How to Increase Survey Response and Manage the Postal and Face-to-Face Field Work of Participant Recruitment during the Covid-19 Pandemic:

A Note with Preliminary Evidence from Immigrant-Origin and Native Voters in a German Metropolis in Spring 2021

Achim Goerres, University of Duisburg-Essen, Corresponding Author, Achim.Goerres@uni-due.de

Jonas Elis, University of Duisburg-Essen

Sabrina J. Mayer, University of Duisburg-Essen and DeZIM Institute Berlin

Dennis C. Spies, Heinrich Heine University Düsseldorf

This Version 1.0, 24 May 2021

Abstract

This note presents preliminary evidence from a postal and face-to-face recruitment field for a telephone survey during the Covid-19 pandemic. Drawn from the city register of Duisburg, a metropolis of 500,000 inhabitants, voters eligible for the September 2021 Bundestag elections are the target population. They are stratified into four groups by onomastic classification: native Germans, Germans of Turkish Descent, Germans with a (Post-) Soviet background and Germans of any other immigrant origin. This note presents ten measures of optimising the recruitment of individuals from these four groups under the constraints of an all-encompassing high-incidence pandemic with distance measures and curfews in place, with closed shops and schools and reduced other care facilities. In addition, the report puts forward statistical analyses of some measures applied in an experimental design and estimates the overall and per-person-recruited costs.

Overall, the pandemic forced us to make drastic changes to research design and field organisation and to invest much more time and money than planned. Especially overburdened postal deliveries and restrictive policies for public places made the endeavour most difficult. So far, the ongoing fieldwork has produced a response rate of 8.2 % (only individuals willing to participate in telephone interview) with 11.0 % as a likely expected outcome. One individual recruited to take part in the telephone panel survey costs an estimated 53-71 €.

Early-bird incentives produced a positive response (meaning the willingness to partake in the survey) of 5.5 % compared to 4.0 % among those without early-bird incentives. The most effective measure to boost overall positive response among initial non-responders was in-person canvassing with unconditional incentive (21.3 %) instead of postal reminders (9.9 %). Canvassing a smaller group of people in person proved to be as costly as reminding a larger group of people in writing: we estimated costs of 60-61 € per additionally recruited survey participants through either channel.

The project is funded by the German Research Foundation (grant number GO 1833/7-1). We thank Rainer Schnell for advice at various stages of the project. The Immigrant German Election Study II can be followed online at <http://bit.ly/imges2> Please let us know what you think by sending e-mails to the corresponding author.

Principal Investigators of the grant: AG, SJM, DCS; Research design of the survey: AG, SJM, DCS; Field Management: JE; Design Contact letters: JE, SJM; Design and Execution of Trainings: AG; Data preparation: JE; Statistical Analysis: AG, JE; Conception and first draft of the paper: AG; final draft of the paper: AG, JE, SJM, DCS.

Introduction

This note presents our preliminary findings from collecting survey data from a complex random sample in a German metropolis in spring 2021 during the pandemic. The objective of this note is to publish our findings, positive and negative, as quickly as possible in order to help other survey researchers during the Covid-19 pandemic. Evidence and citations will thus be minimal. Whereas this first version will include preliminary empirical results: some simple experiments and some univariate and bivariate observations, later iterations of the note will include more sophisticated analyses. The survey is still in the field during the time of this note's first publication (24 May 2021).

For this study, we have employed the ten measures to recruit participants into our telephone panel survey between the end of March and the end of May 2021 with the telephone survey scheduled for June to October 2021. These ten measures do not represent the full area of decisions to maximise recruitment, but the ones that were most affected by the pandemic.

First, we will present the Immigrant German Election Study II for which the recruitment was carried out. Then we will discuss each measure in turn, revealing things that have and have not worked, and estimate, if possible, its causal impact on increasing the willingness to participate in the survey. Finally, we compare some of the roughly estimated costs.

Overall, the pandemic forced us to make drastic changes to research design and field organisation and to invest much more time and money than planned. The field work has produced a response rate of 8.2 % so far. One individual recruited to take part in the telephone panel survey costs an estimated 53-71 €. Early-bird incentives produced positive response (meaning the willingness to partake in the survey) of 5.5 % compared to 4.0 % among those without early-bird incentives. The most effective measure to boost overall positive response among initial non-responders was in-person canvassing (21.3 %) instead of postal reminders (9.9 %). Canvassing a smaller group of people in person proved to be as expensive as reminding a larger group of people in writing: we estimated costs of 60-61 € per additionally recruited survey participants through either channel.

Description of the Immigrant German Election Study II

The project, in which we have made these experiences, is the Immigrant German Election Study II (<http://bit.ly/imges2>). It has been financed by the German Research Foundation since April 2021 and consists of a panel survey of German citizens living in Duisburg, aged 18 and older, at the 2021 Bundestag election that is scheduled for 26 September 2021. The objective is to follow German voters of immigrant origin and natives through the built-up of the electoral campaign, the campaign itself and after the election.

Duisburg, a city of 500,000 inhabitants that forms the most Western part of the Ruhr Valley, an agglomeration of 10 million people in North Rhine Westphalia, Germany's most populous state. Duisburg is a very diverse city with 44 % inhabitants who are foreigners or who are first or second generation immigrant German citizens (Ministerium für Kinder, Familie, Flüchtlinge und Integration NRW 2020: 20). Duisburg is socially an unequal city with a richer South bordering with the state capital Düsseldorf and a poorer North. It includes some suburban areas, especially left of the River Rhine as well as highly densely-populated inner city areas.

For all the time of the project so far, the Covid-19 pandemic was rampant in Duisburg (with an incidence level above the North Rhine-Westphalian mean) with self-tests but no vaccination yet available to staff and public life shut down. When we started our fieldwork on 24 March 2021, the 7-days incidence level per 100.000 inhabitants was 157.8. It then steadily rose to a maximum of 243.6 on 25 April declining afterwards to 66.6 today (24 May) (Corona in Zahlen 2021). Within Duisburg, there were stark differences reflecting the robust correlation between

Covid-19 numbers and social deprivation. For example, in the week 12-18 April the 46 boroughs showed a range of incidence levels between 33.2 (Rahm) and 514.2 (Alt-Hamborn) with a mean of 186.5 and a standard deviation of 109.2 (Data original from the City of Duisburg, provided by Infas 360 2021).

Originally, before Covid-19, the research design implied a stratified random sample of immigrant-origin and native voters from the resident population:

- (a) of first and second generation immigrant-origin voters with a Turkish background (Turkish Germans),
- (b) first and second generation immigrant origin voters from the Soviet Union or one of its successor states (Russian Germans) and
- (c) voters with no migration background who can be third or higher-order generation immigrants (natives).

To this end, we requested 70.000 addresses of German citizens born 26 September 2003 or earlier from the city registration office. By means of onomastic classification, we wanted to identify individuals as natives, Turkish Germans, Russian Germans or Germans of a different immigrant background. About 55.000 people were classified as Native Germans, 6.864 as of Turkish Origin, 1.854 as Russian Germans and 6.848 people as of other immigrant origin. According to our original plan, we would have drawn sub-samples of three groups, neglecting the group of Germans of other immigrant backgrounds. We then wanted to interview each individual four times, a long face-to-face interview after a short info letter announcing that the interviewers would drop by, in the respondents' home of about 60 minutes. In that initial interview, we wanted to collect a lot of time-invariant variables. Finally, we wanted to switch the survey mode to phone interview and collect time-variant information in three waves in June – August – October.

Measure 1: Drop face-to-face interviews as the initial survey wave

There was no possibility of doing face-to-face interviews in people's homes in spring 2021 in Germany. There were restrictions in place: a limited number of individuals that were allowed to meet, minimum physical distance of at least 1.5 m, mandatory medical masks in public transport and supermarkets, closed shops and restaurants except for bare necessities. We thus had to change our survey design completely and drop the initial face-to-face interview, replace it with a minimal written survey and move many more questions to the phone interviews.

We thus started with a contact letter inviting people to the survey that included a minimal initial written survey. This initial survey included questions about where the respondents had been born in order to assess whether they had been correctly classified. At this point (would matter less later), it was still possible that a wrongly classified individual could be dropped from the survey as overcoverage if they were classified to belong to the group of voters of another immigrant origin

The invitation to be part of the survey could be filled out via paper and pencil and sent back by pre-paid letter or online by means of a QR code or shortened URL that asked for the entry of a token. There was a high number of returns by post (~1,700) compared to online (~650) across all reminders.

Measure 2: Provide a local landline number associated with the university and contact person for questions

In all letters, we included a Duisburg landline number of the university and university e-mail address that people could contact if they had any questions. This landline number was called by approximately 120 respondents in 10 weeks and the call transferred to the mobile of the

field manager Jonas Elis. About 20 of the callers could be converted to take part in the study. Another 70 callers informed us about a change of residence, death, disability or other kinds of nonresponse of a contact/target person, the rest were hard rejections. The e-mail address provided was contacted by 20 individuals in 10 weeks.

Measure 3: Soft-launch of about 12 % of our original sample with additional test letters and without early-bird incentives

We worked together with the university printing services to create the multiple-page contact letter including a response envelope. These letters were then sent out to the Duisburg addresses with the postal provider Postcon. We drew a stratified random sample from our target samples with about 1,000 persons-registered-at-addresses and send their first-contact letters out early. Also, we included some additional test letters to work colleagues not in our sample. By this, we wanted to test the various complex organisational processes, printing and posting, and see when the letters would arrive and in what state they would be in.

This soft launch revealed a major problem with the delivery. Recall that the letters were sent out from a Duisburg address only to Duisburg addresses. This would normally require one working day maximum. However, it took Postcon more than one week to deliver the first 1,000 letters (and we do not have 100 % proof that they sent out all). Due to the security measure of the additional test letters, we quickly learnt about the problem and could escalate the problem with Postcon. Their internal investigation found that their delivery infrastructure for some parts of Duisburg had failed due to illnesses (possibly related to Covid-19). Recall that this was a period of increased postal circulation because people ordered more online, and small-scale deliveries would go through the mail system. Throughout the postal process, we subsequently had a level of uncertainty about deliveries and their dates.

We then sent out the full launch, totalling 3,000 individuals classified as natives, 3,000 individuals classified as Turkish Germans and all Russian Germans from our sample (about 1,700 in total), including an early-bird incentive.

Measure 4: Early-bird incentive

Of those treated with an early-bird incentive (a 5 € gift card from Amazon) for getting back to us by a set date about two weeks after the posting of the letters, 550 out of 7700 (7.1 %) individuals responded, among which 420 with the willingness to participate (5.5 %). This is significantly higher than the response rate of 4.0 % among those who had not received the promise of an early bird-incentive ($p=.023$ of a one-sided test). This is not much of a difference and its small size could have been due to problems with postal delivery. Apparently, some people received their letter one day before the deadline of the early-bird incentive. Postcon, normally a reliable provider for commercial services, had been severely hampered by Covid-19 related consequences on its staff. The early-bird incentive, normally an efficient way of increasing response, had not fully delivered. However, it remains a relatively cheap measure, even when hampered by unreliable postal delivery, as the cost estimates further down will demonstrate.

Measure 5: Reminding by letter and by postcards

As is common practice, we reminded all target individuals in writing except for a sub-sample of about 2,000 individuals who were selected for in-person canvassing. The first reminder was a similar letter with response envelope to the initial letter. The second reminder was simply a postcard. Reminders were sent out if we had not heard anything from the target person.

Table 1: Returns for postal reminders

Group	Number of target individuals who had not answered by the time of the 1 st reminder	Number responses	% of targeted who responded
All individuals	6,369	700	11.0
Natives	3,157	438	13.9
Turkish Germans	2,406	184	8.0
Russian Germans	806	78	9.7
Other Immigrant-Origin Germans	Not available yet		

The first reminder proved to be successful and brought additionally 700 responses. This represents 11.0 % of all respondents who received a postal reminder. Almost all responses (9.9 %) were positive, i.e. the individuals agreed to participate in the following surveys. As expected, the response rates were significantly lower among immigrant-origin individuals with the difference between the two groups too small, too be statistically significant ($p=0.132$ of a two-sided test).

Individuals who received postal reminders were all individuals classified as having no migration background. For the two groups of immigrant-origin voters, we drew a random sub-sample from all those individuals who had not answered yet. The other part of this group received in-person canvassing. We will present our analysis of this difference in modes in the next section.

Measure 6: In-person canvassing with unconditional incentive among an immigrant-origin sub-sample

We were expecting a low response rate because of the pandemic. People spent more time at home, but they were more stressed, some had less time because of massively increased care responsibilities with children being home-schooled in full or partially during that period. We saw a particularly low response rate among the Turkish Germans and Russian Germans after the first weeks that we had also expected. We thus decided to design a strategy to safely canvass respondents whom we had not heard from at their doorstep, train a group of interviewers and equip them in time with the necessary material.

We decided to visit each person only once (because these visits were so expensive), and to leave a personalised note from the interviewer (“Achim Goerres visited you on 12 April at 14:30 and could not talk to anyone from your household”) whenever the interviewer met no one in the household. Also, we left the same reminding material that was sent out to all other people either directly with the target person or the contact person and an unconditional incentive of 5 € in the form of a bill. We focused our endeavours with a few exceptions on Turkish Germans and Russian Germans. Interviewers filled out a contact protocol online through their smartphone after each visit using tokens for the target person.

In total, 17 interviewers were trained to canvass during this hot phase of the pandemic. The interviewers consisted of three researchers and 14 student assistants. The student assistants were either employed by the universities on hourly contracts or received a project-based one-off payment.

Spies, Elis and Goerres, who were based locally, went first into the field to canvass for 1 full day to 2.5 full days each. We did this in order to optimise some of the routines, such as improving the online protocol, and in order to lead by example. We wanted to show those working for us that we were exposing us to the same risks and risk-mitigation protocols while canvassing as them.

The training consisted of four hours of online training in the evening and four hours of face-to-face training on campus. The face-to-face training was scheduled for the end of March 2021. At that time, all social meetings were prohibited. We could legally meet only outside, on university premises for a work-related meeting that could not be replaced by a virtual meeting. We designed a set of 26 vignettes with all potential constellations of meeting and not meeting target persons in the field. Canvassers practiced in groups of three with special attention to dialogues through the intercom without face-to-face interaction and unusual situation arising from the pandemic.

We had no blueprint as to managing fieldwork during a pandemic. Most importantly, we were uncertain about the risks of talking to people face-to-face in doorways and staircases. On 18 May 2021, after our canvassing operation had been finished, there was a pandemic break-out of 26 infected people due to sharing the elevator in sequence in a high-riser in Velbert near-by (WDR 2021). This event demonstrates how real the danger of infection in halls and doorways had been.

We were also uncertain about the development of the pandemic and the variation of that danger across Duisburg. We thus decided for the following set of security measures against the pandemic itself and its psychological consequences:

- canvassers had to wear masks on public transport and whenever indoors in doorways or entrance halls
- canvassers were not allowed to enter into individual apartments
- canvassers had to self-test before starting a canvassing stint
- canvassers had to disinfect their hands in regular intervals
- canvassers were trained about how to deal with aggressive behaviour
- canvassers were asked to contact the field manager in case of danger or any questions
- canvassers and the project team shared an instant messaging group to share experiences

Canvassers received batches of 20 persons-registered-at-addresses that were in the same postcode area. They received no digital transmission of personal data and had to pick up these batches from university premises. They were also provided with the 20 addresses, without names, digitally, so that they could plan their trips in an efficient way. They had been shown how to use a freely accessible online platform that allowed addresses to be imported from digital lists and flagged on digital maps. They were required to delete all these addresses after finishing their tours.¹

The composition of batches per interviewer followed the logic of equal risk-sharing. We knew that the Covid-19 incidence rates in Duisburg varied massively by socio-economic composition of the boroughs (unemployment rate from 2011 census and Covid-19 incidence rates from 10 March 2021). We thus tried to equip each interview with a mix of batches from low- and high-SES areas. To that end, we compiled an index per postcode of social deprivation.

In-person canvassing proved to be highly effective (see Table 2).

¹ Canvassers were also provided with carefully researched publicly accessible bathrooms since all bars, shops, restaurants and libraries were closed. Most of these toilets proved to be closed, too. While in the field, accessible bathrooms at gas stations and cemeteries were identified.

Table 2: Returns for in-person canvassing

Group	Number of target individuals who had not answered yet	Number responses	% of targeted who responded
All individuals	2,010	610	30.3
Natives	70	36	51.0
Turkish Germans	970	276	28.0
Russian Germans	970	298	30.7
Other Immigrant-Origin Germans	Not canvassed		

A response means the target person has filled out the contact questionnaire online or via returning post. It does not mean the canvasser spoke to the target person.

We concentrated our canvassing efforts on the two main groups of immigrant-origin voters. Only 70 natives were canvassed, but producing a response of 51.0 %. Among 970 Turkish Germans, we reached a response rate of 28.0 %, and from 970 Russian Germans a response rate of 30.7 %. The general response rate was 30.3 %, only counting positive responses, willingness to take part, lowers the rate to 21.3 %.

Since the canvassed group was randomly assigned, we can compare it with the other group that received only written reminders. We can estimate the difference in effectiveness and compare the 11.0 % response from postal reminders with 30.3 % response of in-person-canvassing. Obviously, this difference of 19.3 percentage points is significant (two-sample t-test, $p < 0.001$) with the following 95%-confidence interval of difference: [17.6; 21.1].

For the positive responses the difference between canvassing (21.3 %) and postal reminders only (9.9 %) is also highly significant and tips in favour of canvassing. The 95%-confidence interval of the difference in positive response is [9.8 %; 13.1 %].

Given that in-person canvassing was focused on the harder-to-reach populations, the estimates are underrating the size of the added value of canvassing.

Future iteration of the paper will provide estimates about the effectiveness of canvassing as a function of interviewer qualities, Covid-19 numbers and socio-economic indicators at borough-level.

Measure 7: Registration of a time-stamped set of decision rules to decide by in case of sudden changes during the field period

In order to be able to change the field management guidelines in case of an explosion of Covid-19 case numbers or any other unforeseen changes, the three principal investigators Goerres, Mayer, and Spies agreed on a set of deciding guidelines that would allow for quick decisions taken by the collective. This set of principles was uploaded and time-stamped on the Open Science Framework <https://osf.io/t3mp6>. This precaution was taken as our decision might theoretically had meant endangering human beings and we thus wanted to enable our future selves under pressure and in unknown territory to decide under a fixed set of decision rules. In addition, the study and all measures were talked through with the safety specialists at the University of Duisburg-Essen. Fortunately, these decision rules never had to be invoked. All canvassers finished their patches unharmed and with no infection.

Measure 8: Topping up stratified samples

After 4 weeks in the field, we topped up samples of Turkish Germans by 3,364 (the rest of all those classified as of Turkish origin) and Native Germans by 1,000 people (randomly drawn) in order to increase the absolute number of respondents from these groups. For the Russian Germans, recall that we had already employed the full sample from onomastically classified individuals.

Measure 9: Collaboration with the local media

After three days in the field, we initiated contact with the local newspaper with the highest popularity and asked them whether they wanted to cover our canvassing efforts, which they did on 19 April (Ahlers 2021). The coverage was intended to increase the social benefit of participation in our survey. We hypothesised that target individuals were more likely to participate in a study that they or those close to them had read or heard about.

It is impossible to judge the impact of that publication given that it happened simultaneously with the beginning of the roll-out of the canvassing operation. The newspaper report was read ~460 times², but the print circulation of the WAZ was about 32,000 in Duisburg. It was subsequently noticed by the local public TV channel Westdeutscher Rundfunk who created their own 5-minute story for the local news broadcast that aired on 10 May. We only have anecdotal evidence in the form of single respondents mentioning the TV report.

Measure 10: Add another stratum of sample

As the response rates for Turkish Germans and Russian Germans were still below 10 % after four weeks in the field, we mobilised another sample from our onomastically classified group of individuals, namely immigrant-origin Germans who are neither Turkish Germans nor Russian Germans. This was intended to increase the absolute size of our panel study. Given the expected small change effect sizes across time and the unknown levels of panel mortality during a pandemic, we wanted to make sure that we would have enough statistical power to estimate overtime changes with sufficient precision. The recruitment data for that group are not available yet.

This strategic decision also had the advantage that we no longer had overcoverage individuals. All German citizens of the right age were now part of the target population. A target person wrongly classified as a Russian German who turned out to be a native could be added to the other stratum. Post-hoc weighing now allows us to correct for differences in sampling probabilities.

Cost effectiveness of the measures

For managing the field, we employed resources in terms of time and money. In comparison, we can now look at the cost efficiency of the various measures. This is not a straightforward exercise because some of the measures cross-cut and because we have not fully finished collecting all data.

In total, the collection of respondents willing to participate in the survey was about 116,836 €. So far, this generated 1,650 individuals with full details and willingness to be interviewed in the telephone panel survey. This sums up to 70.81 € per person, including the labour costs of the field manager and student assistants and excluding the labour costs of the principal investigators. This number is likely to decline as we are still expecting further positive

² Personal communication with the WAZ team, 20 May 2021.

responses. We believe that 2,200 willing participants is a likely maximum, meaning that 53.11 € is an optimistic lower boundary of that corridor.

We will thus focus on early-bird incentives, postal reminders and in-person canvassing. All of these measures were applied to random sub-samples, so that causal effects can be estimated.

Table 3 reveals the input in terms of field manager and student assistant time (neglecting PI time) and monetary costs. This is all on top of the costs of the “normal” first postal contact that we neglect here as it is the same for everyone. As a reading example: 7,700 people received a first-contact letter with the promise of an early-bird incentive. Out of that group 550 people answered to the early-bird incentive, 420 of which were positive, meaning they were willing to participate in the survey.

We can thus calculate the additional costs of one additional positive response. Giving no early-bird incentive only produces additional 2.7 € “handling” costs per positive response. Early-bird incentives increase the costs to 4.79 €. Sending out postal reminders to a lot of people costs almost exactly the same per additionally recruited individual (60.36 €) as canvassing a smaller groups with higher return (60.91 €).

Conclusions

This short note presented preliminary evidence from our field operations of recruiting voters in a German metropolis for a telephone panel survey during the Covid-19 pandemic in March-May 2021. The pandemic severely limited us in our possibilities due to the harsh constraints on movement, distancing measures and overburdened postal services.

So far, the ongoing field work has produced a response rate of 8.2 % (only those willing to participate) with 11.0 % a likely outcome considering that we still are in the field. One individual recruited to take part in the telephone panel survey costs an estimated 53-71 € with especially the postal costs and canvassing being expensive.

Early-bird incentives produced positive response of 5.5 % compared to 4.0 % among those without early-bird incentive. The most effective measure to boost overall positive response among initial non-responders was in-person canvassing (21.3 %) instead of postal reminders (9.9 %). Canvassing a smaller group of people proved to be as expensive as reminding a larger group of people with an estimated 60-61 € costs per additionally recruited positive response through either channel.

All evidence is preliminary and subject to change. But we see already how seemingly expensive canvassing measures to reach hard-to-reach respondents creates high returns. These returns of canvassing a few are, as to costs, not different from the less efficient postal reminders that are sent out to many people.

Table 3: Three measures in comparison as to their costs

Measure	field manager hours	student assistant hours	other expenses in €	Total costs in €	treated individuals	absolute increase in any response	absolute increase in positive response	additional costs in € per additional positive response
Early-bird incentives in full launch	4	0	1,905	2,013	7,700	550	420	4.79
No early-bird incentive in soft launch	4	0	0	108	1,000	50	40	2.70
Reminders by letters and postcards	10	0	45,000	45,270	17,200	1050	750	60.36
In-person canvassing	80	850	12,500	27,410	2,010	636	450	60.91

Assumed gross hourly costs student assistants 15 €, field manager 27 €. All costs are estimated. Basic costs of sending out one letter to each individuals are not listed as this was incurred for every individual.

References

Ahlers, Martin (2021): Wahlstudie: Duisburger Politik-Professor auf Klapprad-Runde, 19 April 2021, available at <https://www.waz.de/staedte/duisburg/wahlstudie-duisburger-politik-professor-auf-klapprad-runde-id232075171.html>

Corona in Zahlen (2021): Kresifreie Stadt Duisburg, 24 May 2021, <https://www.corona-in-zahlen.de/landkreise/sk%20duisburg/>

Infas 360 (2021): Corona-Datenplattform, available at <https://www.corona-datenplattform.de/>, data provided on 5 May 2021.

Ministerium für Kinder, Familie, Flüchtlinge und Integration NRW (2020): Integrationsprofil Duisburg. Daten zu Zuwanderung und Integration, available at http://www.integrationsmonitoring.nrw.de/integrationsberichterstattung_nrw/Integration_kommunal/Integrationsprofile/Integrationsprofile---Duisburg.pdf

WDR (2021): Ticker vom Samstag (22.05.2021) zum Nachlesen, available at <https://www1.wdr.de/nachrichten/themen/coronavirus/ticker-corona-virus-nrw-1038.html>