

WCA COVID-19 Update 01.17.2022

PRESENTED BY: John R. Raymond Sr., MD

COVID-19 **UPDATE 01.17.2022**

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COVID-19 CASES AND INDICATORS – 01.14.2022

CASES IN WISCONSIN

11.18.2020



These staggering case counts are grossly underestimated due to testing shortages, at-home testing, and many with manageable symptoms





COVID-19 DEATHS & HOSPITALIZATIONS – 01.14.2022

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10,271 TOTAL WI COVID-19 DEATHS AS OF 01.07.2022

2,277 PEAK WI COVID-19 HOSPITAL CENSUS 11.17.2020

456 PEAK 2020 ICU CENSUS 11.16.2020

104

PREVIOUS HIGHEST DAILY COVID-19 DEATHS WISCONSIN 11.23.2020

7-DAY AVERAGE DAILY DEATHS WISCONSIN TRENDING FLAT

27

WISCONSIN

2,219

HOSPITALIZATIONS

WISCONSIN TRENDING UNFAVORABLY

92.4%

479

ICU CENSUS

WISCONSIN

TRENDING

UNFAVORABLY

% HOSPITAL BED OCCUPANCY TRENDING FLAT

24% of Wisconsin hospital beds are occupied by COVID-19 positive patients

32.9% of hospitalized COVID-19 patients are on ventilators Presented on 1/17/22 4

95.1%

ICU OCCUPANCY

TRENDING FLAT



COVID-19 TRENDS IN WISCONSIN 01.14.2022

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dhs.wisconsin.gov/c ovid-19/data.htm

Accessed on 01.14.2022

New Confirmed Cases New Probable Cases Percent Positive by Test (7-day average) (7-day average) (7-day average) 28.8% 10,985 2,656 2,400 1,800 18.0% 6,500 1,200 600 0.0% 3/1/20 9/1/20 3/1/21 9/1/21 3/1/21 9/1/21 8/1/21 2/1/22 3/1/20 9/1/20 2/1/20 8/1/20 2/1/21 Total Confirmed Deaths Total Probable Deaths New Deaths Reported (7-day average) 10,486 1,163 27 90 1/1/21 9/1/21 11/1/21 3/1/20 5/1/20 7/1/20 9/1/20 11/1/20 3/1/21 5/1/21 7/1/21 1/1/22

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WISCONSIN COUNTIES

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WISCONSIN COUNTIES' COVID-19 DISEASE BURDENS

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WISCONSIN'S COVID-19 CASE BURDEN OVER 14 months





NEW PERSPECTIVES WITH OMICRON VARIANT

- We have less than two months of experience with Omicron variant.
- Case counts are higher than ever due to massively increased transmissibility of Omicron variant.
- Case counts still matter, but only in the context of a broader set of metrics.
- Temporarily, we cannot use case counts to predict hospitalizations and deaths from COVID-19. The usual relationship between cases and hospitalizations and deaths has been decoupled by Omicron.
- Cases of Omicron are 1/3 to ½ as likely to result in hospitalization and death as cases of delta COVID-19.
- A substantial percentage of hospitalized COVID-19 patients have "incidental infections", distinguishing hospitalized "from" vs "with" COVID-19.
- Incidental does not mean insignificant or trivial...
- Omicron complicates clinical care, exacerbates co-morbidities, and increases morbidity and mortality from non-COVID-19 diseases.

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Omicron causes fewer hospitalizations per case of COVID-19 than delta, but it is explosively contagious. The massive number of new infections with omicron has filled our hospitals and sidelined many frontline healthcare workers. The next month is going to be challenging.

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WHAT WE <u>KNOW</u> ABOUT O-VARIANT 01.16.2022

- Omicron (pronounced OH-muh-kraan, AH-muh-kraan, OH-mee-kraan or oh-MIKE-ron) is a new COVID-19 variant; also called B1.1.529.
- It has about four dozen mutations, many of which make it more transmissible, and change the proteins in the spike protein, raising concerns about immune evasion.
- It has been detected in nearly every country and US state.
- It has virtually extinguished transmission of the Delta variant in South Africa, Europe and USA. .
- It is <u>much more transmissible</u> than the highly contagious Delta strain.
- Previous infection with COVID-19 (β, α, or Δ strains), so-called "natural immunity", and vaccines provide less protection against omicron infection.
- Full vaccination status and boosters provide <u>significant</u> protection hospitalizations and deaths from Omicron.



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- First reported out of South Africa around Thanksgiving 2021
- Highly contagious, much more so than delta
- Now the dominant strain in South Africa, Europe and USA.

WHAT IS DIFFERENT ABOUT OMICRON?

- The incubation or latency period from exposure to symptoms period of omicron us shorter than other strains... 2-3 days *vs.* 5-7 days.
- The doubling time in populations is astonishingly fast... 2-3 days.
- Symptoms seem to be milder... cough, stuffy or runny nose, headache, fatigue, scratchy or sore throat.
- Symptoms seem to resolve more quickly than previous strains,
- Vaccines, monoclonal antibodies, and previous infections with COVID-19 give reduced protection from infection.
- Previous infection with alpha, beta and delta strains (so-called "natural immunity") provides only modest protection from Omicron.
- However, laboratory studies suggest that Omicron could provide substantial protection from previously circulating strains, although this observation needs to be confirmed in patients and populations.



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- First reported out of South Africa around Thanksgiving 2021
- Believed to be highly contagious, much more so than delta
- Concerns about immune escape, sensitivity of rapid antigen tests, and effectiveness of monoclonal antibody therapies



OMICRON – WHAT'S NEXT? S. AFRICA EXPERIENCE

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There has been hope that we could experience a quick rise and fall of Omicron without significant increases in hospitalizations or deaths, like the South Africa experience (see graphs on left). Caveat: South Africa has a very young population.

GAUTENG PROVINCE AS AT 29 DECEMBER 2021 Comparison across 4 COVID-19 waves of death rates in relation to case rates Wave 3 Delta variant Rates per 100,000 population 20 30 40 50 60 Death Rates per Million population Wave 4 Omicron variant 40 Wave 1 Wave 2 Ancestral Virus Beta variant Case | 2 0 1Mar 1Acr 13.6-00 1Aug 1Sep 1Oct 1Nov 1Dec 1.Jan 2020 - 2021 DEATHS (SOLID) CASES (DASHED) Graph by Prof Jonny Myers and Dr Fareed Abdullah Solid black vertical line is the commencement of the 4th wave on 15 Novembe Daily case rates and daily death rates are smoothed using LOWESS in STATA 16

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New reported cases



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However, our experience has not completely mirrored that of South Africa. Graph on left is from *NYT* 01.16.2022.

"...the sheer number of (infected) patients is overwhelming to hospitals, where staffing shortages are putting healthcare workers under immense strain."



OMICRON – WISCONSIN EXPERIENCE?

Wisconsin



 Massachusetts
 New Jersey
 Was

 400% of last winter's peak
 400% of last winter's peak
 400%

 300%
 300%
 300%

 200%
 200%
 200%

 100%
 100%
 100%

 July 1, 2021
 Jan. 15
 July 1, 2021
 Jan. 15

Washington, D.C. 400% of last winter's peak 300% 200% 100% July 1, 2021

Extrapolating from the data from the East Coast USA, if deaths from the Omicron wave of COVID-19 are going to rise in Wisconsin, we will see that trend this week (about three weeks after the Omicron surge began here). NYC, Boston, Chicago, D.C., Cleveland and Puerto Rico appear to have peaked.

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Graphs on left are from *NYT* 01.16.2022.

"...the sheer number of patients is overwhelming to hospitals, where staffing shortages are putting healthcare workers under immense strain."



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Thank You





WE USE MULTIPLE EXTERNAL DATA SOURCES FOR THESE PRESENTATIONS

- Wisconsin Hospital Association: wha.org/COVID-19Update
- Wisconsin Department of Health Services: <u>https://www.dhs.wisconsin.gov/covid-19/index.htm</u>
- Milwaukee County: <u>https://county.milwaukee.gov/EN/COVID-19</u>
- <u>https://covidtracking.com/</u>
- New York Times: <u>https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html</u>
- and <u>https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html</u>
- Wisconsin Electronic Disease Surveillance System (secure access required)
- Milwaukee County Unified Emergency Operations Center (secure access required)
- Centers for Disease Control and Prevention: <u>https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html</u>
- Worldometers: <u>https://www.worldometers.info/coronavirus/</u>
- Johns Hopkins: <u>https://coronavirus.jhu.edu/vaccines</u>
- Kaiser Family Foundation Vaccine Monitor Dashboard <u>https://www.kff.org/coronavirus-covid-19/dashboard/kff-covid-19-vaccine-monitor-dashboard/</u>

MEDICAL COLLEGE OF WISCONSIN ANALYTICS

- Institute for Health and Equity
- Division of Epidemiology
- Epidemiology Data Resource Center and Geographic Information System



