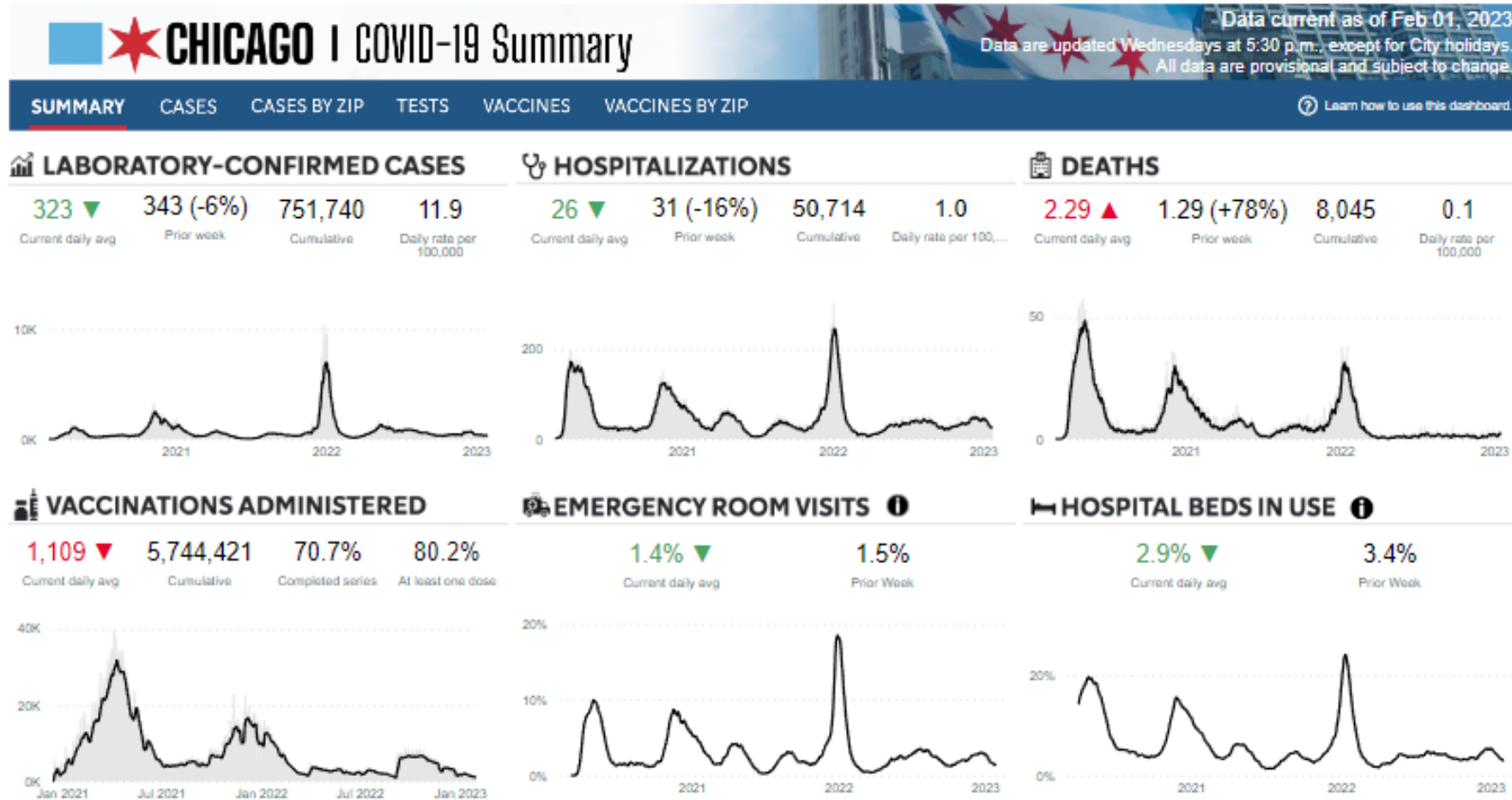# COVID-19
Chicago Long Term Care Roundtable
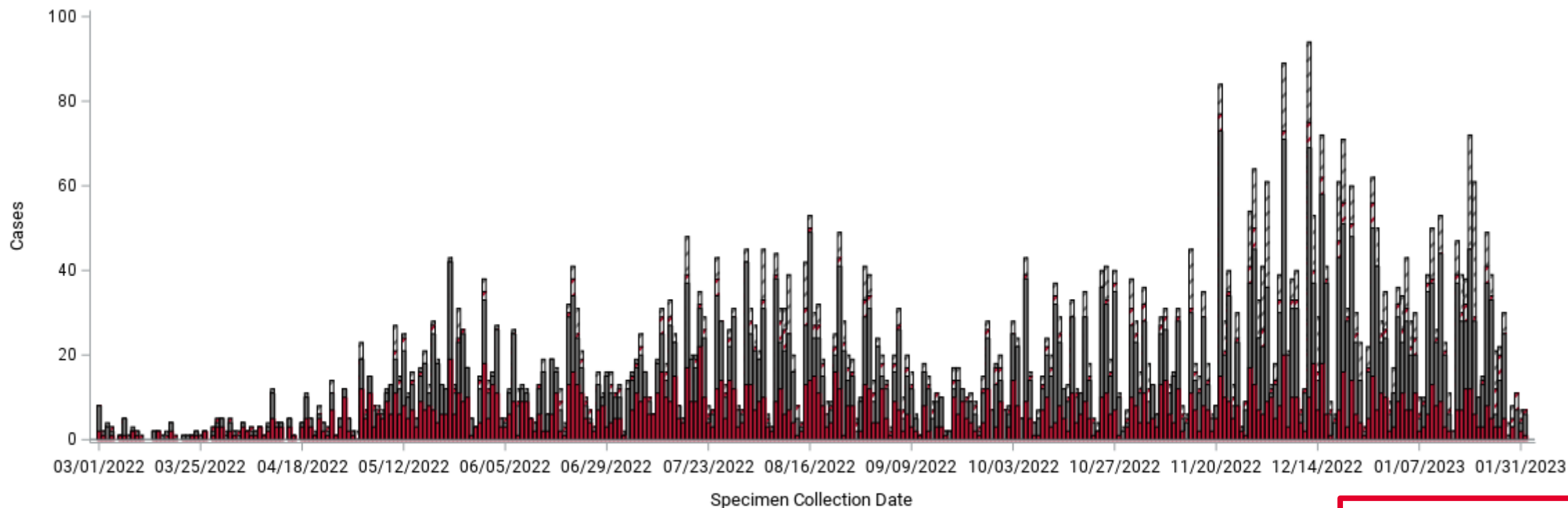
02-02-2023

Agenda

- COVID-19 Epidemiology
- COVID-19 Reminders, Updates, and FAQs
- CHSCPR Exercise
- Air Sampling
- Antimicrobial Stewardship
- Questions & Answers

Chicago Dashboard

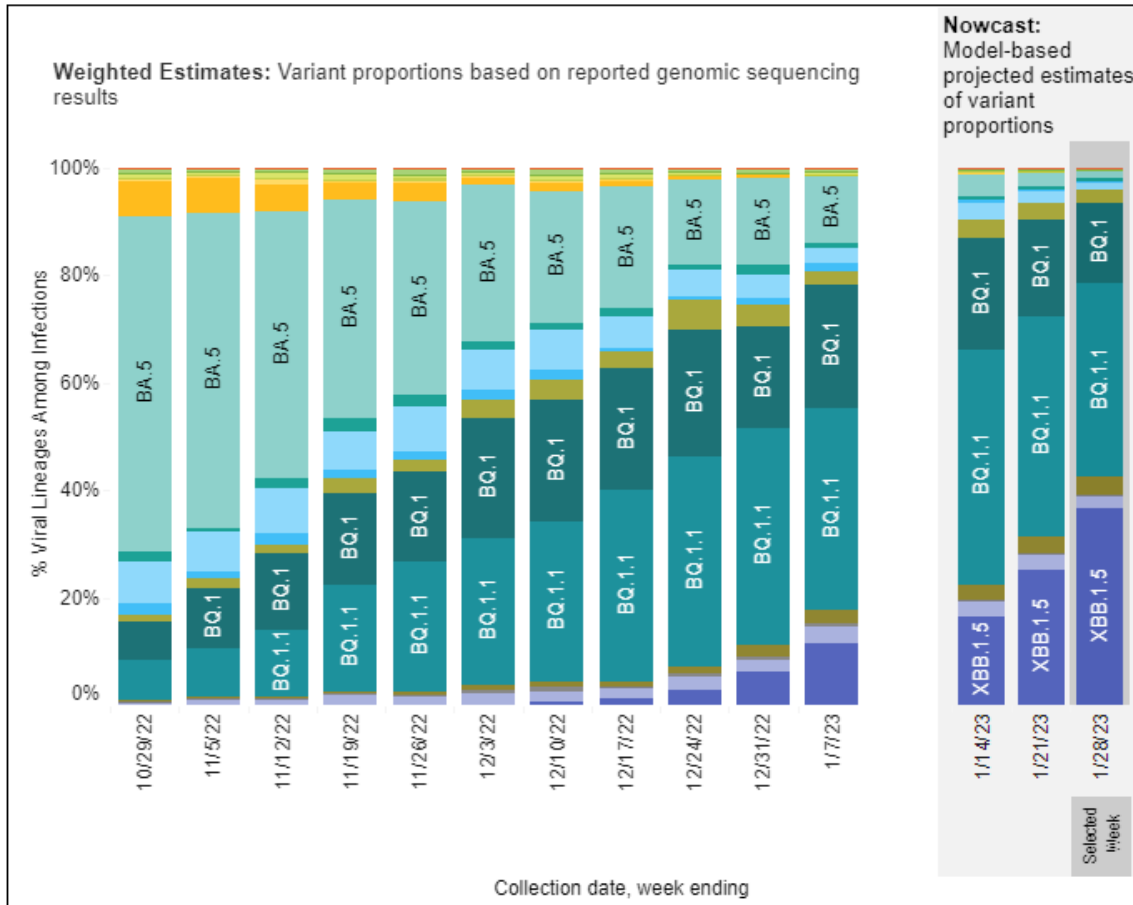# SNF COVID-19 Cases
(Mar. 1, 2022 – Feb. 1, 2023)

58 (73%) SNFs have active outbreaks

COVID-19 Variant Proportions

Weighted and Nowcast Estimates in HHS Region 5 for Weeks of 10/23/2022 – 1/28/2023

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

Weighted Estimates: Variant proportions based on reported genomic sequencing results

Nowcast: Model-based projected estimates of variant proportions

Nowcast Estimates in HHS Region 5 for 1/22/2023 – 1/28/2023

Region 5 - Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin

WHO label	Lineage #	US Class	%Total	95%PI	
Omicron	XBB.1.5	VOC	36.5%	29.4-44.3%	
	BQ.1.1	VOC	36.3%	31.8-41.1%	
	BQ.1	VOC	14.7%	12.9-16.6%	
	CH.1.1	VOC	3.2%	2.2-4.6%	
	XBB	VOC	2.6%	1.9-3.5%	
	BN.1	VOC	2.5%	1.9-3.4%	
	BA.5	VOC	1.5%	1.2-1.9%	
	BF.7	VOC	1.4%	1.1-1.8%	
	BA.5.2.6	VOC	0.4%	0.3-0.6%	
	BF.11	VOC	0.3%	0.2-0.4%	
	BA.2	VOC	0.2%	0.1-0.3%	
	BA.2.75	VOC	0.1%	0.1-0.2%	
	BA.4.6	VOC	0.1%	0.1-0.1%	
	BA.2.75.2	VOC	0.0%	0.0-0.1%	
	B.1.1.529	VOC	0.0%	0.0-0.0%	
	BA.4	VOC	0.0%	0.0-0.0%	
	BA.1.1	VOC	0.0%	0.0-0.0%	
	BA.2.12.1	VOC	0.0%	0.0-0.0%	
Delta	B.1.617.2	VBM	0.0%	0.0-0.0%	
Other	Other*		0.1%	0.0-0.2%	

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

Reminder: CDC COVID Data Tracker

| Indicator - If the two indicators suggest different transmission levels, the higher level is selected	Low Transmission Blue	Moderate Transmission Yellow	Substantial Transmission Orange	High Transmission Red
Total new cases per 100,000 persons in the past 7 days	0-9.99	10-49.99	50-99.99	≥100
Percentage of NAATs[1] that are positive during the past 7 days	0-4.99%	5-7.99%	8-9.99%	≥10.0%

CDC COVID Data Tracker: Cook County
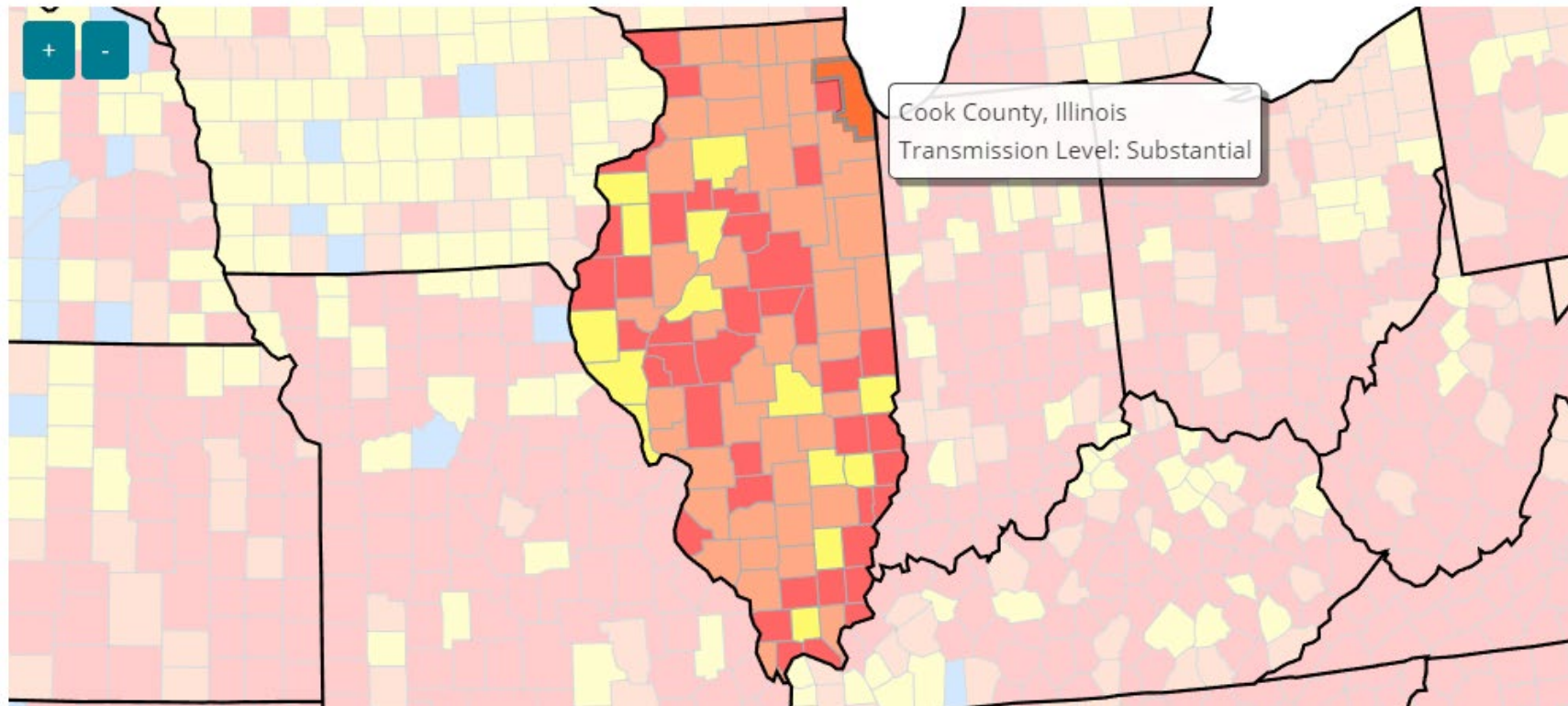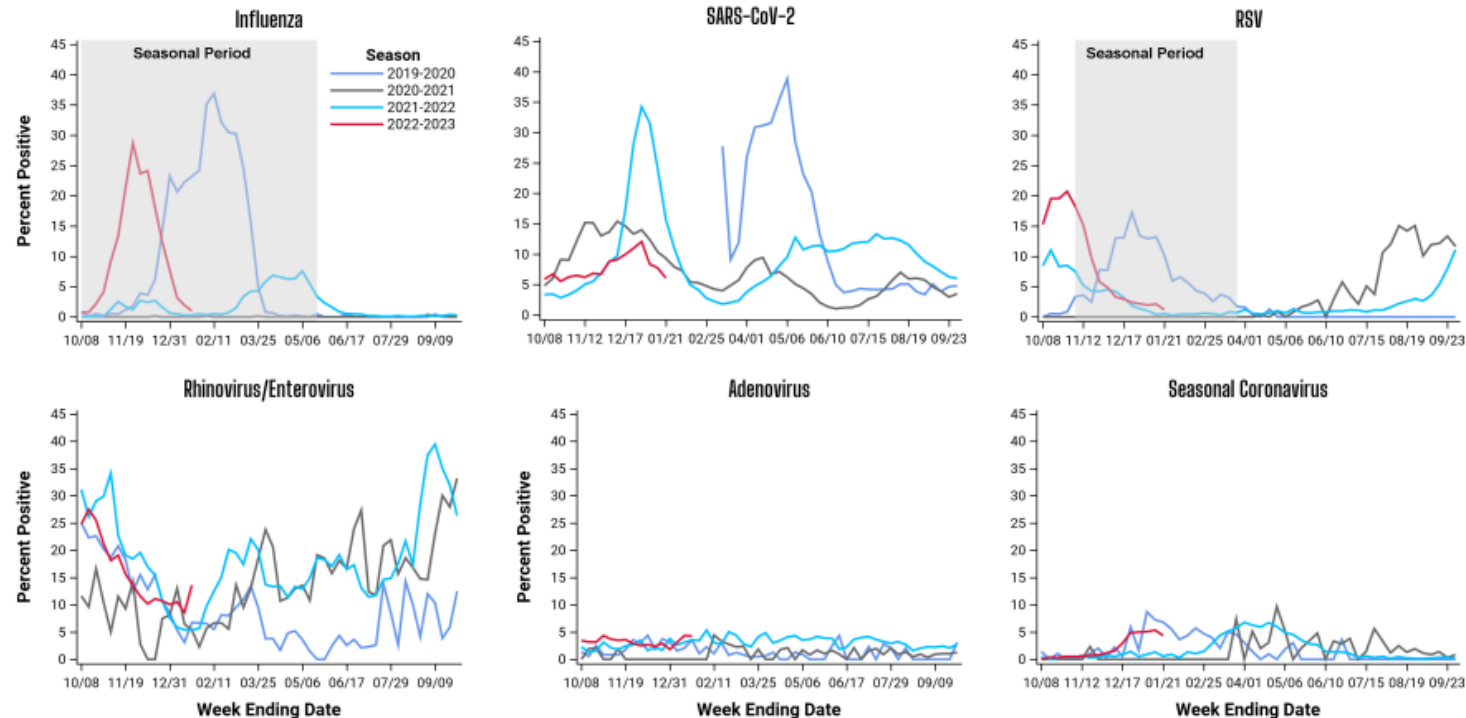
Chicago Respiratory Virus Surveillance Report

Respiratory Virus Laboratory Surveillance - Seasonal Trends *These graphs show seasonal trends of selected respiratory virus testing data presented in the previous table. Typical seasonal periods when activity tends to increase for influenza and RSV are indicated by shaded areas. Elevated test positivity outside of typical seasonal periods suggests atypical activity, and increased clinician awareness and testing may be warranted. Yearly data can also be used to compare the timing and intensity of viral activity, although changes in testing patterns also influence yearly trends, and data should be interpreted in the context of other surveillance indicators.*

Chicago Respiratory Virus Surveillance Report

Respiratory Virus Laboratory Surveillance - Current Week and Cumulative *The table below includes respiratory viral PCR tests performed by several hospital laboratories in Chicago as well as two commercial laboratories serving Chicago facilities. Reporting facilities represent nearly half of all acute care hospitals in the city. Data reported include Chicago and non-Chicago residents.*

Respiratory Pathogen	Week Ending January 21, 2023		Since October 2, 2022	
	# Tested	% Positive	# Tested	% Positive
Influenza*	4,243	1.0	94,445	12.8
RSV*	2,917	1.2	71,695	8.6
SARS-CoV-2*	5,266	6.1	117,227	7.7
Parainfluenza	1,450	1.0	28,738	3.1
Rhinovirus/Enterovirus	889	13.6	20,462	15.7
Adenovirus	889	4.3	20,307	3.2
Human Metapneumovirus	889	3.1	20,552	1.0
Seasonal Coronaviruses[†]	1,449	4.3	29,188	2.0

*Represents both dualplex and multiplex PCR data. All other data represents only multiplex panels that include the specified pathogens;† Four seasonal coronavirus strains include 229E, NL63, OC43, and HKU1.

Reminder: Minimum Routine <u>Staff</u> Testing Frequency

Vaccination Status	Community Transmission Level	Testing Frequency
Not up to date	All	No required routine testing*
Up to date**	All	No required routine testing*

* Unless symptomatic, had a high-risk exposure, or your facility is in outbreak and performing unit/broad-based testing.
** An individual has received all COVID-19 vaccinations for which they are eligible

Source: IDPH Interim Guidance for Nursing Homes and Other Licensed Long-Term Care Facilities

Reminder: Minimum Routine <u>Resident</u> Testing Frequency

Vaccination Status	Community Transmission Level	Routine Testing Frequency
Not up to date*	All	No required routine testing**
Up to date*	All	No required routine testing**
New and readmissions, regardless of vaccination status	Low, Moderate, Substantial	No required routine testing**
New and readmissions, regardless of vaccination status***	High	Upon admission, 48 hours after 1st negative test, 48 hours after 2nd negative test (i.e., days 0, 2, 4)

*Excluding new/readmissions when community transmission is high
**Unless symptomatic, following a high-risk exposure, or your facility is in outbreak and performing broad-based testing.
***Unless COVID+ within the prior 30 days

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Change in Community Transmission Level

- Cook County changed from high to substantial community transmission on 1/19/2023

- Effective tomorrow (15 days after the change), facilities within Cook County can discontinue certain practices related to source control, PPE, and testing
  - Alternatively, facilities can choose to continue current protocols

- If your facility will be making changes resulting from the decrease in community transmission, ensure that policies and procedures are reflective of those practices

COVID-19 | PHASED PREVENTION | LEVELS OF COMMUNITY TRANSMISSION | ALL COUNTIES

01/19/2023

Cook, IL

Community Transmission Level: Substantial
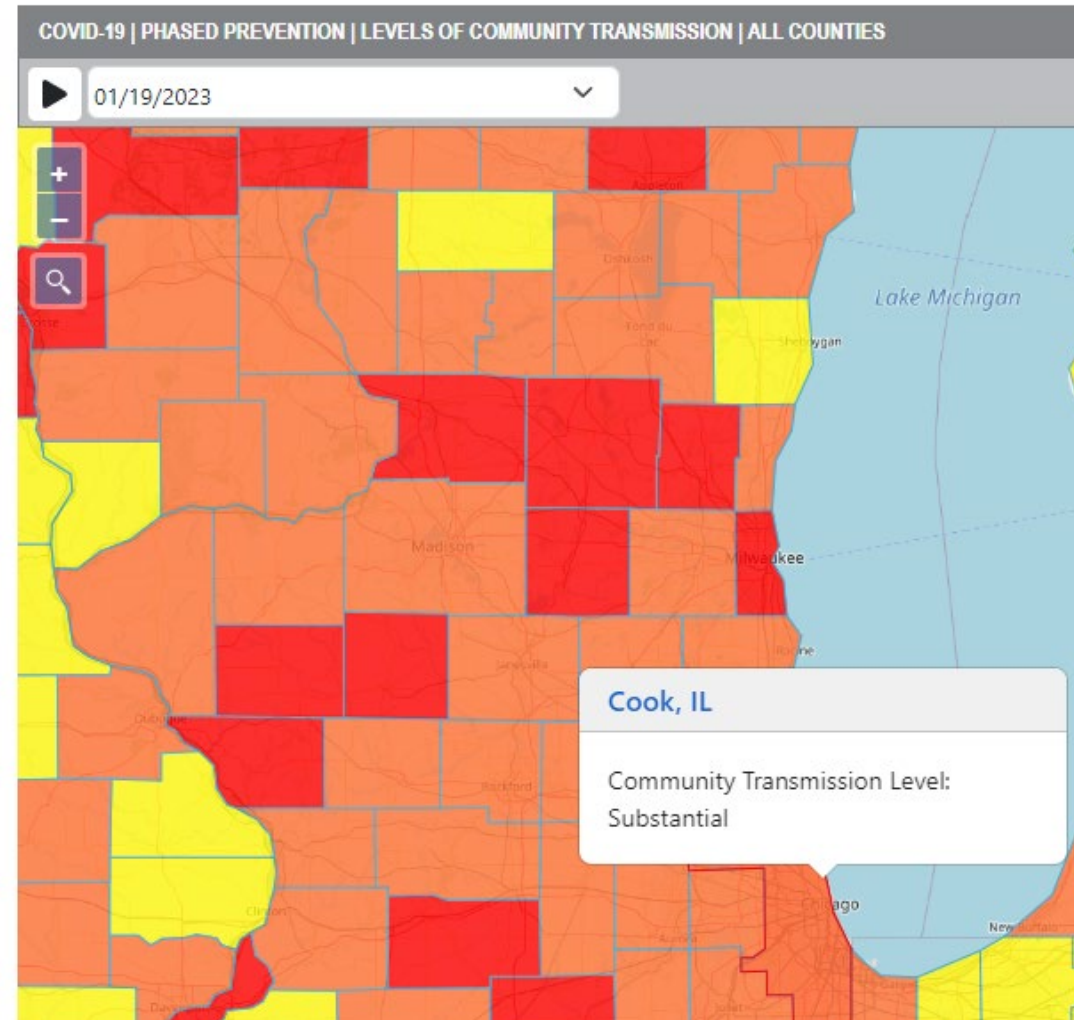
Source Control

- When community transmission is *not* high, facilities can choose not to require universal source control (i.e., residents, staff, and visitors do not need to wear masks as source control except for the situations outlined below)

- Masks as source control should still be implemented for individuals who:
  - Have suspected or confirmed SARS-CoV-2 infections or other respiratory infection (e.g., influenza)
  - Had close contact (residents/visitors) or a higher-risk exposure (staff) with someone who has an active SARS-CoV-2 infection until 10 days after the exposure
  - Reside or work on a unit/area of the facility experiencing a SARS-CoV-2 outbreak until 14 days after the last positive case
  - Have otherwise had source control recommended by public health authorities

- Reminder that masks as PPE must be worn whenever entering the room or interacting with a resident under droplet precautions

CPAP/BIPAP for Asymptomatic Residents

- When community transmission is *not* high, HCP no longer need to wear an N95 or eye protection when entering the room of a resident with CPAP/BIPAP if there is no concern for COVID or other respiratory infections

- Instead, HCP must wear a well-fitted face mask

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Source: IDPH Interim Guidance for Nursing Homes and Other Licensed Long-Term Care Facilities

Eye Protection

- When community transmission is *not* high, HCP do not need to wear eye protection when interacting with residents or on patient care units, unless eye protection is required for another reason (e.g., resident is on droplet precautions or HCP anticipates splashes/sprays during the encounter)

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Routine Testing of New/Readmitted Residents

- When community transmission is *not* high, facilities can discontinue routine testing of new/readmissions (e.g., no longer need to test at day 0, 2, and 4)

- Reminder that testing is still required for symptomatic individuals and when indicated following an exposure and/or during an outbreak

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★ Important Note

- If community transmission changes from not high (e.g., substantial) to high, facilities should immediately reinstitute:
  - Universal masking
  - Use of N95 and eye protection for CPAP/BIPAP
  - Eye protection on patient care units/when interacting with residents
  - Testing new/readmitted residents

Source: IDPH Interim Guidance for Nursing Homes and Other Licensed Long-Term Care Facilities

NHSN COVID-19 Vaccination Reporting Methods

Facilities can submit cumulative weekly COVID-19 vaccination data to the Weekly COVID-19 Vaccination Modules in three ways:

- 1. Manually into the data entry screens of the COVID-19 Vaccination Module
- 2. .CSV upload into the Weekly COVID-19 Vaccination Module
  - See the recommended .csv formatting guidance for HCP and resident uploads: https://www.cdc.gov/nhsn/ltc/weekly-covid-vac/index.html
- 3. **Person Level (Event-Level) COVID-19 Vaccination Forms**
  - This option is the most user-friendly and preferred

Preparing for Submitting Vaccination Data to NHSN via Person Level Forms - Residents

Entering person-level vaccination data into NHSN can be a time-consuming process initially but will save you time in the long run. Make sure you're ready to enter your residents' vaccination records by having the following information available:

- Resident identifier (a unique ID number)
- Demographics (name, date of birth, gender, race, ethnicity)
- Admission date
- All COVID-19 vaccination dates and manufacturers (i.e., Pfizer, Moderna, J&J)
- Dates for residents whose vaccination status is:
  - Medically contraindicated – use the date the medical contraindication occurred or was recorded
  - Declined – use the date the resident declined the vaccination and indicate the reason (unknown is an option)
  - Unknown – use admission date

Preparing for Submitting Vaccination Data to NHSN via Person Level Forms - HCP

To enter Healthcare Personnel (HCP) vaccination records, you will need the following information:

- HCP identifier (a unique ID number)
- Demographics (name, date of birth, gender, race, ethnicity)
- Employment start date
- HCP category – EMP (staff), LIP (licensed independent practitioners), VOL (students/trainees/volunteers), OCP (other contract personnel)
- All COVID-19 vaccination dates and manufacturers (i.e., Pfizer, Moderna, J&J)
- Dates for HCP whose vaccination status is:
  - Medically contraindicated – use the date the medical contraindication occurred or was recorded
  - Declined – use the date staff member declined the vaccination and indicate the reason (unknown is an option)
  - Unknown – use employee start date

Selecting A Unique Identifier

- Identifiers can be any combination of numbers and letters
  - Must not start with a 0
  - Ensure that you are using the same ID that you have used for the individual on other person-level/event-level forms in NHSN

- Should **not** be something that can apply to multiple individuals (e.g., initials, birth date, or room number)

- Consider using employee ID for staff or medical record number for residents

What if a resident or HCP leaves the facility and later returns?

Action	Residents	Healthcare Personnel
Add end date to existing row and create new row (using + button to duplicate row) if:	Readmitted after more than 1 week (7 days). New admission date must be more than 1 week later than the prior row's discharge date	Returns to work after more than 2 weeks (14 days). New start date must be more than 2 weeks later than prior row's end date.
Include on same row if:	Re-admitted within 1 week (7 days). If you entered a discharge date and they returned within 1 week, simply remove the discharge date and re-save the row.	Returns to work within 2 weeks (14 days). If you entered an end date and they returned within 2 weeks, simply remove the end date and re-save the row.

NHSN Event-Level Vaccination Forms

There are several advantages of using the Event-Level Vaccination Forms to submit weekly NHSN COVID-19 vaccination data:

- Simplifies reporting of summary data
- Allows facilities to just manage person-level information
- The NHSN application automatically calculates and displays weekly totals
  - Once individual-level information is added, NHSN calculates the sums and populates data from those forms into the COVID-19 Vaccination Module. Users simply select the "view reporting summary and submit" button to submit their weekly report. No manual calculations are needed.
- Captures changes in individuals' vaccination status over time
- Allows users to record religious exemptions

Chicago Healthcare System Coalition for Preparedness and Response (CHSCPR)
Full-Scale Exercise June 1st 2023

- The purpose of the 2023 CHSCPR full scale exercise is to provide public health and healthcare partners in the Coalition with an **opportunity to partake in a Homeland Security Exercise and Evaluation Program (HSEEP) compliant full-scale exercise** designed to demonstrate coordinated command, control, medical surge, information sharing, security procedures, and continuity of operations in response to an emergency event in Chicago.

- This full-scale exercise will meet the federal Medicare regulations governing LTCFs *(CMS §483.73 "Emergency Preparedness Regulations of LTCFs")* that require LTCFs to **conduct two emergency preparedness exercises each year**.

- Please let us know if there are any scenarios or themes you'd like to test during this exercise. Last year we did a mass casualty summer-event in Chicago. We are open to all new ideas and would love direct input from the LTCFs.

Air Sampling

V. Eloesa McSorley, PhD – Epidemiologist

Deniz Yuce, PhD – Epidemiologist
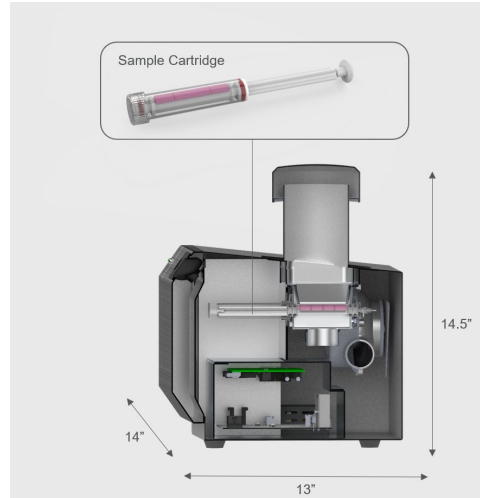
Lab-Based Surveillance

February 2, 2023

Air Sampling

- Assess trends in airborne pathogens including SARS-CoV-2, influenza

- Complement individual case-based testing and wastewater surveillance

- Can detect new viruses and emerging variants

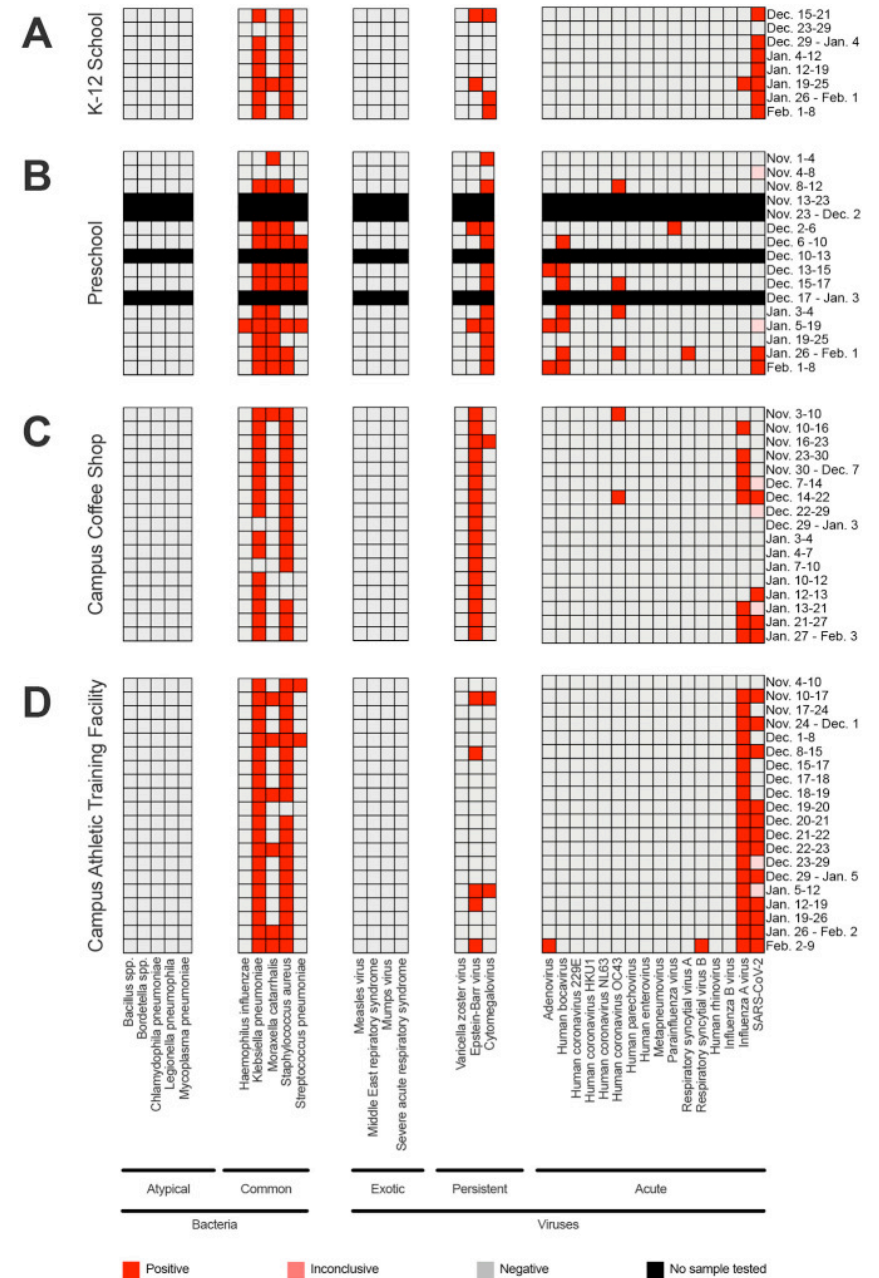- Mobility of devices allows for surveillance of different spaces within a facility

Wisconsin and Minnesota

- **Settings:** university campus coffee shop, hospital, office, campus athletic training facility, brewery taproom, cafeteria, bar, two preschools, four k-12 schools, and two shelters

- **Cartridge Exchange:** Changed on site by facility maintenance or school aged at school testing sites.

Sample Cartridge

14.5"

14"

13"

Source: Ramuta, M. D. et al. (2022). SARS-CoV-2 and other respiratory pathogens are detected in continuous air samples from congregate settings. Nature Communications, 13(1).

Wisconsin and Minnesota

- **Viral genetic material from 40 respiratory pathogens was detected**

- **Continued testing this year:**
  - School based testing concords with community based prevalence of SARS-CoV-2 and influenza
  - **Testing at VA facility –** concordance with individual testing of staff.

Source: Ramuta, M. D. et al. (2022). SARS-CoV-2 and other respiratory pathogens are detected in continuous air samples from congregate settings. Nature Communications, 13(1).

Pilot Study at CDPH (February – April 2023)

- **3 sites:** Office setting, Clinical, Healthcare

- **Pathogen monitoring:** SARS-CoV-2 (all sites);
  7 additional pathogens feasible:
    - influenza A/B
    - RSV A/B
    - human metapneumovirus,
    - Streptococcus pneumoniae
    - Adenovirus
    - Enterovirus

- **Regional Innovative Public Health Laboratory** (RIPHL)/Rush will process samples

- **Pilot Study Goals – to assess:**
    - **Feasibility:** Sample shipment and testing
    - **Acceptability:** Noise, placement
    - **Data:** Sensitivity of detection, types of genetic material, sequencing possibilities

Phase I Air Surveillance (Late 2023)

- **If the pilot is successful we plan to deploy 50-100 air samplers throughout the City of Chicago.**

- **Phase I Goals:**
  - Early detection of novel variants and viruses
  - City wide trend analysis – amount of virus and variant circulation
  - Outbreak prevention and response

- **A SNF could use information such as:**
  - A "temperature" of what is happening in your facility.
  - A comparison to the rest of the City
  - An early indicator of new variants

- **Information could be used to:**
  - Prevent outbreaks before the happen, avoid outbreak investigations
  - Layer detection/protection for the community
    - Individual testing, syndromic surveillance, wastewater testing

Do you want to participate?

- **We are looking for one SNF to participate in the 2-month pilot program**

- **What does participation require?**
  - Host an air sampler at your SNF
  - Exchange cartridges twice a week
  - Send cartridges via courier once a week the first 2 weeks
  - Give us any feedback about sound, cartridge exchange, acceptability, anything!

- **We will:**
  - Pick up cartridges for the last 6 weeks of the pilot
  - Provided that data collection and testing is successful, we will provide a data summary at the completion of the pilot

Contact: V. Eloesa McSorley – veronica.mcsorley@cityofchicago.org

Deniz Yuce – deniz.yuce@cityofchicago.org

Cartridge exchange and data entry

CDPH

https://redcap.link/Air

A B 8 4 4 A

Put the sticker on cartridge cap

Scan code with a phone camera

OR

Go to
https://redcap.link/Air
and submit the code on the sticker
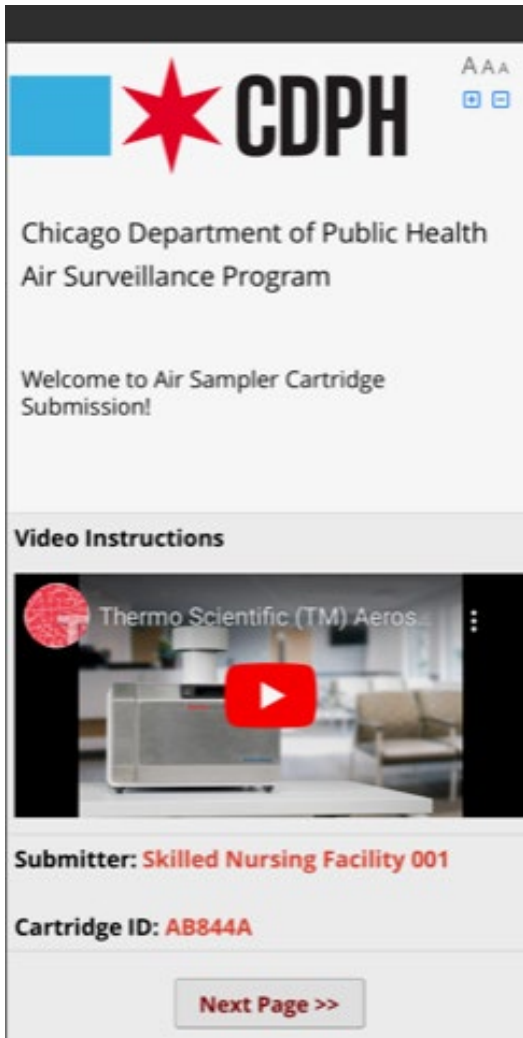
RESUBMIT WHEN REMOVING THE CARTRIDGE

CDPH
OPERATING INSTRUCTIONS

Check figures on the front pane for instructions below

	Installing the Cartridge
Fig. 1	Unscrew the cartridge cap
Fig. 2	Turn the cartridge clockwise to screw it on until secure (make sure that the collection substrate is facing up) AND Screw the cartridge cap onto the tray for storage
Fig. 3-4	Fully push in the plunger. The LED will flash green when sample cartridge is properly installed
Fig. 5-6	Close the door and lock using the key. The LED will turn yellow to warm up and green when sampling starts.
	Removing the Cartridge
Fig. 7-8-9	Open the door
Fig. 10	Pull out the plunger all the way
Fig. 11-12	Turn the cartridge counter-clockwise until it comes out of the sample cartridge port AND Screw on the cartridge cap

IN INSTILLATION: CHECK THAT
- The pink colored collection substrate is facing up
- The barcode is facing left
- The LED flashes GREEN when the plunger is fully inserted

Cartridge exchange and data entry

Chicago Department of Public Health
Air Surveillance Program
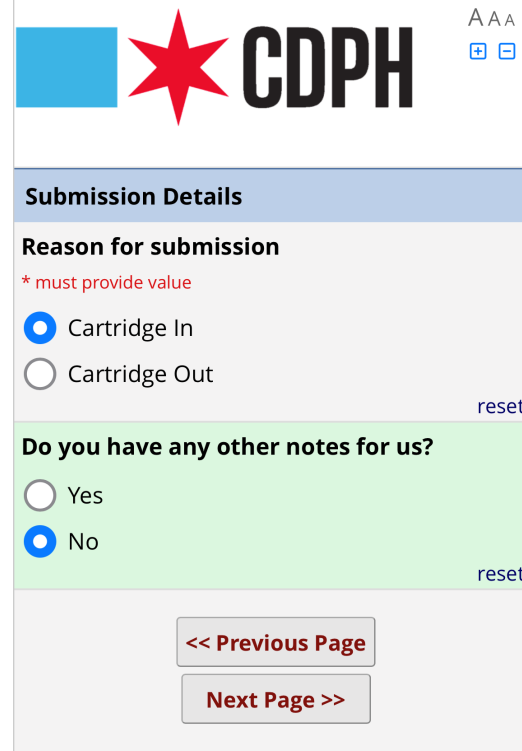
Welcome to Air Sampler Cartridge Submission!

Video Instructions

Submitter: Skilled Nursing Facility 001

Cartridge ID: AB844A

Next Page >>
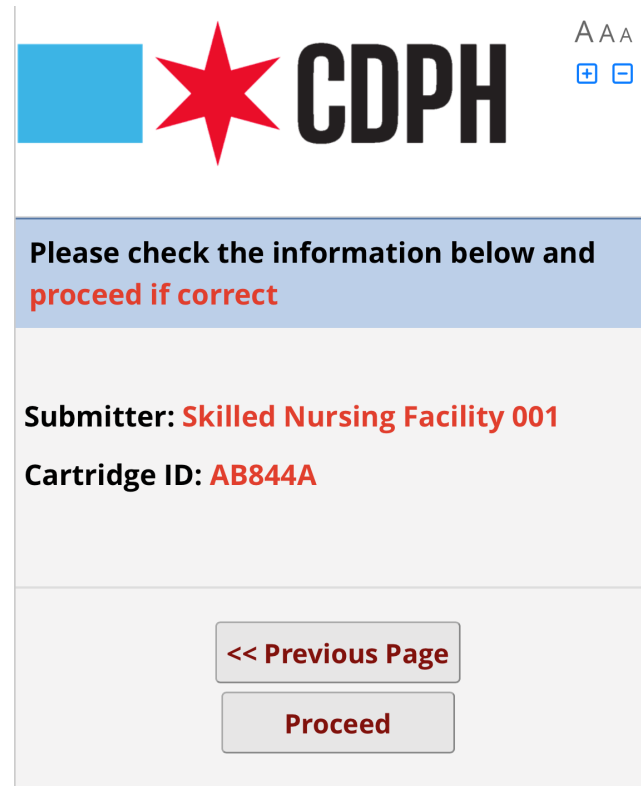
Submission Details

Reason for submission
* must provide value

- ( ) Cartridge In
- ( ) Cartridge Out

reset

Do you have any other notes for us?

- ( ) Yes
- (•) No

reset

<< Previous Page

Next Page >>

Please check the information below and proceed if correct

Submitter: Skilled Nursing Facility 001

Cartridge ID: AB844A

<< Previous Page

Proceed

Close survey

Submitter: **Skilled Nursing Facility 001**

Cartridge ID: **AB844A**

Your cartridge is successfully registered!

Thank you for your partnership with Chicago Department of Public Health!

CDPH - Air Surveillance Program
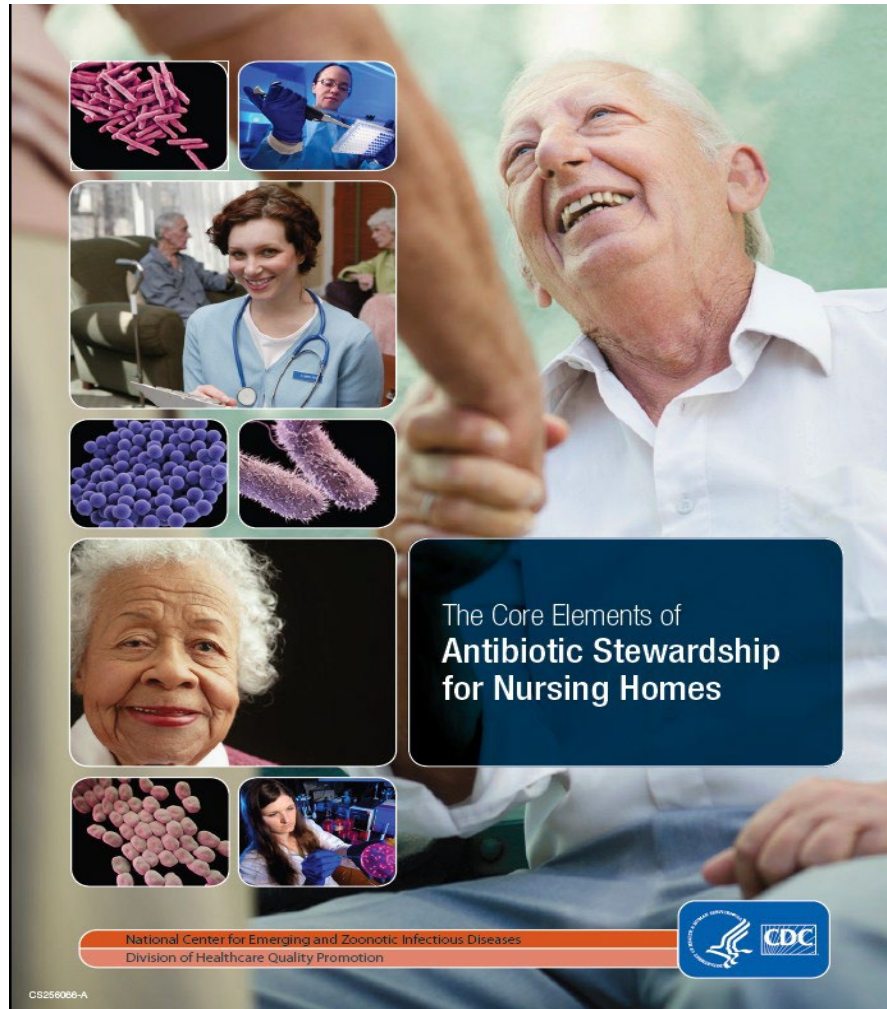
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TREAT COVID-19 Program

Antibiotic Stewardship Program

CIMPAR has partnered and been granted a project with Illinois Department of Public Health, to construct a learning module for antibiotic stewardship program (ASP) to help long term care (LTC) facilities and acute care hospitals to learn how to implement or continue an existing ASP

Lectures are hosted online on Echo based zoom learning sessions approved for continuing education credits established by RUSH and NAB (National Association of LTC Administrator Board) that consist of didactics, case studies, and discussion with subject matter experts in infectious disease. The program has fetched a large interest from nurses, physicians, pharmacists, and nursing home administrators with the help of several nursing home and hospital associations of Illinois. The program has over 70 facilities and over 170 participants actively registered. The average participation rate for our live session has been 60-65 attendees per session. The sessions cover the core elements of the ASP aimed to improve leadership, accountability, drug expertise, tracking, action, reporting, education, and data concepts, with 7 sessions conducted already till date.

The lectures are available on our iSpring platform that consists of expert notes, novel articles, recorded lectures, and handouts such as antibiotic timeouts and tracking tools.

Establishing ASP in Nursing Home: the CDC Core Elements

The Core Elements of
**Antibiotic Stewardship
for Nursing Homes**

National Center for Emerging and Zoonotic Infectious Diseases
Division of Healthcare Quality Promotion

CS256066-A

Summary of Core Elements for Antibiotic Stewardship in Nursing Homes

Leadership commitment
Demonstrate support and commitment to safe and appropriate antibiotic use in your facility

Accountability
Identify physician, nursing and pharmacy leads responsible for promoting and overseeing antibiotic stewardship activities in your facility

Drug expertise
Establish access to consultant pharmacists or other individuals with experience or training in antibiotic stewardship for your facility

Action
Implement **at least one** policy or practice to improve antibiotic use

Tracking
Monitor **at least one process** measure of antibiotic use and **at least one outcome** from antibiotic use in your facility

Reporting
Provide regular feedback on antibiotic use and resistance to prescribing clinicians, nursing staff and other relevant staff

Education
Provide resources to clinicians, nursing staff, residents and families about antibiotic resistance and opportunities for improving antibiotic use

http://www.gpo.gov/fdsys/pkg/FR-2015-07-16/pdf/2015-17207.pdf
http://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html

Antibiotic Stewardship Program Workshop Chicago- Recap

What did they achieve from the workshop?

Implementation techniques
- How to communicate with family members and residents

Knowledge level
- Understanding core elements and implementation

Improve resident care
- When is it best to begin an antibiotic, how long to prescribe an antibiotic, and best route of admission

Clarity in understanding IDPH goals for Antibiotic stewardship program
- Why is it important to begin an antibiotic stewardship program within your facility.

Antibiogram- CY 2021 Shady Pines Nursing Home Antibiotic use briefly:

Indications	Number (%)
Urinary tract infection	67(35)
Skin/soft-tissue infection	28 (15)
Respiratory tract infection	44
No indication	8
Pneumonia	22
Gastrointestinal infection	4
COPD	3
Fever	2
Urinary tract infection prophylaxis	2
Others	9

Met criteria to start antibiotic - 52 (77.6%)
Didn't meet criteria – 15 (22.4%)

Most Frequently Used Antibiotics	Number (%)
Levofloxacin	27 (19)
Amoxicillin/Clavulanic Acid	26 (18)
Nitrofurantoin	18 (13)
Doxycycline	11 (8)
Trimethoprim/Sulfamethoxazole	15 (11)
Others	42 (30)

Example of Provider Feedback

CY 2021 Shady Pines nursing home antibiotic use report card for Urinary tract infection				
Practitioner	**Antibiotic starts**	**Appropriate (Meet criteria *)**	**Not appropriate (Do not meet criteria *)**	**Percent not appropriate**
Practitioner 1	9	6	3	33
Practitioner 2	9	9	0	0
Practitioner 3	22	11	11	50
Practitioner 4	8	8	0	0
Practitioner 5	11	11	0	0
Practitioner 6	8	7	1	12.5
Facility total	67	52	15	22.4

* Clinical presentation meets Mcgeer's criteria for urinary tract infection (UTI)

Pressure from Residents or Families to Prescribe

Interventions that can help families understand:

Watchful waiting is still caring for and treating your family member.

What is the improvement you are hoping to see? Motivational interviewing

Handouts for backup during conversations
     Construct or find a flyer/brochure/info sheet on minimum criteria warrant antibiotic intervention*
          Include alternative treatment – show our families we are still taking care

Clarity
     Explain the ASP when the patient moves in, no surprises
     Send letter to all prescribers stating the intention and commitment to ASP*

Escalation
     Conversations with medical director
     Documenting inappropriate use after audits*

Sample: Prescribing feedback for individual resident situation

Resident: _____

Infection: _____

Antibiotic(s) prescribed: _____

☐ Resident situation <u>did meet</u> criteria for initiation of antibiotics

    ☐ Antibiotic selection <u>was</u> consistent with facility's first-line/empiric treatment protocol

    ☐ Antibiotic selection <u>was not</u> consistent with facility's first-line/empiric treatment protocol

☐ Resident situation <u>did not meet</u> criteria for initiation of antibiotics

Specific feedback from [Facility] Medical Director:

If desired, please provide comments for the Medical Director and return to the unit's nurse manager:

Policy writing

Antibiotic Stewardship
Workshop

A complimentary hands-on and in-person seminar to help you implement or perfect an Antibiotic Stewardship Program in your facility.

Click to Register

or scan the code

February 22nd, 2023

9am - 2pm

Abraham Lincoln Presidential Library
Lunch will be provided

- Comprehensive introduction to the CDC's core elements of Antibiotic Stewardship

- Step-by-step policy writing session tailored to your facility

- Deep dive into data and statistics, and using data for Quality Assurance and Performance Improvement (QAPI)

Contact ASP@CIMPAR.COM for more information.

Questions & Answers

For additional resources and upcoming events, please visit the CDPH LTCF HAN page at: https://www.chicagohan.org/covid-19/LTCF