Ask Dr. Arwady

12/23/2021
Guest: Alderman Pat Dowell (3rd Ward)
Chairman, Committee on Budget and Government Operations
What changed in the last week? Omicron is now the dominant variant across the U.S. and in the Midwest.
# Chicago COVID-19 Community Transmission and Risk Matrix

<table>
<thead>
<tr>
<th>COVID-19 CASES DIAGNOSED PER DAY</th>
<th>VERY HIGH TRANSMISSION</th>
<th>HIGH TRANSMISSION</th>
<th>SUBSTANTIAL TRANSMISSION</th>
<th>LOWER TRANSMISSION</th>
<th>LOW TRANSMISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago residents - 7-day rolling daily average</td>
<td>800+</td>
<td>400 - 799</td>
<td>200 - 399</td>
<td>20 - 199</td>
<td>&lt;20</td>
</tr>
<tr>
<td>Current: 2,345 Increasing</td>
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<tr>
<th>COVID-19 TEST POSITIVITY</th>
<th>VERY HIGH TRANSMISSION</th>
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<th>LOWER TRANSMISSION</th>
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<tr>
<td>Chicago residents - 7-day rolling daily average</td>
<td>10%+</td>
<td>6.6 - 9.9%</td>
<td>5.0 - 6.5%</td>
<td>2 - 4.9%</td>
<td>&lt;2%</td>
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<tr>
<td>Current: 8.6% Increasing</td>
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<tr>
<th>HOSPITAL BEDS (NON-ICU) OCCUPIED BY COVID PATIENTS</th>
<th>VERY HIGH TRANSMISSION</th>
<th>HIGH TRANSMISSION</th>
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<tr>
<td>Chicago hospitals - 7-day rolling daily average</td>
<td>1250+</td>
<td>750 - 1249</td>
<td>250 - 749</td>
<td>100 - 249</td>
<td>&lt;100</td>
</tr>
<tr>
<td>Current: 596 Increasing</td>
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<td>Chicago hospitals - 7-day rolling daily average</td>
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<td>300 - 399</td>
<td>100 - 299</td>
<td>20 - 99</td>
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<td>Current: 182 Increasing</td>
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Source: Chicago Department of Public Health, data current as of December 23, 2021. These metrics represent general community COVID transmission and should not be applied to individual settings that have mitigation practices in place.
Case rates have more than tripled in Illinois since the beginning of November.
Average daily COVID-19 hospitalizations per 100,000 population

National currently:
21 hospitalized COVID-19 patients per 100,000 people

Illinois currently:
29 hospitalized COVID-19 patients per 100,000 people

Chicago currently:
25 hospitalized COVID-19 patients per 100,000 people
COVID-19 Hospital census (count) per 100,000 Chicagoans
Chicago: COVID-19 case rate continues to rise sharply; cases are now higher than they have ever been in Chicago since vaccines became available.

12/16 Daily Total: 3,230
Highest since Nov 2020

Current average daily case rate: over 2,000

Chi.gov/coviddash
Chicago: Non-ICU Hospital Beds occupied by COVID-19 patients at highest census since January 2021

Current average: 596

Chi.gov/coviddash
Chicago: ICU Hospital Beds occupied by COVID-19 patients at **highest** census since January 2021

Current average: 182

Chi.gov/coviddash
Omicron (preliminary data)

- **Bad news:** Much more transmissible (prelim: approximately two to three times as transmissible than Delta, which was itself much more transmissible than earlier strains)
  - Speed of spread just as fast in U.S. as it was in South Africa
  - Cases in the United States doubling about every 2-4 days

- **Bad news:** Expect many more reinfections. People depending on antibodies from prior infection seem to have much less protection against Omicron.
  - In the UK, 5x as likely with Omicron as with prior variants to see reinfections.
  - In South Africa, Omicron spread rapidly despite high levels of previous infection (60-80% based on serological evidence)
  - In lab, prior antibodies less likely to stop Omicron from entering/infecting cells; the mutations in virus seem to change the shape of the area where antibodies would bind.
COVID CASE rates remain higher among **Unvaccinated** compared to **Fully Vaccinated** Chicagoans.

Since the week of Thanksgiving, infections are **THREE TIMES AS LIKELY** in unvaccinated Chicagoans.

Notes:
Includes cases among Chicago residents reported into the Illinois Electronic Disease Surveillance System (I-NEDSS) with date of specimen collection 2/28/2021-12/11/2021, pulled 12/15/2021. Vaccination status obtained from the Illinois Comprehensive Automated Immunization Registry (I-CARE) registry. Fully vaccinated defined as completion of vaccine series at least 14 days prior to a positive test (with no other positive tests in the previous 45 days). Rate for vaccinated calculated as total cases divided by cumulative vaccinated at the end of each week, multiplied by 100,000. Rate for unvaccinated calculated as total cases divided by total population minus cumulative vaccinated at the end of each week, multiplied by 100,000.
Recent COVID cases among 5-11 years by Chicago community areas Nov 28th – Dec

One dose COVID vaccine coverage among 5-11 years by Chicago community areas

[Map showing recent COVID cases and one dose vaccine coverage by community areas]
COVID HOSPITALIZATION rates remain higher among **Unvaccinated** compared to **Fully Vaccinated** Chicagoans.

Since the week of Thanksgiving, risk of hospitalization among unvaccinated Chicagoans is FIVE TIMES higher.

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Recent COVID-19 hospitalizations by Chicago zip code (Nov 28th to Dec 11th) n=806

Please note that COVID-19 hospitalizations have significant reporting delays
Chicago: The great majority of COVID-19 hospitalizations have been and continue to be in unvaccinated Chicagoans.
COVID DEATH rates remain higher among Unvaccinated compared to Fully Vaccinated Chicagoans.

Since the week of Thanksgiving, risk of death among unvaccinated Chicagoans is FIVE TIMES higher.

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Recent COVID-19 deaths (Jul 15 to Dec 14, 2021) by Chicago zip code
Citywide Vaccination Rate continues to increase

At least one dose (% vaccinated as of 12/21/2021)
- 5+: 75.1%
- 12+: 79.1%
- 18+: 79.8%
- 65+: 79.6%

Completed vaccine series (% vaccinated as of 12/21/2021)
- 5+: 68.0%
- 12+: 72.3%
- 18+: 73.2%
- 65+: 74.2%

Chi.gov/coviddash
Citywide Vaccination Rate by Age

At least one dose (% vaccinated as of 12/21/2021)

- 5-11: 31.4%
- 12-17: 70.7%
- 18-29: 71.6%
- 30-39: 78.1%
- 40-49: 84.2%
- 50-59: 90.3%
- 60-69: 85.9%
- 70-79: 79.2%
- 80+: 70.0%

Completed vaccine series (% vaccinated as of 12/21/2021)

- 5-11: 20.5%
- 12-17: 61.9%
- 18-29: 63.0%
- 30-39: 71.4%
- 40-49: 78.1%
- 50-59: 84.5%
- 60-69: 80.4%
- 70-79: 73.8%
- 80+: 65.1%

Chi.gov/coviddash
Need a vaccine or a booster? Have questions?

visit **CHI.GOV/COVIDVAX**

or call **312-746-4835**