



A thread by Tom Inglesby

Shared on Twitter on 2/17/2020

This thread relates to what we can learn from important paper published today in China CDC Weekly that describes epid characteristics of first 72,314 pts with #COVID19 in China (includes confirmed and suspected) as of Feb 11 <http://weekly.chinacdc.cn/en/article/id/e53946e2-c6c4-41e9-9a9b-fea8db1a8f51> [with my editorial notes] 1/x

Paper says all COVID19 cases must be reported to Chinese Infectious Disease Information System by local PH workers, each case has national identifier and no records duplicated. [Seems like remarkable database with power to analyze data from huge number of pts quickly.] 2/x

These 72,314 pts comprised of: 44,672 confirmed; 16,182 suspected; 10,567 clinically diagnosed & 889 asymptomatic. [Authors say PCR testing is slow, labor intensive and requires specialized skill and technicians, which is why a substantial portion don't have PCR test] 3/x

Data from the 44K confirmed cases, shows highest number of cases in the 40-70 yr old range, but shows CFR rises steadily from .4% in the 40s to 14.8% in the >80 range. 4/x

As expected, majority of cases are in Hubei province, but 25% are in other provinces around China [which does raise question about the rationale behind the comparative intensity of the measures being taken in Wuhan as compared to elsewhere.] 5/x

Overall, 14% of cases had no Wuhan related exposures [which stated a different way means that 14% of cases are through some kind of community transmission outside of Wuhan.] 6/x

Some pts had comorbid conditions: Hypertension (13%) Diabetes (5.3%) Cardiovasc Dz (4.2%) Resp Dz (2.4%) Cancer (.5%). [Surprisingly distinct from findings from early studies, they report that 74% had no comorbid conditions.] 7/x

Other notable finding: CFR was highest through Jan10th in the 14-15% range. Has come down steadily since, w/ only .8% CFR since Feb 1 [though for that more recent data, pts have not had time to recover or pass away from COVID so that complicates interpretation] 8/x

In December 2019, only 14 counties from Hubei province had reported cases, by Feb 11th 1,386 counties in all Chinese provinces had cases. 9/x

In the 422 Chinese medical facilities serving COVID19 pts, 3,019 Health care workers (which includes confirmed, suspected, clinically diagnosed, and asymptomatic) have been infected, with 5 deaths. 10/x

This fatality rate in HCWs seems to be substantially lower than overall population – [perhaps age related or less comorbidities?] Authors say there is no evidence of any “superspreading events” in Chinese health facilities. [This would be different from MERS and SARS] 11/x

Authors: COVID19 spread from 1 city to entire country in 30 days despite extreme response measures incl: shutdown of cities, cancellation of holiday festivities, prohibition of school+work; mass mobilization of med, PH, and military units; constrxn of entire new hosps 12/x

Authors conclude the epidemic curve is consistent w/perhaps several zoonotic events in Huanan market with spread from unknown animal to human, followed by increasingly efficient human to human spread. 13/x

Authors: data show downward trend in epi curve, perhaps suggesting large-scale containment measures helping to curb epidemic. Authors also note huge numbers of people to be returning for school and work soon and that China needs to prepare for a rebound in new cases 14/x