



A thread by Tom Inglesby

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This thread is about why we will need social distancing measures in the US, what the goals of them are, and the need to reject the concept of “lockdowns” by force. 1/x

New paper submitted by Ruoran Li @HarvardCCD and colleagues to medRxiv this afternoon shows experience of Wuhan in dealing with COVID in Jan and February. 2/x

On peak day of Wuhan epidemic in late Feb, there were ~9600 people seriously ill; 2087 people needing critical care/ventilators. That's beyond capacity of health care system in any US city. So we need to consider how to slow COVID-19 spread in US through social distancing. 3/x

Of note, disease control measures didn't get implemented in Wuhan until 1 mos into spread of the disease. Same medRxiv paper showed Guangzhou (a city bigger than Wuhan) had far less cases on its peak day, it had started strict disease control measures earlier in its outbreak. 4/x

The goal of social distancing in the US should be to lower the pace and extent of spread of COVID-19 in any given city or community. If that can happen, then there will be less people with disease, and less people needing hospitalization and ventilators at any one time. 5/x

It's good to think through social distancing measures as trade-offs btwn good they might do in slowing spread in a community vs societal costs of doing it. There is not much modern historical precedent for large-scale social distancing measures, so limited evidence base. 6/x

But some social distancing measures have common sense principles behind them: if you lower social interaction for a time, you will slow spread. The least intrusive social distancing measure would be staying at home if feeling ill – that obviously should be done now. 7/x

But even today there is new paper showing the substantial amount of presymptomatic transmission w COVID, showing that focusing only on isolating sick people will miss many contagious people. <https://medrxiv.org/content/10.1101/2020.03.05.20031815v1...> 8/x

Another measure would be to cancel large gatherings. There's been substantial spread in prisons, cruise ships, long term care facilities. Many people coming together from different places and closely interacting for a time creates opportunity for efficient spread. 9/x

Of course there is economic downside to cancelling large events, and other consequences to consider depending on what events are cancelled. 10/x

Another social distancing measure is telecommuting. Some portion of the US can do this at least in part. It would lower social interactions. Of course many people have jobs where they need to be go to a workplace, or they wont be paid or some critical fxn won't happen. 11/x

For social distancing to have some value doesn't mean everybody has to do same thing perfectly. It's a big country and we will need partial solutions that fit into different communities. 12/x

A 75% solution to a social distancing measure may be all that is possible, given the downside of driving toward 100% for a measure in any given place. And that is lot better than 0%, of forcing 100% solution that will fail. 13/x

School closures are a much harder decision. We know from studies in China that kids are getting infected with COVID. Fortunately so far the number of severely ill kids is very low. 14/x

But just like the other indoor environments where spread takes place, the right assumption is that schools will drive spread. Kids will infect each other and then take it home to their families, including to grownups who are much more at risk. 15/x

So there is logic to seeking ways to slow school spread down by closures for a time. Many US schools could potentially tele-educate at some level. In China that is being done around the country. 16/x

But In the US, millions of kids rely on schools for 1 or 2 meals/day. Tens of millions of families have either both parents working or are single parent families- kids being out may make it impossible for parents to work. Some US schools would also be unable to tele-educate 17/x

Local decisions need to take into account what schools look like in any given community. School closures may be feasible in once city, but very challenging in another. 18/x

In some places, perhaps some schools are closed, others are kept open or partially open to make sure kids get cared for and fed. Partial effectiveness is better than no effectiveness. 19/x

A final action to examine is "lockdowns" which is a term that is not clearly defined but is being applied to what happened in China and in Italy. 20/x

In China, in addition to work closures and school closures, people were forcibly confined to homes, most especially in Wuhan but to some extent around the country. Hundreds of thousands of workers for the government were enlisted to ensure people stayed in their homes. 21/x

The government employed people to bring food and medicines to all people's doors. Highways were blocked. Trains/planes stopped. 22/x

We don't know extent to which locking in people to their homes helped slow disease above and beyond the closure of businesses, closures of schools and other education and extensive advice to all Chinese people about the virus. 23/x

There are some news accounts that had accounts of the lockdown in Wuhan making it harder to care for the very sick, and contributing to shortages of med supplies. 24/x

In Italy the "lockdown" is different. People are encouraged to stay home, but can go out and get their groceries and other needs. Closures of public places, schools, universities and gatherings. Need to stay 6 ft apart in markets and restaurants. 25/x

In Italy, people can go out for work if needed, but need permission to move around the country. There are some threats of penalties or arrest if people violate the rules. 26/x

In US we shouldn't put in place a city, state or regional "lockdown" that confines people to homes under threat of force/or arrest. If city/pub health leader decides a city has to lower social interaction to slow spread down, it should be voluntary pact btwn gov and public 27/x

In China, the general public all understand goals of reducing spread in China. It's top level national priority. That kind of clarity is important in US. If USG tries to force people to stay in their own homes for a period of time, there could be very negative consequences. 28/x

People may need to go out to get food and meds for their families. Some people need to leave their house for their jobs to keep critical things running in a city – e.g. hospitals, police, fire, water, sewage, power, banking, delivery of groceries, pharmacies, & so much more. 29/x

Other people need to be able to make money for their families to pay rent or meet basic weekly needs. Staying entirely home for them could cut them off from their paycheck entirely. 30/x

There are people in the US who live alone or without any backup systems who depend on others to help them with care, or food, meds or health conditions. In china, we saw news stories that some of those people died in the lockdown. 31/x

A “lockdown” could also interrupt the flow of goods and materials in and out of that area. Which could be bad for health care, very bad for local economy, even get in the way of delivery of basic goods. 32/x

Taken together, the impact of forcible “lockdown” of city, state, region could cause people to lose confidence in govt, make provision of health care harder, cause major econ hardship, or be life threatening to some who lose access to food, medicine, clinic access, home care 33/x

if it becomes needed, a pub health intervention that is more like a voluntary snowstorm, where people are encouraged to stay home, but allowed out when they need to be, could accomplish a whole lot of the same benefit as a “lockdown” but without resorting to force or threats. 34/x

Going back to the goal of social distancing, slowing spread down, this will take many people working toward the same goal for a long time. The public will need to trust government over time to be doing the right thing. A forcible “lockdown” would take us in wrong direction. 35/x