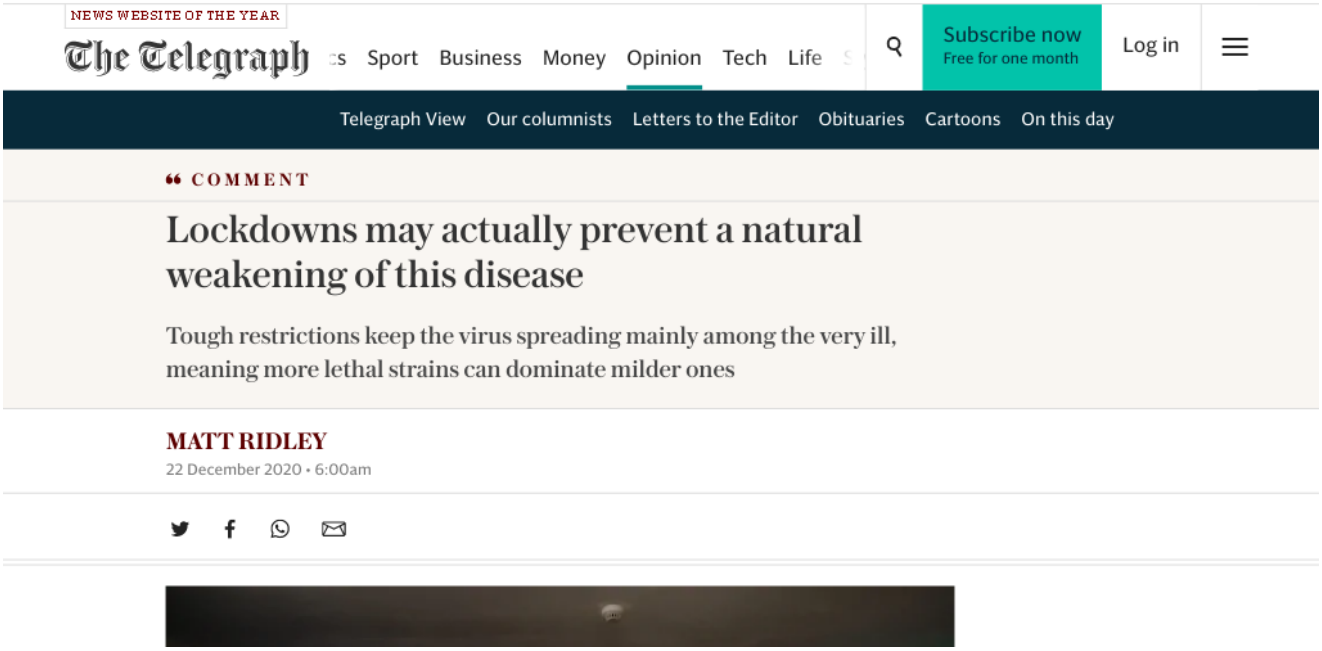
# Lockdowns may actually prevent a natural weakening of this disease



Matt Ridley 23 December 2020




Boris Johnson's fondness for the metaphor of the US cavalry riding to the rescue is risky: ask General Custer. With the vaccine cavalry in sight, and just when we thought we had earned a Christmas break, the virus has ambushed us with a strain that seems more contagious, and which is rapidly coming to dominate the epidemic in south-east England.

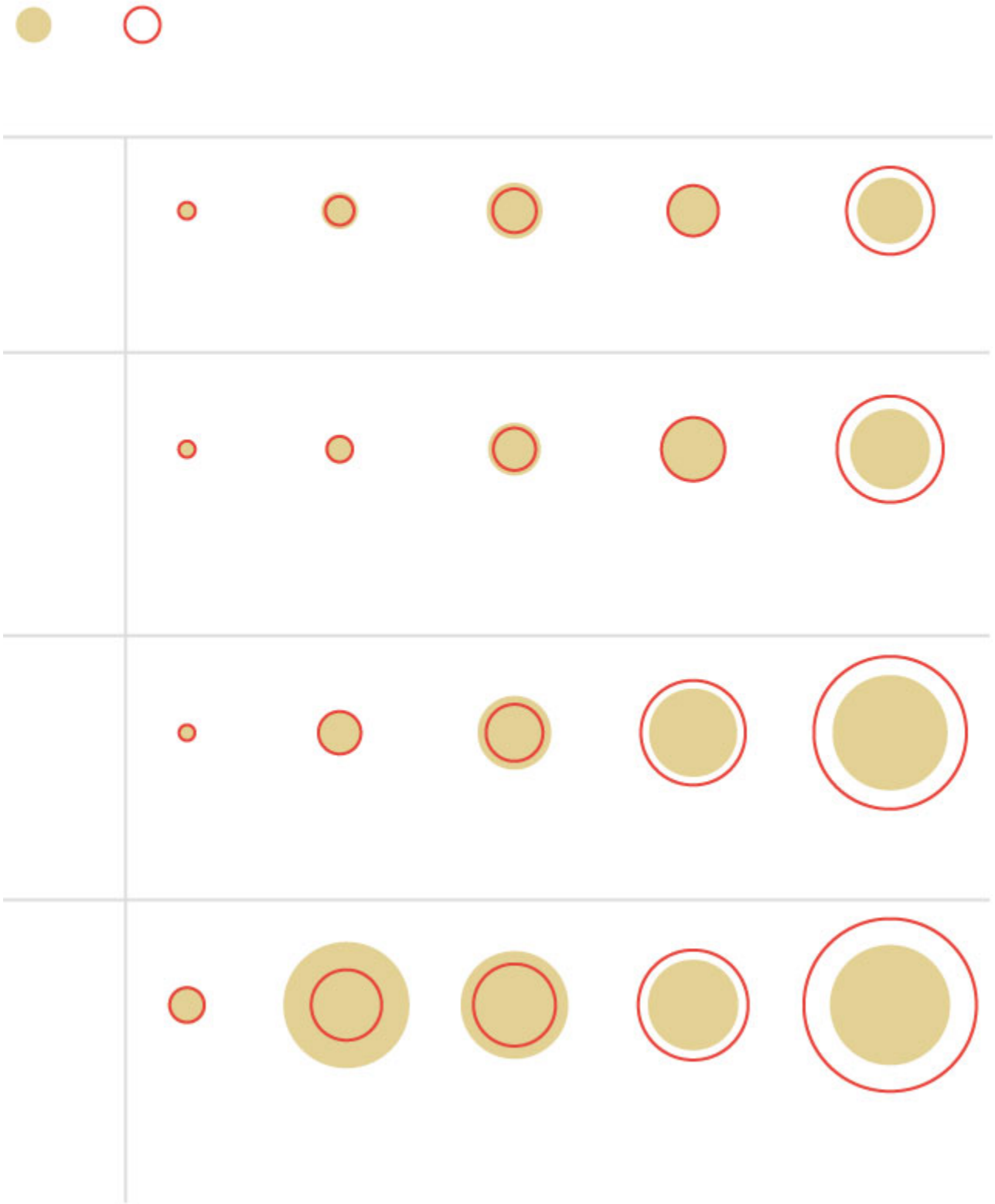
It is now a race between the virus and the vaccine as to which can get into your bloodstream first.

Lockdown sceptics are suspicious. Nervtag, the sinister-sounding "new and emerging respiratory virus threats advisory group", is dominated by people on public salaries holding the extreme view that all Covid risks must be considered and most economic, social, mental and physical effects of lockdown pretty well ignored, and they have clearly been itching to call off Christmas.

But that does not mean the new B117 strain is a myth or its danger is exaggerated. Britain does 50 times more genome sequencing of viruses than most other countries which means

that we are cursed with knowing more about these mutations but not necessarily being able to do anything about them. Most mutations, thankfully, make little difference.
This one, however, is different because an unprecedented 14 sense-changing substitutions and three deletions in the virus's genomic recipe, rather than accumulating gradually, appeared all together for the first time in a patient in Kent on Sept 20.

## Cases by specimen date age demographics



Rate of people with at least one positive Covid-19 test result (either lab-reported or lateral flow device)
per 100,000 population in the rolling seven-day period ending on the dates shown, by age.
UK
London
Sep 1
Oct 1
Nov 1
Dec 1
Dec 15
0-4
UK 6.4
London 6.8
32.2
19.8
74.7
45.9
59.9
61.2
104
182.5
5-9
UK 5.7
London 6.5
19.9
15.8
66.10
43
89.10
96.4
153.4
271.3
10-14
UK 7.3
London 6
47.8
43.5
129.8
77.8
185.9
262.8
317.4

560.1
15-19
UK 34.6
London 28.7
383.9
119.3
276.2
162.1
346.3
716.8
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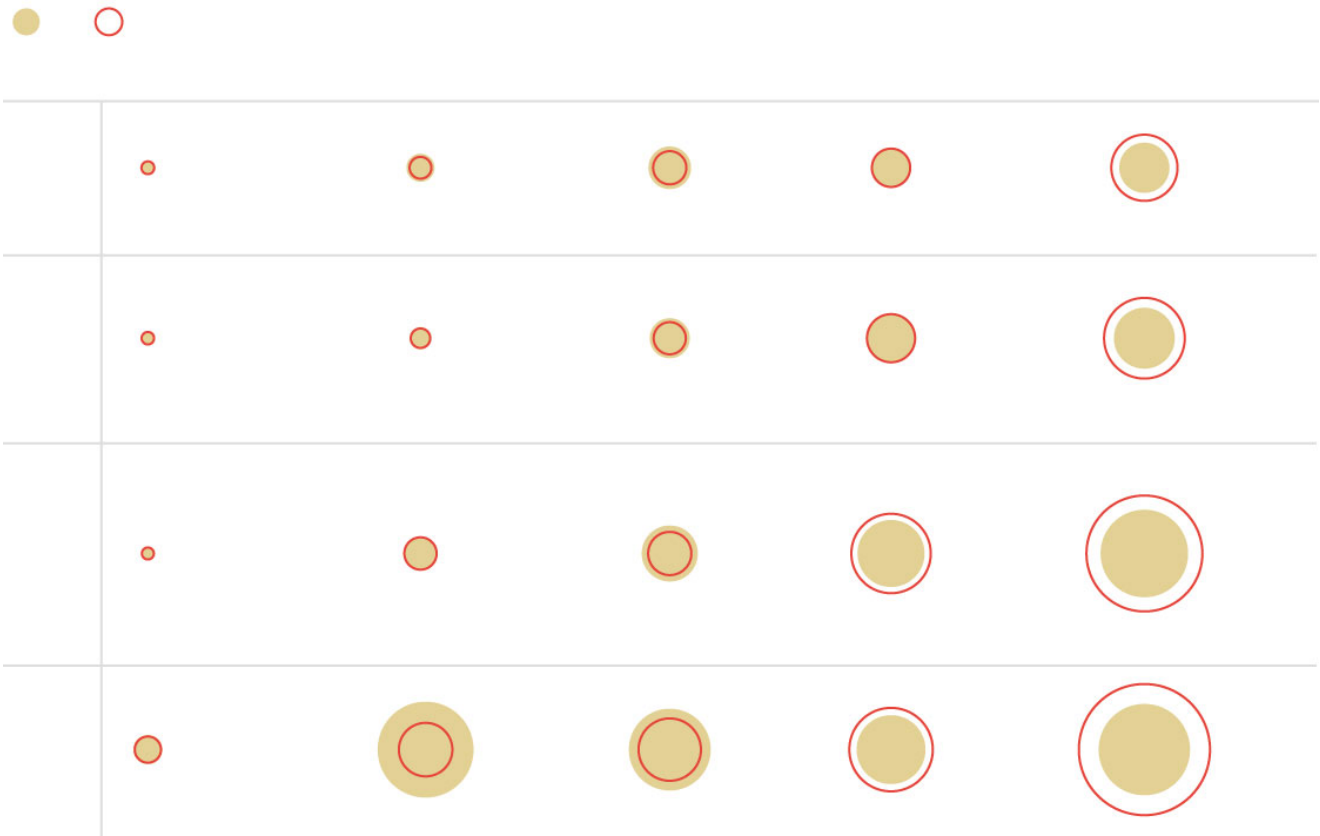
290.4



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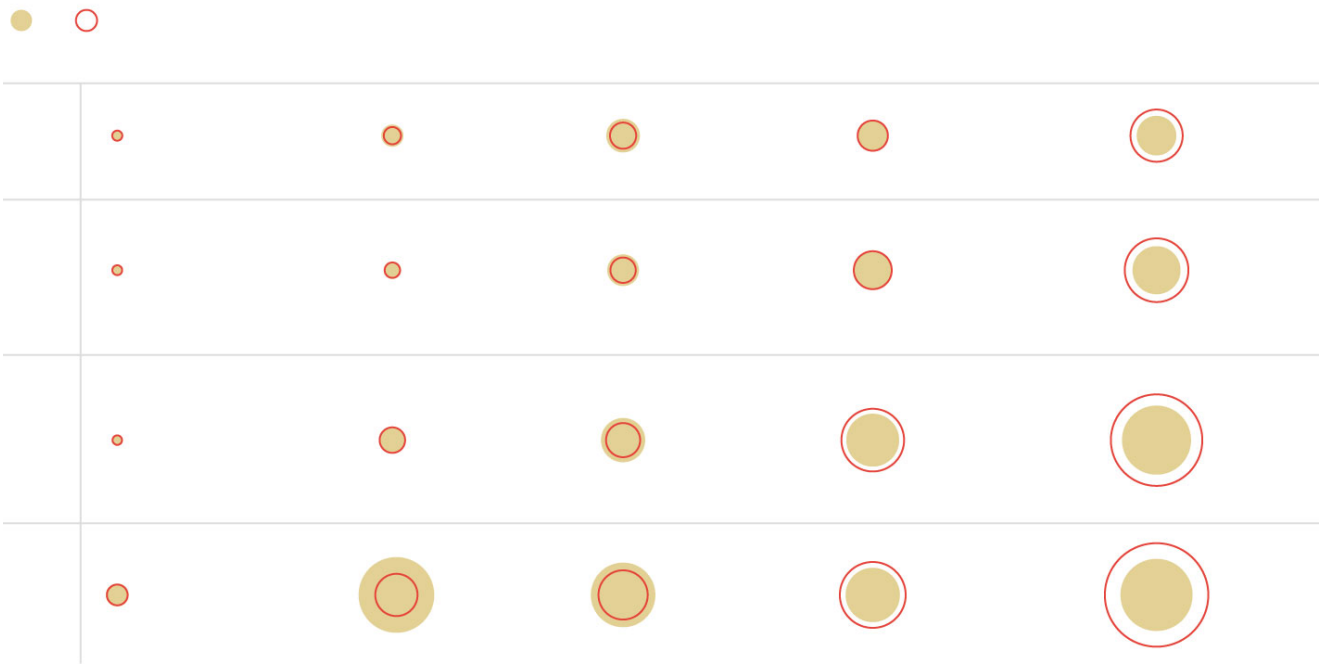

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SOURCE: GOV.UK

The explosive growth of this strain, and the fact that eight of the mutations are in the spike gene (the key that opens the locks on a cell) implies that they make the virus more contagious.

This number of changes would normally take months to emerge at the rate the virus typically evolves: it is less prone to random mutation than an influenza virus. What caused such a burst of evolution within perhaps a single body?

Here the story gets alarming. According to analysis by Andrew Rambaut at Edinburgh University and colleagues for the Covid-19 Genomics Consortium UK, such high rates of mutation have happened in people with suppressed immune systems who get a Covid infection that persists for months and are treated with "convalescent plasma" - essentially blood extracted from those who have recovered from Covid.

In a person with a deficient immune system, a large population of viruses can proliferate, mutate and diversify, and then the treatment selects a new strain from among this diversity. Essentially, the virus has a crash course in evolution. If so, this casts doubt on the wisdom of convalescent-plasma treatment, pitting the possibility that it might save a life against the possibility that it might help the virus become more infectious or lethal.

There is fortunately no evidence the B117 strain is more virulent, immune to one of the vaccines or can re-infect people who have recovered, though the last of these cannot be ruled out.

Viruses will always evolve to be more contagious if they can, but respiratory viruses also often evolve towards being less virulent. Each virus is striving to grab market share for its descendants. The best way of achieving this is to print as many copies of itself as possible while in a human body, yet not make that person so ill that they meet fewer people.

Where the sceptics have a point is that it is a worrying possibility that lockdowns could prevent this natural attenuation of the virus. They keep the virus spreading mainly in hospitals and care homes among the very ill, preventing the eclipse of lethal strains at the hands of milder ones.

If so, and it's only a possibility, then not only do lockdowns fail to wipe out the disease, they may be prolonging our agony.

We need that vaccine cavalry, and soon.

*Matt Ridley is the author of 'How Innovation Works' (Harper Collins)*