

Covid-19 Response Team Reboot

Multi-Discipline Quantitative Analysis

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The government's Covid-19 response team lacks robustness; and the current mitigation measures are likely causing more harm than good.

“If all you have is a hammer, everything starts to look like a nail.” Epidemiologists are modeling only epidemiological causality. They do not have multi-discipline knowledge to understand the externalities (unintended consequences) of their mitigation measures. Covid-19 mitigation measures are likely causing suicide, domestic violence, murder, divorce, overdoses, civil unrest, and lifelong psychoses from abuse. The epidemiologists have not modeled these. They need to integrate research from economists, psychologists, sociologists, engineers, and microbiologists to form a robust model.

Current mitigation measures lack sustainability.

The foundational problem to be solved lies in the field of economics, not epidemiology. Economists economize systems to increase net efficiency overall. In Covid-19 response strategy, the economist is best equipped to integrate all equations and data from each of the unit disciplines into one, robust model for quantitative analysis.

It is time to reboot the Covid-19 response team. The solution space will be the result of a multi-discipline quantitative analysis (MDQA). The group should include experts in each of the disciplines necessary to form a robust model. An economist should lead the integration team. This will begin yielding results in 2 weeks.

Automate - The simulation should be automated in software in order to run billions or trillions of permutations of equations and data.

Emulate - The unit models should emulate real world conditions (id est, those possible in reality).

Generate - Each expert group will generate its unit discipline simulation models.

Integrate - All the unit discipline models will be integrated into one large, robust MDQA model.

Simulate - Run the MDQA to produce the solution space from which policy should be derived.

The MDQA team should approach this as an engineering exercise, not an academic exercise. Pragmatism must reign over complexity. Keep the equations simple whenever possible.

It is vitally important that mitigation measures be modeled in the MDQA. Without modeling mitigation measures, the team is blind to the negative consequences of well-intended measures. Saving one life, while killing three is not a good policy.

CONCLUSION

MDQA is built on science and data; and it is far more robust than what is being used by government epidemiologists presently. The public should demand MDQA methods.

The Department of Homeland Security should lead the team with input from CDC as a contributor, not a leader.

The sooner the government deploys MDQA to provide scientific proof of the best solution space, the sooner we can all get back to the most normal life possible. Disarm the fearful with science and data. Win the fence sitters with a plan that matches MDQA results. And the results will likely be to open the economy, which will appease the crowds demanding freedom.