

# FRED BROWN

## Pandemic Insights – Omicron, a blessing or a curse?

**Update: January 14, 2022**

## FRED BROWN Q&A

### Context

Sadly at the start of this new year both Delta and Omicron COVID-19 variants are circulating madly worldwide. With the world weary of the pandemic, there is a lot of conflicting and at times misleading information in the media. We asked Fred Brown, our true and trusted source - the infectious disease expert who examines all the data and works with public health, government, healthcare, and business —to answer our most pressing questions.

1. Before we dive into details, what is the headline you want folks to understand?

**Do not get sick now** - in 3 months (April), infections will slow and we will have much better access to good healthcare and more effective pharmaceutical therapies (like diagnostic tests and Paxlovid). **The worst idea is to let your guard down** in the middle of a pandemic where we have no therapies available and overcrowded hospitals. Bad for you, great for COVID to generate new resistant variants - perhaps more transmissible and virulent ones. **We are not at the new normal/endemic state yet.**

2. Some are saying that Omicron signals the end of the pandemic. True?

- **Omicron is not a blessing - it is spreading the virus**, providing more opportunities for mutations. We are **not fighting the last war with COVID**. There is too much mobility and viral load globally.
- At every point in time for the last 2 years, the public estimated that normalcy would return in 2 weeks to 3 months and while this was always a theoretical possibility, the preponderance of the evidence continues to indicate that COVID will continue to **impact us for 5 - 10 years until durable, sanitizing childhood vaccines** are broadly mandated.

3. What is the likely health impact on the US this winter and beyond?

- The omicron peak in the US is likely to be from January 15- January 30. February case rates and deaths will drop precipitously from January highs but there will be laggard pockets of outbreak. **What we are concerned about in the March 15 - April 15 period is where we land (the new steady state).**
- I think our “landing” could still be as high as over 60K cases per day. If so, we do not get down to flu level of 20K - 30K deaths per year - we could still be at the 250K deaths per year level sadly.

4. It's been reported that the hospitalization overloads are due to secondary admissions (i.e. people coming in for surgery, broken bones, etc. who are tested for COVID), not Covid and omicron. Is this true?

- Hospitals being overwhelmed is a problem no matter where the diagnosis occurs - it is true that there are many asymptomatic detections that do not require hospital treatment being detected in hospitals right now. Nevertheless high infection rates (asymptomatic or not) are still a problem and overwhelming many hospitals. In addition, many healthcare workers have been infected themselves and cannot work. It's been estimated that we have lost 20% of our healthcare workforce to illness, burnout and death.

5. What should we do to continue to protect ourselves?

- **GET VACCINATED & BOOSTED**- Although it's possible to have breakthrough infections, the vaccines do prevent severe illness and death. By now all adults should have had three doses (Pfizer and Moderna) and be thinking about a fourth preferably 4 months after their first booster if possible.
- **BE HYPER VIGILANT / LAY LOW FOR THE NEXT 6 WEEKS**- Ultimately we all know what we have to do- it's what has been advised all along.
- **HYPER MASK -Current masks are not sufficient - Wear a double mask** of an approved N95 and a tightly fitted surgical mask over that if you are in an unventilated space crowded with people whose vaccination status you do not know for any period of time longer than a few minutes. Tight fitting means knotting and tucking the surgical mask elastics so it fits tightly to the face – especially along the cheek. Examples include bars, church, events, etc.

- **TEST, TEST, TEST**- If you think you have been exposed or are coming down with COVID - test, especially if you have been boosted over 4 months ago.
- **AVOID LARGE GROUPS/EVENTS** - you don't know who might be unwittingly spreading the virus
- **CONGREGATE OUTDOORS OR IN WELL-VENTILATED SPACES**- convene distanced in small groups outdoors or masked in well ventilated spaces
- **WORK REMOTE IF YOU CAN**- I would lay low for the next 6 weeks, not just for people over 85. Many workplaces cannot effectively distance

## 6. What about children and what should be done with schools?

I wish we had extended winter break to January 25<sup>th</sup> in our cities and tested more in those remaining open. In classes with over 90% vaccination rate, outbreak risk is much lower, unfortunately they are typically around 50%.

Mask at all times with fitted N95 masks and try to separate desks as much as possible. Clean surfaces with viral killing disinfectants prior to opening and at lunch and stagger bathroom and lunch breaks as much as feasible. Provide hand sanitizer at stations.

Schools should be testing 2 times per week in cohorts to avoid outbreaks vs once every 2 weeks in cohorts in the prior outbreaks because omicron is so much more transmissible. If they are not doing this level of testing, then providing standard 5 – 10 survey questions on an app each day that are completed prior to coming to school is recommended (e.g., do you have symptoms, have you been exposed,...). If you fail to pass the app questions , then stay home.

Vaccines should be made available at schools. Ventilation systems should be capable of cycling the air in each classroom every 15 minutes with outside air mix at 50% or higher and HEPA filtered. Remote learning options should be at the ready in case an outbreak does occur. Unless clubs, gym and sports can be conducted outside with changing and showering at home, I would avoid them through until at least March. Just as at work, know the level of community positivity, the activities and cohorts your children are involved in, test regularly and vaccinate. Schools should have a nurse or provider that enable them to isolate children with symptoms immediately from the other children.

7. Is it safe to travel domestically? Internationally?

Domestic travel in your car alone is safe – just be aware of the positivity rates and protection levels at your stops and destination and take precautions. Air travel in the air is comparatively safe – just wear an N95, avoid eating, drinking, sanitize surfaces and adjust the ventilation so it creates a curtain of air in front of you. Window seats and distancing (business class) are preferred. The issue is when you boarding, deplaning, taxing and in the concourse – be the last on and the first off the plane. Avoid checking bags if possible. Avoid big TSA lines with services like One-pass and Clear. International travel with multiple destinations can trap you with isolation, quarantines, tests and paperwork – know the rules and the health system intimately and plan for delays if you must go, avoid it if you can.

8. What about a fourth vaccine shot? When should we get it? Will the CDC approve a fourth vaccine for all of us- not just the immunocompromised?

- **Absolutely get a fourth vaccine 4 months** after your last one. Ideally mix brands. If you had Pfizer, get Moderna and vice versa.
- I don't know when the FDA will approve the fourth vaccine/booster, but most pharmacies will give you one.

9. How effective is testing? How often should we be testing?

- The virus takes some time to replicate and shed at high enough concentrations in your body to become detectable - typically Day 2 through Day 10 or so after exposure. **Home tests** were granted EUA status on the basis of Wuhan and Alpha variants and are typically in the 85% sensitivity rate - this means that **~15% of the time you will receive a false negative** - it will say you are not infected even though you are. The best way to avoid this is to **test regularly (best is 2x per week if you are out and about or having indoor visitors)**.
- The most sensitive (detection limits) home test for these variants was **Quidel's** which allows you to know earlier than the other tests when you are infected. For the Omicron variant, these same tests are only about 70% sensitive and detection limits for the home tests are lower so **best results occur after Day 2. Unfortunately, peak transmissibility occurs from day 1 - 4, so the home tests are less precise with omicron and omicron is more transmissible - a double whammy.**
- **PCR lab test sensitivity**, specificity and detection limits are not affected by omicron compared to other variants. The most sensitive PCR test is the Perkin-Elmer test. The

critical **issue with lab testing is turnaround time**, not test sensitivity or specificity (since PCR is the gold standard). Any longer than 24 hours means you are transmitting for a long time before test results are known, so be sure to check turnaround time at collection centers.

10. When will therapeutics be available? Which ones are effective?

**Paxlovid, Remdesivir and Sotrovimab** are most effective vs omicron as first line therapies. All therapies are most effective early in the course of the disease – do not wait to get tested if you are having symptoms because these drugs should be giving within 5 days of symptom onset or after a positive test result. Remdesivir is readily available, Paxlovid and Sotrovimab are still ramping up. By mid-year sufficient Paxlovid will be available and by end of year Sotrovimab should be readily available if we do not deplete supply with supply chain issues or outbreaks in the meantime.

11. Israel appears to be a bellwether. What can we learn from them?

Integrated, healthcare infrastructures that transparently share data in real time are invaluable – healthcare fragmentation is causing delays, inaccuracy, inconsistency and non-data driven decisions that is literally killing us in the US today. From Israel's data sets we know that Verifiable (Israel uses green pass cards) boosting every 4 months with current vaccines and current variants is best and Test and Trace to protect the most vulnerable work.

12. Can I reuse a N95 mask?

It is better to reuse than not to wear. N95 masks are generally good for **5 wearings** unless they get wet, cut, soiled or stretched so the elastic weakens or fit is compromised. Don and doff masks with clean hands on the ties - do not touch the mask itself.

They need 24 - 48 hours between wearings to dry and kill-off trapped virus, so rotate them every other day and replace after 5 days or earlier - especially if they become wet because that destroys the fiber.

After use, store N95 masks in a clean paper bag in a clean place. Do not wear N95 masks with filters in the front because this does not trap exhaled virus. Only buy N95 masks that are NIOSH approved.

13. What should businesses be doing to responsibly help end the pandemic?

- Businesses with over **90% vaccination** rate among employees have a much lower risk of outbreak and will remain much more productive because of reduced absenteeism. **Make**

**vaccines available** and push for everyone to be vaccinated – only about 4% of the US has conditions or religious freedoms preventing vaccination so 96% should be your goal.

- **Support remote work.** At work, distance workers and cohort them as much as possible – reconfigure conference rooms to support video and standing meetings. Purchase equipment to avoid sharing among employees.
- **Provide N95 masks** and surgical mask covers including proper fitting for all employees (not just those coming to work) at least once per week. Mask at all times with fitted N95 masks and try to separate desks and work spaces as much as possible. Clean surfaces with viral killing disinfectants continuously through the day.
- **Support cohorting** and have employees suit up (in manufacturing) at home rather than in congested change rooms. **Stagger lunch breaks** as much as feasible. Consider closing the cafeteria and using carted food. Provide hand sanitizer at stations.
- Companies should be **testing all workers** each day in cohorts to avoid outbreaks because omicron is so much more transmissible. Best practice is to provide home testing for all workers each day through home delivery or services like Cue.
- Deploy standard 5 – 10 app based survey questions each day that are completed prior to coming to work,...). If a worker fails to pass the app questions, they stay home.
- **Ventilation systems** should be capable of cycling the air in the building every 15 minutes with outside air mix at 50% or higher and HEPA filtered.
- **Remote learning options** should be at the ready in case an outbreak does occur. Know the level of community positivity, the activities and cohorts your vulnerable employees are involved and redeploy the most vulnerable workers to safer off-site work when possible.
- Have a Plan B for supply chain disruptions and closures. Employers should have a nurse or provider that enables them to isolate workers with symptoms immediately from other employees.

14. Fred, really when will things return to normal? Do we know? Everyone is weary.

- Believe me, everyone wants this to go away. In mid-February theoretically we could have a chance to get ahead of the virus. If the US were its own planet, and there was no one left to infect, then February – mid March would be our best chance to kill off COVID. Unfortunately we are not our own planet and post-infection durability is short and our mobility/travel will enable COVID to continue and continue to mutate.
- Ultimately, **global collaboration is required to end this pandemic.** It is a synchronized relay race of the whole world together. Yet, today, more boosters have been given to citizens of the richest 10 OECD countries than first vaccinations have been provided in low income (26% of the world's population). So we are far away from achieving synchronization yet.

As always, stay safe and vigilant -

*Fred*

Fred Brown  
[www.fredbrown.com](http://www.fredbrown.com)