

The Great Barrington Declaration

As infectious disease epidemiologists and public health scientists we have grave concerns about the damaging physical and mental health impacts of the prevailing COVID-19 policies, and recommend an approach we call Focused Protection.

How many (and counting) have supported the Objectives of the said Declaration as at February, 2021.

Concerned Citizens

765,109

Medical & Public Health Scientists

13,809

Medical practitioners

41,931

The Great Barrington Declaration

As infectious disease epidemiologists and public health scientists we have grave concerns about the damaging physical and mental health impacts of the prevailing COVID-19 policies, and recommend an approach we call Focused Protection.

Coming from both the left and right, and around the world, we have devoted our careers to protecting people. Current lockdown policies are producing devastating effects on short and long-term public health. The results (to name a few) include lower childhood vaccination rates, worsening cardiovascular disease outcomes, fewer cancer screenings and deteriorating mental health – leading to greater excess mortality in years to come, with the working class and younger members of society carrying the heaviest burden. Keeping students out of school is a grave injustice.

Keeping these measures in place until a vaccine is available will cause irreparable damage, with the underprivileged disproportionately harmed.

Fortunately, our understanding of the virus is growing. We know that vulnerability to death from COVID-19 is more than a thousand-fold higher in the

old and infirm than the young. Indeed, for children, COVID-19 is less dangerous than many other harms, including influenza.

As immunity builds in the population, the risk of infection to all – including the vulnerable – falls. We know that all populations will eventually reach herd immunity – i.e. the point at which the rate of new infections is stable – and that this can be assisted by (but is not dependent upon) a vaccine. Our goal should therefore be to minimize mortality and social harm until we reach herd immunity.

The most compassionate approach that balances the risks and benefits of reaching herd immunity, is to allow those who are at minimal risk of death to live their lives normally to build up immunity to the virus through natural infection, while better protecting those who are at highest risk. We call this Focused Protection.

Adopting measures to protect the vulnerable should be the central aim of public health responses to COVID-19. By way of example, nursing homes should use staff with acquired immunity and perform frequent testing of other staff and all visitors. Staff rotation should be minimized. Retired people living at home should have groceries and other essentials delivered to their home. When possible, they should meet family members outside rather than inside. A comprehensive and detailed list of measures, including approaches to multi-generational households, can be implemented, and is well within the scope and capability of public health professionals.

Those who are not vulnerable should immediately be allowed to resume life as normal. Simple hygiene measures, such as hand washing and staying home when sick should be practiced by everyone to reduce the herd immunity threshold. Schools and universities should be open for in-person teaching. Extracurricular activities, such as sports, should be resumed. Young low-risk adults should work normally, rather than from home. Restaurants and other businesses should open. Arts, music, sport and other cultural activities should resume. People who are more at risk may participate if they wish, while society as a whole enjoys the protection conferred upon the vulnerable by those who have built up herd immunity.

On October 4, 2020, this declaration was authored and signed in Great Barrington, United States, by:

Dr. Martin Kulldorff, professor of medicine at Harvard University, a biostatistician, and epidemiologist with expertise in detecting and monitoring infectious disease outbreaks and vaccine safety evaluations.

Dr. Sunetra Gupta, professor at Oxford University, an epidemiologist with expertise in immunology, vaccine development, and mathematical modeling of infectious diseases.

Dr. Jay Bhattacharya, professor at Stanford University Medical School, a physician, epidemiologist, health economist, and public health policy expert focusing on infectious diseases and vulnerable populations.

FREQUENTLY ASKED QUESTIONS

Lockdowns and Collateral Damage

How do you define lockdowns?

Lockdowns consist of a variety of measures, such as schools and universities that are closed for in-person teaching, hybrid schools, closed or partially closed restaurants and other businesses, restrictions on sports and cultural events, extraordinary travel restrictions, work-from-home orders, cancelled medical and dental visits, curfews, quarantine regulations, etc.

Do lockdowns have a successful history against infectious diseases?

Basic epidemiological theory indicates that lockdowns do not reduce the total number of cases in the long run and have never in history led to the eradication of a disease.**** At best, lockdowns delay the increase of cases for a finite period and at great cost.*****

Are governments still using lockdowns?

At the end of 2020, governments around the world, including many states in the US, continue to restrict normal activities, and some are introducing additional lockdown restrictions. Many schools remain closed to regular in-person teaching, while many businesses, concert halls, and churches are closed or only permitted to operate at partial capacity. Lockdown remains a primary tool used by many governments to address the pandemic.*****

What are the physical health impacts of lockdowns?

There are many physical health harms from lockdowns. Medical care visits have plummeted, with people avoiding needed medical care.**** This includes lower childhood vaccination rates, less cancer screening, skipped cancer treatments, fewer preventive cardiovascular disease visits, just to name a few. Many of the consequences of these missed visits will not show up in the mortality statistics for this year, but is something that we will have to live and die with for a long time.*****

What are the mental health impacts of lockdowns?

Humans have many needs, including a need for community and ~~for~~ normal social interactions with one another.***** Mental health has deteriorated due to lockdowns and the fear caused by public health messaging. For example, in Massachusetts, emergency departments have seen about four times more children and teens in psychiatric crisis than usual. One in four young adults in

the US seriously considered suicide this past June. Extending the lockdown over an indefinite period of time will multiply these harms.

What are the harms from closing schools to in-person instruction?

All children have a right to a high-quality education. Adults have a moral obligation to make this happen, and it is morally wrong to ask children to bear a disproportionate burden of the costs of the epidemic.**** Yet the lockdown policy, and especially school closures, guarantees that children are especially harmed.*****

Online learning is not a good substitute for in-person teaching.***** For normal development, children have a strong need to socialize with other children, to make friends, and to play with one another. Schools are also the main point of contact with care systems and provide a refuge for disadvantaged children. Furthermore, the risk from dying from becoming infected by COVID-19 is for children is very low – lower than the risk of dying from the seasonal flu.**** Schools do not close due to influenza, and neither should they close because of COVID-19.*****

How do lockdowns specifically harm the working class?

Lockdowns especially harm the working class. As essential workers, or just to survive, they must work and be exposed to COVID even if they are at high-risk, building the population immunity that will eventually protect everyone.**** This, while low-risk college students and young professional lawyers, bankers, journalists and scientists are protected by working from home. Less wealthy people also lack a financial safety net, and food shortages-and house evictions lead to excess deaths.***** Working class children are also disproportionately harmed by school closings, as their parents are less likely to afford tutors, pod schools or private schools. Poorer people also have less access to high quality medical care services, when they become ill, with lockdowns tending to decrease health care access differentially more for the poor. Thus, lockdowns both cause excess overall mortality and increase societal inequality.*****

How do lockdowns harm the developing world?

The lockdowns are causing devastating harm to both mental and physical health worldwide. A UN report estimates that an additional 80 to 130 million poor people will suffer from—hunger.***** Of these, it is estimated that lockdown restrictions have led to 10,000 children starving to death each month. Moreover, an additional 400,000 people will—may die from inadequate tuberculosis treatment as a consequence of the COVID-19 strategies.**** Vaccination campaigns in poor countries that address diseases like measles and polio have been suspended due to the lockdowns, with devastating measles outbreaks as a result.**** The list could be extended endlessly, with both short- and long-term consequences.

Covid-19 Risks

How dangerous is the SARS-Cov-2 virus and the Covid-19 disease?

It is important to distinguish between the risk of infection and the risk of death.***** Anyone can get infected, but there is more than a thousand-fold difference in the risk of death between the oldest and youngest.***** For old people, COVID-19 is more dangerous than the annual influenza. For children, the COVID-19 mortality risk is less than for the annual influenza.*****

With the schools closed, how can you say that the mortality risk to children is low?

To scientifically answer that question, we must look at the only major western country that did not close schools during the height of the pandemic. That is Sweden,***** who kept day-care and schools open for children ages 1 to 15. Among its 1.8 million children in this age range, there were exactly zero deaths from COVID-19 during this time-period, and only a handful of hospitalizations.***** During this time, symptomatic children were told to stay home, or sent home if they came to school, but there were no masks used or physical distancing at school.*****

Why are so many people afraid of Covid-19?

Unfortunately, the public health messaging about COVID-19 around the world has created many misperceptions that have spread fear.***** While older people underestimate their risk of COVID-19 mortality, young people greatly overestimate their mortality risk. Better public health messaging that does not spread unfounded fears based on anecdotes would help correct this situation.*****

Protecting the Old and Other High-Risk Groups

How can one separate Younger and the Older generations to ensure that the latter are not infected by the former?

It is not possible to do 100%, but, just as the strategies to date have managed to “successfully” shift infection risk from the professional class to the working class it is also possible to shift infection risk from high-risk older adults to low-risk younger adults. The latter will result in fewer deaths overall.*****

Don't the current age-wide lockdown strategies properly protect the Old?

No, on the contrary. There have been many unnecessary deaths, and especially among the urban working class.***** Current lockdown policies have failed to protect the vulnerable. Concrete examples of these failures include:

- Requiring older “essential” workers and members of the working class that cannot afford not to work to be put in work situations where they may be exposed to the virus.*****
- Failure to protect nursing home residents from exposure to the virus from staff members, visitors, and other residents.*****

- No provision for elderly people living in multi-generational homes to be shielded should a family member be exposed to the virus.*****

How do we protect the elderly in nursing homes and other care settings?

A focused protection strategy would include frequent testing of nursing home staff members that are not already immune, testing of visitors, and less staff rotation so that residents only interact with a limited number of staff people.*****
COVID-19 infected individuals should not be sent to nursing homes, and all new residents should be tested. Sequestering of care home residents who have COVID-19 is also important. (Note: Originally the Declaration specified “PCR testing”, but we have changed that to “testing”, as there are other tests available.)*****

How do we protect the older people living at home?

During high transmission times, older people should be offered home delivery of groceries and other essentials. When seeing friends and relatives, it is best to do it outdoors. Testing should be available for relatives and friends who want to visit. Free N95 masks should be provided for when they cannot avoid potential exposure.

How do we protect older people in the work force?

People in their 60s are at somewhat high risk, and many are still in the workforce. Those that can work from home should be allowed to do so. For example, teachers in their 60s could teach online courses, or help fellow teachers with grading exams, essays and homework. Those that cannot work from home should be funded to take a 3 to 6-month sabbatical.*****
In addition, workplace disability laws should require employers to provide reasonable accommodations to protect high COVID19 risk workers without losing their jobs.*****

How do we protect older people in multi-generational homes?

University closures and the economic displacement caused by lockdowns has led millions of young adults to live with older parents, increasing regular close interactions across generations.*****
We know that older people living with working-age adults have higher COVID-19 risk than older people living with other older people. There is no further excess risk if also living with children though.*****
This is the toughest challenge, and family specific solutions must be found. If the working-age household members can work from home, they can isolate together. If that is not possible, the older family member might temporarily be able to live with an older friend or sibling, with whom they can self-isolate together during the height of community transmission. As a last resort, empty hotel rooms could be used for temporary housing.*****

How about younger people with risk factors?

People with comorbidity risk factors should take the same precautions as somewhat older people without those risk factors.****

For how long must high-risk individuals be careful and/or self isolate?

When herd immunity is reached, they can live normally again with minimal risks. How long that takes depends on the strategy used. If age-wide lockdown measures are used to try and suppress the disease, it could take a year or two or three, making it very difficult for older people to protect themselves for that long. If focused protection is used, it will likely only take 3 to 6 months.*****

How can older people know when to be extra careful?

It is essential for public health departments to monitor disease transmission at the local level and continuously communicate this to the public.***** High-risk individuals can make decisions and take precautions accordingly. This should ideally be done using random population surveys. Information on hospitalizations and mortality should also be tracked. Any monitoring system based on positive test results must account for geographical and temporal variation in testing practices. This type of COVID-19 monitoring is performed in, e.g., New York City.

This information should be conveyed to the population in a nuanced way that does not induce panic*****but instead provides the basis for an accurate assessment of each person's risk based on their age and comorbid conditions.**** The goal should be that vulnerable people do not underestimate their risk from COVID-19 infection, and less vulnerable people do not overestimate their risk.*****Concrete recommendations should accompany the information – including perhaps recommendations to avoid crowds, hand washing, social distancing, and masks when their application to the situation is backed by sound science – that different people might take to reduce their infection risk.

Herd Immunity

What is Herd Immunity?

Herd immunity occurs when enough people have immunity so that most infected people cannot find new uninfected people to infect, leading to the end of the epidemic/pandemic. This means that the epidemic/pandemic will end before everyone is infected, although it will continue in endemic form with low rates of infections.*****

Do you believe in Herd Immunity?

Herd Immunity is a scientifically proven phenomenon.****To ask an epidemiologist if they believe in herd immunity is like asking a physicist if they believe in gravity.***** Those who deny herd immunity may also wish to join the flat-earth society.*****

With COVID-19, can Herd Immunity be avoided?

No. Sooner or later, herd immunity will be reached either through natural infection or through a combination of vaccinations and natural infection.*****

Is the Great Barrington Declaration advocating “Herd Immunity Strategy”?

No. Those making such claims in the media have either *******(i) not read the document, (ii) do not understand the basic principles of infectious disease epidemiology, or (iii) are willfully distorting the public health message for political purposes. For COVID-19, ******* all strategies lead** to herd immunity, making it nonsensical to denote one specific approach ********* as a herd immunity strategy just as it does not make sense for airplane pilots to talk about a “gravity strategy” for safely landing a plane. *********The Declaration advocates a strategy that minimizes mortality until herd immunity is reached. ******** That is done by minimizing the number of older high-risk people in the group that get infected while maximizing them among those that are still uninfected when herd immunity arrives. *********

Does the Great Barrington Declaration advocate for “Letting the virus run free?”

No, that is a **false** characterisation, as it advocates the opposite. ********* The central tenet of the declaration is **FOCUSED PROTECTION** where older people and other high-risk groups are better protected than they have been, to ensure that they are not exposed to the virus. ********* Neither does it encourage intentionally exposing anyone to the virus. Letting children and young adults live their lives without lockdown restrictions does not mean that we are letting them die from the virus, just like we do not accuse politicians for letting people die in car accidents when a new road is built. On the contrary, the GBD reduces the considerable collateral damage for less vulnerable people who face more danger from lockdown than they do from COVID-19 infection. *********

For COVID 19 what per cent of the population needs to be immune to have herd immunity?

That is **IMPOSSIBLE TO KNOW** right now. ********* No respectable epidemiologist will mention a specific percentage needed. ********* It also varies by geography, with a higher percentage needed in urban versus rural areas. ********* It also depends on the strategy used. If people with more contacts are immune, such as traveling salesmen, cab drivers, politicians or party goers, then the percentage is lower. *********

What are the current levels of immunity against COVID-19. Is it enough for herd immunity?

The current levels of immunity vary by location. We know that is more prevalent than the percentage of the population that has antibodies, but we do not know how much more. ********* The time course of the epidemic in several regions of the

world indicate that immunity in the population is playing a substantial role in controlling the spread*****

Should be people deliberately get infected to generate herd immunity?

No

Antibodies fade after COVID-19 infection. Does that mean natural immunity fades? How strong will vaccine induced immunity be?

That the antibody response fades over time after COVID infections was already known from a large body of literature*****

However, it is also true that antibody response is not the only response our immune systems have in response to infection, and these other immune responses (e.g. the production of specific T-cells) appears to be quite long lasting.***** You can see this in the fact that that despite an estimated 750 million worldwide to date after 10 months living with the virus, we have seen only a handful of reinfections. If the virus is like other corona viruses in its immune response, recovery from infection will provide lasting protection against reinfection, either complete immunity or protection that makes a severe reinfection less likely.

Vaccine immune responses tend to less strong than natural immune response,***** but there are exceptions to that rule. Even after a vaccine is approved for use, we will have to wait a long while (probably at least ten months and longer) to see how long lasting and complete the immunity provided by the COVID-19 vaccines will be.***** Focused protection is the right way to manage the epidemic while we wait for the vaccine and after.

Standard Public Health Practice

Isn't Focused Protection too risky an experiment?

No. Focused Protection is based on the risk-based strategies outlined in the many pandemic preparedness plans that different countries had developed during the past decades. Surprisingly, except for Sweden, all countries threw their pandemic plans out of the windowwhen this pandemic started.*****

How were prior pandemics dealt with?

The focused protection strategy proposed by the Great Barrington declaration is indeed the standard way that societies have dealt with prior epidemics.***** Letting people who face very little risk from viral infection (but would suffer from the lockdowns) live their lives normally while taking precautions when they interact with more vulnerable people makes intuitive sense – they are harmed by the lockdowns and lifting the restrictions helps them. At the same time, better focused protection for the vulnerable is a moral necessity.***** Over time, population immunity will build up among the non-vulnerable until the

vulnerable will no longer be at high risk of COVID-19 when engaging in normal activities. ****

Have contact tracing, testing and isolation been successful against infectious disease?

Yes. Contact tracing is of critical importance for many infectious diseases.

They do not work for widely spread diseases such as annual influenza, pre-vaccine measles, COVID-19, or by definition, against any pandemic. ****

Is it not better to pursue a ZeroCovid strategy like New Zealand and South Korea?

In New Zealand and South Korea, who locked down soon after the virus arrived, a zero-COVID strategy is feasible in the short run through a combination of lockdowns and national quarantine. Since the world is connected, countries that have successfully achieved a zero-COVID goal **** will need to disconnect themselves from physical exposure – through international travel limitations and required quarantining – for an indefinite period of time. **** A key decision for them is whether to wait for a vaccine, that will arrive somewhere between 2 months from now and never, or open the country, at which time the infection will return. **** Since they have few domestic cases, they are dependent on other countries to develop and evaluate the efficacy of the vaccines they need. ****

Most countries never had that option, with the virus already being too widespread to achieve a temporary national eradication **** Pursuing a zero-COVID policy through lockdowns is then futile, leading to collateral damage with devastating effects on the health of millions around the world. ****

What is the role of vaccines in focused protection?

If wisely used, COVID-19 vaccines are an important additional tool for focused protection. The key is to vaccinate older high-risk people as well as their care givers, such as hospital and nursing home staff. Those who have already had COVID-19 do not need to be vaccinated. ****