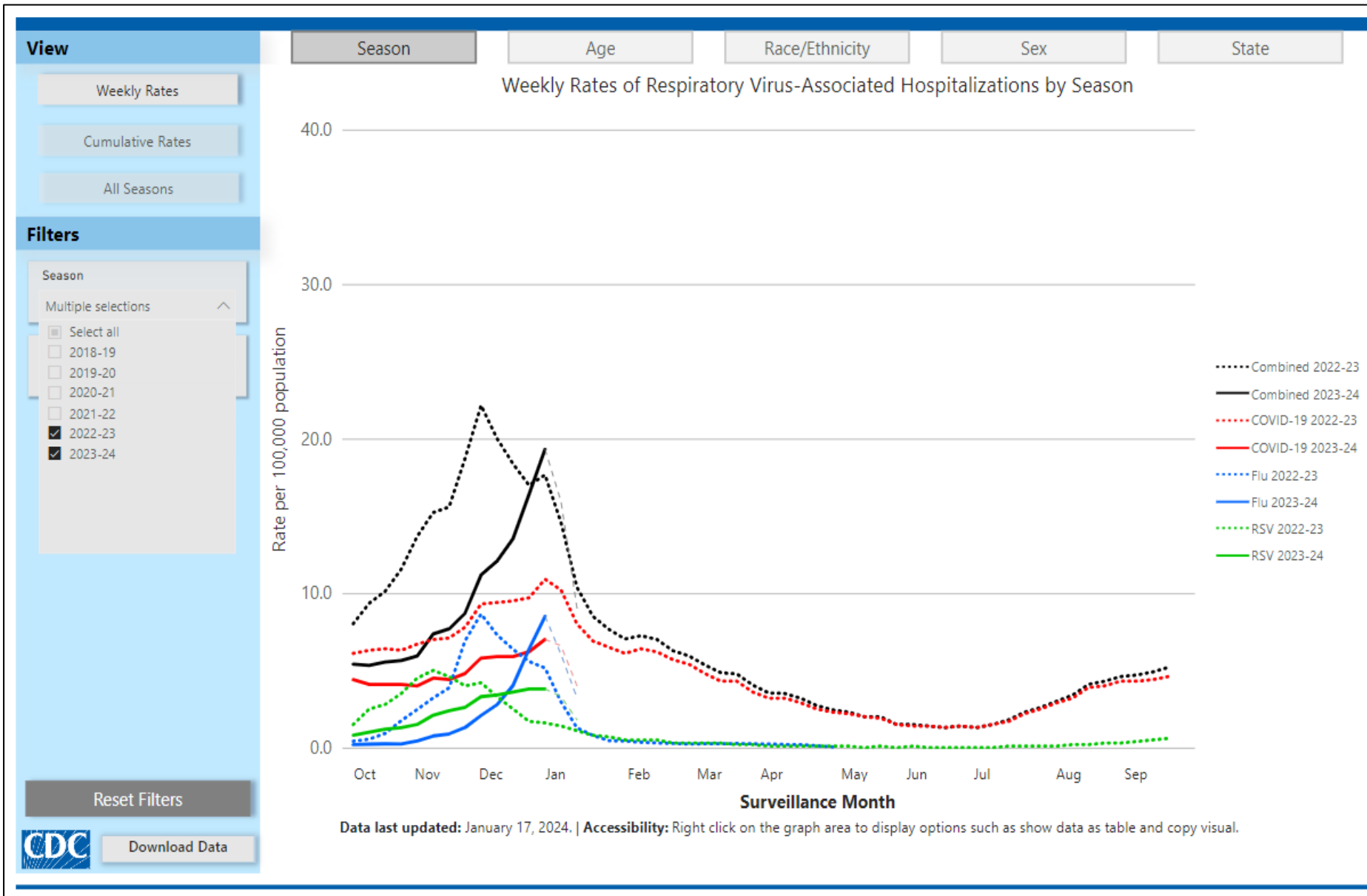
**Deaths**

- Sex
- Age**
- Race and Ethnicity



Last Updated: Dec 18, 2023

Source: Provisional Deaths from the CDC's National Center for Health Statistics (NCHS) National Vital Statistics System (NVSS); Visualization: NCIRD/CORVD and ORR/DEO Situational Awareness Public Health Science Team



# RESP-NET Surveillance

<https://www.cdc.gov/surveillance/resp-net/dashboard.html>

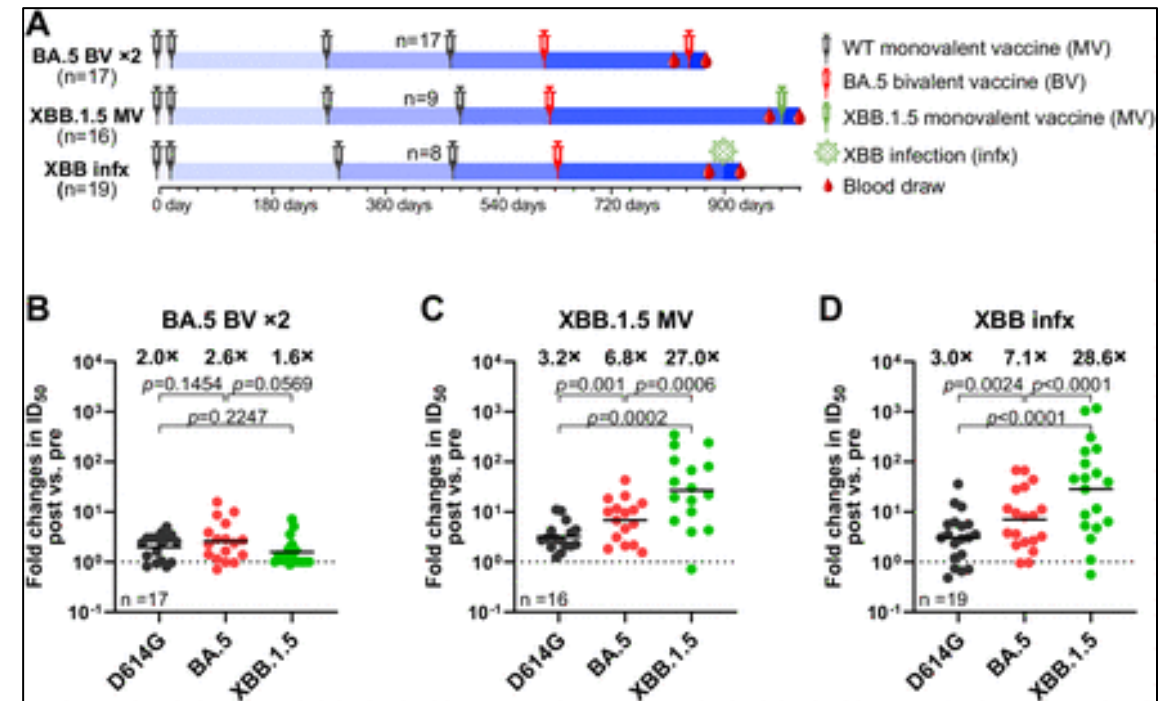
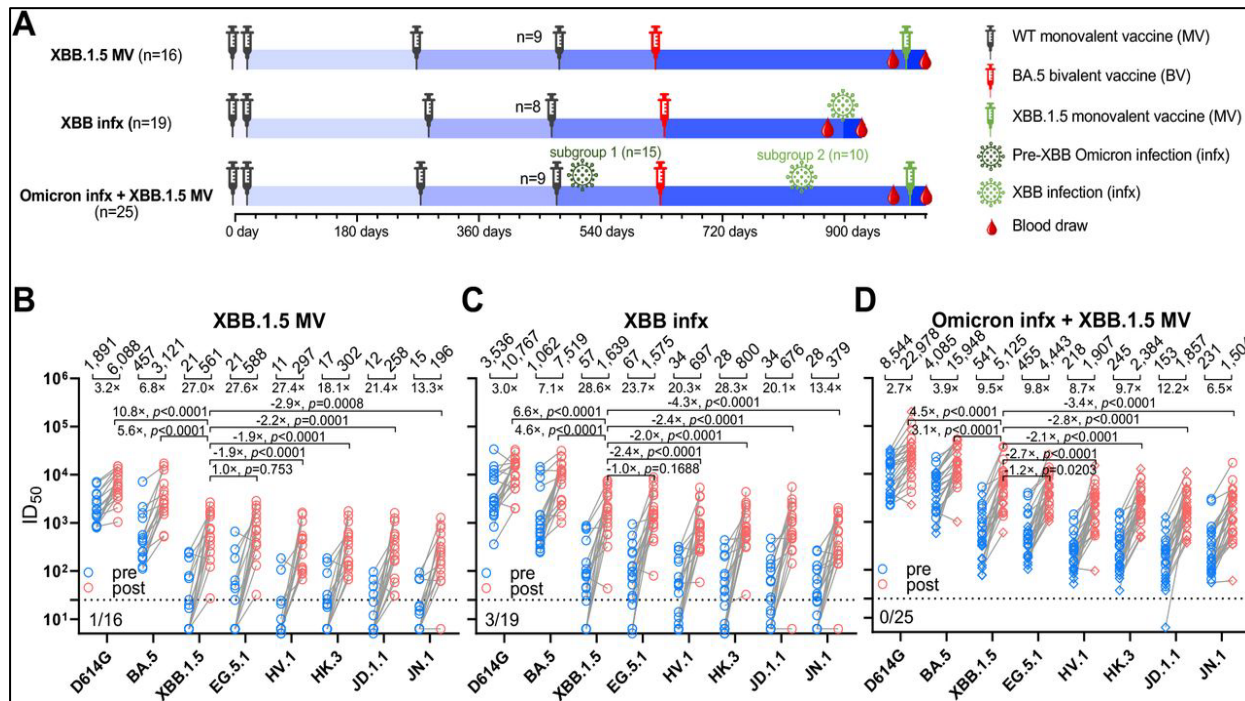
# XBB.1.5 monovalent mRNA vaccine booster elicits robust neutralizing antibodies against emerging SARS-CoV-2 variants

Qian Wang, Yicheng Guo,  Anthony Bowen, Ian A. Mellis, Riccardo Valdez, Carmen Gherasim,  Aubree Gordon, Lihong Liu, David D. Ho

doi: <https://doi.org/10.1101/2023.11.26.568730>


expanding. We now report that administration of an updated monovalent mRNA vaccine (XBB.1.5 MV) to uninfected individuals boosted serum virus-neutralization antibodies significantly against not only XBB.1.5 (27.0-fold) and the currently dominant EG.5.1 (27.6-fold) but also key emergent viruses like HV.1, HK.3, JD.1.1, and **JN.1 (13.3-to-27.4-fold)**. In individuals previously infected by an Omicron subvariant,

# XBB.1.5 Monovalent mRNA Vaccine Booster Elicits Robust Neutralizing Antibodies Against Emerging SARS-CoV-2 Variants





# Early COVID-19 vaccine effectiveness of XBB.1.5 vaccine against hospitalization and ICU admission, the Netherlands, 9 October - 5 December 2023

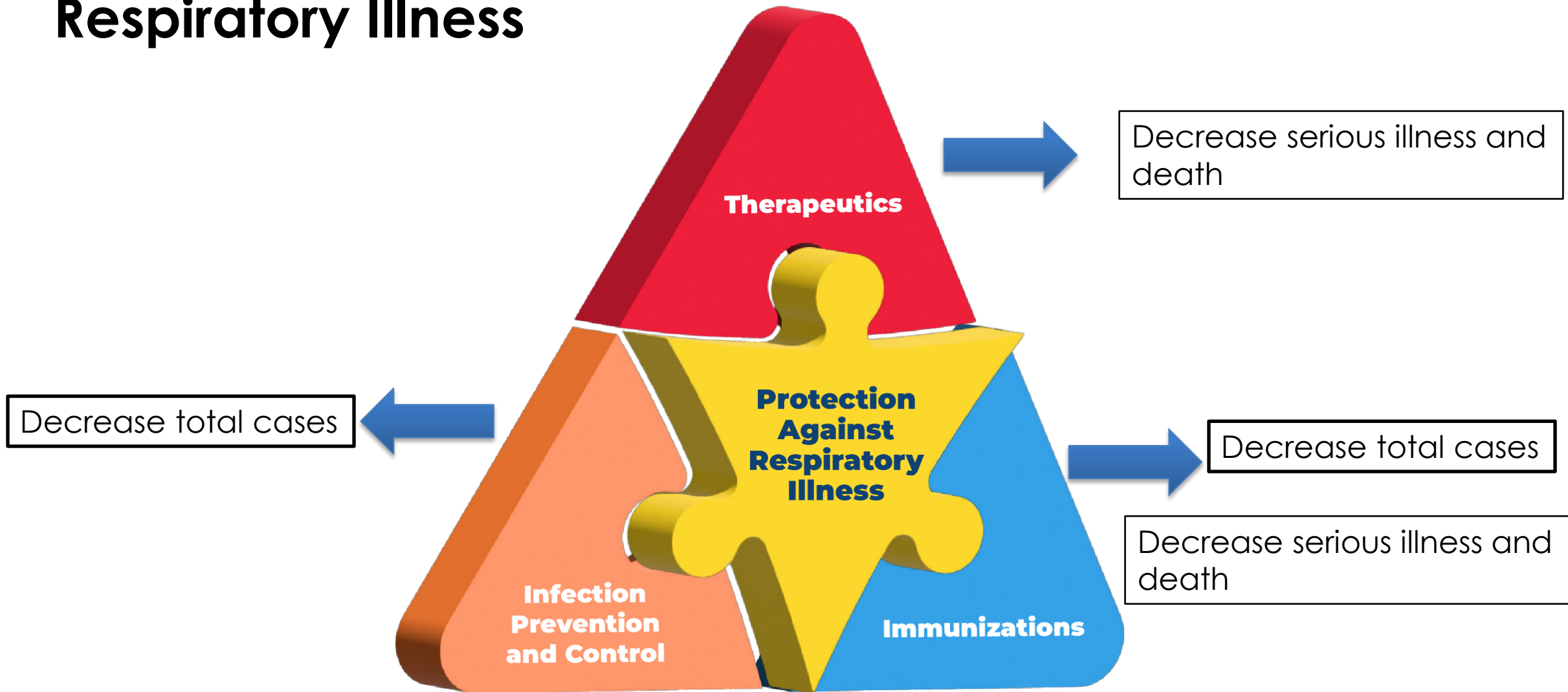
C. Henri van Werkhoven, Anne-Wil Valk, Bente Smagge, Hester E. de Melker, Mirjam J. Knol, Susan J.M. Hahné, Susan van den Hof,  Brechje de Gier

doi: <https://doi.org/10.1101/2023.12.12.23299855>

## Abstract

We present early vaccine effectiveness (VE) estimates of the 2023 seasonal COVID-19 vaccination campaign using XBB.1.5 vaccine against COVID-19 hospitalization and ICU admission in previously vaccinated adults  $\geq 60$  years old in the Netherlands. We compared vaccination status of 2050 hospitalizations including 92 ICU admissions with age group-, sex-, region- and date-specific population vaccination coverage between 9 October and 5 December 2023. **VE against hospitalization was 70.7%** (95% CI: 66.6; 74.3). **VE against ICU admission was 73.3%** (95% CI: 42.2; 87.6).

# Protection Against Respiratory Illness



# Case Study

Mr. Jones has been a resident at Sunshine Health nursing facility for the past year. Mr. Jones is a 72-year-old male with a history of heart failure, type II diabetes, and renal failure. He receives hemodialysis 3x/week at the local dialysis clinic. He received dialysis yesterday. Today, he complains of chills, nasal congestion, dry cough and lethargy.

**What should your next steps be?**

# Identifying Pathogens and Clinical Syndromes

Accessible version: <https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>



## 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

Last update: July 2023

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**Jane D. Siegel, MD; Emily Rhinehart, RN MPH CIC; Marguerite Jackson, PhD; Linda Chiarello, RN MS; the Healthcare Infection Control Practices Advisory Committee**

Acknowledgement: The authors and HICPAC gratefully acknowledge Dr. Larry Strausbaugh for his many contributions and valued guidance in the preparation of this guideline.

*Suggested citation: Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee, 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings*  
<https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>

<https://www.cdc.gov/infectioncontrol/pdf/guidelines/Isolation-guidelines-H.pdf>

# Identifying Clinical Syndromes

## Sections in Appendix A

[Type and Duration of Precautions Recommended for Selected Infections and Conditions](#)

[Table 1. History of Guidelines for Isolation Precautions in Hospitals](#)

[Table 2. Clinical Syndromes or Conditions Pending Confirmation of Diagnosis Warranting Empiric Transmission Based Precautions in Addition to Standard Precautions](#)

[Table 3. Infection Control Considerations for High-Priority \(CDC Category A\) Diseases that May Result from Bioterrorist Attacks or are Considered to be Bioterrorist Threats](#)

[Table 4. Recommendations for Application of Standard Precautions for the Care of All Patients in All Healthcare Settings](#)

[Table 5. Components of a Protective Environment](#)

[Figure. Example of Safe Donning and Removal of Personal Protective Equipment \(PPE\)](#)

<https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/index.html>

Respiratory Infections	Cough/fever/upper lobe pulmonary infiltrate in an HIV-negative patient or a patient at low risk for human immunodeficiency virus (HIV) infection	<i>M. tuberculosis</i> , Respiratory viruses, <i>S. pneumoniae</i> , <i>S. aureus</i> (MSSA or MRSA)	Airborne Precautions plus Contact precautions
Respiratory Infections	Cough/fever/pulmonary infiltrate in any lung location in an HIV-infected patient or a patient at high risk for HIV infection	<i>M. tuberculosis</i> , Respiratory viruses, <i>S. pneumoniae</i> , <i>S. aureus</i> (MSSA or MRSA)	Airborne Precautions plus Contact Precautions Use eye/face protection if aerosol-generating procedure performed or contact with respiratory secretions anticipated. If tuberculosis is unlikely and there are no AIRs and/or respirators available, use Droplet Precautions instead of Airborne Precautions Tuberculosis more likely in HIV-infected individual than in HIV negative individual
Respiratory Infections	Cough/fever/pulmonary infiltrate in any lung location in a patient with a history of recent travel (10-21 days) to countries with active outbreaks of SARS, avian influenza	<i>M. tuberculosis</i> , severe acute respiratory syndrome virus (SARS-CoV), avian influenza	Airborne plus Contact Precautions plus eye protection. If SARS and tuberculosis unlikely, use Droplet Precautions instead of Airborne Precautions.
Respiratory Infections	Respiratory infections, particularly bronchiolitis and pneumonia, in infants and young children	Respiratory syncytial virus, parainfluenza virus, adenovirus, influenza virus, <i>Human metapneumovirus</i>	Contact plus Droplet Precautions; Droplet Precautions may be discontinued when adenovirus and influenza have been ruled out

Table 2. Clinical Syndromes or Conditions Pending Confirmation of Diagnosis Warranting Empiric Transmission Based Precautions in Addition to Standard Precautions

# Case Study: Respiratory Infection

- **Be conservative**
- Consider implementing the highest level of precautions as indicated for the suspected pathogen(s)
- **Implement COVID-19 TBP until SARS-CoV-2 ruled out**
  - HCPs who enter the room of a resident with a suspected or confirmed SARS-CoV-2 infection should adhere to Standard Precautions and use a **NIOSH-approved particulate respirator with N95 filters or higher, gown, gloves and eye protection** (i.e., goggles or a face shield that covers the front and sides of the face).

# Case Study: Respiratory Infection Confirmed

Mr. Jones has been a resident at Sunshine Health Nursing Facility for the past year. Mr. Jones is a 72-year-old male with a history of heart failure, type II diabetes and renal failure. He receives hemodialysis 3x/week at the local dialysis clinic. He received dialysis yesterday. Today, he complains of chills, nasal congestion, dry cough and lethargy.

The nurse reported the findings to the clinical team and IP. Empiric COVID-19 transmission-based precautions were implemented until SARS-CoV-2 could be ruled out. The resident tested for other respiratory viruses. The results are:

- SARS-CoV-2 antigen and PCR test: Negative
- RSV antigen and PCR test: Negative
- Rapid Influenza: Negative
  - Influenza PCR Test: Positive/Influenza A

## What should your next steps be?



## Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)

<p>Influenza Human (seasonal influenza)</p>			<p>See <a href="#">Prevention Strategies for Seasonal Influenza in Healthcare Settings</a> (<a href="https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm">https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm</a> accessed September 2018). [Current version of this document may differ from original.] for current seasonal influenza guidance.</p>
<p>Influenza Avian (e.g., H5N1, H7, H9 strains)</p>			<p>See [This link is no longer active: <a href="http://www.cdc.gov/flu/avian/professional/infect-control.htm">www.cdc.gov/flu/avian/professional/infect-control.htm</a>. Similar information may be found at <a href="#">Interim Guidance for Infection Control Within Healthcare Settings When Caring for Confirmed Cases, Probable Cases, and Cases Under Investigation for Infection with Novel Influenza A Viruses Associated with Severe Disease</a> (<a href="https://www.cdc.gov/flu/avianflu/novel-flu-infection-control.htm">https://www.cdc.gov/flu/avianflu/novel-flu-infection-control.htm</a> accessed September 2018)] for current avian influenza guidance.</p>
<p>Influenza Pandemic Influenza (also a human influenza virus)</p>	<p>Droplet + Standard</p>		<p>See [This link is no longer active: <a href="http://www.pandemicflu.gov">http://www.pandemicflu.gov</a>. Similar information may be found at <a href="#">Interim Guidance for Infection Control Within Healthcare Settings When Caring for Confirmed Cases, Probable Cases, and Cases Under Investigation for Infection with Novel Influenza A Viruses Associated with Severe Disease</a> (<a href="https://www.cdc.gov/flu/avianflu/novel-flu-infection-control.htm">https://www.cdc.gov/flu/avianflu/novel-flu-infection-control.htm</a> accessed September 2018)] for current pandemic influenza guidance.</p>

# Case Study: Influenza

- Droplet precautions should be implemented for residents with suspected or confirmed influenza for seven days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms.
- Place residents with suspected or confirmed influenza in a private room or area.
- HCP should don a facemask when entering the room of a resident with suspected or confirmed influenza. Remove the facemask when leaving the resident's room, dispose of the facemask in a waste container, and perform hand hygiene.
- If a resident under droplet precautions requires movement or transport outside of the room:
  - Have the resident wear a facemask, if possible, and follow respiratory hygiene, cough etiquette and hand hygiene.
  - Communicate information about residents with suspected, probable, or confirmed influenza to appropriate personnel before transferring them to other departments in the facility (e.g., radiology, laboratory) or to other facilities.

# Case Example: Respiratory Infection-Influenza

## Identify the pathogen

- Influenza

## Containment

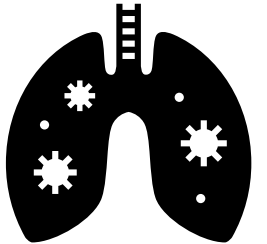
- **Empiric COVID-19 TBP initiated at time symptoms reported**
- **Transitioned to Droplet precautions following confirmatory testing**
  - Duration: 7 days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms, whichever is longer

## Determine extent of transmission

- Initiate active surveillance
- Outbreak triggers?

## Coordinate ongoing prevention activities

- Implement treatment
- Maintain precautions
- Ensure PPE availability



# Case Study: Skin Rash

A covering physician is called to assess the resident, who has been complaining of itching for the past three days. There is a rash reported. (See picture). The staff is concerned it looks like herpes zoster/shingles. What do you think is going on?

- A. Shingles
- B. Fungal infection
- C. Scabies
- D. Cellulitis



**What is the next step?**

# Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)

## Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)

Infection/Condition	Type of Precaution	Duration of Precaution	Precautions/Comments
Herpes zoster (varicella-zoster) (shingles) Disseminated disease in any patient Localized disease in immunocompromised patient until disseminated infection ruled out	Airborne + Contact + Standard	Duration of illness	Susceptible HCWs should not enter room if immune caregivers are available; no recommendation for protection of immune HCWs; no recommendation for type of protection (i.e. surgical mask or respirator) for susceptible HCWs.
Herpes zoster (varicella-zoster) (shingles) Localized in patient with intact immune system with lesions that can be contained/covered	Standard	Until lesions dry and crusted	Susceptible HCWs should not provide direct patient care when other immune caregivers are available.

# Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)

## Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)

Infection/Condition	Type of Precaution	Duration of Precaution	Precautions/Comments
Salmonellosis (see Gastroenteritis)			
Scabies	Contact + Standard	Until 24	
Scalded skin syndrome, staphylococcal	Contact + Standard	Duration of illness	See Staphylococcal Disease, scalded skin syndrome below.
Schistosomiasis (bilharziasis)	Standard		
Severe acute respiratory syndrome (SARS)	Airborne + Droplet + Contact + Standard	Duration of illness plus 10 days after resolution of fever, provided respiratory symptoms are absent or improving	Airborne preferred; Droplet if AIR unavailable. N95 or higher respiratory protection; surgical mask if N95 unavailable; eye protection (goggles, face shield); aerosol-generating procedures and "supershedders" highest risk for transmission via small droplet nuclei and large droplets [93, 94, 96].  Vigilant environmental disinfection (see [This link is no longer active: <a href="http://www.cdc.gov/ncidod/sars">www.cdc.gov/ncidod/sars</a> ]. Similar information may be found at CDC <a href="https://www.cdc.gov/sars/index.html">Severe Acute Respiratory Syndrome (SARS)</a> ( <a href="https://www.cdc.gov/sars/index.html">https://www.cdc.gov/sars/index.html</a> accessed September 2018).)

# Case Study: Skin Rash

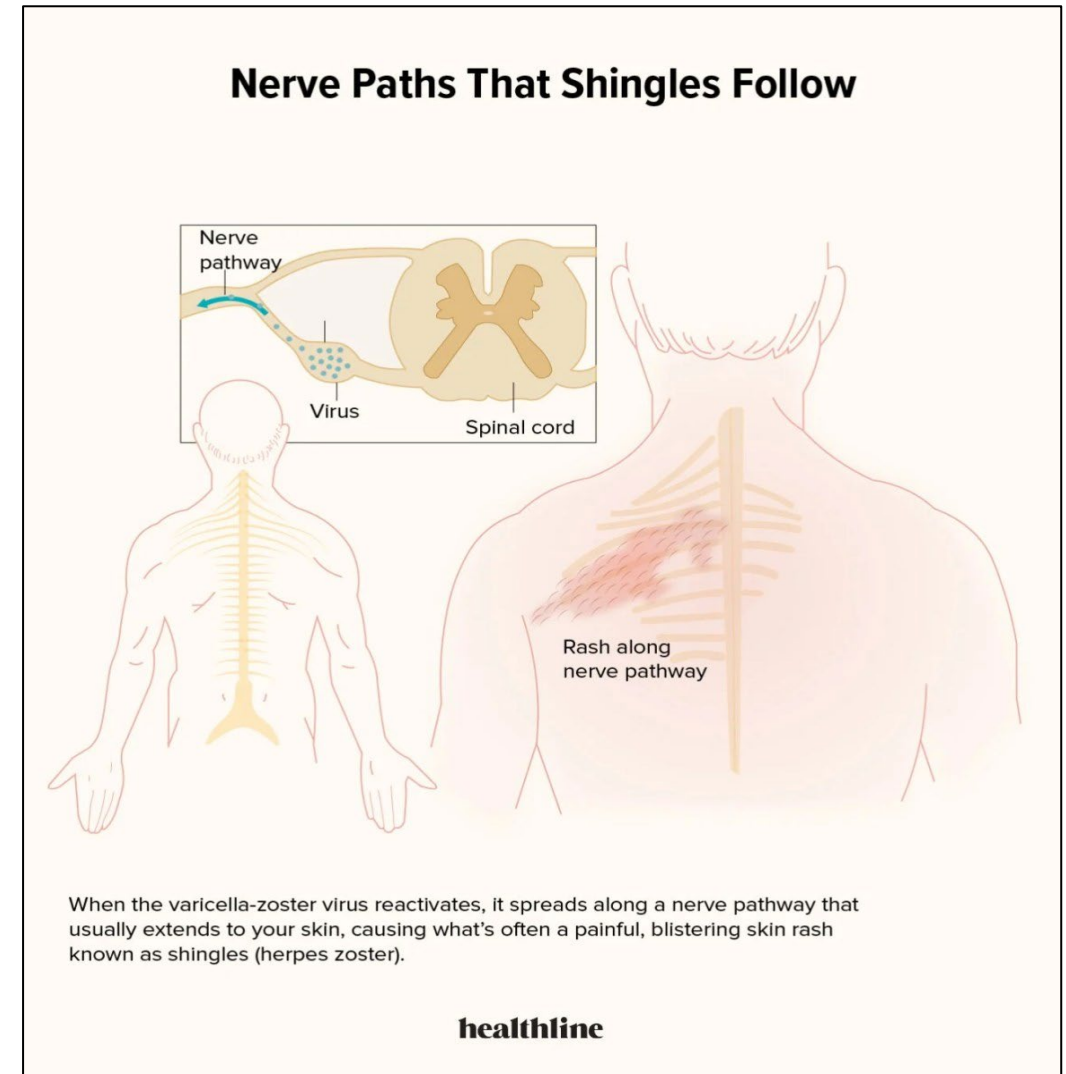
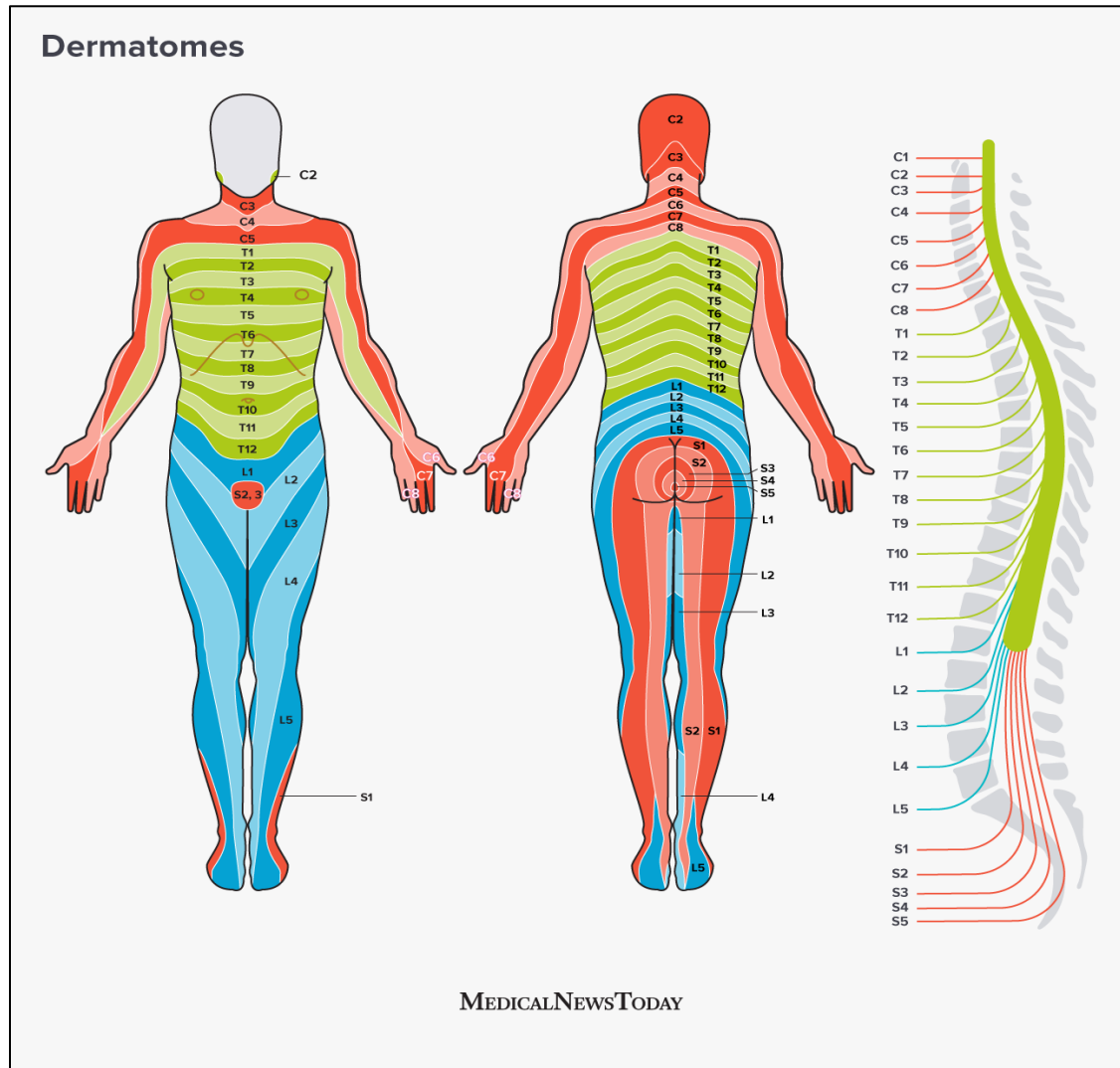
A covering physician is called to assess the resident, who has been complaining of itching for the past three days. There is a rash reported. (See picture). The staff is concerned it looks like herpes zoster/shingles. What do you think is going on?

- A. Shingles
- B. Fungal infection
- C. Scabies
- D. Cellulitis





# Case Study: Why the Skin Rash Is Not Shingles?



<https://www.medicalnewstoday.com/articles/what-are-dermatomes>

<https://www.healthline.com/health/nerve-paths-that-shingles-follow#whats-the-connection>



# Case Study: Non-Crusted Scabies

- **Be conservative**
  - Consider implementing the highest level of precautions as indicated for the suspected pathogen(s)
- **Implement Contact Precautions**
  - Maintain records with resident name, age, sex, room number, roommate(s) name(s), skin scraping status and result(s), and name(s) of all staff who provided hands-on care to the resident before implementation of infection control measures
    - Symptoms can take up to two months to appear in exposed persons and staff.
  - Avoid direct skin-to-skin contact with any resident who has or is suspected to have scabies.
  - Use gloves and gown when giving hands-on care to any resident who is suspected or confirmed to have scabies; wash hands thoroughly after providing care to any resident.
  - Machine wash and dry bedding and clothing of scabies residents using the hot water and hot dryer cycles.
  - Environmental disinfestation is neither necessary nor warranted.
    - Routine cleaning and vacuuming of the room should be done if and when a resident with non-crusted scabies leaves the facility or moves to a new room.

# Case Example: Non-Crusted Scabies

## Identify the pathogen

- Non-crusted Scabies

## Containment

- **Empiric Contact Precautions initiated at time rash reported and maintained after confirmatory diagnosis/testing**
  - Duration: Maintain until 24hrs after treatment initiated

## Determine Extent of Transmission

- Initiate active surveillance
- Outbreak triggers?

## Coordinate ongoing prevention activities

- Implement treatment
- Ensure PPE availability
- Maintain standards and implement TBP if clinical condition worsens precautions



# Coordinate Ongoing Prevention Activities and Policies

- Personal protective equipment (PPE) supplies and availability
- TBP Signage
- Equipment designation
- Resident and family communication/education
- Enhanced cleaning and disinfection
- Consider revising your IPC policies and procedures to address the following:
  - TBP determined
  - Authorization of TBP
  - Validation of appropriateness of TBP
  - Signage placement
  - Communication and education for staff, residents, and family
  - TBP-related audits
    - PPE use
    - PPE supplies
    - Signage

Standard Precautions: Observation of Personal Protective Equipment Provision							5	
<i>Instructions:</i> Observe patient care areas or areas outside of patient rooms. For each category, record the observation. In the column on the right, sum (across) the total number of "Yes" and the total number of observations ("Yes" + "No"). Sum all categories (down) for overall performance.								
Standard Precautions: Observation Categories		Room 1	Room 2	Room 3	Room 4	Room 5	Summary of Observations	
		Yes	No	Yes	No	Yes	No	Yes
1	Are gloves readily available outside each patient room or any point of care?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2	Are cover gowns readily available near each patient room or point of care?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3	Is eye protection (face shields or goggles) readily available near each patient room or point of care?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4	Are face masks readily available near each patient room or point of care?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5	Are alcohol dispensers readily accessible and functioning?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		

<https://www.cdc.gov/infectioncontrol/pdf/QUOTS/Standard-Precautions-PPE-Provision-P.pdf>

# Important Points

High degree of suspicion (Identification)

Containment (Implementation of TBP)

Surveillance and testing (Determine extent of transmission)

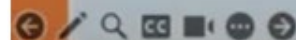
Mapping (Determine extent of transmission)

Risk assessment & audits (Coordinate ongoing IPC activities)

# Codifying Transmission, Containment, and Prevention: Part 1

Dr. Swati Gaur, MD, MBA, CMD, AGSF  
Erica Umeakunne, MSN, MPH, APRN, CIC

December 7, 2023



0:00 / 53:07



**Boost Event: Codifying Transmission and Containment Prevention | 12.7.23**

<https://www.youtube.com/watch?v=6phsvwbhmCk>



**Questions?**





**Thank You for Your Time!**  
**Contact the AHS Patient Safety Team**  
**[Patientsafety@allianthealth.org](mailto:Patientsafety@allianthealth.org)**



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# Nursing Home and Partnership for Community Health: CMS 12th SOW GOALS



## OPIOID UTILIZATION AND MISUSE

- Promote opioid best practices
- Reduce opioid adverse drug events in all settings



## PATIENT SAFETY

- Reduce hospitalizations due to c. diff
- Reduce adverse drug events
- Reduce facility acquired infections



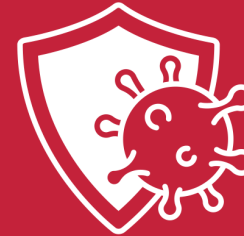
## CHRONIC DISEASE SELF-MANAGEMENT

- Increase instances of adequately diagnosed and controlled hypertension
- Increase use of cardiac rehabilitation programs
- Reduce instances of uncontrolled diabetes
- Identify patients at high-risk for kidney disease and improve outcomes



## CARE COORDINATION

- Convene community coalitions
- Reduce avoidable readmissions, admissions to hospitals and preventable emergency department visits
- Identify and promote optimal care for super utilizers



## COVID-19

- Support nursing homes by establishing a safe visitor policy and cohort plan
- Provide virtual events to support infection control and prevention
- Support nursing homes and community coalitions with emergency preparedness plans



## IMMUNIZATION

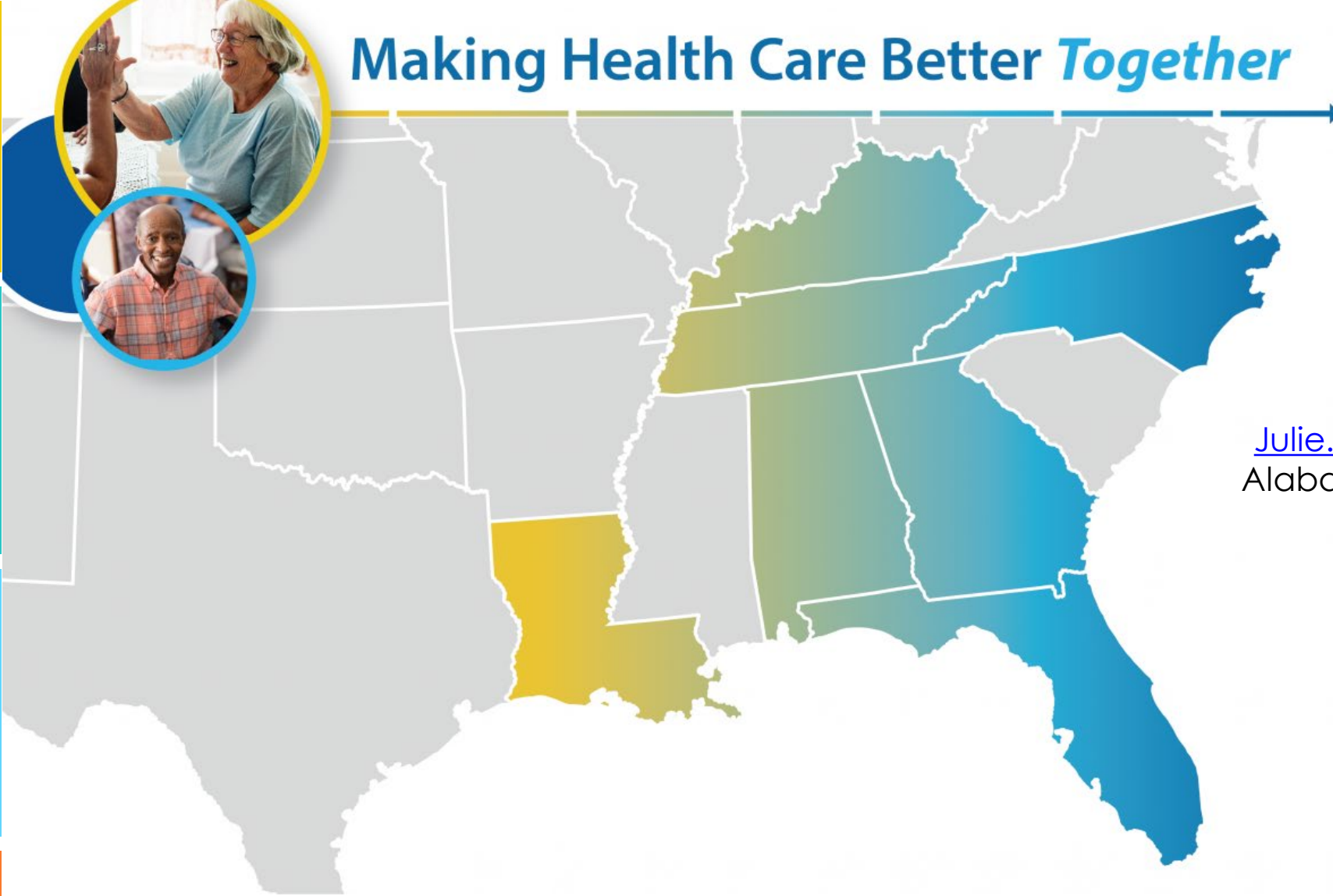
- Increase influenza, pneumococcal, and COVID-19 vaccination rates



## TRAINING

- Encourage completion of infection control and prevention trainings by front line clinical and management staff

# Making Health Care Better *Together*



Julie Kueker

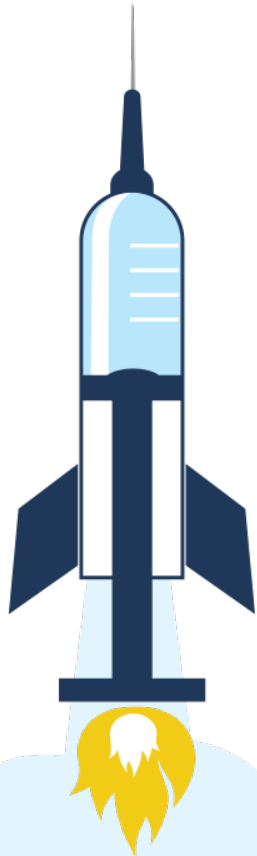
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# Making Health Care Better Together



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