VIEWPOINT

COVID-19: BEYOND TOMORROW

Privileges and Immunity Certification During the COVID-19 Pandemic

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As the coronavirus disease 2019 (COVID-19) crisis enters its next phase, attention turns to the widespread testing programs needed to resume and maintain normal life activities.[1] Effective prevention and surveillance require testing for active infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and for antibodies that indicate prior infection and potential immunity.[2] There is an established approach for infected individuals: mild cases self-isolate; and severe cases receive treatment. But what is the appropriate response for people with positive antibody tests?

Some European countries are considering serological tests to issue immunity certifications (passports) that give holders certain time-limited work and social freedoms, joining larger gatherings or returning to nonessential jobs,[3] and the US government is considering similar proposals.[4] Certifications commonly form part of infection control strategies in other settings; eg, states prescribe vaccine requirements for childcare and health care workers. Public health screening programs require schoolteachers prove they do not have tuberculosis. Many countries require visitors to show a yellow fever vaccination certificate.

However, an immunity certificate program for COVID-19 would be unparalleled in several ways. First, because COVID-19 is not (yet) vaccine-preventable, inoculation must come entirely from prior infection. Second, the program likely would apply more broadly than to only a handful of selected professions or activities. Third, the conditioned "privileges" could include a greater range of fundamental civil liberties and opportunities, like freedom of association, worship, work, education, and travel. In addition, scientific understanding of SARS-CoV-2 immunity is still fairly rudimentary. How much immunity infection confers, and for how long, is unknown, as is the level and type of antibodies that indicate immunity.[5]

Ideally, clearer scientific understanding and careful deliberation would precede any public or private policy that selectively relaxes restrictions based on positive tests for SARS-CoV-2 antibodies.[6] However, the ideal of a measured, evidence-based approach to policy making appears likely to be overrun by hopes and demands for antibody testing. Antibody tests are proliferating.[3] Following the slow and inefficient roll-out of viral testing, the US Food and Drug Administration (FDA) initially announced that antibody tests could be marketed without prior approval so long as users receive appropriate disclaimers.[3] The agency recently amended its stance to permit preapproval distribution by commercial manufacturers only while seeking FDA approval. Under this permissive approach, dozens of unproven antibody tests, many manufactured in other countries, are now available and being marketed aggressively.

The coming surge in availability of antibody tests will meet huge demand. People who have had COVID-19 disease want to learn if they now are protected, and many others will want to learn if they acquired immunity asymptomatically or following mild illness. Thus, inevitably, society will need to react before scientific and public policy consensus forms. Positive antibody test results will induce behavior modification and reduce compliance with restrictions. Even without authorized immunity certification, people will begin to self-certify, with much less accuracy and credibility than if certification were official. The rapidly unfolding situation raises a host of important legal, ethical, and policy concerns that will not wait for greater scientific certainty.

Inequitable Access to Testing

Bestowing immunity certification for work, school, worship, romance, or other highly valued human interactions demands fair access to testing. In the ramp-up phase when supplies are limited, reliable antibody testing should be prioritized as virus testing has been, primarily for front-line health care workers and first responders. Other essential workers should be next in line as testing capacity expands.

Once reliable tests are more widely available, affordability should not skew access. Fortunately, various legal mandates, including the recent Coronavirus Aid, Relief and Economic Security (CARES) Act, require private and public insurers to pay for all professional SARS-CoV-2 testing, including antibody tests, and reimburse hospitals for testing uninsured patients. Remarkably, the US is close to universal, first-dollar coverage for novel coronavirus testing.

Invidious Discrimination

Despite palpable ethical concerns, there appear to be few or no legal obstacles to government or private adoption of immunity certification policies, provided they are implemented thoughtfully. Health certification is an established tool in disease control and has not provoked legal controversy when used in accordance with expert guidance to counteract substantial infection risks. Government programs that confer selective advantage may well encounter constitutional challenge for denying equal protection, but in crisis situations courts are highly deferential.[1] Although certification discriminates by design, discrimination is not legally or ethically problematic unless it lacks good rationale. Indeed, when substantially different circumstances exist, it can be wrong *not* to differentiate. Only when differentiation is invidious (ie, unjustified, and thus imposing undeserved hardship) is it wrongly discriminatory.

Disability discrimination law has more direct relevance than constitutional law. Governing principles are not fully settled,[6] but recent federal guidance on COVID-19 allows

employers to require workers "to provide a doctor's note certifying fitness to return to work."[7] Also, allowing workers to establish immunity voluntarily could be viewed as a "reasonable accommodation" or job safety protection that employers must adopt for workplaces that otherwise might pose excessive risk.

Social Class Disparities

Even when differentiating is legal, it can still be unfair. Certifying those who are fit may stigmatize those who are not. There is ample historical evidence that tying advantage to fitness can amplify existing socioeconomic disparities. At the extreme, critics warn that excessive immunity advantages could create an Orwellian or dystopian social apartheid.[8] Those are serious concerns, but the picture is more nuanced.

Unlike most other social disparities, immunity advantages are unlikely to create a permanent underclass. They are transitional to an effective vaccine or treatment or to herd immunity. As well, advantages conferred by immunity are likely to have the unusual characteristic of partially remediating disparities wrought by the pandemic. For instance, black individuals appear to have been infected at a higher rate than white individuals in many cities.[9] Spread of COVID-19 likely tracked a familiar socioeconomic gradient, with a disproportionate burden of illness affecting lower-income individuals, owing to denser living conditions, front-line "essential" jobs that required attendance and repeated exposure, and higher rates of preexisting chronic health conditions (partly due to structural inequities). It should follow that antibodies are more prevalent in these same populations. By conferring temporary advantages, accurate immunity certification could have a progressive valence that, conceivably, operates more as a leveler than class divider.

Immunity certification can confer not only privilege but also the opportunity to take on greater responsibility in the ongoing efforts to counteract COVID-19. Even without immunity testing, some patients who have had COVID-19 are eager to donate plasma, help with research studies, and take on riskier treatment roles. Immunity certification is likely to substantially increase this prosocial altruism.

Nevertheless, some of those who conscientiously followed social distancing rules may perceive that they are unfairly disadvantaged. Every selective advantage in life entails a contrasting disadvantage, some more unfair than others. An immunity advantage that permits return to normalcy may be short-lived for 2 reasons. First, SARs-CoV-2 immunity may not be long-term. Second, a vaccine will likely be available within 2 years, at which point those not previously infected certainly should have priority.

Fraud and Intentional Infection

Thoughtful implementation of immunity certification would need to guard against fraud and incentives for intentional infection. A standard set of security tools developed for other important documents could limit forgery. Intelligent design (eg, digital signatures linked to public records)[4] and physician verification could help to mitigate fraud, especially if accompanied by random confirmation testing and stiff penalties for certification cheats.

Incentives for deliberate self-infection are a more difficult problem. The behavior is reminiscent of the "pox parties" that some vaccine-opposed parents hold for their children. However, a lethal and unpredictable virus like COVID-19 is very different from childhood chickenpox, so it is questionable how widespread self-infection would become. In addition, social approbation can effectively deter, along with active monitoring of anti–social media, as Twitter did in blocking a disreputable post promoting this practice.[10] Ultimately, the US may need to tolerate some level of perverse behavior to realize the benefits of immunity, much as society tolerates but attempts to minimize destructive incentives that arise from other beneficial programs (eg, fire insurance).

Standardless Certification

If oversight of immunity testing and use of test results does not improve, certification programs will be vulnerable to much more serious legal and ethical objection. Regulators in the public and private sectors must step up to prevent test "shopping" and a "race to the bottom" in test quality. To be fair and effective, programs will need consensus standards for acceptable sensitivity and specificity of the tests, and systems for gathering test results to aid research and surveillance. Appropriately regulated, a certification program could actually reduce testing abuse that might otherwise occur.

For now, these testing issues and unproven scientific assumptions of immunity, cast serious doubt on the merits of immunity certification. But if these issues are resolved and policies are administered fairly, the ethical and legal concerns raised may be overstated. A population-wide program of selective advantage based on disease status sounds potentially odious. But it likely is the policy most individuals would choose in a state of genuine uncertainty about whether or not they had acquired immunity. Immunity certification programs may have the added advantage of spurring more people to seek reliable testing, results of which will inform research and surveillance. If so, immunity privileges, although selective, could foster broader liberties and economic improvement for all.

ARTICLE INFORMATION

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Correction: This article was corrected on May 13, 2020, for minor editing changes.

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