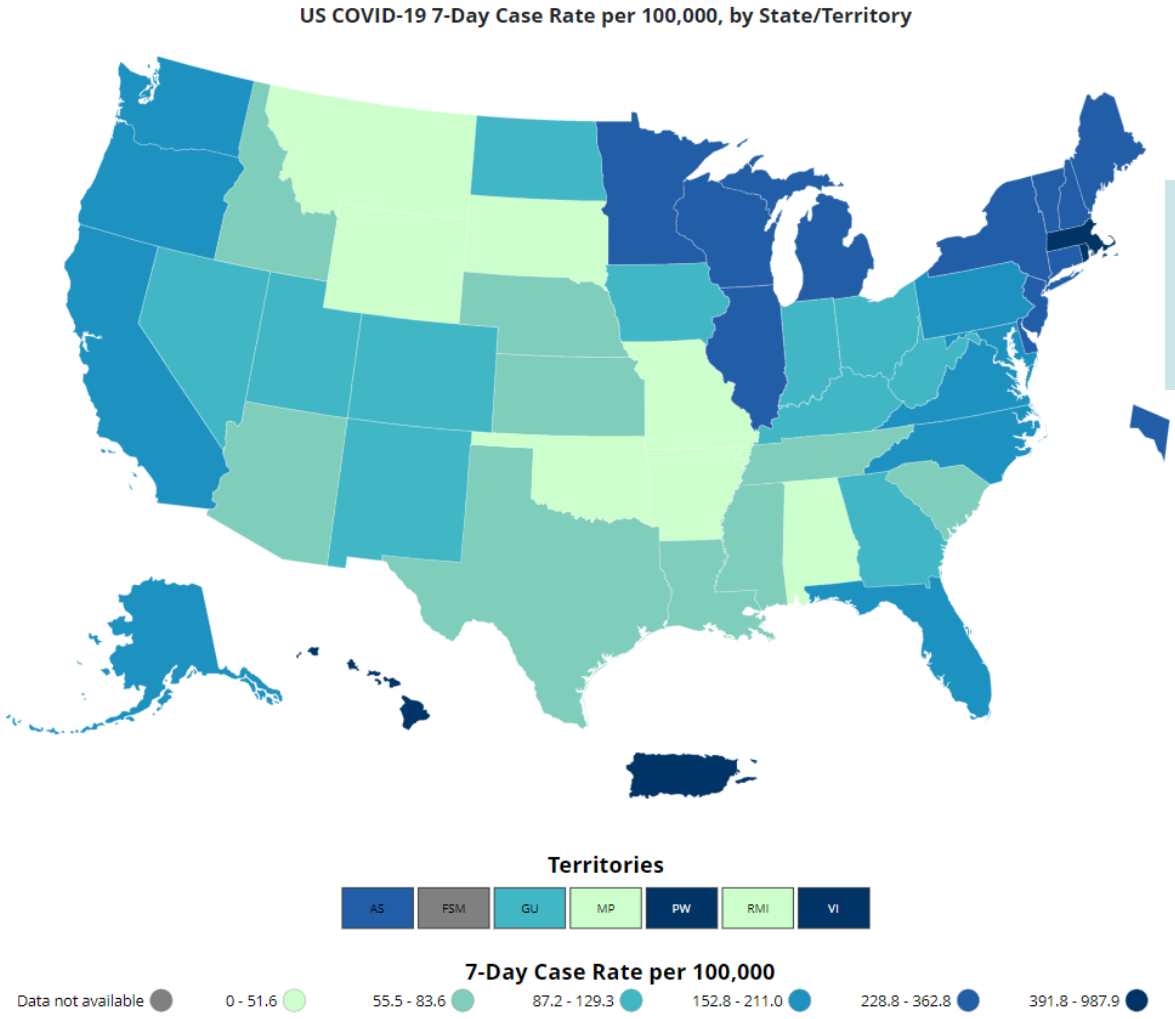
PDPH/LTCF Conference Call – Friday, 5/13/2022

Agenda

- **SARS-CoV-2 Surveillance Update**
- **Updated Guidance**
  - **PAHAN 635:** Guidance on Reporting Point of Care SARS-CoV-2 Test Results
  - **PAHAN 636:** Multisystem Inflammatory Syndrome in Children (MIS-C) and in Adults (MIS-A)
  - **PAHAN 638:** Failure to Disinfect Assisted Blood Glucose Monitors between Uses Poses Risk for Bloodborne Pathogen Transmission
  - **PAHAN 639:** Updated Hepatitis A and Hepatitis B Vaccine Recommendations
  - **PDPH HAN 4/14/22:** COVID-19 Therapeutics: Monoclonal Antibodies Update
  - **PDPH HAN 4/21/22:** COVID-19 Test Result Data Reporting Requirement Update
  - **PDPH HAN 5/5/22:** Exemptions, Testing, and Recordkeeping for SNF and Healthcare Workers When Masking is Strongly Recommended
  - **PDPH HAN 5/11/22:** COVID-19 Therapeutics: Oral Antivirals Nirmatrelvir/Ritonavir & Molnupiravir
- **LTCF COVID-19 Vaccination Data Summary**
- ***New*** **PDPH-Sponsored APIC Membership for SNF Infection Preventionists**
- ***New*** **HAI/AR Program Resources and Services**

Department of Public Health
CITY OF PHILADELPHIA

United States COVID-19 Cases and Deaths



TOTAL CASES	CASES IN LAST 7 DAYS	TOTAL DEATHS
82,087,117	593,448	996,376
+146,374 New Cases		+552 New Deaths

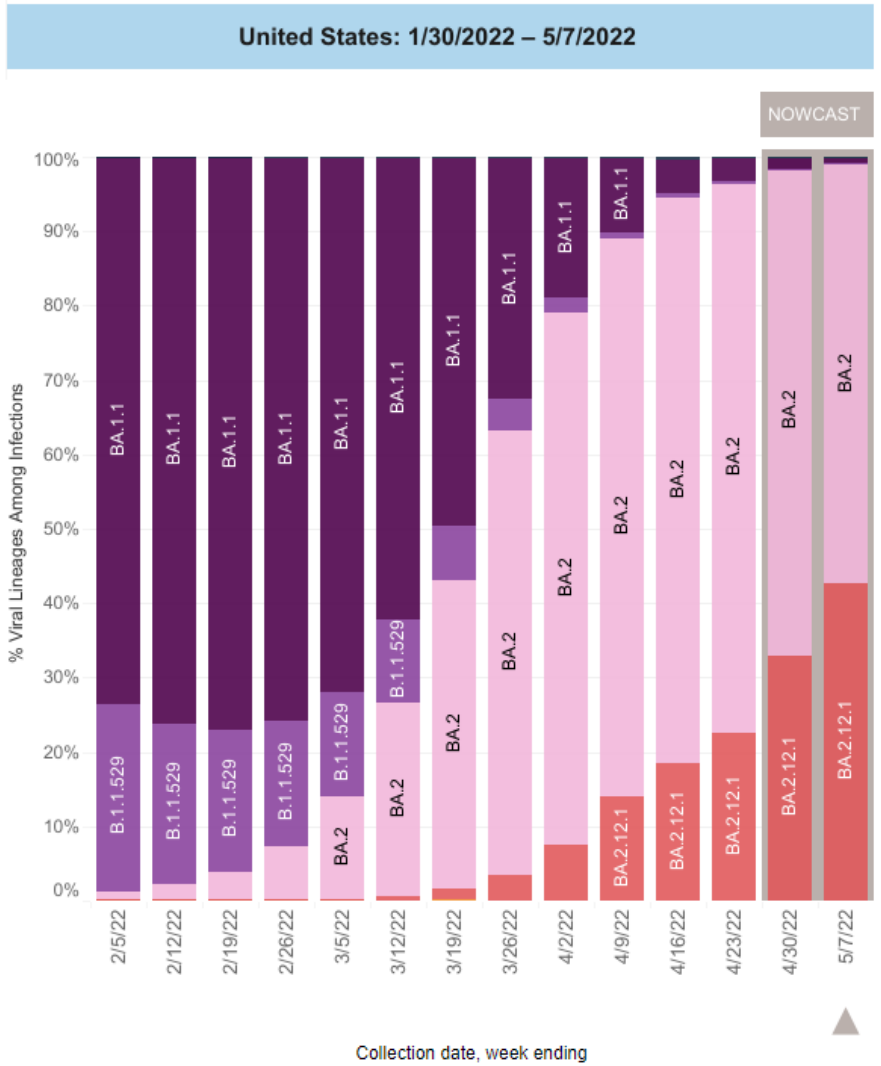
CDC | Data as of: Thursday, May 12, 2022 5:05 PM ET. Posted: Thursday, May 12, 2022 6:01 PM ET

Pennsylvania, last 7 days:

- 21,781 new cases
- 170.1/100K
- PCR % Positivity: 10-14.9

Variants

Omicron BA.2 continues to be the main subvariant circulating in the United States



United States: 5/1/2022 – 5/7/2022 NOWCAST

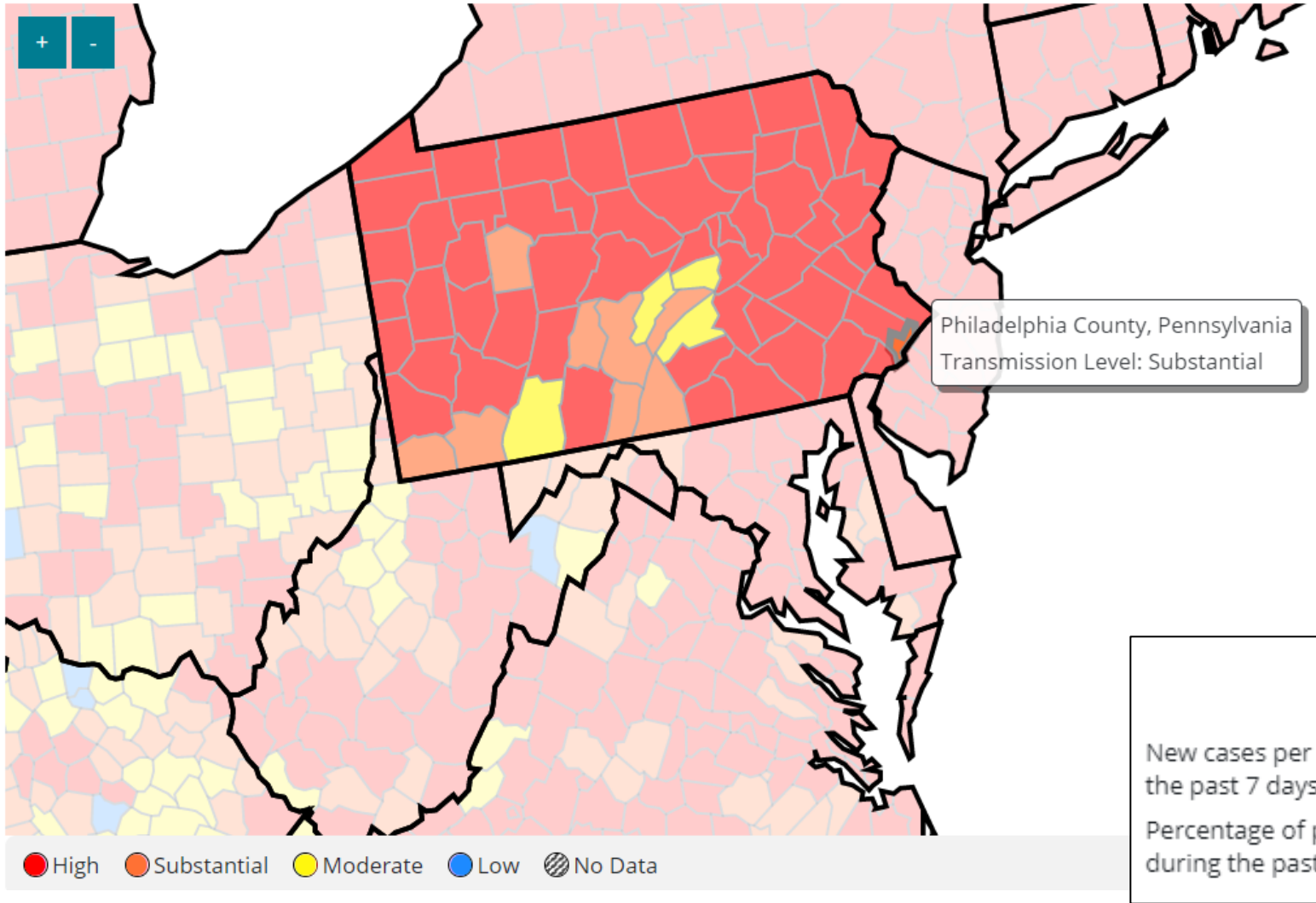
USA

WHO label	Lineage #	US Class	%Total	95%PI
Omicron	BA.2	VOC	56.4%	49.3-63.3%
	BA.2.12.1	VOC	42.6%	35.6-49.9%
	BA.1.1	VOC	0.6%	0.5-0.8%
	B.1.1.529	VOC	0.2%	0.1-0.4%
Delta	B.1.617.2	VBM	0.0%	0.0-0.0%
Other	Other*		0.2%	0.1-0.3%

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all weeks displayed.
** These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates
# AY.1-AY.133 and their sublineages are aggregated with B.1.617.2. BA.1, BA.3, BA.4, BA.5 and their sublineages (except BA.1.1 and its sublineages) are aggregated with B.1.1.529. For regional data, BA.1.1 and its sublineages are also aggregated with B.1.1.529, as they currently cannot be reliably called in each region. Except BA.2.12.1, BA.2 sublineages are aggreagated with BA.2.

Community Transmission

Philadelphia



Data through Wed May 11 2022

Total Cases	1332
Case Rate (last 7 days)	84.09
% Change (last 7 days)	-33.7

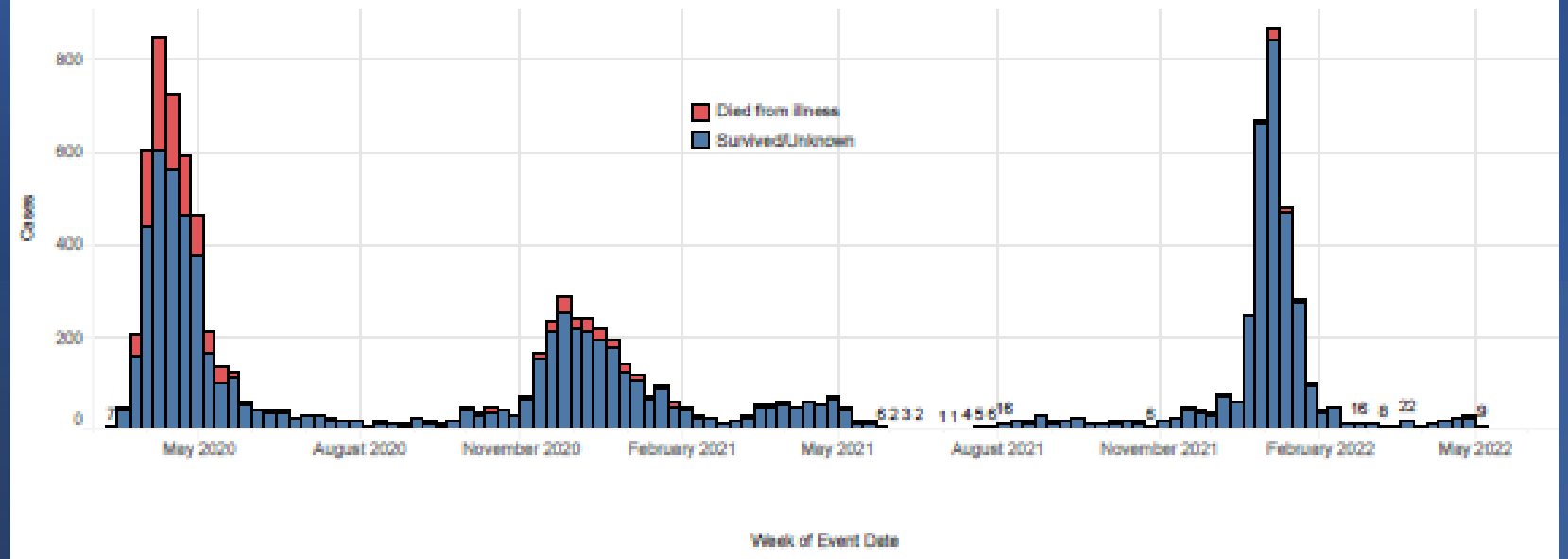
Data through Mon May 09 2022

% Positivity	9.36
% Change (last 7 days)	1.8

	Low	Moderate	Substantial	High
New cases per 100,000 persons in the past 7 days*	<10	10-49.99	50-99.99	≥100
Percentage of positive NAATs tests during the past 7 days**	<5%	5-7.99%	8-9.99%	≥10.0%

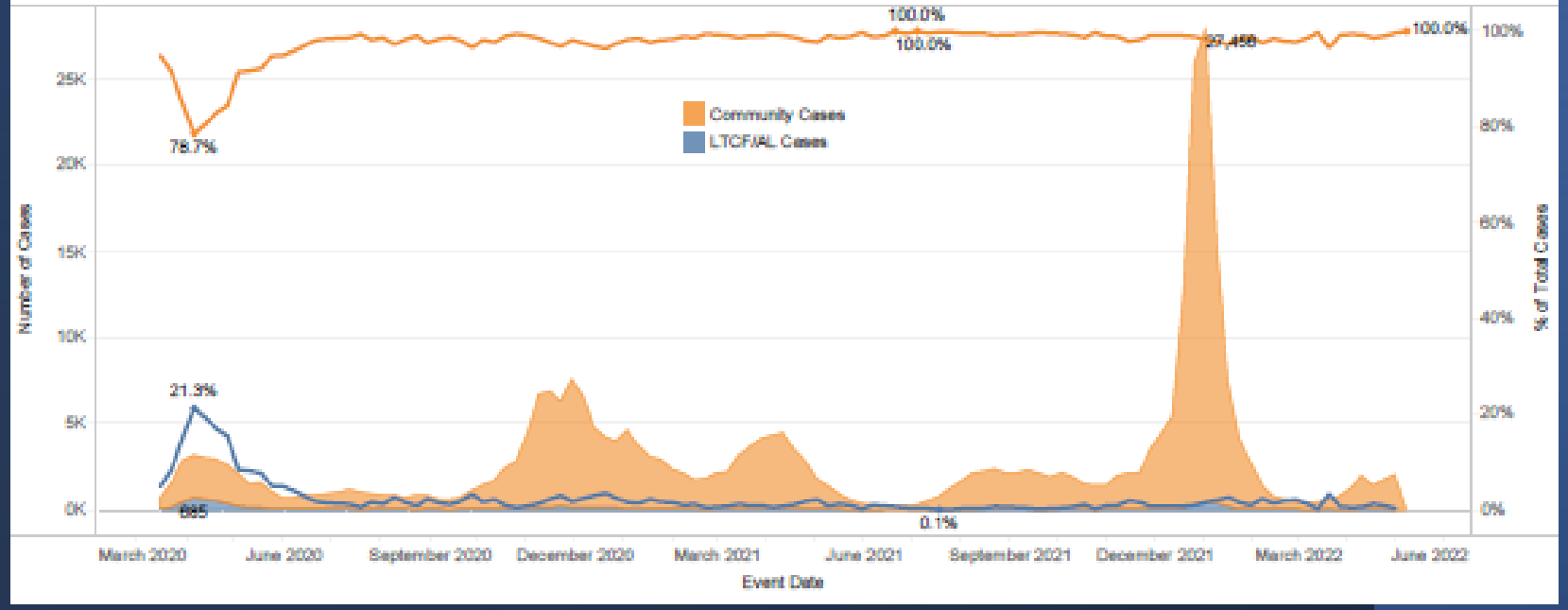
Licensed Long Term Care Facility Epi. Curve

*All Cases (Confirmed & Probable) for Facility Type LTCF
*Includes Staff who could live out of jurisdiction
Updated: 5/10/2022



LTCF vs Community Cases

Note: Area represents count, line represents %



Guidance Updates

PA HANs: 635, 636, 638, 639

PDPH Health Advisories: 4/14, 4/21, 5/5, 5/11

PA HAN 635

PENNSYLVANIA DEPARTMENT OF HEALTH
2022 – PAHAN – 635-04-12-UPD

pennsylvania
DEPARTMENT OF HEALTH

UPDATE: Guidance for Reporting Point of Care SARS-CoV-2 Test Results

DATE:	4/12/22
TO:	Health Alert Network
FROM:	Keara Klinepeter, Acting Secretary of Health
SUBJECT:	**UPDATE: Guidance on Reporting Point of Care SARS-CoV-2 Test Results**
DISTRIBUTION:	Statewide
LOCATION:	n/a
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

PA HAN 635

- The U.S. Food and Drug Administration (FDA) has issued Emergency Use Authorizations (EUA) for a number of COVID-19 point of care (POC) tests for rapid detection of SARS-CoV-2.
- These POC tests may be used by both traditional healthcare providers (e.g., hospitals, outpatient providers) and by non-traditional settings who have appropriate Clinical Laboratory Improvement Amendments (CLIA) Certificate to conduct this testing.
- HAN 633 outlines guidance for reporting results of SARS-CoV-2 test results to the Pennsylvania Department of Health (DOH).
- On April 4, 2022, the U.S. Department of Health & Human Services (HHS) updated its reporting guidance to indicate that CMS-certified long-term care facilities are not required but recommended to use the National Healthcare Safety Network (NHSN) to fulfill POC test reporting. Additional information regarding this process is detailed in this message.
- This message will provide additional guidance on mechanisms used for POC reporting.

PA HAN 636

PENNSYLVANIA DEPARTMENT OF HEALTH
2022 – PAHAN –636– 04-15 - UPD
Update: Multisystem Inflammatory Syndrome in Children (MIS-C) and in Adults (MIS-A)

pennsylvania
DEPARTMENT OF HEALTH

DATE:	4/15/2022
TO:	Health Alert Network
FROM:	Keara Klinepeter, Acting Secretary of Health
SUBJECT:	**UPDATE: Multisystem Inflammatory Syndrome in Children (MIS-C) and in Adults (MIS-A)**
DISTRIBUTION:	Statewide
LOCATION:	n/a
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

PA HAN 636

- Multisystem inflammatory syndrome (MIS) is a rare but serious condition associated with COVID-19 and can affect children (MIS-C) and adults (MIS-A).
- Although MIS-C and MIS-A are similar in clinical presentation, their case definitions differ. MIS-A also has more likely severe outcomes.
- As of March 28, 2022, there are a total of 7,880 MIS-C cases and 66 MIS-C deaths reported to the Centers for Disease Control and Prevention (CDC). Pennsylvania has reported 248 cases.
- Healthcare providers should continue to promote COVID-19 vaccination with the mRNA vaccines for people 5 years of age and older to prevent severe COVID-19 complications, including MIS.
- For patients with MIS who are considering starting the COVID-19 vaccination series, a consultation with clinical team and specialists in infectious diseases, rheumatology, and/or cardiology is strongly encouraged.
- Healthcare providers must report suspect cases of MIS-A and MIS-C by faxing the included case report form to 717-772-6975 or to your local health department or by securely emailing the form to ra-dhcovidcontact@pa.gov

PA HAN 638

PENNSYLVANIA DEPARTMENT OF HEALTH
2022 - PAHAN – 638 – 05-02- ALT

Failure to Disinfect Assisted Blood Glucose Monitors between Uses Poses Risk for Bloodborne Pathogen Transmission

pennsylvania
DEPARTMENT OF HEALTH

DATE:	5/2/22
TO:	Health Alert Network
FROM:	Denise A. Johnson, M.D., FACOG, FACHE, Acting Secretary of Health
SUBJECT:	Failure to Disinfect Assisted Blood Glucose Monitors between Uses Poses Risk for Bloodborne Pathogen Transmission
DISTRIBUTION:	Statewide
LOCATION:	Statewide
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

PA HAN 638

Summary

- The Pennsylvania Department of Health, Bureau of Epidemiology, has recently received an increase in reports of failure to disinfect blood glucose monitors between patients/residents.
- Failure to disinfect blood glucose monitors has been documented to lead to transmission of bloodborne pathogens.
- The Pennsylvania Department of Health is alerting all providers of assisted blood glucose monitoring and requesting they:
    - **Review existing policies and procedures** for blood glucose meter cleaning and disinfection. Policies and procedures should align with existing standards;
    - **Provide repeat education** about proper cleaning, disinfection, and storage of blood glucometers to staff as soon as possible.
    - **Routinely monitor blood glucose testing** in your facility (i.e., regular auditing) to ensure adherence to proper procedure.
    - Always **report breaches in infection control**, outbreaks, or unusual clusters of illness to the Bureau of Epidemiology by calling 1-877-PA-HEALTH or your local health department.

PA HAN 638

- ✓Staff education- upon hire, at least annually, and when new equipment is introduced to the facility. Training should include a competency-based component with demonstration of the learned skill
- ✓Routine monitoring (observation of practices)- use a standardized auditing tool such as the point-of-care testing observation tool available in the CDC ICAR tool
- ✓Fingerstick devices should never be used for more than one person, select single-use lancets that permanently retract upon puncture
- ✓Whenever possible glucometers should not be shared. If they must be shared, label as multi-use, and clean and disinfect after use according to manufacturer's instructions
- ✓Do not carry supplies and medications in pockets
- ✓Provide full hepatitis B vaccination series to all previously unvaccinated staff persons whose activities involve contact with blood or body fluids

PA HAN 639

PENNSYLVANIA DEPARTMENT OF HEALTH
2022-PAHAN-639-05-04-ADV
Updated Hepatitis A and Hepatitis B Vaccine Recommendations

DATE:	05/04/2022
TO:	Health Alert Network
FROM:	Denise A. Johnson, M.D., FACOG, FACHE, Acting Secretary of Health
SUBJECT:	**Updated Hepatitis A and Hepatitis B Vaccine Recommendations**
DISTRIBUTION:	Statewide
LOCATION:	Statewide
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

PA HAN 639

Summary

- Since 2017, multiple states including Pennsylvania have experienced large, ongoing hepatitis A outbreaks affecting people who use drugs and/or people who have experienced homelessness.
- **DOH is encouraging hepatitis A vaccination for persons experiencing homelessness, persons who report drug use, and men who have sex with men (MSM).**
- Provide hepatitis A vaccination for close or sexual contacts of known cases.
- **As of March 2022, CDC now recommends all adults aged 18 to 59 years receive hepatitis B vaccine.** CDC continues to recommend hepatitis B vaccination for all infants and unvaccinated children under age 19. CDC also recommends hepatitis B vaccine for anyone with known risk factors for hepatitis B.
- Please report any suspected clusters of hepatitis A or B by calling DOH at 1-877-PA-HEALTH (1-877-724-3258) or your local health department. Additionally, all cases of acute hepatitis A should be reported via PA-NEDSS.

Adults aged 60 years and older with known risk factors for hepatitis B may also receive the hepatitis B vaccine

PDPH Health Advisory: April 14, 2022

Department of Public Health
CITY OF PHILADELPHIA

Philadelphia Department of Public Health
Division of Disease Control

CHERYL BETTIGOLE, MD, MPH
Health Commissioner

SHARA EPSTEIN, MD
Medical Director, Division of COVID Containment

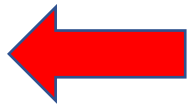
COLEMAN TERRELL
Director, Division of Disease Control

Health Advisory

COVID-19 Therapeutics: Monoclonal Antibodies Update
April 14, 2022

SUMMARY POINTS

- Sotrovimab has limited effectiveness against Omicron BA.2.
- CDC confirmed that the Omicron BA.2 variant accounts for more than 85% of all COVID in the US
- FDA no longer authorizes Sotrovimab to treat COVID-19 in any U.S. region due to increased proportions of Omicron BA.2 sub-variant.
- Other COVID-19 treatment options are available, including Paxlovid (Nirmatrelvir/Ritonavir), Veklury (Remdesivir), Lagevrio (Molnupiravir), and Bebtelovimab.
- COVID-19 vaccination continues to support protection against severe illness, hospitalization, and death.



PDPH Health Advisory: April 21, 2022

Department of Public Health
CITY OF PHILADELPHIA

Philadelphia Department of Public Health
Division of Disease Control

CHERYL BETTIGOLE, MD, MPH
Health Commissioner

SHARA EPSTEIN, MD
Medical Director, Division of COVID-19 Containment

COLEMAN TERRELL
Director, Division of Disease Control

Health Advisory

COVID-19 Test Result Data Reporting Requirement Update
April 21, 2022

SUMMARY POINTS

- Effective April 4, 2022, PDPH endorsed the updated COVID-19 Test Result Reporting Requirement established by CDC and HHS.
- All NAAT test results should be reported to PDPH, Pennsylvania's National Electronic Disease Surveillance System (PA-NEDSS) or the Pennsylvania Department of Health (DOH).
- Only positive results from the point-of-care (POC) or antigen test are required to be reported
- An antibody test result is not required to be reported regardless of test results (positive, negative, or inconclusive).
- All reportable test results must be submitted to PA-NEDSS within 24 hours of completing the test.
- This data reporting update does not apply to at-home test results which are not required to be reported.

PDPH Health Advisory: April 21, 2022

	Test Result		
Type of SARS-CoV-2 Test	**Positive**	**Negative**	**Inconclusive**
Nucleic Acid Amplification Test (NAAT) test • i.e., NAAT, RT-PCR, TMA, LAMP, SDA tests	**Required**	**Required**	**Required**
Antigen & Point-of-care test • Non-NAAT testing • Point-of-care test (i.e., any COVID-19 diagnostic test performed on-site at a CLIA-waived facility such as nursing home, pharmacies, pop-up testing sites, etc.)	**Required**	Optional	Optional
Antibody test (i.e., AB, IgM, IgG, IgA)	Optional	Optional	Optional

PDPH Health Advisory: May 5, 2022

Department of Public Health
CITY OF PHILADELPHIA

Philadelphia Department of Public Health
Division of Disease Control

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Director, Division of Disease Control

Health Advisory

Exemptions, Testing, and Recordkeeping for SNF and Healthcare Workers When Masking is Strongly Recommended

May 5, 2022

SUMMARY POINTS

- SNF workers must follow CMS guidance for testing employees who are not up to date with COVID vaccination
- Screening testing is required for unvaccinated healthcare workers other than those who work in SNFs when the Department *"Strongly Recommends"* masking.
- This health advisory outlined the PDPH guidance for vaccine exemptions, COVID-19 testing, masking, and recordkeeping.

PDPH Health Advisory: May 5, 2022

Masking

All healthcare institutions must continue to enforce masking for all, including KN-95s, N-95s, or double masking including a surgical mask worn correctly under a cloth mask. Unvaccinated individuals must double mask or wear an N-95 or similar respirator while working.

a. Masking is not required for healthcare workers or healthcare institution workers when present in areas or settings that do not provide patient-facing when when masking is *"Optional but Recommended* but must resume as previously required when masking is *"Strongly Recommended* .
b. All Healthcare workers and healthcare institution workers must continue masking in patient facing and healthcare related services settings.

PPE Reminders

Recommended PPE Based on Community Transmission Levels

Use of Eye Protection per PAHAN-624 and CDC

- HCP working in facilities located in counties with **substantial or high COVID-19 transmission** should:
  - Use eye protection (i.e., goggles or a face shield that covers the front and sides of the face) during all resident care encounters
- HCP working in a facility with **low to moderate transmission**:
  - Universal eye protection is not required for all resident encounters
  - Don eye protection to protect mucous membranes of the eyes from splashes and sprays e.g., open suctioning, spitting, possibly NG tube insertion
- **Don't forget to use Standard Precautions with all resident encounters!**

PPE for Residents with COVID-19, Including Suspected

- NIOSH approved N95 respirator or higher-level respirator
- Eye protection-goggles or face shield that covers the front and side of the face
- Isolation gown
- Gloves

Exceptions to Masking and Social Distancing for HCP and Residents: PA HAN 624

Staff:

- Philadelphia county with low to moderate transmission **AND**
- HCP are UTD with all recommended COVID-19 vaccine doses **AND**
- HCP are in areas restricted from resident access e.g., breakroom, meeting room
- HCP should wear a mask if they will encounter residents

Residents:

- Philadelphia county with low to moderate transmission **AND**
- Residents are UTD with all recommended COVID-19 vaccine doses
- Residents at increased risk for severe disease should still consider continuing to practice social distancing and use of source control

PDPH Health Advisory: May 11, 2022

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CITY OF PHILADELPHIA

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Health Advisory

COVID-19 Therapeutics: Oral Antivirals Nirmatrelvir/Ritonavir & Molnupiravir

May 11, 2022

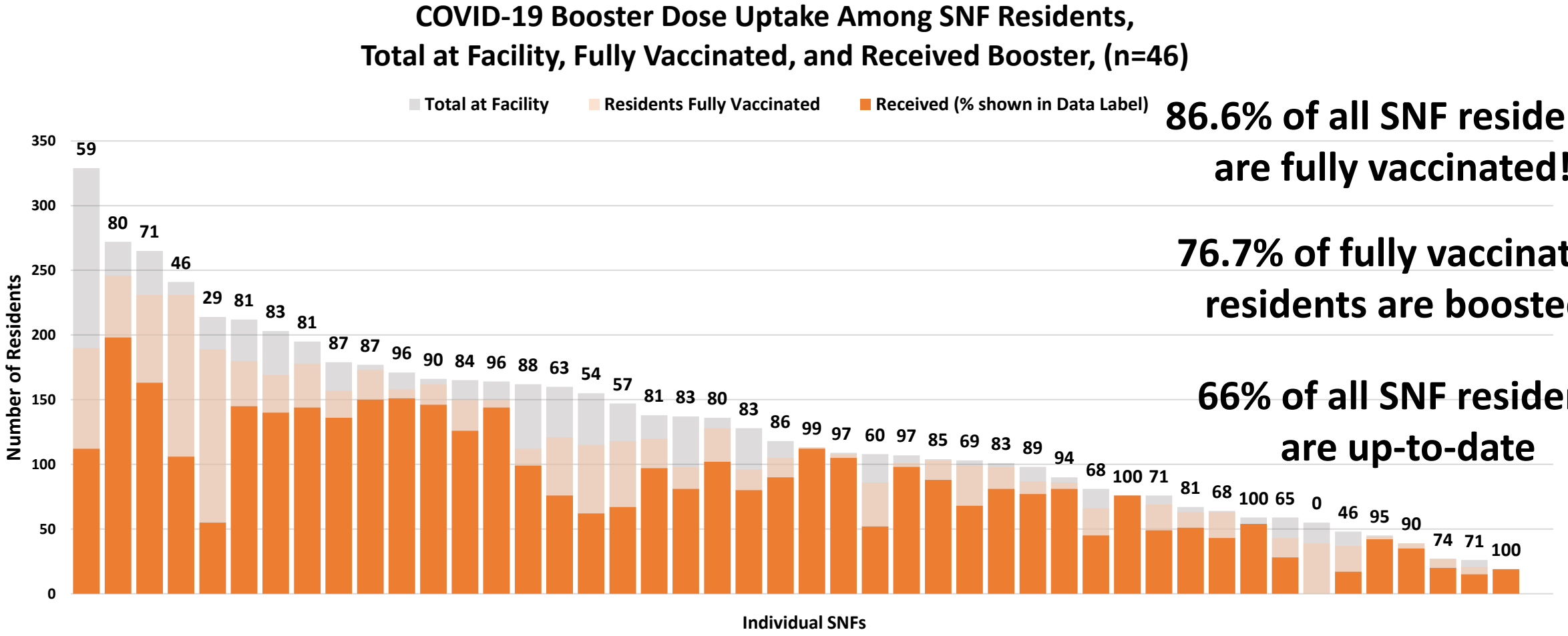
SUMMARY POINTS

- Providers should visit COVID-19 Test-to-Treat Locator to confirm the inventory and initiate the medication within 5 days from COVID-19 diagnosis/ symptom onset.
- NIH has established Nirmatrelvir/Ritonavir and Veklury as the preferred therapeutic option and Bebtelovimab and Molnupiravir as alternatives.
- Nirmatrelvir/Ritonavir requires renal dosing and has many drug-drug interactions. It is imperative to review these criteria before prescribing.
- See the Paxlovid Patient Eligibility Screening Checklist Tool for Prescribers to support clinical decision making
- Molnupiravir requires individuals to be 18 and older. Pregnant/lactating individuals are not recommended to receive Molnupiravir.

Department of Public Health
CITY OF PHILADELPHIA

SNF COVID-19 Vaccination Data Summary

NHSN Resident Booster Doses



86.6% of all SNF residents are fully vaccinated!

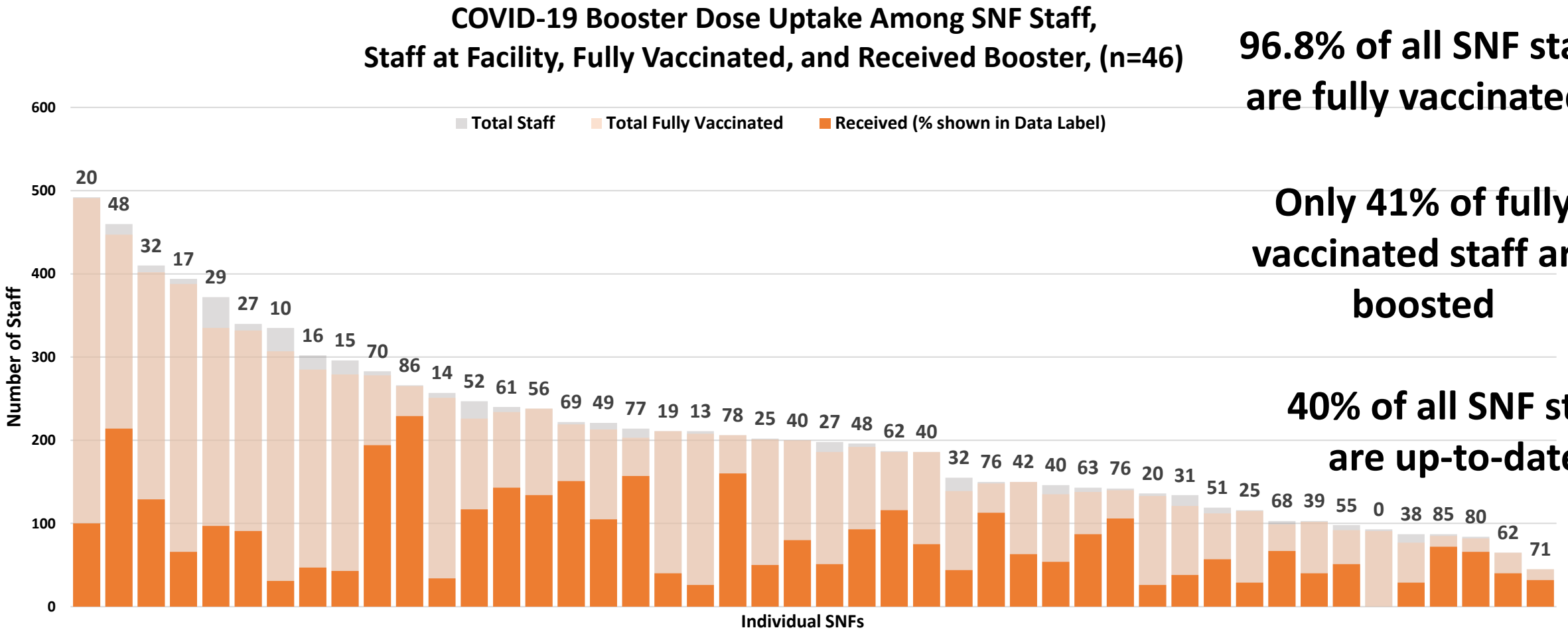
76.7% of fully vaccinated residents are boosted

66% of all SNF residents are up-to-date

NHSN Resident Booster Doses

- **45% of facilities** had an increase in residents boosted over the last month!
  - Average improvement: 13 residents
  - Range: 2 – 75 residents

NHSN Staff Booster Doses



96.8% of all SNF staff are fully vaccinated!

Only 41% of fully vaccinated staff are boosted

40% of all SNF staff are up-to-date

NHSN Staff Booster Doses

- **62% of facilities** had an increase in staff boosted over the last month!
    - Average improvement: 15 staff
    - Range: 1 – 58 staff
- Keep up the good work!

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CITY OF PHILADELPHIA

PDPH-Sponsored APIC Membership for SNF Infection Preventionists

What is APIC?

Association for Professionals in Infection Control and Epidemiology (APIC):

- Leading professional association for infection preventionists (IPs) with >15,000 members
- Mission to advance the science and practice of infection prevention and control
- Members are nurses, physicians, public health professionals, epidemiologists, microbiologists, or medical technologists
- The majority are affiliated with acute care settings. An increasing number practice in ambulatory and outpatient services. Members are also involved in **long-term care**, home health, and other **practice settings where infection prevention and control is an increasing area of responsibility for nurses and other healthcare personnel.**

Benefits of APIC Membership

APIC OFFERS RESOURCES, RESEARCH, AND COMMUNITY. BENEFITS INCLUDE:

- *AJIC*
- *Prevention Strategist*

- *eNews*
- *Education Now*

- *IP Talk*
- *Online communities*

- *APIC.org*
- *Webinars*
- *Online courses*

- *Implementation guides*
- *Competency model*
- *Advocacy*

- *Discounts on APIC products*
- *Discounts on APIC education*
- *Member savings programs*

Benefits of APIC Membership

WEBINAR RECORDINGS FEATURING "LONG-TERM CARE"

APIC webinars are available live and on-demand.

Many webinars offer educational credits (CEU, IPU).

APIC webinars are FREE for APIC members.

- *Environmental Cleaning Disinfecting in Long-Term Care*
- *UV Light in Long-Term Care Setting*
- *Research and Practice in Long-Term Care*
- *Challenges in the Long-Term Acute Care environment*
- *Managing MDRO in Long-Term Care*
- *Infection Prevention in the Long-Term Acute Care Setting*

Benefits of APIC Membership

RESOURCES FEATURING "LONG-TERM CARE"

Implementation Guides

Practical, evidence-based strategies for surveillance and the elimination of infection. Each guide includes online tools and resources.

- *Guide to the Elimination of Methicillin-Resistant Staphylococcus aureus (MRSA) in the Long-Term Care Facility (2009)*
- *Guide to Preventing Catheter-Associated Urinary Tract Infections (2014)*

Topic Specific Resources

Curated information on key infection prevention topics.

- *https://apic.org/resources/topic-specific-infection-prevention/long-term-care/*
- *Includes resources for the public:*
  - *How to be a good visitor at a nursing home—Monthly alert for consumers*
  - *The power of 10: Your role in preventing catheter-associated urinary tract infections in nursing homes—APIC infographic for consumers*

Benefits of APIC Membership

RECENT POSTS IN THE LONG-TERM CARE COMMUNITY

Virtual communities that connect infection preventionists with similar interests in infection prevention across the continuum of care.

- *Mitigation of risk for Unvaccinated (COVID) HCW's and F888*
- *Mapping of Infections in Long Term Care*
- *Did McGeer Criteria for LTC UTI change in May 2021*
- *COVID Testing of Residents*
- *LTC Benchmark Data*
- *Monthly Epidemiology Lab Reports*
- *Infection Prevention with Oxygen Delivery and Respiratory Therapy Devices*
- *Kitchen Area Trash Bins*
- *Vaccine Mandate Sample Policy and Forms*

Benefits of APIC Membership

LOCAL CONNECTIONS, EVENTS, AND EDUCATION

Chapters:

- Provide ongoing member support at the local level
- Foster communication and networking opportunities
- Offer educational opportunities
- Develop strong leaders through mentorship and volunteer opportunities
- Advocate for infection prevention issues

Chapters are an additional fee.

Why is PDPH offering memberships?

Connecting LTCF IPs to a professional organization offers:

- Online educational resources
- Online peer community and support
- Local chapter LTC Focus Group support and networking opportunities
- Recognition for the IP role

Value of the gift: $230

- National and local chapter memberships included

How does it work?

PDPH Organizational Membership:

- Good for a year
- One membership per facility
- Can be transferred to a new IP if needed

Link to sign up: https://app.smartsheet.com/b/form/3e8cffae22f84c2692ee614321f816f0

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New HAI Program Resources and Services

Coming Soon: IPC Highlights

Carbapenem-Resistant *Acinetobacter baumannii* (CRAB)

WHAT IS IT?

Acinetobacter is a genus of gram-negative bacteria commonly found in the environment in soil and water. While there are many *Acinetobacter* species, the most common cause of human infections is *Acinetobacter baumannii*.

A. baumannii can cause blood, urinary tract and wound infections, and pneumonia. It can also colonize mucosal surfaces, especially in the respiratory tract, and open wounds.

In 2019, 34.5% of *Acinetobacter* isolates tested in Pennsylvania were resistant to carbapenem antibiotics. This is an increase from 24% in 2018. Since March 2018, 80 cases have been reported in Philadelphia alone. However, this number is an underestimate since CRAB is not a reportable condition in Philadelphia. So far in 2022, 4 cases of pan-drug resistant *A. baumannii* have been reported in Philadelphia.

In 2017, carbapenem-resistant *Acinetobacter* (CRAB) caused an estimated **8,500 infections** in hospitalized patients and **700 estimated deaths** in the United States.

TRANSMISSION

In the U.S., *Acinetobacter* infections typically occur among people in healthcare settings. People at highest risk include hospitalized patients, especially those who:

- Are on ventilators
- Have invasive medical devices, such as catheters
- Have open wounds, such as from surgery
- Are in intensive care units
- Have prolonged hospital stays

Acinetobacter can live for long periods of time on environmental surfaces and shared equipment if not properly cleaned. It can spread from one person to another through healthcare worker hands, if hand hygiene is not performed appropriately, or contact with contaminated surfaces and equipment.

In the United States, *Acinetobacter* infections rarely occur outside of healthcare settings. However, people who have weakened immune systems, chronic lung disease, or diabetes may be more susceptible.

Carbapenem-resistant Enterobacterales (CRE)

WHAT IS IT?

Enterobacterales is an order of bacteria commonly found in the human gastrointestinal tract that can cause infections both in healthcare and community settings. Enterobacterales that test resistant to at least one carbapenem antibiotic (i.e., ertapenem, meropenem, doripenem, or imipenem) are called CRE. All CRE are likely multidrug-resistant organisms, and interventions may be required in healthcare settings to prevent transmission.

CRE can carry mobile genetic elements that make carbapenemase enzymes, which are easily transferred between bacteria. **Approximately 30% of CRE are carbapenemase-producing** (CP-CRE). CP-CRE are believed to be primarily responsible for the increasing spread of CRE in the United States and have therefore been targeted for aggressive prevention.

There are a number of carbapenemase genes associated with mobile genetic elements, including:

- *Klebsiella pneumoniae* carbapenemase (KPC)
- New Delhi Metallo-β-lactamase (NDM)
- Verona Integron-Encoded Metallo-β-lactamase (VIM)
- Imipenemase (IMP)
- Oxacillinase-48 (OXA-48)

Infections with CRE are difficult to treat and have been associated with **mortality rates of up to 50%** for hospitalized patients. Due to patient movement throughout the healthcare system, if CRE is present in one facility, then it is typically present in other facilities in the region as well.

Surveillance criteria for CRE in Philadelphia can be found here.

TRANSMISSION

In healthcare settings, CRE is transmitted from person to person, often via the hands of healthcare personnel or through contaminated medical equipment or environmental surfaces. Sink drains and toilets are increasingly recognized as an environmental reservoir and source of CRE transmission.

Healthcare-related risk factors include:

- Requiring assistance with most activities of daily living (i.e., toileting/bathing)
- Exposure to an ICU
- Multiple/frequent healthcare stays
- Invasive medical devices, such as catheters and mechanical ventilation
- Recent/previous treatment with antibiotics including carbapenems, cephalosporins, fluoroquinolones, and vancomycin

Carbapenem-Resistant *Pseudomonas aeruginosa* (CRPA)

WHAT IS IT?

Pseudomonas is a genus of gram-negative bacteria found in the environment in soil and water. Of the many *Pseudomonas* species, the most common cause of human infections is *Pseudomonas aeruginosa*, which can cause infections in the blood, lungs (pneumonia), or other parts of the body after surgery.

In 2017, carbapenem-resistant *P. aeruginosa* (CRPA) caused an estimated **32,600 infections** in hospitalized patients and **2,700 estimated deaths** in the United States.

2 to 3% of carbapenem-resistant *P. aeruginosa* carry a mobile genetic element that makes a carbapenemase enzyme, which breaks down carbapenem antibiotics.

What you need to know

- *P. aeruginosa* infections usually occur in people in the hospital or with weakened immune systems. It is particularly dangerous for patients with chronic lung diseases.
- Some types of multidrug-resistant *P. aeruginosa* are resistant to nearly all antibiotics, including carbapenems.

TRANSMISSION

Resistant strains of *P. aeruginosa* can spread in healthcare settings from one person to another through contaminated hands, equipment, or surfaces. People at highest risk include hospitalized patients, especially those who:

- Are on ventilators
- Have invasive medical devices, such as catheters
- Have open wounds, such as from surgery or burns

TREATMENT

Pseudomonas aeruginosa infections are generally treated with antibiotics. Unfortunately, many *P. aeruginosa* infections are highly resistant to antibiotics, including carbapenems, which makes them difficult to treat with available antibiotics.

Healthcare providers should base treatment decisions on the susceptibility profile for the organism and reevaluate empiric regimens as soon as susceptibility results are available. Patients colonized with CRPA who are not showing active signs of infection do not need to be treated.

Coming Soon:
LTCF Antibiotic Stewardship Toolkit

- Programmatic resources for LTCF to reduce inappropriate antibiotic prescribing
- Diagnosis and treatment guides
    - UTI
    - SSTI
    - Respiratory infections

Bloodborne Pathogen Risk with Blood Glucose Monitoring

- Job Aide
- Glucometer Audit Tool

Point of Care Testing Observations (e.g., assisted blood glucose monitoring)					
HH performed	Clean gloves worn	Single use, lancet used?[1]	Testing meter[2]	Gloves removed[3]	HH performed[3]
O Yes O No	O Yes O No	O Yes O No	O Dedicated to resident, cleaned/disinfected before storing O Cleaned/disinfected before next resident	O Yes O No	O Yes O No
O Yes O No	O Yes O No	O Yes O No	O Dedicated to resident, cleaned/disinfected before storing O Cleaned/disinfected before next resident	O Yes O No	O Yes O No
O Yes O No	O Yes O No	O Yes O No	O Dedicated to resident, cleaned/disinfected before storing O Cleaned/disinfected before next resident	O Yes O No	O Yes O No
O Yes O No	O Yes O No	O Yes O No	O Dedicated to resident, cleaned/disinfected before storing O Cleaned/disinfected before next resident	O Yes O No	O Yes O No

Point of Care Blood Glucose Monitoring

1. Gather supplies for finger stick, only collecting what is needed. Glucometer (w/o case), single test strip, disposable single-use lancet, alcohol swab, cotton/gauze (optional)
2. Place disinfectant wipes and alcohol-based hand rub (ABHR) on med cart for easy access
3. Perform hand hygiene with ABHR, don gloves
4. Establish a clean surface (i.e. paper towel or disposable cup) . Carry supplies into room and place on the clean surface (towel/cup) on bedside table
5. Perform fingerstick per facility policy
6. Discard trash, place lancet in sharps container. Do not place used items on top of med cart prior to disinfecting.
7. Disinfect glucometer with disinfectant towelette and let it air dry. Alcohol swab should not be used as it is not effective against bloodborne pathogens.
8. Doff gloves and perform hand hygiene
9. Place disinfected glucometer in med cart

Department of Public Health CITY OF PHILADELPHIA

Reminder: HAI/AR Services

- Infection Control Assessment and Response (ICAR) visit
- N95 qualitative fit test training
- Quarterly newsletter
- Onsite education NEW!
  - Short form staff education
  - Hand hygiene auditing training
- Sign-Up Form for HAI/AR Services

Department of
Public Health
CITY OF PHILADELPHIA

Thank you!

Next call Friday, June 10, 2022