Covid-19: a 3rd Wave? Or the last weak ripple of a dying virus?

By John Clancy, Visiting Professor, Centre for Brexit Studies

We couldn't see the trees for the wood – Part 1.

On 1st January 2021 the Covid-19 virus had reached almost every one of the 8,480 neighbourhoods in Great Britain. Very local case data analysis compiled here for the first time shows the rapid retreat of the virus since then across Britain.



Yesterday's data showed that as of last Thursday, 27th May 2021, *almost three quarters of Great*

Britain's neighbourhoods are effectively Covid free. In Wales, quite remarkably, **95% of their 410 neighbourhoods** are. 65% of Britain's neighbourhoods have been effectively Covid-free for the 2 weeks prior to 27th May. Astonishingly, also, almost 50% of GB neighbourhoods have now been effectively Covid-free for a month.

								27/05/2021
Weeks at 0-2	8 Weeks	7 Weeks	6 Weeks	5 Weeks	4 Weeks	3 Weeks	2 Weeks	1 Week
GB Areas 0-2 areas	2128	2540	2984	3553	4136	4727	5440	6246
%	25%	30%	35%	42%	49%	56%	64%	74%
Total Population of 0-2								
Areas	14,279,247	17,316,486	20,673,493	25,106,485	29,724,438	34,441,700	40,027,637	46,327,007
England 0-2 areas	1497	1828	2181	2667	3173	3685	4289	4953
%	22%	27%	32%	39%	47%	54%	63%	73%
Total Population of 0-2								
Areas	11,103,724	13,719,342	16,558,532	20,540,053	24,733,369	29,047,560	34,067,025	39,690,105
Scotland 0-2 areas	419	476	529	588	642	705	788	908
%	33%	37%	41%	46%	50%	55%	62%	71%
Total Population of 0-2								
Areas	1,621,368	1,859,044	2,090,864	2,349,279	2,584,969	2,851,918	3,201,917	3,698,711
Wales 0-2 Areas	212	236	274	298	321	337	363	385
%	52%	58%	67%	73%	78%	82%	89%	94%
Total Population of 0-2								
Areas	1,554,155	1,738,100	2,024,097	2,217,153	2,406,100	2,533,516	2,749,989	2,929,485
Total	2128	2540	2984	3553	4136	4727	5440	6246

The three nations of Great Britain report cases by local census areas of about 8,000 people in England and Wales (called MSOAs) and of about 4,200 people in Scotland's Intermediate Zones (called IZs).

So we can track the extent and geographical spread of cases across Britain with hyperlocal accuracy. Northern Ireland doesn't report at this local a level, so the hyperlocal data here refers to the three nations of Great Britain.

Often local authority and regional figures are unreliable precisely because they appear to show a geographical and population spread not justified by the hyperlocal data. This virus grows and shrinks hyper-locally.

The nations compile 7 day chunks of case data every day, showing how many cases in the previous week have occurred in that neighbourhood. They report as "0-2" those small case numbers, where in an entire week there have been no cases, or only 1 or 2 cases. These are the effectively Covid-free neighbourhoods. The data we have from Wales, which reports daily totals for each area, and from working out the number of supressed cases in England and Scotland from their daily national figures, shows that the majority of these areas must actually be zero covid areas in that previous 7 days. These also indicate that the vast majority of the other suppressed data areas must also be just 1-case areas.

The complex system of different nations' daily raw data publishing systems do not report by timescale across the neighbourhoods, either. Analysts have to aggregate and compile them with their own data systems, which is why they rarely get reported across time beyond a week, never mind analysed. The data architecture of millions of data points I have used, using 444 sets of daily figures for each of the 8,432 neighbourhoods, enables hyperlocal analysis of the virus spread over time, geography and populations.

I will be reporting in this blog over the next few weeks how the virus both grew and shrank, especially since last October when a second spread occurred.



Source: Professor John Clancy, BCU Business School, Centre for Brexit Studies

For today's blog I've reported briefly on the headline figures as to where we are now with the geographical presence of the virus and spread across the neighbourhoods of Great Britain. Whilst

there has clearly been an increase in Covid19 spread in some defined and distinct neighbourhoods mainly in the Bolton, Blackburn and Bedford areas (and they are falling), the rest of the country's neighbourhoods continue to be remarkably free of cases.

When we read of, say, 3,000 cases being reported in one day, if you spread that across 8,432 neighbourhoods, it's clear that the vast majority of Great Britain is unaffected.

What is most significant is the rapidity of the decline of the prevalence of the virus across Britain's neighbourhoods.

In the space of 19 weeks from last week of January when barely 3% of neighbourhoods were reporting 0-2 cases, to 20th May when 80% were, the vaccination programme was having a profound impact on the spread of cases across Britain. In just 12 weeks the 0-2 areas went from 3% to 70%.

The two biggest impact weeks came on those ending 19th February and 2nd April.

		% of 0-2 GB			
	Week ending	neighbourhoods			
Week no.	Date	MSOAs/IZs			
1	27/05/2021	73.66%			
2	20/05/2021	80.18%			
3	13/05/2021	79.88%			
4	06/05/2021	81.33%			
5	29/04/2021	78.82%			
6	22/04/2021	75.29%			
7	15/04/2021	73.75%			
8	02/04/2021	69.98%			
9	23/03/2021	57.45%			
10	15/03/2021	46.70%			
11	07/03/2021	43.81%			
12	27/02/2021	42.58%			
13	19/02/2021	34.00%			
14	11/02/2021	19.73%			
15	03/02/2021	15.37%			
16	26/01/2021	10.24%			
17	27/01/2021	6.60%			
18	28/01/2021	4.50%			
19	29/01/2021	2.88%			

So while the Covid-free areas dipped down a little in the last week, approaching 75% of Britain's neighbourhoods are still effectively Covid-free (and half of them have been for a month) despite the rather overplayed introductions of variants which, though obviously distressing for those infected and affected, do not appear from the case data to be getting any kind of serious spread momentum.

With near to zero deaths across the U.K. and no sign of rapid increases of hospitalisations, the case data would indicate that the recent increases from small bases do, in fact, constitute a last weak ripple of a dying virus.

The idea that lockdowns were a significant factor in the dying of the virus seems very far-fetched, but the impact of the vaccinations programme seems to have correlated with the sudden shrink of the virus's impacts, neighbourhood by neighbourhood.

I will be making the case again in further blogs from analysis of the neighbourhood data that the failure to treat the virus neighbourhood by neighbourhood was the problem in the first place last autumn. Regional and national shutdowns were a distraction from the need to tackle the spread at a hyperlocal level. They might have been appropriate to enable breathing space, but, in the absence of a vaccine, they were not tackling the spread, neighbourhood by neighbourhood.

We couldn't actually see the trees for the wood. We looked at the problem from a macro level even when looking at local authority and regional figures. Thankfully we can just about see the trees now, as so few areas are, thankfully, being affected by this awful virus.



If we are to be data-led on whether to end the current restrictions later this month in England and Wales (especially Wales) then there is nothing in the spread data to indicate that drastic action needs to be taken to derail the present timetable.