Pandemic (United States): A Recipe for Disaster – Yih and Kulldorff's "Radical" Covid Strategy

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In a recent *Jacobin* interview entitled "We Need a Radically Different Approach to the Pandemic and Our Economy as a Whole, [1]" ecologist and epidemiologist Katherine Yih and professor of medicine Martin Kulldorff, both at Harvard Medical School, offered neither. Instead, their "radical strategy" for both boils down to putting less vulnerable groups back to work and building up natural herd immunity through exposure to Sars CoV-2. This is of course not far off from what elements of the Trump or Johnson administrations advocate, and which – contrary to Kulldorff – failed in Sweden, at least from the perspective of keeping people alive.

According to a preprint article published a few days ago on medRxiv [2], the Brazilian city of Manaus may offer us a vision of what happens when Covid-19 is allowed to run rampant through a population in pursuit of herd immunity. Researchers estimate that between 44 and 66 percent of the population has been infected. They report that the number of new cases and deaths is now declining in this city of 1.8 million. However, according to immunologist Florian Kramer at New York City's Mount Sinai Hospital, "Community immunity via natural infection is not a strategy, it's a sign that government failed to control an outbreak and is paying for that in lives lost." The papers' authors predict that up to 1 in 500 residents could be dead by the time the disease ends.

During the course of their interview, both Yih and Kulldorff essentially ignore one of the most problematic aspects of Covid-19 epidemiology: the high rate of transmission of the virus largely through droplets and, as increasingly confirmed, aerosols. That, and the continuously unfolding saga of Covid-19's pathology and immunology render a strategy built around promoting even some sort of graded exposure to attain herd immunity a grave mistake.

Yih, a member of Science for the People, starts off by disavowing continuing efforts to prevent transmission, particularly via lockdowns. In effect, this means accepting the status quo handed to us by the Trump administration, which allowed rampant transmission to the point where it would now, as Yih rightly notes, be quite difficult (although not impossible) to contain. She also dismisses the development and efficacy of vaccines, at least within a reasonable time period and with sufficient accessibility. She is probably partially correct in terms of timing, but accessibility is a political issue rather than a biological or technical one. Instead, she favors a strategic approach to building up herd immunity through exposure to the virus.

She explains:

"instead of a medically oriented approach that focuses on the individual patient and seeks (unrealistically) to prevent new infections across the board, we need a public health–oriented

approach that focuses on the population and seeks to use patterns, or epidemiologic features, of the disease to minimize the number of cases of severe disease and death over the long run, as herd immunity builds up."

But, after pointing out that 90 percent of mortality occurs in older people and acknowledging the reality of differential mortality among social groups for structural reasons, this rings hollow. The objection to a natural herd immunity approach is twofold. First, its attainment would entail an unacceptable number of deaths. Given the nature of our capitalist society, with the inequity in co-morbidities and risks and accessibility of health care, and given the biology of aging, and even the state of medical technology, Yih's words about "minimizing the number of cases of severe disease and death over the long run" are meaningless.

Second of all, herd immunity depends on the biology of the virus and the vast complexities and variations of our immune responses. Earlier, in her dismissal of anticipating vaccines, Yih asserts, "neither the effectiveness nor the duration of immunity from any of these vaccines is known as yet." But the same is true of natural herd immunity. We simply don't know the duration, exact mechanisms, or efficacy of the human response to this coronavirus. There have been a growing number of apparent reinfections. We don't know how long immunity lasts. If it is of short duration, that would seem to preclude herd immunity or mean that an impossibly high proportion of the overall population must be infected at any one time for it to occur.

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We don't know why, in some cases, antibodies are not produced. We don't know why some of those exposed don't contract the virus. We don't know why apparent asymptomatics later develop long-term pathologies. Most basically, we don't know what proportion of the population must be infected to attain herd immunity. In other words, the same caveats apply to herd immunity as to vaccines, but with much more statistical uncertainty, since allowing viral transmission in the population at-large is not a phased, controlled experiment. Researchers can turn on and off vaccine trials, as recently happened with the AstraZeneca trials, but they can't put the genie back in the bottle (except through the same containment measures Yih/Kulldorff condemn) once community transmission starts.

Kulldorff further explains,

"children and young adults have minimal risk, and there is no scientific or public health rationale to close day care centers, schools, or colleges. In-person education is critically important for both the intellectual and social development for all kids, but school closures are especially harmful for working-class children whose parents cannot afford tutors, pod schools, or private schools."

Bewilderingly, his first argument abstracts from the very population health arguments he and Yih seek to rely on. The rationale for closing "day care centers, schools and colleges" is not simply the risk to young people, who may have "minimal risk" for severe symptoms, but not for infection and transmission. In fact, transmission rates among young people are the highest of any age-based demographic. The major risk, here, is to teachers, school staff and all the adults in those children's lives. Moreover, health professionals and researchers are also now finding a host of serious chronic pathologies appearing long after recovery among children and in asymptomatic cases.

Kulldorff's second argument regarding working-class families simply reprises the obvious and constant barrage of Hobbesian choices imposed on all working-class people in our society, dilemmas which will only be resolved through socialist revolution. Working-class families must inevitably struggle for reforms that could mitigate those choices. But it would make more sense – given Covid-19 epidemiology and the potential cost in lives – to demand paid time off for parents to

supervise home-bound, distance-learning children, than it would to take some unspecified measures to prevent transmission among children in confined classrooms, and from them to adults.

Kulldorff rightly points out that both vaccines and exposure can result in herd immunity. He states,

"whatever strategy we use for COVID-19, we will eventually reach herd immunity, either with a vaccine, through natural infections, or a combination of the two. So, the question is not whether we get to herd immunity or not."

But, yes, as we have seen, that is indeed a big question. As he then asserts,

"We do not know what percent immunity to the coronavirus is needed to achieve herd immunity, but we do know that if there are many older people in the group that are infected, there will be many deaths. On the other hand, if mostly young people are infected, there will be very few deaths."

And, here, again, he ignores the glaring issue of transmission. Kids are not boxed off from adults and seniors.

Kulldorff applauds Sweden's strategy of looking to natural herd immunity to control the disease. He affirms that

"except for the failure to protect nursing home residents in Stockholm, the country has done well without a lockdown. For example, day care centers and schools were never closed for children aged one to fifteen, with zero COVID-19 deaths as a result and only a few hospitalizations. Moreover, teachers faced the same risk as the average among other professions. COVID-19 mortality is now close to zero in Sweden, and the United States has now passed Sweden in terms of deaths per million inhabitants, despite Sweden having an older, more high-risk population."

Done well? If I am not mistaken, Sweden contributed among the greatest number of deaths in Europe. And his assertion begs the question, has Sweden achieved that herd immunity? Is it even close? And what will the final cost be if it does? We may soon find out if it is there, with numbers of cases rapidly climbing in Europe. Further, Sweden has a sharp advantage over the United States. Its postwar Social Democratic regime succeeded in greatly leveling the social playing field. Income inequality is vastly less, and Swedes have access to a range of health and social services to which U.S. residents are not privy.

Kulldorff offers a misleading argument here:

"To date, Swedish COVID-19 mortality has been higher than in some and lower than in other lockdown countries. While it is popular to compare COVID-19 mortality rates between countries, it's not a great metric."

The point is not to compare numbers, but to ask if any population is willing to accept tens of thousands of deaths, when these can be prevented. What is worth comparing are the strategies used to prevent deaths. And, in this, New Zealand and a number of other countries stand above the rest. These have achieved a low mortality rate and managed to hold down the basic or effective reproductive number (R0) of coronavirus by interrupting transmission through quarantine, lockdown, social distancing, mandatory mask-use and testing and tracing.

Kulldorff asserts that "a universal lockdown can successfully postpone cases into the future, as it has done in some countries, but in doing so it also postpones the buildup of immunity." The latter, of course, is the whole point: to wait out the virus so its R0 drops below 1, and/or until there is a vaccine. Nevertheless, Yih and Kulldorff's age-stratified herd immunity approach essentially has the

same postponing effect, but for vulnerable sectors. The elderly and vulnerable protected under their hazy scenarios will, of course, not have the opportunity to build up herd immunity. They will continue to be vulnerable, unless they represent an insignificant proportion of the population, such that the overall population's herd immunity eventually protects them. Yet, for the reasons given above, how likely is this latter scenario? Contrary to Kulldorff, the nursing home dead in Sweden were not aberrations. You cannot simultaneously protect the elderly and vulnerable if you allow transmission of coronavirus in the general population while you are waiting for the Holy Grail.

Yih throws in an economic argument that further muddies the water: "millions of working-class people have lost their jobs and find it impossible to find new ones in the current shuttered economy." Well, yes. But we only have to go back 12 years to see that this is the nature of the capitalist economy. In fact, there were many signs of a looming major recession before the pandemic hit. Did the pandemic worsen the crisis? You bet. But the answer is not to follow the bosses' suggestion to put younger people back to work amid a poorly understood pandemic. The correct answer is a broad program, like a pandemic-modified Green New Deal, that offers broad worker and social safety net protections.

According to Yih,

"Liberal elites, including the Democratic Party establishment, have actively ceded this terrain, instead emphasizing the importance of lowering infection rates (across the board) until a vaccine becomes generally available. I think the liberal elites' adoption of this approach stems from the easy appeal of keeping "everyone" safe together with a class position for which the lockdown strategy is in fact safer as well as quite easy to ride out. Liberal elites simply can't see or can't feel how this strategy continues to fail the working class and also small business owners."

In fact, in a capitalist society, both (reopen the economy or lock it down) are ruling class options, because capital will throw workers under the bus in either scenario. And workers will be protected under neither, unless they wage concerted battles to win protections.

Given that, the best strategy is still a "curve-leveling" one, not one that amounts to waiting for the herd immunity Holy Grail. Such a strategy must be accompanied by struggle for appropriate protective and preventive measures and resources, universal healthcare, paid leaves of absence and sick leave, the right to decent housing, a frontal attack on racism (and ageism) in all spheres, but now more than never in healthcare, housing, criminal justice and employment.

In some cases, we will need and should demand full or targeted lockdowns. For example, those meat-packing plants that Trump ordered kept open, which employ tens of thousands of young, largely immigrant and African American workers, should have been shut down. Schools and other indoor venues that assemble large numbers in confined spaces by their nature must be shuttered as dictated by existing transmission risk, with provision of online education and paid time off for parents. Similarly, prison populations must be sharply reduced, which segues to calls for abolishing policing as we know it. Where work activities must continue, workers must be assured PPE and stringent regard for numbers (including staffing ratios), ventilation and spacing. That would include hospitals, nursing homes and a few other essential services.

And vaccine safety, efficacy and availability must be subject to unrelenting political demand. Vaccine trials must have transparent public oversight and strict enforcement of protocols to assure effectiveness and safety. Pharmaceutical companies – currently the only entities with the capability of mass producing these vaccines – must be obliged to provide them for free to all who need them, what with the enormous public subsidies they receive. Or they must be socialized.

This is the “radically different approach to the pandemic and our economy” that we require.

Michael Friedman

P.S.

• Spectre. September 24, 2020:
https://spectrejournal.com/yih-and-kulldorffs-radical-covid-strategy/

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Footnotes

[1] https://jacobinmag.com/2020/09/covid-19-pandemic-economy-us-response-inequality

[2] https://www.medrxiv.org/content/10.1101/2020.09.16.20194787v1