



A thread by Tom Inglesby

Shared on Twitter on 3/14/2020

This thread relates to [#COVID19](#) developments of the last couple days in the US, the work needed to slow down the spread, and the dangers around the calls for developing herd immunity as a national goal in the UK. 1/x

Important that top of USG now quite focused on rapidly expanding diagnostic testing to all who have sx of COVID. First priority is to get full understanding of who has disease in long term care facilities+ hospitals to give us chance to stop outbreaks in those institutions. 2/x

But, then ASAP, also important to test as broadly as possible all people who have sx of disease. We need this info to get people to properly isolate themselves; and so these pts can communicate to their close contacts that they should self quarantine, and... 3/x

We need this to get much more precision regarding burden of the disease around country. We don't know now how extensive the disease has spread in US, and we will need extensive testing to be able to measure over time the affect of larger social distancing interventions. 4/x

We will need extensive testing to be able to make predictions regarding the pace of the epidemic in various parts of the country, what will be coming next, where resources might be most needed. 5/x

It was very good and encouraging to see industry leaders at White House yesterday committing to making large scale testing possible around country. It was concerning to see hrs later that google was not going to be able to do what was announced at that press conference. 6/x

America needs much more clarity on how large scale testing will take place+when. Industry leaders seem ready to do whatever needed, now need overall operational plan together. Pub health agencies/labs cannot be the major source of testing going forward 7/x

We also need national data management system that gives us way to aggregate all the clinical information for all US COVID cases. China has been able to do that with incredible speed and efficiency. 8/x

Example: Report published almost in real-time that described epid characteristics and clinical outcomes of >72K (!) Chinese COVID pts.

<https://jamanetwork.com/journals/jama/fullarticle/2762130> We need way to assess large amounts of clinic and epid data rapidly in US – we need to build that process now 9/x

We also need clarity on where we are with the serology test being developed by CDC and others. We need serology to understand prevalence of disease, numbers of mild, asymptomatic infections. And to understand how much of the population of US has been infected and when. 10/x

Political leaders are now starting to put into place large scale social distancing measures. We have seen in Asia, places that have done this – China, Singapore, Thailand, Hong Kong, Taiwan – have been able to dramatically slow the spread of disease. 11/x

This chart from [@jburnmurdoch](#) shows some of those remarkable trends in Asia. Taiwan not included in it probably because at 53 cases it is below the lower threshold, despite being geographically so close to China. 12/x

While Wuhan and Hubei had very high rates of transmission through mid February, the impact of large scale interventions starting in late January had clear impact quickly after they were made. 13/x

The alternative to doing these things seems likely to be what is happening in Italy and other parts of Europe right now. Here is depiction of the terrible crisis happening in Italy. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30627-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30627-9/fulltext) 15/x

Projections in the US on current course are very dependent on many uncertainties. But this article gives a picture of the range of possibilities. <https://www.nytimes.com/2020/03/13/us/coronavirus-deaths-estimate.html> 16/x

We should do all in our power to change the epidemic curve in the US, and all other countries should be doing that as well. 17/x

It is very alarming to see arguments being made in favor of seeking herd immunity as a national strategy. This seems most concerning in the UK where there are top of government proponents for some kind of strategy with herd immunity as a goal <https://www.ft.com/content/38a81588-6508-11ea-b3f3-fe4680ea68b5> 18/x

Seems like that potential policy is to do all possible to protect elderly, but to forgo social distancing (closure of gatherings, telecommuting, school closures e al) w/ acceptance that COVID will spread more quickly in population, in order to get high % of UK “immune” 19/x

Terrible risks w/ that strategy. First – COVID spreading exponentially now in many countries. with 1100 cases in UK now (probably substantial undercounting) completely unmitigated exponential growth could see doubling each gen of cases... 20/x

... which would put UK at extraordinary numbers in 2 to 3 mos (or less if doubling time is faster) 21/x

Second – while protecting UK elderly should be a top goal, it wont be possible to completely hive them off from society and protect them. They will still contract disease in some numbers if millions of people get this disease in the coming months. 22/x

Third – It is not just the elderly but also those with variety of underlying med conditions that are higher risk. They will also be at very high risk in this kind of herd immunity strategy. 23/x

Fourth–not just elderly that die from COVID. Risks highest in 70s+80s, but in China, elsewhere, people in 60s, 50s, 40s 30s have also died from this disease, even if at much lower rates with decreasing age. Having millions get sick at once will lead to deaths in those ages 24/x

Fifth – impact on the UK health care system would be extreme if all this illness occurs at once. Given the experience of Italy, it seems likely that the system could become dysfunctional, preventing it from caring for others who will need it. 25/x

Lastly, we don't know enough yet about immunity after COVID. There is not confidence yet that infection would provide long lasting durable immunity to COVID 19, or a naturally occurring variant strain that emerges in the future. No guarantee of herd immunity. 26/x