

TOP 5 COVID FACTS

May 5th,2020

1. Antibody testing is VERY different from LIVE VIRUS testing
2. Any VACCINE is likely 1.5 years off – or longer
3. Front-Line Medical Workers will benefit from massive AB-testing of the public
4. Employers and Individuals will GLADLY PAY for AB testing – it's cheap!
5. Society CANNOT AFFORD to release the *UNTESTED* into our public squares

FAQs: Top 10 FREQUENTLY ASKED COVID-19 QUESTIONS

1. What is the difference between LIVE VIRUS and Antibody (AB) testing?

Answer: **Live Virus** testing uses the PCR technique to detect virus DNA inside you. To show the presence of active *Live Virus* is crucial in hospitals / ICUs so that (i) docs/nurses know what they are dealing with and (ii) so that appropriate protective measures and treatments can occur.

Antibody testing looks to see if your body has made antibodies against the virus; such antibodies generally last a LONG time. If done correctly, AB testing shows who HAD the virus and who NEVER HAD the virus (more below). Also, AB tests can be mass produced, inexpensive and done at home (pin-prick, like a blood glucose test). Immediate results, quality is improving.

2. Am I immune to re-infection if I already had COVID-19?

Answer: Almost everyone who has two “positive” antibody tests, 21 days apart, or else had a positive Live Virus test, is expected to be immune to re-infection: this is even more true as the antibody-tests are getting better, more widely used and people are gravitating to the best tests. Also your body cannot infect others (although YOU can by touching surfaces and spreading surface contamination). People with immunity are super valuable for a general safe return to work/play. This is especially important because of **Invisible Spread** of covid: VERY difficult to track!

3. Is immunity important for Front-Line Medical Workers (FLMW), other essential workers?

Answer: Immune FLMWs are CRUCIAL for hospitals to sustain operations during wave after wave of infectious covid patients. Along with other immune essential-workers, they are crucial to society so that public life might slowly return to normal. Immune FLMW individuals can (within limits) help shield other hospital/essential workers—and there may already be *MILLIONS* of them. We need systematic AB testing to find them: next item explains how!

4. Why do we need *two* consistent Antibody (AB) Tests, and *why* 21 days apart?

Answer: People with two positive tests (21 days apart) are very likely immune and no longer infectious. People with two negative tests 21 days apart (and staying at home) are ALSO likely not infectious—as long as nobody infects them. Note that it can take awhile for antibodies to appear once infected. If your first test was negative (day 1) but your second (21 days later) positive, you are probably infected, hopefully a mild case. After another 21 days (day 42), a second positive test documents that you are now immune! The time frame is key: you had to have been infected by about day 15 in this example case and if asymptomatic at day 42, y'all good (people with particularly bad cases won't be going out any time soon).

ONLY PEOPLE with TWO GOOD TESTS (both + *or* both -) should be going out in public and if a household member turns positive, this affects the time-table for all those at home.

5. Why is **Contact Tracing** difficult with COVID, especially with *untested* Return to Work?

Answer: Contact Tracing works well if the “spreaders” are few in number and symptomatic. In the US, neither applies. COVID is a killer BECAUSE (i) it is highly contagious and (ii) it is *widely and invisibly spread* by the asymptomatic. It also appears to linger on some surfaces for days. It is simply impossible to know everyone who touched anything you might have touched when out in public. Also consider if you infect someone on Day 1, they infect someone on Day 21 and that individual infects someone on Day 42. If all three of you are asymptomatic, covid is spreading to everyone and every place you three have been in contact with and your *infection thread* is completely invisible to contact tracing (but not to systematic antibody testing). Given the prevalence of covid in the US, and the numbers of untested out in public, this becomes an insurmountable challenge for contact tracing.

Although not a true public-health, contact-tracing method, there is a new Android-IOS *Proximity-Alert* App which will ping if you’ve been near another App-user who recently tested positive: you can then do an AB self-test and quarantine (easy) or try to get Live Virus test; it will be very helpful if App also gives you date-of-proximity event.

6. Where have all the **Zombies** gone?

Answer: We have a curious puzzle today. If everyone has been at home for 6-weeks and super-cautious, why are COVID cases still increasing in the US? [This was happening even before the recent widespread *Release of the Untested*]. For complex reasons, there are many infectious people all over the place. These Walking not-yet-Undead are asymptomatic and untested (aka covid zombies, no offense). This is why widespread (e.g. pan-university) AB testing is crucial. Consider if at home, you test *negative* Day1 but *positive* Day21, then you KNOW you are infectious and you stay home until Day42 because you have some decency (and if some *monster* is forcing you to work despite your infectious status, well *that is* depraved indifference and they should be criminally prosecuted). The beauty of the 21-day AB testing protocol is that it catches NASCENT INFECTIONS—these are the covid zombies introducing fresh virus into our public squares! With universal antibody-testing, and despite small imperfections, public covid cases should drop to near zero improving contact tracing and live-virus testing focused on essential targeted venues.

7. How does **Antibody Testing** help with Return to Work (**RTW**)?

Answer: We should first consider that if I previously had asymptomatic (*invisible*) corona virus **one month ago**, then daily *Live Virus* testing today will tell me nothing: only AB testing can reveal established immunity (for people not actively sick). But with national antibody testing (2x, 21-day rule) everyone with two good tests (both negative OR both positive) CAN return to work and play—so long as they are not being infected by covid zombies. As more and more are tested (and perhaps wear a testing-status card), public confidence will rise enough for the public writ large to (fairly safely) return to work, school, bars and eventually football games! Continued surveillance, contact tracing, android-IOS App will be needed to catch the cases that do pop up within the *Clean Population*, but this is far better than letting *The Untested* spread covid to all 350 million Americans! Economic recovery does not happen by Despot Decree, it happens psychologically: people will return to public life in droves ONLY when they FEEL SAFE! Note that proposals for daily LIVE VIRUS testing will never get us there: we cannot test 300 million people a day, every day—and we do not have to. Government cannot simply force people back into shopping malls and movie theaters: with new projections of 3000 dead per day for multiple months (yes, a 9-11 every day) anyone who can “sit it out” will sit it out: as Al Pacino once said “it’s the smart move”.

8. How do Front-Line Medical Workers, hospitals and cities benefit from AB-testing?

Answer: First, systematic AB testing can slow the spread of covid and thus keep the pressure off hospitals and nursing homes, while protecting clerks and other front-line workers. More directly, **positive AB tests** for front-line workers means they have a “very good chance for immunity” (John Ioannidis, Stanford Epidemiologist). In contrast, a negative **Live Virus** test says nothing about one’s potential immunity. Fast, at-home AB tests can easily be done by ALL medical workers in very short order (since docs/nurses are our top priority for distribution of highest-rated tests). Positive AB tests of essential workers should be verified by more stringent ELISA tests: many fewer such tests would be needed for such targeted populations. Because *Live Virus* (PCR) testing does not detect antibodies, it cannot help with this objective.

9. What about vaccines? and Herd Immunity?

No. There is only One Option

Answer: Massive vaccine production for the US population is at least 12 months off, maybe longer because there has NEVER been a successful covid-family vaccine generated despite years of trying. It is simply not feasible for everyone to stay at home for 2 years—more would die of starvation than of covid. The proper way to get “herd immunity” is through vaccinating most of the herd, but that is too far off. There are suggestions to simply allow, via unchecked return-to-work, for most of the herd to become infected. This is *not* herd immunity, but rather has a different name: mass murder. The mortality rate of covid appears to be about 0.5% [based upon the ~50,000 of us who had died at a time when prevalence-testing estimated that 10 million Americans were infected]. Here’s some basic covid-math: if we all return to work *sans* testing, and keep infecting people until 200 million+ of us are infected (minimum number needed for partial “herd immunity” if you want to call it that), $200 \text{ mill} \times 0.5\% = 1 \text{ million dead}$. Bad choice. But with systematic AB testing (and VSD-see Appendix), we should be able to get the number of infectious people in public down near zero: but we need (i) massive AB testing ASAP and (ii) likely need to stay at home for about 2 or 3 months more (until July 1st or August 1st), while HELPING families in need. We can do this. And we need to get it right.

10. What about false positives and false negatives?

Answer: No test (including Live Virus) is 100% perfect. Indeed, AB-testing is being used in some hospitals as a back-up in patient-cases where Live Virus tests seem not to be working. But at 98% accuracy, AB-testing is VASTLY better than sending 100 million untested individuals back into close contact because with that approach tens of thousands would surely die, maybe 1 million before it’s all over in the US. Instead, by self-testing (along with employer-mandated testing), we could MINIMIZE the numbers of infectious people in public. With low enough numbers of covid-spreaders, our ability to APP-detect and contact trace such cases can push the numbers of new infections down towards zero. While some folks with “other” covid antibodies (e.g. common cold), may test positive, this can be reduced and we can follow up with higher-end ELISA tests while continuing to improve the fast tests. People and Companies will innately gravitate towards the BEST available tests: the markets will prevail.

AB-Testing is COMING soon, to a town, workplace, school near you. It’s cheaper than shutting down the economy again or having dead employees/students sue you. It’s feasible. It’s far more effective than any other option. Really, there is no alternative. And it’s the smart move.

What can I do?

Answer: Share this document with everyone you know. Call your mayor and your employer and your governor. Post on Facebook, Twitter, Reddit, TikTok, Instagram, MySpace, Tinder, eHarmony and SnapChat. Ping me for backup. Together, we might save thousands of lives in the US and hopefully this approach can be adapted in other countries with different circumstances.

Tell people that large-scale AB testing is not only practical **it is the only feasible means** to blunt a huge second-wave of covid deaths in the US—other than waiting 2 years for a vaccine that might never happen. We have good antibody tests TODAY. Production is increasing. We can safely, yet cautiously, soon return to work!

Thanks for helping to save the lives of docs and nurses,
Don

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For Limitations and Promise of AB Testing, see Apr. 24th story by NYTimes:

Note that these tests are getting better by the week and there is INTENSE competition to make the best cheap, fast, at-home AB tests: **Coronavirus Antibody Tests: Can You Trust the Results?**

<https://www.nytimes.com/2020/04/24/health/coronavirus-antibody-tests.html?referringSource=articleShare>

New Updates will be posted on my web page: zfhindbrain.com

ADDENDUM - QUESTIONS

A1. Will Large-Scale AB Testing and **VSD help beat Corona and hasten Economic Reboot?**

Answer: Absolutely! At present, sending us stay-at-homers out amongst the walking undead will scare the crap out of us normal people and many will refuse to work (and cling to unemployment if possible). People need to SEE SAFETY and so we suggest that all who have tested AB-Positive (2x, 21 days) should print and wear a **BLUE** card, while all with a 2x-Negative AB test can print and wear a **WHITE** card. Cheating will happen but public pressure, shunning and android-IOS APP will all help to squelch bad actors. **FEAR** is likely the greatest barrier to full economic recovery. The **Visual Status-Display (VSD)** approach will help: it is a simple yet powerful social method to identify the *Untested*—folks who should for now wear masks when going out to get groceries but should otherwise stay at home until they can get a good **Blue** or **White** card/test result and return to a quasi-normal life.

A2. How does the BLUE and WHITE card system (VSD) work?

Answer: Everyone does two at-home fast AB tests. Most employers will be HAPPY to pay for them (WAY cheaper than having workers die) and might ask for on-site testing to verify worker safety. If you have two negative tests, **you print a WHITE CARD** meaning that you are currently non-infectious, yet still vulnerable so people should give you greater public leeway; ideally very few with white cards are infectious but people should still be cautious around them. **A blue card means you can be on the front lines** without fear (or less fear at least). Few will want to wear a fake “BLUE CARD” because people will shake your hand and sneeze on you! Indeed, if one tests positive 2X, it makes sense to get an ELISA test for extra verification while being reasonably cautious in the meantime (the need for this extra step should wane as things improve). If I own a bus company, only **BLUE** cards can be drivers. **This VSD system is only a suggestion**, but one intended to help people feel safer in public, on subways and in movie theaters. VSD can also help allay the fears of our FLMWs, improve medical care, and ultimately will let people get on airplanes (ideally with VERIFIED AB testing, which can be set up for smaller groups of people). Life and travel can resume again. And NOBODY gets into the US without documented AB-testing.