Fewer than 10 total deaths in all of U.S. (nearly 30,000 cases) and fewer than 40 deaths globally (nearly 77,000 cases).

<table>
<thead>
<tr>
<th>Cumulative Cases</th>
<th>Cumulative Hospitalizations</th>
<th>Cumulative Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,082</td>
<td>70</td>
<td>3</td>
</tr>
</tbody>
</table>

MPV (Monkeypox) Cases Diagnosed in Chicago Residents, by Week

*Data represented in the gray-colored bar(s) are not yet complete.
MPV VACCINE ELIGIBILITY

ANYONE who:

- Had skin-to-skin or intimate contact (e.g., household members with close physical contact or intimate partners) with someone diagnosed with MPV.
- Exchanges goods or services for sex.
- Lives with HIV, especially persons not in HIV care or not regularly taking their HIV medications.
- Is eligible for or is currently taking PrEP (pre-exposure prophylaxis) to help prevent infection with HIV.

OR:

- Is a sexually active bisexual, gay and other same gender-loving men, or sexually active transgender individuals.

OR:

- Sexual partners of those included above or individuals who anticipate meeting criteria above in the future.
FOR MORE INFO, AND HOW YOU CAN PROTECT YOURSELF AFTER VACCINATION, VISIT CHICAGO.GOV/MPV
DON’T LET COVID HAUNT YOU!
Get the new COVID Bivalent Booster

FIND YOUR VACCINE AT: CHI.GOV/COVIDVAX
Average daily COVID-19 cases per 100,000 population

628 Million Cases
6.5 Million Deaths

12.8 Billion Vaccine Doses Administered
5.4 Billion Vaccinated (70.5% of population)

Presented by the New York Times 10/26/2022; Sources: Local governments; The Center for Systems Science and Engineering at Johns Hopkins University; National Health Commission of the People’s Republic of China; World Health Organization.
LAST WEEK: 1% of U.S. Counties reported High COVID Community Level and 18% reported Medium Level.

Source: CDC
THIS WEEK: 2% of U.S. Counties reported High COVID Community Level and 22% reported Medium Level.

Source: CDC
Additional COVID-19 Indicators for Chicago

Chicago COVID-19 Emergency Department encounters
LOW CONCERN

Chicago Wastewater Sampling
LOW CONCERN

Chicago Variant Risk Assessment
LOW CONCERN
THANKFULLY, COVID IS NOT TOP OF MIND…
BUT IT IS ALSO NOT OVER

COVID-19 deaths in Chicago residents (7,914 to date)
7,914 COVID-19 deaths (and counting) in Chicago residents

- Since the pandemic began, COVID has been the 2nd leading cause of death (after heart disease) in Chicago

- Even now, 5 to 7 COVID-19 deaths each week just in Chicago residents

- Even just in the past six months, U.S. has averaged 300 to 500 COVID deaths each day

- At this rate, between 110,000 and 180,000 Americans will continue to die each year of COVID-19
48,006 COVID-19 hospitalizations (and counting) in Chicago

- Even now, 15 to 25 people newly hospitalized with COVID-19 EVERY DAY in Chicago
- Even now, 1 of every 25 to 30 Chicago hospital beds is occupied with a COVID-19 patient
Since the Omicron variant became dominant in Chicago:
Hospitalization rates have been **2.7X higher** in unvaccinated compared to boosted

*Rates are adjusted for age

Recent increase in COVID hospitalizations...in unvaccinated Chicagoans

---

Sources:
Includes cases among Chicago residents reported into the Illinois Electronic Disease Surveillance System (I-NEDSS) with date of specimen collection 12/12/2021-10/8/2022, pulled 10/26/2022. Vaccination status obtained from the Illinois Comprehensive Automated Immunization Registry (I-CARE) registry.
AND: Surge in Child Respiratory Illnesses and Hospitalizations

Pediatric Admissions at Chicago Hospitals due to Acute Respiratory Illnesses: January 2021–present

Source: Emergency department visits reported in ESSENCE. Assigned syndromes or diseases are based on chief complaint terms and diagnosis codes.
Variant Surveillance, Midwest Region
Continued evolution of more infectious Omicron subvariants

*It’s STILL ALL OMICRON*

However, watching subvariants closely.

- **BA.2.75.2 (1.1%)**
- **BA.5.2.6 (2.2%)**
- **BA.2.75 (2.0%)**
- **BA.4 (0.3%)**
- **BQ.1 (10.3%)**
- **BF.7 (8.0%)**
- **BQ.1.1 (13.1%)**
- **BA.4.6 (8.3%)**
- **BA.5 (54.7%)**

(1 week prior: 66.3%)

https://covid.cdc.gov/covid-data-tracker/#/circulatingVariants
Variant proportions in the U.S.

Think you’re up to date with your COVID vaccines?

If you haven’t been vaccinated since Labor Day...

Previously vaccinated Chicagoans age 5+ are eligible for the new bivalent booster and the best protection against Omicron.

Chicago.gov/boost
Over **273,000 doses** of the Fall 2022 bivalent boosters have been administered to Chicagoans

Administration of updated, Fall 2022 booster doses remains steady. 7DRA: ~5800

Data reported to I-CARE as of 10/26/2022.
## Demographics of Chicagoans who received an updated COVID-19 vaccine

### Age Group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Count</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-11 yrs</td>
<td>1994</td>
<td>0.7%</td>
</tr>
<tr>
<td>12-17 yrs</td>
<td>8075</td>
<td>3%</td>
</tr>
<tr>
<td>18-29 yrs</td>
<td>30039</td>
<td>11%</td>
</tr>
<tr>
<td>30-39 yrs</td>
<td>52884</td>
<td>19%</td>
</tr>
<tr>
<td>40-49 yrs</td>
<td>39509</td>
<td>14%</td>
</tr>
<tr>
<td>50-59 yrs</td>
<td>38445</td>
<td>14%</td>
</tr>
<tr>
<td>60-69 yrs</td>
<td>47496</td>
<td>17%</td>
</tr>
<tr>
<td>70-79 yrs</td>
<td>37293</td>
<td>14%</td>
</tr>
<tr>
<td>80+ yrs</td>
<td>17443</td>
<td>6%</td>
</tr>
</tbody>
</table>

### Race-ethnicity

<table>
<thead>
<tr>
<th>Race-ethnicity</th>
<th>Count</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latinx</td>
<td>38907</td>
<td>14%</td>
</tr>
<tr>
<td>Black, non-Latinx</td>
<td>46687</td>
<td>17%</td>
</tr>
<tr>
<td>White, non-Latinx</td>
<td>153102</td>
<td>57%</td>
</tr>
<tr>
<td>Asian, non-Latinx</td>
<td>22747</td>
<td>8%</td>
</tr>
<tr>
<td>AIAN, non-Latinx</td>
<td>1453</td>
<td>1%</td>
</tr>
<tr>
<td>NHPI, non-Latinx</td>
<td>587</td>
<td>0%</td>
</tr>
<tr>
<td>Other, non-Latinx</td>
<td>4235</td>
<td>2%</td>
</tr>
<tr>
<td>Unknown</td>
<td>5460</td>
<td>2%</td>
</tr>
</tbody>
</table>

### Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Count</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>149203</td>
<td>55%</td>
</tr>
<tr>
<td>Male</td>
<td>122128</td>
<td>45%</td>
</tr>
<tr>
<td>Unknown</td>
<td>1847</td>
<td>1%</td>
</tr>
</tbody>
</table>

Data reported to I-CARE as of 10/26/2022.

AIAN = American Indian Alaskan Native  
NHPI = Native Hawaiian Pacific Islander
Overall, Estimated **14.6%** of eligible Chicagoans have received an updated, Fall 2022 COVID booster

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>No. of Chicagoans eligible for updated vaccine (est.)*</th>
<th>No. of eligible who received updated vaccine</th>
<th>Percent eligible who have received updated vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latinx</td>
<td>515,466</td>
<td>38,913</td>
<td><strong>7.5%</strong></td>
</tr>
<tr>
<td>Black, non-Latinx</td>
<td>430,634</td>
<td>46,690</td>
<td><strong>10.8%</strong></td>
</tr>
<tr>
<td>White, non-Latinx</td>
<td>642,750</td>
<td>153,111</td>
<td><strong>23.8%</strong></td>
</tr>
<tr>
<td>Asian, non-Latinx</td>
<td>142,684</td>
<td>22,754</td>
<td><strong>15.9%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group</th>
<th>No. of Chicagoans eligible for updated vaccine (est.)*</th>
<th>No. of eligible who received updated vaccine</th>
<th>Percent eligible who have received updated vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>05-11 yrs</td>
<td>95,428</td>
<td>1,994</td>
<td><strong>2.1%</strong></td>
</tr>
<tr>
<td>12-17 yrs</td>
<td>126,428</td>
<td>8,075</td>
<td><strong>6.4%</strong></td>
</tr>
<tr>
<td>18-29 yrs</td>
<td>355,371</td>
<td>30,039</td>
<td><strong>8.5%</strong></td>
</tr>
<tr>
<td>30-39 yrs</td>
<td>353,730</td>
<td>52,884</td>
<td><strong>15.0%</strong></td>
</tr>
<tr>
<td>40-49 yrs</td>
<td>275,982</td>
<td>39,509</td>
<td><strong>14.3%</strong></td>
</tr>
<tr>
<td>50-59 yrs</td>
<td>254,005</td>
<td>38,445</td>
<td><strong>15.1%</strong></td>
</tr>
<tr>
<td>60-69 yrs</td>
<td>214,507</td>
<td>47,496</td>
<td><strong>22.1%</strong></td>
</tr>
<tr>
<td>70-79 yrs</td>
<td>125,546</td>
<td>37,293</td>
<td><strong>29.7%</strong></td>
</tr>
<tr>
<td>80+ yrs</td>
<td>65,400</td>
<td>17,443</td>
<td><strong>26.7%</strong></td>
</tr>
</tbody>
</table>

Data reported to I-CARE through 10/26/2022. Number eligible includes Chicagoans aged 12 years or older who completed a primary series or received a monovalent booster dose at least 2 months prior to October 22, 2022.
THE COMBO YOU DON'T WANT
GET BOTH VACCINES.
CHICAGO.GOV/FLU
Overall, influenza vaccine uptake in Chicago this fall is **SIMILAR** to last year.

- About 5,000 more doses of flu vaccine given so far this season in Chicago compared to last season.
- 2,236 Chicago providers have given flu vaccines in the last 2.5 months.
  - This is about **180 fewer providers** than at the same time last year.

**Data source:** I-CARE
However, influenza vaccine uptake in Chicago children under 18 has been notably **LOWER** than at this point last year.

Cumulative Influenza Doses Administered to Chicagoans Under 18 Years by Week, 2022-23 and 2021-22

**LAST FLU SEASON: 2021-2022**

**THIS FLU SEASON: 2022-2023**

<table>
<thead>
<tr>
<th>Age Group and Percent coverage</th>
<th>17 – 18 Season</th>
<th>18 – 19 Season</th>
<th>19 – 20 Season</th>
<th>20 – 21 Season</th>
<th>21 – 22 Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Months – 4 Years</td>
<td>82.5</td>
<td>76.6</td>
<td>80.3</td>
<td>73.8</td>
<td>71.6</td>
</tr>
</tbody>
</table>

* Cumulative doses by week. MMWR Week 30 is the last week of July/ first week of August *MMWR Weeks 31-35 cover the month of August/ first week of September
*MMWR Weeks 36-39 cover the month of September

Data source: I-CARE
Racial/Ethnic Disparities in Chicago Adult Influenza Vaccine Uptake: 2021-22 C Vaccine Coverage Estimates

Cumulative Influenza Vaccine Coverage by Race/Ethnicity:
All Adults (≥ 18 Years)

- White, non-Latinx
- Overall
- Latinx
- Other/Multiracial
- Black, non-Latinx

https://www.cdc.gov/flu/fluavxview/interactive-general-population.htm
**Registration Encouraged ★ Walk-ins Welcome**
All clinics are Saturdays from 9am–2pm

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Register At</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malcolm X</td>
<td>November 5</td>
<td>rebrand.ly/MalcolmXCollege</td>
</tr>
<tr>
<td>Truman</td>
<td>November 12</td>
<td>rebrand.ly/TrumanCollege</td>
</tr>
<tr>
<td>Kennedy-King</td>
<td>November 19</td>
<td>rebrand.ly/KennedyKing</td>
</tr>
<tr>
<td>Wright</td>
<td>December 3</td>
<td>rebrand.ly/WrightCollege</td>
</tr>
<tr>
<td>Olive-Harvey</td>
<td>December 10</td>
<td>rebrand.ly/Olive-Harvey</td>
</tr>
<tr>
<td>Daley</td>
<td>December 17</td>
<td>rebrand.ly/DaleyCollege</td>
</tr>
</tbody>
</table>

*The new COVID-19 bivalent booster is available!*

Types of vaccines: Flu, COVID-19 primary series from Pfizer and Moderna starting 6 months+, and Pfizer bivalent boosters from 5 years+.
A Look at the Science

bioRxiv posts many COVID19-related papers. A reminder: they have not been formally peer-reviewed and should not guide health-related behavior or be reported in the press as conclusive.
Three things we hope the updated fall 2022 COVID-19 boosters provide

1. **GREATER protection** against infection and transmission by boosting our **first** line of defense—neutralizing antibodies

   Previous Knowledge: initial trials in mice showed success; early human trial preprint showed bivalent booster should enhance protection against Omicron specifically. 
   Preprint September 21, 2022.

2. **LONGER protection** against infection and severe disease (extend by months)

   This can only be collected in real-time so we will know the answer in a few months; given prior experience and Beta vaccine clinical trials, we expect it will be true.

3. **BROADER protection**—the ability to create antibodies that “see” more virus parts and attach more strongly to the antibodies we have now

   Previous Knowledge: Do we make new B-cells, which are our bodies’ antibody factories in response to an updated vaccine? (Do we update our factory line when we see another variant?). **YES** 
Wang paper

- Collected sera (blood) from:
  - Individuals after three or four doses of the original monovalent mRNA vaccines
  - Individuals receiving the new bivalent vaccines as a fourth dose
  - Individuals with BA.4/BA.5 breakthrough infection following mRNA vaccination.
- Sera tested for neutralization (in a petri dish—how many neutralizing antibodies made?) against
  - Ancestral SARS-CoV-2 strain
  - Several Omicron sub-lineages
  - Several related viruses
- At ~3-5 weeks post booster shot,
  - Individuals who received a fourth vaccine dose with a bivalent mRNA vaccine targeting BA.4/BA.5 had similar neutralizing antibody titers as those receiving a fourth monovalent mRNA vaccine against all SARS-CoV-2 variants tested, including BA.4/BA.5.
Conclusion: When given as a fourth dose, a bivalent mRNA vaccine targeting Omicron BA.4/BA.5 and an ancestral SARS-CoV-2 strain did not induce superior neutralizing antibody responses in humans, at the time period tested, compared to the original monovalent vaccine formulation.

In summary
1. Neutralizing antibodies increased after the fall 2022 booster. Not surprising, but good to see.
2. Neutralizing antibodies were not higher after the fall 2022 booster compared to the original formula booster.
Does this mean the fall booster isn’t working?

ABSOLUTELY NOT!

An increase in neutralizing antibodies helps prevent infection and transmission in the short term. The old vaccine formula did this, the updated vaccine formula does this. It’s not a surprise, it’s good news, and it will help us get through the winter.

But also, the study timeframe matters. These studies checked people’s blood 3-5 weeks after getting the fall booster and focus on the initial line of defense (neutralizing antibodies).

Prior research suggests that broader protection peaks about two months after getting an updated vaccine, after the body has had time to make new antibody factories.
The first time we see a virus or get a new vaccine, our immune system learns how to protect us and develops B cells, which are antibody factories.

Each B cell makes a single antibody shape that can pump out huge quantities if needed.

When we next come into contact with the virus (or get another vaccine), our immune system revvs up as fast as possible.

So first, B cells start pumping out antibodies of shapes they’ve seen before (“B cell memory”). It’s not until later that B cells update their factory line and start pumping out updated antibodies.

Prior research on COVID, shows this “factory update” happens about 2 months after exposure. So an updated booster’s benefit may be marginal in the beginning, but better over time.
Two new preprints provide excellent real-time information but they are not the whole story

- The two new preprints this week help us understand the **short-term impact** of fall boosters: as good as prior formulations at boosting that short-term protection, but not necessarily better.

  - These studies provide real-world data (as expected) showing that the fall 2022 COVID vaccine boosts neutralizing antibodies: this boost is critical to get us through the winter.

- **We already had real-world data showing that the fall boosters provide BROADER protection** than the older vaccine formulation and stimulate new B cell production.

  - **This should provide more protection over the long term;** prior studies showed that the longer-term effect of better protection kicked in about two months after updated booster.

- Watch this space for real-time studies about longer-term protection.

- In the meantime, GET YOUR FALL 2022 BOOSTER!
DO I NEED TO GET A COVID BIVALENT BOOSTER THIS FALL?

**YES**
- Are you 5 or older?
  - If no, you are not yet eligible for the bivalent booster.
  - If yes, have you received a complete primary vaccine series?
    - Yes: Has it been two months+ since your last vaccine or booster?
      - Yes: You should receive the bivalent booster!
      - No: Get up-to-date with your COVID vaccines now!
    - No: You are not yet eligible for the bivalent booster.

**STILL FREE FOR ALL!**
- Pharmacy
- Doctor’s Office
- Pop-Up Clinic
- Standing Clinic
- AT HOME!!!
IT’S TIME TO GET YOUR BOOOSTER

Get the Fall 2022 Updated COVID-19 Vaccine (Bivalent Booster) now!

STILL FREE FOR ALL!

- Pharmacy
- Doctor’s Office
- Pop-Up Clinic
- Standing Clinic
- AT HOME!!!
FALL FESTIVAL
OCTOBER 15, 2022
CELEBRATE SAFELY WITH US

- Free Entry
- Free Food
- Live Music

JULIAN HIGH SCHOOL
(PETTING ZOO, PONY RIDES, HAY RIDES)

COVID-19 VACCINATION
COMMUNITY HOUSEHOLD GIVEAWAY
OCTOBER 22ND, 2022

FALL FEST & HALLOWEEN BOO-TACULAR!
SAT OCT 22
12 - 4
Parking Lot at 119th & Halsted

PHS DEMANDS FAMILY SERVICES

$50 Visa Gift Card w/ Covid Vaccine & Boosters

FREE FOOD • CANDY • RAFFLES • CHILDREN'S COSTUMES • HAUNTED TENT • INJECTIONS • GOODY BAGS • GAMES • PETTING ZOO - AND MUCH MORE!

COVID-19 VACCINATION
COMMUNITY HOUSEHOLD GIVEAWAY
OCTOBER 22ND, 2022

NEW COWEN YARD VACCINE & TEST SERVICES
FREE VACCINES, TESTING, EPICUREANS, AND SUPPLIES

HEALTHY CHICAGO LIGHT ZONE: SUPPORT COMMUNITY LEAD
173-866-4342 773-864-3025 REGISTER ON EVENTBRITE
Need a vaccine or a booster? Have questions?

visit

CHI.GOV/COVIDVAX

or call

312-746-4835

STILL FREE FOR ALL!

- Pharmacy
- Doctor’s Office
- Pop-Up Clinic
- Standing Clinic
- AT HOME!!!