A thread by **Tom Inglesby**
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As governors develop plans and timing for reopening, it's useful to take stock of where the US is compared to other countries dealing w/ #COVID19, and to examine some key numbers at the US state level. 1/

The US, as of Apr 24, had ~33,000 new daily cases as per https://nytimes.com/interactive/2020/us/coronavirus-us-cases.html Over last 2 wks, US has had a baseline of ~30,000 new cases daily, rising above and below that baseline day to day. 2/

Sadly another US baseline is ~2,000 deaths daily. So while it's a turn for the better that there's a national plateau of new cases & deaths per day, the US hasn't started a downward trend in daily cases or deaths. This virus continues to cause major US illness & mortality. 3/

At this same @nytimes site, you see that 63 countries have daily case counts rising, 72 countries have daily case counts falling, and the US is in a smaller group of countries where daily case counts are about the same each day. 4/

The US has 941K cases (4x the next closest country, Spain, whose daily counts have been falling), and the US has 53K deaths overall, about 25% of all deaths that have been recorded in world for this pandemic to date. https://coronavirus.jhu.edu/map.html 5/

On the US state level (also from @nytimes), ~50% of states have daily case counts going up, about 1/3rd states have even numbers day to day, and about 20% have daily case counts going down. 6/

Only 5 states have had consistent downward trends for 2 wks. That 2 wk downward trend is one of the Administration’s gating criteria for re-opening.

33 US states have >100 new cases daily. And 16 states have > 500 new cases daily. If you think about the work of a state’s contact tracers, imagine them having to isolate hundreds of new cases daily, and finding and quarantining thousands of their contacts. Every day. 8/

@WHO leader Mike Ryan has advised countries that the national percent positive rate in COVID testing should be 10% or less, because if it much higher it suggests that COVID cases are not being found. https://npr.org/sections/coronavirus-live-updates/2020/03/30/824127807/if-most-of-your-coronavirus-tests-come-back-positive-youre-not-testing-enough 9/
South Korea has had remarkable success in controlling COVID as compared to most other countries. At one point it had more than 800 new cases in a day. Now it is down to 10.

http://koreaherald.com/view.php?ud=20200426000109 10/x

In South Korea, the percent positive rate for the country is 3.4%. https://statista.com/statistics/1095848/south-korea-confirmed-and-suspected-coronavirus-cases/ In the US the percent positive rate for COVID testing is ~18% 11/x

In the US, only 3 states are lower than South Korea’s percent positive rate. 26 US states are higher than 10%. And a dozen US states have % positivity rate ~20% or higher.

https://covidtracking.com/data 12/x

It will be difficult for us to bring down the US curve and state curves while our percentage positive tests are this high. We need far more diagnostic testing. 13/x

@RockefellerFDN & @HarvardEthics both released compelling valuable reports which project national diagnostic testing needs betwn 3M a week (initially) and 30M tests a week, and 5M tests daily @jonoquick @dsallentess. 14/x

These are great national goals, and we are far from there now at closer to 1M tests a week. The country has done a little more than 5M tests total since this pandemic crisis started in the US. 15/x

US currently can’t test many mild or mod COVID cases. If they aren’t diagnosed, they don’t get counted, they may not get isolated, contacts aren’t traced or quarantined. We can’t break transmission chains or stop community spread until we can diagnose most everyone w/ COVID. 16/x

In addition to diagnosing everyone w/COVID symptoms—from mild to severe--mass rapid diagnostic testing availability would allow testing of people in businesses, institutional settings, schools in new ways that could make those institutions safer and open them faster. 17/x

In New Zealand, which has been highly successful in fighting COVID, only 2% of COVID occurs following community spread. But in the US, a high proportion of cases occur via community spread. We have to expand diagnostic testing to the point where we can emulate New Zealand. 18/x

For states considering plans to reopen, its important to consider if they will be able to keep up w Dx testing of likely rise in cases, and trace/quarantine contacts of those cases. If not, then they should be expanding those capabilities rapidly now before reopening. 19/x