For the attention of:

by email

Dear ,

Alternatives to "Circuit-Breakers"

I am writing to you as....and as one of several elected politicians, here in Wales that I have met over the course of my career (). I apologise a lengthy and referenced letter that transgresses all the rules for writing to elected politicians. However, it would not be sufficient just to serve up unqualified statements in so complicated an area where views are becoming very fixed

In summary, my letter describes:

1. Why Covid-19 is not unprecedented
2. Why earlier lockdowns have not been successful
3. Why circuit-breakers will not work and may not be necessary
4. Workable approaches centred on the person ("targeted shielding", "focussed protection")

My particular interest in the subject goes back to my previous career as Regional Epidemiologist for Wales, summarised in a biographical note at the end of this letter.

Why Covid-19 is not unprecedented

The 1968-1969 Hong Kong Influenza pandemic is estimated to have resulted in 80,000 excess UK deaths (1) Subsequently the return of H3N2 as the predominant circulating influenza A strain in late 1989 and thus, in my professional lifetime, also led to some 26,000 excess deaths (2). Flu has well documented chronic sequelae(3). Thus in terms of mortality and morbidity, at least, SARS CoV2 is not unprecedented. However, the perception and the policy response is unprecedented. Doubtless, exploring this will occupy medical historians and sociologists, for many years to come.

Why earlier lockdowns have not been successful

There are two conflicting narratives in the UK. The first and "official" narrative seems to be that social distancing measures have reduced the number of deaths from a projected 500,000 to "a mere" 40,000. This was based on Imperial College's mathematical modelling(4). I have examined this elsewhere but Imperial have a history of overestimates (5). This group's overestimate of the swine flu pandemic, led to criticism, in a subsequent Cabinet Office inquiry that the UK government had placed too much reliance on "modelling evidence"(6). This same reliance during Covid-19 speaks much to official amnesia.

Until recently the only counter narrative pointed out that the UK has one of the highest excess death rates in Europe (7) AND has suffered the biggest financial impact (GDP down 22.1%, budget deficit 18.5%). The counter narrative ascribed this unenviable pairing, first, to an initial delay in instituting a lockdown. Secondly, it is said that the lockdown should have been more extensive and gone on for longer or, at least, until a track and trace system was established, ideally located within local public health teams, sufficient to suppress the virus across the entire population. The health consequences of such a protracted interruption of economic activity have remained unexamined, however.

Why circuit-breakers will not work and may not be necessary

The logic of the "circuit-breaker" arises from this narrative (8). As I have pointed out, this week, on several occasions on the broadcast media, it won't work:

- "Good adherence to measures"(8) is required.
- The incubation period of Covid-19 (2-14 days) combined with high asymptomatic carriage rates (c30% in young adults) ensures that the virus will be reintroduced into the community as soon as the circuit breaker is finished.
- "If regulations and behaviour then return to pre-circuit break levels, there would be a return to exponential growth" (8) meaning any respite is a very small number of weeks, too short to remedy problems with track and trace systems and too soon for a vaccine to be available.

A circuit-breaker may not be necessary. Although infections are continuing to rise, the likely assumption would be that they peak around the beginning of next month and then decline into the beginning of November. This assumption is based on the 6-12 week epidemic trajectory, seen all over Europe, for the Spring wave of Covid 19 and also seen, every year, in nearly all respiratory virus epidemics (Flu A , Flu B, Respiratory Syncytial Virus).

Would this reliance on track and trace finally to suppress the virus even work? Possibly the UK could emulate Taiwan, South Korea or New Zealand and thus suppress viral spread. However, New Zealand is geographically isolated, Taiwan is diplomatically isolated and South Korea has an enormous technical manufacturing capacity, all of which wouldn't apply to the UK which is an entrepot highly dependent on service industries. Reintroductions of the virus would also have to be prevented as, given the world's track record on polio or measles, eliminating SARS CoV2, over an acceptably short time frame, seems unlikely.

Workable approaches centred on the person ("targeted shielding", "focussed protection")

New approaches that target the most at risk are now being discussed. Although, the "lockdown" versus "targeted shielding" debate is often presented as polarised, it could be said to be converging. Lockdowns are now often localised and the targets, for which targeted shielding may be required, may become more extensive. Thinking of the epidemiologist's triad of, "time, place, person", lockdowns, currently, mainly, target risk by "place", whereas targeted shielding would target risk by "person".

It's fair to ask how, in practice, a focussed policy of shielding the vulnerable might work. I suggested a framework in a BMJ Rapid Response (9) which, for ease, I also set out here:

- **At risk persons:** Effectively shield vulnerable people by a combination of advice (to wear masks, avoid situations where they couldn't control their personal space) and the necessary social support to make this do-able. (This might include things like the liberalisation of pension and early retirement rules for, say, over sixties, or even over fifties with significant co-morbidities, as well as more generous sickness benefit rules to remove perverse incentives for infected people to return to work too soon). This makes more sense than spending money furloughing younger people who want to work and who, probably, run very little long term risk from doing so.

- **At risk locations:** Ramp up infection control and bring in regular screening and exclusion of infected/symptomatic persons from locations where spread occurs readily. This would include:

- Hospitals
- Care Homes
- Meat Factories
- Prisons
- Universities
- This list might expand as knowledge of the more specific risks for infection also increases

In closed at-risk closed communities, like these, contact tracing can be carried out with considerable efficiency, as accessible registers of the at-risk populations already exist.

- **At risk occupations:** Improve the safety of individual workers in sectors of employment, identified as at higher risk (nothing more than a duty under the Health and Safety at Work Act). These would be:

    - Health and care staff
    - Transport staff
    - Security personnel
    - This list might also expand in the light of increasing epidemiological knowledge

Although each of these categories would require a suite of measures, it is the case that at **risk individuals** would primarily be protected by financial measures, **locations** by "tracking and tracing" and **occupations** by PPE

Provided that effective shielding is in place, others, particularly if under about 40 years of age and without any other intercurrent illness, might as well go about their business more or less normally. Studies such as "OpenSafely" with its population of 17 million persons' GP records, show that this younger age group's risk of death from Covid-19, during the main period of the UK pandemic, was less than that from a road traffic accident. (11) A key question, here is the incidence, severity and duration of symptoms of "Long Covid" since this will determine how permissive policies for younger adults should be. Fortunately the UK, in structures such as the RCGP Research and Surveillance Unit, has the framework to answer this question objectively and rapidly.

Given the lack of unequivocal evidence for the success of the policies tried to date, a policy of targeted shielding should at least be trialled and evaluated. It represents the only sustainable alternative policy to the policies of lockdowns that, to date, have failed so spectacularly.

Thus, this letter is to urge you, even at this stage, to reconsider whether further lockdowns, even if time-limited ("circuit breaker"), will be effective. Rather I encourage you to develop systems that put the person at the centre of Covid 19 prevention and to develop a policy of focussed prevention, along the lines described, above.

In developing the ideas in this letter, I have had the advice and help, by correspondence, of a phalanx of very experienced public health doctors, that I gratefully acknowledge :

Dr Edward Coyle (formerly Director of Public Health, Fife Health Board)
Dr Meirion Evans (formerly, Consultant Epidemiologist, Public Health Wales)
Dr Brendan Mason (Consultant in Communicable Disease Control, Public Health Wales)
Dr Stephen Monaghan (Consultant in Public Health Medicine, Public Health Wales)
Professor Stephen Palmer (Professor Emeritus of Public Health, Cardiff University)
Dr Mark Temple (formerly Consultant in Public Health Medicine, Public Health Wales)
Dr John Watkins (Senior Lecturer in Public Health, Cardiff University)

Although responsibility for the content of this letter is mine alone, I feel confident that most of my colleagues would support most of its themes

I would be very pleased to discuss, further, any of this with you.

Yours sincerely,

Roland

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Biographical note:

Between 1990 and my retirement in 2013, I was Regional Epidemiologist for Wales, the latter fifteen years, as the Director of the Communicable Disease Surveillance Centre, responsible for the surveillance and investigation of outbreaks of infectious diseases and advice to government. I spent 28 years on the UK Government's Advisory Committee on Dangerous Pathogens, with two years (2013-2015) as its acting chair. I also spent 10 years on the Conseil Scientifique of the French National Institute for Public Health Surveillance (Institut de Veille Sanitaire) as well as being involved in the setting up of the European Centre for Disease Control and Prevention (ECDC) and of EPIET (European Programme for Intervention Epidemiology Training).