# Zero covid FAQ

# Frequently Asked Questions

#### Definition of "zero Covid"

Those who propose a "zero covid strategy" should be very careful to define the words that they use. Covid is a an acronym for "corona virus induced disease". The currently dominant corona virus that is circulating in the human population is known as "SARS-Cov-2". Zero corona virus induced disease (zero covid) implies that all corona viruses should no longer induce any form of human disease. Before SARS, in 2003, there were just nineteen known coronaviruses, including two human, thirteen mammalian, and four avian coronaviruses. By 2010 more than twenty additional novel coronaviruses have been described with complete genome sequences. These include three additional human coronaviruses, fifteen mammalian coronaviruses, and four avian coronaviruses. Many more remain undescribed. Any strategy for "zero covid induced disease" implies that none of these known, plus any as yet undescribed corona viruses, should ever induce any further form of disease within the human population. Is this a practical proposition? Proponents of a zero corona virus induced disease (zero covid) strategy will clearly have to work very closely with virologists in order to keep track of all the novel emergent threats. This nobel ambition goes much further than any previous public health initiative. It will require funding basic research on an unprecedented scale.

# "Why not just wait for everyone to be vaccinated?"

Vaccines are a miracle of science but they aren't a quick fix.

The WHO, from the outset of the current pandemic, made it very clear that vaccines would not be a "silver bullet". No one has ever suggested that quick fixes exist that would be able to remove all coronaviruses from circulation. If such a "miracle of science" could be produced in a year it would truly be miraculous. Such a silver bullet would have to be capable of addressing the potential threat posed by any new emerging corona virus in addition to SARS-Cov-2. To date no such vaccine has been produced. Vaccines target SARS-Cov-2, not all corona virus induced disease.

It could be autumn until we've vaccinated the 70 to 80 percent of the population thought to be necessary for what's called herd immunity (when enough people are immune to stop the virus circulating).

There is growing evidence that specific corona viruses outbreaks reduce in prevalence prior to the completion of vaccination campaigns. SARS-Cov-1 attenuated naturally, probably as a result of a deletion in part of its genome. MERS appears to be restricted to nososcomial (i.e. within hospitals and care home) outbreaks. The milder, less virulent coronaviruse that cause cold like symptoms (HCoV-OC43 and HCoV-NL63) rapidly reach herd immunity thresholds when they occur in schools. The typical duration of an outbreak is measures in weeks rather than months.

And although early evidence is hopeful, we don't yet know their full effect in reducing transmission. The vaccines aren't yet licensed for children, and until they are — perhaps well into 2022 — schools will remain vulnerable to outbreaks. No vaccine is 100 percent effective of course and mutations may affect that.

Although schools may be vulnerable to fresh outbreaks of several corona virus induced diseases, the effects of such outbreaks on children is generally mild. There are some reported instances of more severe effects that can lead to long term effects on children, but the body of evidence suggests that SARS-Cov-2 is not a major cause of mortality and morbidity amongst children.

In the meantime, if we leave the virus circulating, we must endure thousands more deaths, an untold number of survivors suffering from long-Covid, rolling lockdowns and draconian restrictions on social contact.

It is unclear how many more deaths are likely given that a substantial fraction of the population has already been exposed to SARS-Cov-2. An "untold number of survivors suffering from long-covid" can be set against an "untold number of children suffering from the psychological effects of lockdowns". These are both unknown terms. A zero covid strategy implies more, rather than less, "draconian restrictions on social contact".

Not only are the suppression measures cruel, but we must live under the constant threat of them failing and the virus erupting into exponential growth, as already happened in March and September.

Exponential growth does not necessarily imply rapid growth. The term exponential is used by mathematicians and epidemic modellers in a very specific context in order to refer to growth that follows a pattern of doubling of number of infection with respect to a given time interval. This only occurs when a population has no prior exposure to a pathogenic organism. This is no longer the case with respect to SARS-Cov-2. Future "exponential" growth is quite unlikely unless a major mutation occurs that would neutralise all prior aquired immunity.

Even for those lucky enough to escape infection, this isn't living, it's existing.

Those who question the wisdom of a zero covid strategy would fully concurr with this statement.

There's another way. Elimination is it.

Elimination of what? Corona virus induced disease? Or elimination of SARS-Cov\_2? Define the terms.

## "How do you eliminate a virus?"

Eliminating a disease might seem fantastical,

#### Define terms. A disease or a disease causing agent?

but it's mainstream public health, and has been successfully done here multiple times for many different viruses, from Polio to Measles to Smallpox.

#### Once. Smallpox. We still have measles and polio.

How? By removing fuel from the fire: if you deny wood to a fire, it stops burning; if a virus is starved of hosts, it stops spreading.

This is a description of the typical herd immunity that occurs during an outbreak. The fire, as described here, may be further attenuated through vaccination. This is not a description of elimination. Elimination would imply that all the matches that could set a new fire are also removed. As corona viruses are zoonotic in origin they are not restricted to human populations. A new spark could ignite the susceptible fuel at any time.

SARS-CoV-2, the virus which causes Covid-19, can be rooted out from our communities if, after measures such as lockdowns and mass testing have driven numbers low enough, skilled contact tracers can, like detectives, find the last people carrying the virus and, crucially, we support their isolation until they feel better.

SARS-CoV-2 is infamous for producing aymptomatic infections that are challenging to detect. Once numbers of infections are low most contacts will have some level of immunity either through prior infection or through vaccination. It is very hard to understand how contact tracers can efficiently identify the small proportion of infectious contacts in such cirumstances. If the "fire" is already dying down through lack of fuel, what is the point?

If the vaccines do block or reduce transmission, they can speed elimination by what's called ring vaccination (immunising contacts or the population of whole areas around positive cases).

Agreed. Vaccinating health workers who are known to come into contact with the vulnerable is a very simple and highly effective measure that does not require contact tracing.

# "Don't you want to lock us down forever?"

No. We want to set you free. Zero-Covid is liberty and safety rolled into one. We've been trapped in a cycle of rolling lockdowns since March 2020 while thousands party the night away in Auckland, Wuhan and Perth. Elimination is freedom: living with the virus makes Covid your jailer

The right to travel and to free movement is an essntial part of being young. Partying with your neighbors may be fun for a while, but it it is not nearly as satisfying as finding new friends. There is no freedom in being locked down within your own city.

"It's too late: the virus is endemic."

#### Exactly

So were Polio, Measles and Smallpox. Where's Smallpox now?

Where are measles and polio? They are both now likely to increase in prevalence as a result narrowly focussing on a single virus. Smallpox is widely agreed to have been the easiest virus to eliminate for a wide range of reasons. Elimination is desirable for all pathogens. The question is whether it is an attainable goal.

Being new, the virus isn't yet in what epidemiologists call "endemic equilibrium", where it circulates constantly at low levels. Even if it were, endemic doesn't mean forever.

Endemic equilibrium can be pushed towards levels at which a virus does not cause epidemics. The bactria responsible for the black death still circulates as enzoonotic pathogen. However we do not attempt to "eliminate" it as it causes so few infections in humans.

We've reversed endemicity before, and we can do it again.

No. We really haven't done this, or at least if we have we have managed it only once in the case of smallpox. We've not succeeded with any repiratory virus. MERS is still endemic. SARS-1 disappeared on its own. Ebola has not been eliminated. We have controlled epidemics and prevented them from becoming pandemics many times before, and we can do the same again when the time arises. Although it would be fantastic to elliminate a pathogenic agent completely, we don't have to do this to prevent a global pandemic. We can take things one step at a time. Elimination is an ultimate goal, but the for time being infection control is an attainable one.

"SAGE say elimination's impossible and the virus is here forever."

SAGE are correct. They are expert scientists.

They're wrong.

SAGE may well be weighing the evidence using a different sets of weightings to those used by some others. To state that SAGE are plain wrong is dismissing their accumulated experience.

Not every member of SAGE agrees, and regardless, they're not infallible.

Science never claims infallibility. Good science adapts to the evidence.

When the virus first appeared, SAGE advised against stopping flights and voted unanimously that we shouldn't suppress the virus, claiming that, in Wuhan, it was almost certain to spring back when lockdown was released.

Evidence from China is unclear.

Wuhan instead eliminated the virus,

That statement requires further proof. If there is a single new case in Wuhan it is falsified.

and now has packed nightclubs while we're locked down a year later. If SAGE were wrong then, why are they right now?

SAGE gave their advice based on available evidence. They have been wrong on multiple issues.

# "But cases are too high to eliminate!"

In summer 2020, we had similar case numbers to Melbourne, Australia, but there our paths diverged: Victoria pursued Zero Covid, ended community transmission, and is now opening up. It's not too late.

Melbourne did not see the levels of community transmission prior to the UK summer. Melbourne is not "opening up". Try booking a flight to Australia!.

# "What about the economy?"

Health is wealth. You get both, or lose both: playing one off against the other is a false choice. Zero-Covid lets us reopen fully in safety, which is why trade unions are joining our campaign, and why we campaign for workplace safety.

Agreed. The fundamental determinants of population health and well being are all strongly linked to the economy.

Zero-Covid is also smart business. In New Zealand, the epidemiologist Michael Baker credits an alliance between scientists and the business community with creating pressure for elimination and a government leadership that once convinced devoted themselves to a Zero-Covid strategy. Zero-Covid is the only way to save the economy.

If New Zealand remains isolated when all other countriesopen up as the pandemic wanes its economy will suffer lasting damage. A pandemic is over when it is over globally.

#### "Don't you want to ban travel forever?"

No. Zero Covid isn't international isolation. Just the opposite, ending community transmission offers a path to reopening travel.

How does this work? Reopening travel to any country will only be possible when all countries have eliminated all coronaviruses under a zero covid strategy. When is this going to happen?

Fearing new strains, the government has now closed all air bridges. Only links between countries committed to Zero-Covid can last. If we end community transmission, then, as Australia is doing with New Zealand, we can form travel bubbles with other Covid-free jurisdictions; any suspension due to an outbreak would be short.

How can each country in the "bubble" prevent infections from neighbouring countries? Not all countries are islands like New Zealand and Australia.

More and more countries are choosing to eliminate this terrible disease and forge links. The virus is the past: the only question is, how quickly do we want to join the future?

#### Now. End restrictions and learn to live with the virus.

Zero Covid isn't restrictions and isolation; it's how to get back our lives and livelihoods. Join us, and together, we'll be free of the virus, free to lockdowns, and free to live fully again.

## We all want that.

# "The UK is an integrated economy but with devolution – how can we get all the governments on board?"

Health, education and transport are devolved responsibilities in the UK, so we need not only to convince the UK government of Zero-Covid, but the three devolved administrations too. All four governments need to work effectively together and coordinate, as they did in the first lockdown in March 2020.

# Each devolved adminstration acted independently. The lack of a united response was a notable feature of 2020.

The Scottish and Welsh governments have shown themselves more sympathetic to Zero-Covid and with more effective messaging, but in practice they struggle to act completely independently of Westminster especially as the UK government holds most of the purse strings. This also means we have had significant divergences of rules about lockdown and travel restrictions between the four administrations, causing confusion and less effectiveness.

#### Agreed

The main responsibility for this lack of coordination rests with the UK government, but the devolved administrations could do more by adopting and pressing the UK government also to support a Zero-Covid strategy.

This statement assumes that the devloved adminstrations have already decided to adopt a zero covid strategy. Where is the evidence for this?

In Ireland, with a highly permeable 300 mile long border between the UK and Republic of Ireland states, there is increasing pressure for an all-Ireland Zero-Covid strategy to be agreed between the three governments (Northern Ireland Executive, Republic of Ireland government, UK government).

The political implications of this statement go far beyond its public health implications. This requires deep reflection.