Herd Immunity - Ian Donald via Twitter

1.The government strategy on #Coronavirus is more refined than those used in other countries and potentially very effective. But it is also riskier and based on a number of assumptions. They need to be correct, and the measures they introduce need to work when they are supposed to.

2. This all assumes I'm correct in what I think the govt are doing and why. I could be wrong - and wouldn't be surprised. But it looks to me like. . .

3. A UK starting assumption is that a high number of the population will inevitably get infected whatever is done – up to 80%. As you can't stop it, so it is best to manage it.
There are limited health resources so the aim is to manage the flow of the seriously ill to these.

4. The Italian model aims to stop infection. The UKs wants infection BUT of particular categories of people. The aim of the UK is to have as many lower risk people infected as possible. Immune people cannot infect others; the more there are the lower the risk of infection.

5. That's herd immunity.
Based on this idea, at the moment the govt wants people to get infected, up until hospitals begin to reach capacity. At that they want to reduce, but not stop infection rate. Ideally they balance it so the numbers entering hospital = the number leaving.

This space is here because I am turning the text into a collaborative activity and this bit will be for comments and glosses. The text is pasted directly from Twitter unedited and was originally posted a few days ago and you might want to follow him @iandonald_psych to see where it's going.

6. That balance is the big risk.

All the time people are being treated, other mildly ill people are recovering and the population grows a higher percent of immune people who can't infect. They can also return to work and keep things going normally - and go to the pubs.

7.The risk is being able to accurately manage infection flow relative to health case resources. Data on infection rates needs to be accurate, the measures they introduce need to work and at the time they want them to and to the degree they want, or the system is overwhelmed

8. Schools: Kids generally won't get very ill, so the govt can use them as a tool to infect others when you want to increase infection. When you need to slow infection, that tap can be turned off – at that point they close the schools. Politically risky for them to say this.

9. The same for large scale events - stop them when you want to slow infection rates; turn another tap off. This means schools etc are closed for a shorter period and disruption generally is therefore for a shorter period, AND with a growing immune population. This is sustainable

10. After a while most of the population is immune, the seriously ill have all received treatment and the country is resistant. The more vulnerable are then less at risk. This is the end state the govt is aiming for and could achieve.

11. BUT a key issue during this process is protection of those for whom the virus is fatal. It's not clear the full measures there are to protect those people. It assumes they can measure infection, that their behavioural expectations are met - people do what they think they will

12. The Italian (and others) strategy is to stop as much infection as possible - or all infection. This is appealing, but then what? The restrictions are not sustainable for months. So the will need to be relaxed. But that will lead to reemergence of infections.

13. Then rates will then start to climb again. So they will have to reintroduce the restrictions each time infection rates rise. That is not a sustainable model and takes much longer to achieve the goal of a largely immune population with low risk of infection of the vulnerable.

14. As the government tries to achieve equilibrium between hospitalisations and infections, more interventions will appear. It's perhaps why there are at the moment few public information films on staying at home. They are treading a tight path, but possibly a sensible one.

15. This is probably the best strategy, but they should explain it more clearly. It relies on a lot of assumptions, so it would be good to know what they are - especially behavioural. Most encouraging, it's way too clever for #BorisJohnson to have had any role in developing.

16. Things are of course developing - I understand that the Govt are saying the idea of 'herd immunity' isn't part of their policy. It might have been better to call it community resilience. Large gatherings are being stopped and I understand the vulnerable will be quarantined.

17. The idea of school kids being used to spread the virus is badly expressed earlier in the thread. I don't think the govt are "weaponising" our children, but that at this point given they mild symptoms, infection levels and so on, there is currently no need to close schools.