Exercise: Open Cloze
Complete the text, using one suitable word in each gap.

Germany's Covid-19 expert: 'For many, I'm the evil guy crippling the economy'

26 April 2020, The Guardian

Christian Drosten, who directs the Institute of Virology at the Charité Hospital in Berlin, was one of those who identified the Sars virus in 2003. As the head of the German public health institute's reference lab on coronaviruses, he has _____ the government's go-to expert _____ the related virus causing the current _____. In an exclusive interview, Drosten admits he fears a second deadly wave of the virus. He explains why Angela Merkel has an advantage _____ other world leaders – and why the "prevention paradox" keeps him awake at night.

Germany will start to lift its lockdown gradually from Monday. What happens next?
At the moment, we are seeing half-empty ICUs [intensive care units] in Germany. This is _____ we started diagnostics early and _____ a broad scale, and we stopped the epidemic – that is, we brought the reproduction number [a key measure of the spread of the virus] below 1. Now, what I call the "prevention paradox" has set _____. People are claiming we over-reacted, there is political and economic _____ to return to normal. The federal plan is to lift lockdown slightly, but because the German states, or Länder, set their own rules, I fear we're going to see a lot of creativity in the interpretation of that plan. I worry that the reproduction number will start to _____ again, and we will have a second _____.

If the lockdown were kept in place longer, could the _____ be eradicated?
There is a group of modellers in Germany who suggest that _____ prolonging lockdown here for another few weeks, we could really suppress virus circulation to a considerable _____ – bringing the reproduction number below 0.2. I tend to support them but I haven't _____ made _____ my mind. The reproduction number is just an average, an indication. It doesn't tell you _____ pockets of high prevalence such as senior citizens' homes, where it will take longer to eradicate the disease, and from where we could see a rapid resurgence even if lockdown were extended.

If there _____ such a resurgence, could it be contained?
Yes, but it can't happen based on human contact-tracing alone. We now have _____ that almost half of _____ events happen before the person passing on the infection develops symptoms – and people are infectious starting two days prior _____ that. That means that human contact-tracers working with patients to identify those they've been exposed to are in a race _____ time. They need help to catch all those potentially exposed as _____ as possible – and that will require electronic contact-tracing.

How close we are to _____ herd immunity?
To achieve herd immunity we need 60-70% of the _____ to carry antibodies to the virus. The results of antibody tests suggest that in Europe and the US, in general, we are in the low single digits, but the tests are not reliable – all of them have problems _____ false positives – and herd immunity is also not the whole story. It assumes complete mixing of the population, but there are reasons – in part to do with the social networks people form – why the whole population may not be available _____ infection at any given time. Networks shift, and new people are exposed to the virus. Such effects can drive waves of infection. Another factor that could impact herd immunity is whether other coronaviruses – those that cause the common cold, for example – offer protection _____ this one. We don't know, but it's possible.

Should all countries be testing everybody?
I'm not sure. Even in Germany, with our huge testing _____, and most of it directed to people reporting symptoms, we have not had a positivity rate above 8%. So I think targeted testing might be best, for people who are really vulnerable – staff in hospitals and care homes, for example. This is not fully in place even in Germany, though we're moving _____ it. The other target should be patients in the first week of symptoms, especially elderly patients who tend _____ come to hospital _____ late at the moment – when their lips are already blue and they need intubation. And we need some kind of sentinel surveillance system, to sample the population regularly and follow the development of the reproduction _____.

What is known about the seasonality of the virus?
Not a lot. The Harvard modelling group led by Marc Lipsitch has suggested that transmission might slow _____ the summer, but that it will be a small effect. I don't have better data.

Can we say for sure that the pandemic started in China?
I think so. On the other _____, I don't assume that it started at the food market in Wuhan. It is more _____ to have started where the animal – the intermediate host – was bred.

What do we know about that intermediate host – is it the "poor pangolin", as it's come to be known?
I don't see any reason to assume that the virus passed through pangolins on its way to _____. There is an interesting piece of information from the old Sars literature. That virus was found in civet cats, but also in raccoon dogs – something the media overlooked. Raccoon dogs are a massive industry in China, where they are bred on farms and caught in the wild for their _____. If somebody gave me a few hundred thousand bucks and free access to China to find the source of the virus, I would look in places where raccoon dogs are bred.

Will it be useful to identify _____ zero – the first human to have been infected with this virus?
No. Patient zero is almost certain to have acquired a virus that is very similar to some of the first sequenced viruses, so it wouldn't help us solve our _____ problem. I don't think you could even argue that it would help us prevent future coronavirus pandemics, because humanity will be immune to the next Sars-related coronavirus, having been exposed **to** this one. Other coronaviruses could pose a threat – a prime candidate is the Middle East respiratory syndrome (Mers) virus – but to understand that threat we have to study how Mers viruses are evolving in camels in the Middle East.

Are human activities responsible for the spillover of coronaviruses from animals into people?
Coronaviruses are prone _____ switch hosts when there is _____, and we create such opportunities through our non-natural use of animals – livestock. Livestock animals are exposed _____ wildlife, they are _____ in large groups that can amplify the virus, and humans have intense _____ with them – for example through the consumption of meat – so they certainly represent a possible trajectory of emergence for coronaviruses. Camels count as livestock in the Middle East, and they are the _____ of the Mers virus as well as human coronavirus 229E – which is one cause of the common cold – while cattle were the original hosts for coronavirus OC43, which is another.

Flu has always been thought to pose the greatest pandemic risk. Is that still the case?
Certainly, but we can't rule _____ another coronavirus pandemic. After the first Ebola _____, in 1976, people thought it would never come _____ again, but it took less than 20 years to do so.

Is all the science being done around this coronavirus good science?
No! Early on, in February, there were many interesting preprints [scientific papers that have not yet been peer-reviewed] around. Now you can read through 50 _____ you find something that's actually solid and interesting. A lot of research resources are being wasted.

Angela Merkel has been praised for her leadership _____ this crisis. What makes her a good leader?
She's extremely well-informed. It helps that she's a _____ and can handle numbers. But I think it mainly comes down to her character – her thoughtfulness and ability to reassure. Maybe one of the distinguishing features of a _____ leader is that they are not using this _____ situation as a political opportunity. They know how counterproductive that would be.

From where you stand, how is the UK handling the situation?
It's clear that testing was implemented a little bit too _____ in the UK. Public Health England was in a position to diagnose the _____ very early on – we worked with them to make the diagnostic _____ – but rollout in Germany was driven in part by market forces, which made it fast, and that wasn't the case in the UK. Now, though, I have the _____ that the UK is really gaining momentum in this regard, and that it is coordinating testing efforts better than Germany.

What keeps you awake at _____?
In Germany, people see that the hospitals are not overwhelmed, and they don't understand why their _____ have to shut. They only look at what's happening here, not at the situation in, say, New York or Spain. This is the prevention paradox, and for many Germans I'm the evil guy who is crippling the _____. I get death _____, which I pass _____ to the police. More worrying to me are the other emails, the ones from people who say they have three kids and they're worried _____ the future. It's not my fault, but those ones keep me awake at night.

<https://www.theguardian.com/world/2020/apr/26/virologist-christian-drosten-germany-coronavirus-expert-interview> (13 May 2020)

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Christian Drosten, who directs the Institute of Virology at the Charité Hospital in Berlin, was one of those who identified the Sars virus in 2003. As the head of the German public health institute's reference lab on coronaviruses, he has **become** the government's go-to expert **on** the related virus causing the current **pandemic**.
In an exclusive interview, Drosten admits he fears a second deadly wave of the virus. He explains why Angela Merkel has an advantage **over** other world leaders – and why the "prevention paradox" keeps him awake at night.

Germany will start to lift its lockdown gradually from Monday. What happens next?
At the moment, we are seeing half-empty ICUs [intensive care units] in Germany. This is **because** we started diagnostics early and **on** a broad scale, and we stopped the epidemic – that is, we brought the reproduction number [a key measure of the spread of the virus] below 1. Now, what I call the "prevention paradox" has set **in**. People are claiming we over-reacted, there is political and economic **pressure** to return to normal. The federal plan is to lift lockdown slightly, but because the German states, or Länder, set their own rules, I fear we're going to see a lot of creativity in the interpretation of that plan. I worry that the reproduction number will start to **climb** again, and we will have a second **wave**.

*If the lockdown were kept in place longer, could the **disease** be eradicated?*
There is a group of modellers in Germany who suggest that **by** prolonging lockdown here for another few weeks, we could really suppress virus circulation to a considerable **degree** – bringing the reproduction number below 0.2. I tend to support them but I haven't **completely** made **up** my mind. The reproduction number is just an average, an indication. It doesn't tell you **about** pockets of high prevalence such as senior citizens' homes, where it will take longer to eradicate the disease, and from where we could see a rapid resurgence even if lockdown were extended.

*If there **were** such a resurgence, could it be contained?*
Yes, but it can't happen based on human contact-tracing alone. We now have **evidence** that almost half of **infection** events happen before the person passing on the infection develops symptoms – and people are infectious starting two days prior **to** that. That means that human contact-tracers working with patients to identify those they've been exposed to are in a race **against** time. They need help to catch all those potentially exposed as **quickly** as possible – and that will require electronic contact-tracing.

*How close we are to **achieving** herd immunity?*
To achieve herd immunity we need 60-70% of the **population** to carry antibodies to the virus. The results of antibody tests suggest that in Europe and the US, in general, we are in the low single digits, but the tests are not reliable – all of them have problems **with** false positives – and herd immunity is also not the whole story. It assumes complete mixing of the population, but there are reasons – in part to do with the social networks people form – why the whole population may not be available **for** infection at any given time. Networks shift, and new people are exposed to the virus. Such effects can drive waves of infection. Another factor that could impact herd immunity is whether other coronaviruses – those that cause the common cold, for example – offer protection **to** this one. We don't know, but it's possible.

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