



A thread by Tom Inglesby

Shared on Twitter on 3/23/2020

In last 24 hrs there've been prominent US voices calling for a stop to social distancing, citing rationale that they're worse than impact of COVID itself. It's worth looking very closely at that claim, where we are in US COVID epidemic and what happens if we stop. 1/x

COVID has been spreading w/ exponential growth in US for some time, and we're just beginning to get an understanding of how extensively. There are nearly 40,000 cases recognized in the US as of today, w/ ~100 deaths today. A few weeks ago, we had recognized 70 cases total. 2/x

Some hospitals have said publicly that within a week they will not have ventilators to treat everyone with COVID anymore. 3/x

There continue to be big diagnostic limitations. Shortages in reagents, swabs. Don't have rapid diagnostics in many hospitals yet, so it can be days before doctors and nurses can find out if a pt in front of them has COVID. 4/x

We don't have capacity to diagnose many of the COVID cases that are not sick enough to be in the hospital, so those numbers aren't counted in our national totals. 5/x

There continues to be terrible shortages in the masks that health care workers need to keep from getting sick with this disease. 6/x

How do we gain time to let hosps get more supplies & prepare for high number of pts? How do we lower the speed of spread of COVID in US? How do we lower odds that ICUs will run out of vents, hospitals run out of space? The answer for now is large scale social distancing. 7/x

In Asia, we've seen these interventions work to lower pace of the epidemic, lower numbers of critically ill, lower the number of people who get COVID. In Asia where big social distancing measures have been in place for two months, they have had very strong impact. 8/x

In Asia they've slowed the disease by slowing social interaction. Left to its own, this disease spreads from 1 person to about 2.5 people, and then they do the same, and so on. For this disease to stop, we need to make it so that the avg person spreads it to <1 other person. 9/x

These big social distancing measures take time to work. The impact of big interventions in Wuhan China took about 3 wks to start to reverse things. And then everyday after the situation got better. In the US, we're about 7 to 10 days into this, depending on the state.10/x

To drop all these measures now would be to accept that COVID pts will get sick in extraordinary numbers all over the country, far beyond what the US health care system could bear. 11/x

Many models report that health care systems will be completely overwhelmed/collapse by the peak of cases if major social distancing is not put in place. 12/x

If a health care system in a given community stops working, can no longer provide care to the ill, the case fatality rate for COVID will be far higher than 1% - we would not be able to care for some or all of the expected 5% of recognized cases that get critically ill. 13/x

Beyond that, if hospitals were completely overwhelmed, they may struggle to provide even oxygen for some or many of the 15% of recognized cases expected to be “severely ill”. let alone provide care for other life threatening conditions. 14/x

Anyone advising the end of social distancing now, needs to fully understand what the country will look like if we do that. COVID would spread widely, rapidly, terribly, could kill potentially millions in the yr ahead with huge social and economic impact across the country. 15/x

Before considering big changes to social distancing measures now, we should as quickly as possible get to strongest possible position for COVID response – we're no where near that now. We'll need rapid Dx's in place almost every location where a pt can be seen for care. 16/x

We'll need extraordinary quantity, reserve+production lines of masks, PPE so that shortages at hosps and clinical sites around country are no longer possible. We'll need to have more vents on the way. We'll need capacity to provide med care to many more that we can now. 17/x

We'll need to reduce the # of cases to such a low level that we could again do contact tracing & isolation of cases around the country (as they can in many countries in Asia now). 18/x

We will need system of screening at airports so that no person comes into the country with the disease without being diagnosed and isolated. 19/x

We'll need a serology test that can be used to identify those that have been infected and recovered already, and to know how prevalent disease is in the US. We would hopefully have therapies developed and in a quantity that we can treat at least the sickest pt w COVID. 20/x

Once we have those things in place, it would be a far less risky time to take stock of social distancing measures in place and consider what might gradually be reduced with trial and error. We would have learned more about the experience in Asia as they try to do that. 21/x

For now we need to keep production running, doctors offices working, groceries, pharmacies, banks open. It is ok to have science informed dialogue about which businesses need to be closed vs what can stay open in some way if social distancing can be put in place in them. 22/x

But we need to press ahead for now w closed schools, mass telecommuting, no gatherings, strong advisory to stay home unless you need to go out – all are needed to slow this epidemic. 23/x

We also need to put every conceivable econ program in place to help those being hurt by these social distancing measures. And move ahead rapidly to get our country far better prepared to cope w COVID before people recommend we abandon our efforts to slow this virus. 24/x