



7th Ad-hoc Statement – 08 December 2020

Coronavirus pandemic: Use the end of year holidays to impose a strict lockdown

Current developments with regard to the coronavirus pandemic are a cause of major concern. Despite the prospect of vaccinations commencing in the near future, from a scientific perspective it is essential to impose a strict lockdown in order to rapidly and significantly reduce the number of new infections, which is still far too high. The lockdown should be implemented in two steps and apply to all of Germany. From 14 December 2020 onwards, pupils should not be obliged to attend school in person, and everyone who can work from home should be urged to do so. In addition, from 24 December 2020, all shops which do not supply food, medication, or other essential items should be closed. Social contacts should be reduced to a very small circle.

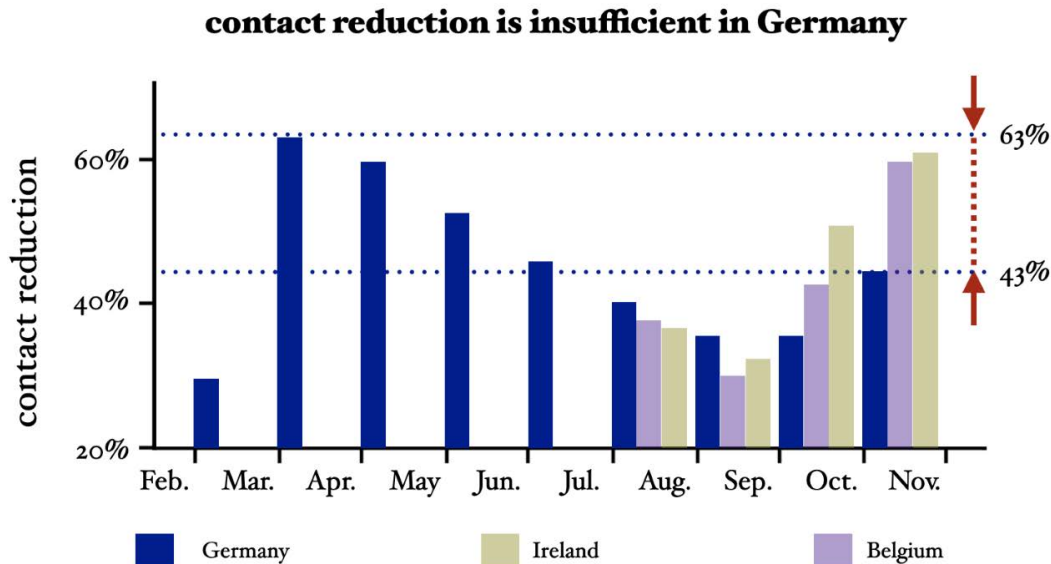
The current situation is highly precarious and threatens to deteriorate further. Despite the partial lockdown which was introduced at the start of November, infection numbers are still far too high. An increasing number of elderly people are becoming infected. In the last seven days, more people have died with the coronavirus than died in traffic accidents throughout 2019. Hospitals, and in particular medical staff, are already at the limit of their capacities. The health system and major hospitals are not designed to cope with such high and prolonged demand. The health authorities, which play a key role in controlling the pandemic on a local level, are overburdened. In many cases, effective contact tracing is no longer possible. Quarantine measures are often no longer implemented.

Taken together, these are very unfavourable starting conditions for the holiday period and the winter time. We as a society need to develop a clear approach for dealing with the coming months. Present measures, even if repeatedly extended, are not sufficient. Nevertheless, these measures come at a high social, economic, and psychological cost.

Christmas and the New Year period, as a time of traditionally intense social contact, threaten to lead to a further deterioration of the situation. However, as a time when the economy and society slow down, this is also an opportunity to take a major step forward. Education institutions are closed for Christmas holidays, many companies significantly reduce production, and government institutions are mostly closed. These conditions can help to bring the pandemic under control, as long as we also exercise great caution and consideration in the private sphere.

The reduction in the number of contacts in Germany is not sufficient

As the following graph shows, the effectiveness of the current partial lockdown lags significantly behind that of the first lockdown. The first lockdown in spring achieved a 63% reduction in contacts in Germany. During the current lockdown, the reduction has been only around 43%. Countries which have also managed to achieve a high reduction in contacts during their second lockdown, such as Belgium and Ireland, have been more successful in reducing infection numbers.



The dynamic model which forms the basis of the graph depicts the trend in infections over time and takes into account the feedback mechanism between the infection trend and the changes in behaviour (B. F. Maier & D. Brockmann, Science 368 742, 2020). The trend concerning contact reduction is a predictive aspect of the model and is confirmed by empirically determined values.

A two-step approach is recommended.

From 14 December 2020, the following should apply:

- both professional and private contacts must be reduced to an absolute minimum,
- wherever possible, people should work from home,
- from this time until the start of the Christmas holidays, pupils should not be required to attend school in person,
- all group activities in the areas of sport and culture must be suspended,
- wherever possible, digital services should replace face-to-face contact.

From 24 December 2020 until 10 January 2021 at the earliest, public life throughout Germany should be restricted as much as possible. In other words, a stricter lockdown should be put in place.

This would additionally entail:

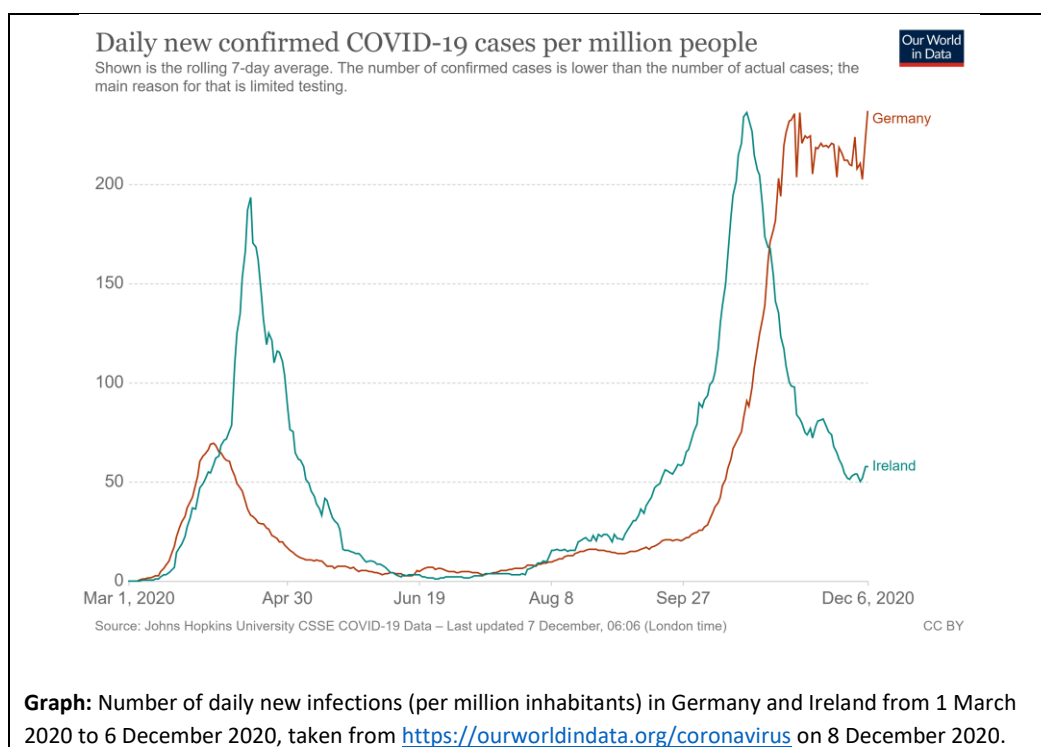
- closing all shops during this period, except for those providing essential services,
- extending the Christmas holidays for education institutions until 10 January 2021,
- completely prohibiting travel for tourism purposes and large gatherings throughout this period,
- reducing social contacts beyond one's own household to a minimum.

The most effective strategy would be to avoid all social contacts outside one's own household. However, for many people it would be a major social and psychological burden not to see immediate

family members or other very close contacts during the holiday period. Religious services are also important to many people at this time. However, it is essential to be aware of the risks and adhere to the following rules:

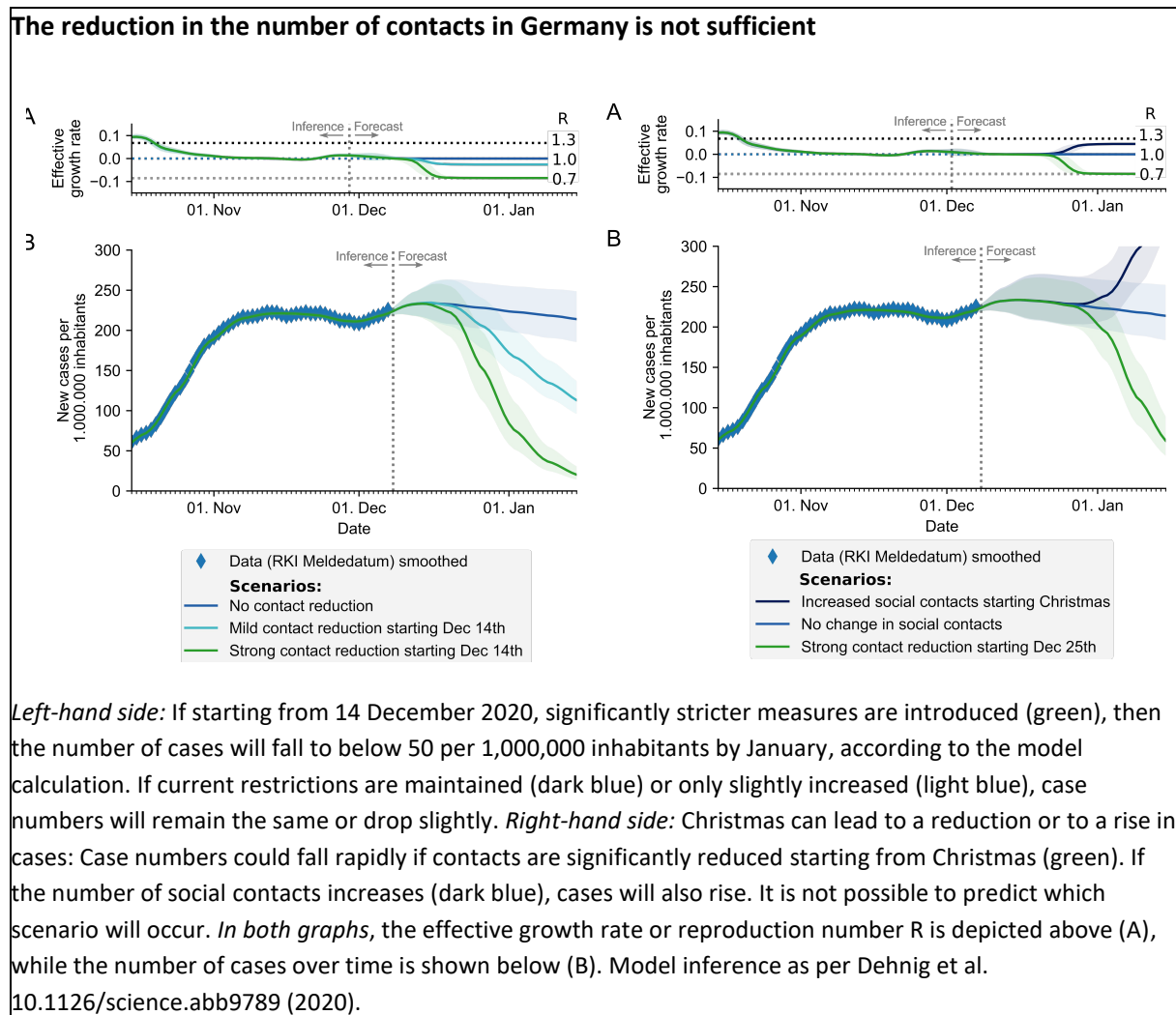
- Throughout the holiday period including New Year's eve, social contacts should be restricted to a very small, clearly defined and unchanging circle of family members or friends.
- There should be clear agreement in advance as to how the individuals in this small circle will protect each other.
- The most effective means of protection against the virus are a mask covering face and nose, physical distancing, hygiene, and ventilation (fresh air intake). It is particularly important to follow these rules even with one's closest contacts. Moreover, joint activities should take place outdoors whenever possible, while crowds, groups, and situations involving loud speaking or singing should be avoided completely.
- Anyone meeting persons from high-risk groups, such as the elderly, must exercise extreme caution. This means, in particular, self-isolating for 10 days in advance and, throughout the time spent together, maintaining distance as much as possible, as well as wearing a mask over the mouth and nose, and ensuring good ventilation.
- Even in the case of mild illness symptoms, including cold-like symptoms, all social contacts should be avoided for at least five days for the sake of protecting others.
- Rapid antigen tests on their own are not a reliable form of defence against the virus for the holidays, as they provide only a snapshot of the current viral load in the person tested. A negative result from such a test is only valid for about one day.

Experience from many other countries (e.g. Ireland) during the pandemic shows that swiftly implemented, strict measures over a short period of time are a great help in reducing infection numbers.



Stricter measures also make sense from an economic perspective. Admittedly, in the short term, a stricter lockdown will lead to reduced value creation. However, it will also shorten the time until new

infections have reached a sufficiently low level as to enable the relaxation of restrictions. It makes sense to aim for a reproduction number of around 0.7 – 0.8. Without a stricter lockdown during the holiday break, there is a risk that the current restrictions will have to remain in place for several months. This would entail not just a loss in value creation, but also put severe strain on the public budget, as shutdown businesses need temporary financial aid.



Once a significant reduction in infection numbers has been achieved, it is essential in the following weeks and months to follow a clear strategy to keep numbers low. If the number of new infections is kept under control, then it becomes possible, under certain conditions, to resume economic and other activities in society.

It is vital to establish lasting political consensus on a clear, multi-level, and nationally standardised system of rules that applies once a certain number of cases per 100,000 inhabitants is exceeded. This system should include measures which are consistently implemented and enforced, including penalties for non-compliance. Such a standardised, comprehensible and long-term approach will provide transparency to citizens and businesses and enable them to plan accordingly.

When teaching resumes in schools after the winter holidays, all pupils throughout Germany should be required to wear a mask covering mouth and nose, regardless of age. National regulations for remote learning from secondary level upwards should also be developed and implemented, if a

certain rate of infection is reached. It is important that children who cannot learn at home have alternative places to go during phases of remote learning.

The functionality of the Corona Warn App should be expanded, for example by enabling users to voluntarily share additional data. Moreover, it is desirable to use the localisation function of smartphones in order to quickly see the rate of infection and the applicable behaviour rules in a certain area.

Efforts to fight infections with digital means should be increased as well. It is particularly important to have suitable digital equipment and infrastructure for public health authorities.

It is also important to ensure that the measures and reasons behind them are communicated frequently and effectively. This means to tailor the message to different target groups and to make sure that the relevance to everyday life is understood. Clear and motivating reminders of the existing rules should also be clearly visible in public spaces. Alongside government organisations, additional stakeholders should also be involved in providing information, e.g. employers, health insurance companies and civil society organisations.

If these measures are implemented consistently, many additional deaths and severe COVID-19 illnesses can be prevented. This would give good reason to feel optimistic as the year ends that vaccinations in the coming year will be a major step forward in bringing the pandemic under control. Decisive, solidarity-based action is required.

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