

# The Tönnies Outbreak of Covid-19 in June 2020

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There was an outbreak of Covid-19 in a slaughterhouse in Coesfeld, near the city of Münster in the German state of North-Rhine Westfalia (NRW) in early May, which became known on 2020-05-04<sup>1</sup>. I live about 60km “through the countryside” east of Münster, in Bielefeld, also in NRW.

The facility in which the outbreak occurred belongs to the company Westfleisch, which has other slaughterhouses in the region. When the outbreak occurred, it was discussed not only in NRW but also in the German Federal government what kind of situation this represented. Slaughterhouses work cool and cold, which is ideal for the SARS-Cov-2 virus to remain viable over a long period of time (4° is apparently ideal). Production workers are largely “temporary” and “transient” (more on that below), who apparently live predominantly in dormitory-like accommodation and socialise with each other there. All these conditions are strongly enabling for transmission of infection and occurrence of a Covid-19 outbreak. It was concluded at Federal level that slaughterhouses were possible “hot spots” of Covid-19 and should be watched carefully.

On Tuesday, 2020-06-17 it was reported in the newspapers that some 650 workers at the Tönnies slaughterhouse in Rheda-Wiedenbrück, in the Gütersloh district (GT) of NRW had been newly diagnosed with Covid-19. Tönnies is the largest slaughterhouse/meat processing facility in Germany. It is not a small place. Germans eat lots of sausages. The facility is located some 30km west of Bielefeld.

We were reminded in my local newspaper the Neue Westfälische Zeitung (NW) on Saturday 2020-06-20 of what CEO Clemens Tönnies said at the time of the Westfleisch outbreak:

*..... when one recalls what Clemens Tönnies expressed a few weeks ago. That a general suspicion (“Verdacht”) of the industry (“Branche”) was not justified. That criticism should not be amplified and overblown. That one can visit his slaughterhouses whenever one wants, in order to persuade oneself that everything is in good order. How hollow these phrases sound [now] ... (Andreas Niesmann, Konsequenzen, Neue Westfälische Zeitung, Kommentar, 2020-06-20/21. Translation mine)*

The Tönnies company made it known at the time of the Westfleisch outbreak that it was setting up its own internal testing centre. Which is presumably why we were suddenly made aware on Tuesday 2020-06-17 of those infections amongst Tönnies workers.

On Sunday, June 21<sup>st</sup>, the numbers were 1,331 infections amongst 6,139 tests with some 240 outstanding results, a rate of 22.6%. “Of those, only 16 have no connection to the meat industry.” said GT district Commissioner (“Landrat”) Sven-Georg Adenauer<sup>2</sup>. A quarantine had been imposed on all Tönnies workers. Quarantine means: stay at home for 7 days (it used to be 14 days). Provisions are delivered by volunteer organisations, supported in this case by the German military. There is some worry that quarantine will not be respected – police have erected wire separation fences around various buildings in a small town in GT, Verl, in which many Tönnies workers live, to enforce the quarantine.

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1 <https://www.streiflichter.com/lokales/coesfeld/coronavirus-kreis-coesfeld-aktuelle-fallzahlen-region-13643612.html> is a running blog on the development of Covid-19 in the district of Coesfeld (in German). See the entry for 2020-05-04 for the first infos on the outbreak at Westfleisch. According to the entry for Sunday 2020-05-10 at 19.30, after all workers there had been tested, there were 230 infected workers, and 477 not infected.

2 His grandfather, Konrad Adenauer, was the first Chancellor of post-war Germany.

The NW reported on Tuesday 2020-06-23 in its lead article that the total number of infected workers is 1,553<sup>3</sup>. That is just over 25%. On Wednesday 2020-06-24, the lead article in the NW quoted the NRW Minister of Health, Karl-Joseph Laumann, that two-thirds of the workers in the meat-cutting section of the Tönnies plant were infected.

The hubris in the Tönnies CEO's public statements at the time of the Westfleisch outbreak is now apparent, and manifestly unjustified. His nephew Robert, who owns half the company but has little say in its management, and who is part of a long-running and semi-public “family conflict” around the management of the company, has publicly demanded that he resign.

In Germany, matters such as restrictions on movements of citizens and residents, such as in the case of Covid-19, can only legally be imposed by states, not by the Federal government. What generally happens is that measures are discussed amongst the states + Federal government in order to agree on a uniform (“consensus”) approach. This happened with the lockdown in March, and with the relaxation of those conditions in early May along with a provision for reimposing them in case of a resurgence of Covid-19 cases.

Any such resurgence was anticipated as likely to be local, so countermeasures had been formulated at the district level. The criterion for reimposing lockdown conditions was: at least 50 new cases per 100,000 residents in a district in a week. The Tönnies outbreak clearly fulfils that criterion in the districts of Gütersloh (GT), in which the Tönnies facility is located, as well as the neighbouring district of Warendorf (WAF) where many Tönnies workers live, but likely not in Bielefeld (BI).

However, such a lockdown was by Monday evening 2020-06-22 not yet being imposed. The reason given by NRW Ministerpresident Armin Laschet was that the outbreak has very clear boundaries and is thereby not general. A lockdown was imposed in GT and the neighbouring district of Warendorf (WAF), where many Tönnies workers are also housed, on Tuesday morning 2020-06-23, until provisionally 2020-06-30<sup>4</sup>.

There are oddities arising from the district-based decision criteria. People in GT and WAF can meet only in groups of at most two, and not mix households. Swimming pools are closed, as are indoor playgrounds, museums, art galleries, cinemas, “stately homes”; there is no indoor theatre or concerts; no picnicking or grilling in parks; no bars may open, even in hotels & B&Bs. But restaurants may stay open with strong restrictions. People in GT can drive up the road or take the train for 10 minutes and do all that in Bielefeld without restriction; only GT and WAF are in lockdown. The BI city administration is worried.

Other federal states are imposing restrictions: vacationers from GT have already been sent away from the Baltic resort of Usedom, in Mecklenburg-Vorpommern; hotels and B&B's in Bavaria are not allowed to accept guests from GT unless they have been tested within the previous 48 hours; in Schleswig-Holstein visitors from GT must be quarantined.

In Bielefeld, there are 168 addresses known where Tönnies workers live. All those workers are now supposed to be in quarantine. But that evidently is not being respected – the police had checked 121 addresses by Sunday evening, a week after the outbreak became known, and had “spoken” with a total of 94 Tönnies workers. By Tuesday, the situation has somewhat improved. There are only 19

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3 Further down in the article, the chair of the Covid-19 crisis team in GT is reported as saying that 19 of those infected had no connection to the Tönnies facility. But newsmagazine Der Spiegel has “about 1550” <https://www.spiegel.de/panorama/guetersloh-lockdown-zweiter-teil-a-a9aac024-b1c0-4365-bd74-41e0ca59e0e2> (in German). On 2020-06-24, the 1,553 figure is being reported as the Tönnies figure.

4 Everyone everywhere now seems to be working to an incubation period of at most 7 days. I do not know when and how that was decided.

addresses where no one has been found, but there are some 40 or so more addresses to be added to the list which were not yet there on Monday. That makes 59 no-contacts from 208 addresses, so we can only say that 72% are officially informed of the quarantine<sup>5</sup> [NW, 2020-06-22]. As things stood, that was likely not a process which would have subdued transmission of Covid-19 from this group<sup>6</sup>. But on Wednesday 2020-06-24 the NW writes (in the main story of its “Bielefeld” section) that there are 162 Tönnies workers who live in Bielefeld with their families and the authorities have reached 158 of them. Given the overdispersion characteristic of Covid-19 (“10% infect 80%”), that probably means a low to negligible chance that overspreading<sup>7</sup> can occur from this group without people deliberately breaking quarantine – and of course all their potential contacts will know they are supposed to be in quarantine and people do tend to keep away from those who might be infectious.

Let me explain what the working situation is at these companies. First, let us make a distinction amongst the workers between employed personnel, and (formal) employees. Employed personnel are people who are nominally self-employed or who are employees/employed personnel of personnel-provision agencies. Slaughterhouses operate largely with employed personnel for the product, and employees for the business processes. This is in Germany one of the usual ways in which companies can react to demand without breaching rather strict employment laws, which more or less provide tenure to any employee of any company with more than 10 employees after a provisional period of 6 months employment.

This tenure-avoiding technique is used, for example, in seasonal work such as agricultural harvesting. It is hard to see how such business could work effectively without it<sup>8</sup>. Many industries use it also. When the building for the then-new CeBiTec biosciences institute was erected on the Bielefeld University campus, container-dormitories were build on-site for the construction workers, and dismantled when the building was finished. Many such workers come from East European EU member states; they come here expressly to earn money, and send it or take it back home to the family. Another example – much, even most, of at-home care for older people in Bielefeld is provided by Poles, who come to live with the person needing care for (typically) 6 months, and then go back home and are replaced by another 6-month carer. Typically they are engaged carers who devote themselves to the needs of the people for whom they are providing care. And, because end-of-life care is typically brief, the next job comes via word-of-mouth in the social networks of relatives and neighbours. The carers are typically self-employed, contributing and taking nothing from the German social-insurance system. No health-care, no pension, no unemployment benefits,

5 But up to 17 of those might already be hospitalised – see below.

6 The calculations are as follows. The effective reproduction number  $R_e$  for the group needs to be below 1. The basic reproduction number ( $R_0$ ) of Covid-19 is currently thought to be between 2.4 and 3. With a  $R_0$  of 3, assuming negligible community immunity, 67% need to comply rigorously with quarantine in order to keep  $R_e$  for the group below 1. With a  $R_0$  of 2.4, that proportion goes down to 59%. 72% are informed, but that is not to say they will respect quarantine – the police already had to be called to one visit. So we cannot say at this point whether  $R_e$  of this group is below 1 or not. Extrapolating the rate of 25% infected to the 59 “outstanding” addresses, that suggests that 15 of those would be infected. Which means at an  $R_0$  of 2.4 to 3 they will infect 36 to 45 others. And so could a new outbreak start in BI. The hope/fear is that these people have already got scared and left for “home”, which would mean they won't be spreading Covid-19 in BI, but rather somewhere else. Rather than propagating evenly, though, with an overdispersion parameter value of around 0.1 (see Notes Part 8, entry on 2020-05-30), it seems more likely that 1 or 2 of those people will infect round about 30 others.

7 In analogy with “superspreading”, I mean here infectious transmission from 1 individual to more than 5 others. Because the overdispersion parameter is 0.1, it follows that most transmission events are part of an overspreading.

8 Another technique is to hire employees, and routinely fire them at the end of the six-month provisional period. This violates the presumed understanding between employer and employee that, if the work is there and an employee can execute well, the relationship will continue. Further, an employee who has been hired-and-fired in this manner is less likely to engage in it a second time, so over time the set of prospective workers available to the company decreases, which can happen quite rapidly as the company's hiring practice becomes known. Mutual trust and common understanding of the relationship between employer and employee is valuable, many would argue essential. Besides, this technique is often impractical. Imagine executing a nine-month building project with such hire-and-fire. It is easier to engage a “temp-worker” agency, with which the employment understanding is mutual.

nothing. Any of that is provided, if it is provided, by the state to whom they pay their taxes and social-insurance contributions as self-employed; in the case of aged-care workers that would be predominantly Poland. There is no general EU provision that social insurance and taxes must be paid where one works; just in a designated EU country where one resides. The container-living building-site workers typically “reside” in some country east of here. And, we are learning, slaughterhouse workers also.

Slaughterhouses use such “transient workers” or “migrant workers”, as they are often called, for working the product. The business and management is predominantly people who live, permanently, near the company facilities. Such business people generally live in GT or in WAF, or in Bielefeld (BI). The product-workers, I understand, live predominantly in dormitory-type accommodation near the plant and regularly travel to and from their home countries. NRW Ministerpresident Laschet made a rash and nationalist statement on Wednesday 2020-06-18, just after the outbreak became known, that “*the virus didn't come from easing the social restrictions; it travelled here from Rumania and Bulgaria*”, my translation. I infer from this that he understands that slaughterhouse workers are predominantly from Rumania and Bulgaria. (Herr Laschet was and is roundly criticised for his statement, among others by church leaders. Furthermore, since Germany's borders have been closed from March until 2020-06-16<sup>9</sup> it is hard to see how the illness could have been imported in this manner.)

Tönnies (the company as well as its CEO) got it really wrong. The entire company personnel, all 6,500<sup>10</sup> or 7,000<sup>11</sup> or so of them, according to whom you believe, are now in quarantine. But see above for how well that quarantine may be working. Everybody who has had any recent contact with Tönnies personnel and their families, including I understand at some Bielefeld schools and kindergartens which their children attend, are being/will be tested. The army has been drafted in to help with testing, first of all the Tönnies personnel, and with other tasks. Few people are sick, I understand; most are asymptomatic or only mildly ill at this point. But some are in hospital already, including in Bielefeld.

Schools and kindergarten in GT are shut again. My housemate Andrea runs day-care for pre-kindergarten kids (all families have a right to such care). Two of her former clients, now with kindergarten-age kids, who live in GT are furious. They live in Werther, 5km NW of Kirchdornberg, where I live. I regularly shop at a farm store and a drinks shop there. Werther is even further away from Rheda-Wiedenbrück than Bielefeld is, and a social world away. But the schools are shut again.

Let us revisit the lockdown-reimposition criterion: any outbreak in a district of more than 50 people per 100,000 residents within a week would result in a reimposition of the 23 March distancing measures. GT has 364,000 residents. So:

- As soon as it was known that there were more than 182 infected at the Tönnies plant, which was Tuesday 2020-06-16 at the latest, the distancing regulations of 2020-03-23 should have been reimposed in GT;
- Since many dormitories are in the neighbouring district WAF, those regulations should have been reimposed there too (WAF has just under 278,000 residents).

Neither of these things happened on 2020-06-17. Instead, we were served newspaper headlines on Wednesday 2020-06-18 which conveyed apologies from the Tönnies CEO and excuses from Herr Laschet. Talk alone does not improve biosecurity. So much for Germans having a grip on things. A senior NRW politician and public-health expert, Karl Lauterbach, publicly criticised this response

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<sup>9</sup> <https://sofia.diplo.de/bg-de/aktuelles/-/2318146> is the statement of the German consulate in Sofia (in German).

<sup>10</sup> According to <https://www.tagesschau.de/inland/toennies-coronainfektionen-guetersloh-103.html>

<sup>11</sup> <https://www.spiegel.de/panorama/guetersloh-lockdown-zweiter-teil-a-a9aac024-b1c0-4365-bd74-41e0ca59e0e2>

and proposed the measures above be imposed, as agreed in May. According to the NW on 2020-06-23, both Commissioner Adenauer and Ministerpräsident Laschet were intimating on Monday evening 2020-06-22 that lockdown may well come, and indeed it was imposed 2020-06-23. We know very well from the UK discussion about delayed lockdown measures and their effects that a week is a very long time<sup>12</sup> with Covid-19 outbreaks.

There is an issue of corporate responsibility, which is somewhat differently seen in Germany from the way it is in England. German companies which issue shares<sup>13</sup> divide what would in England&Wales be the Board of Directors into the executive management (“Vorstand”) and the non-executive oversight (“Aufsichtsrat”). The Tönnies CEO thoroughly mistakenly estimated the biosecurity situation in his company in May, as related above. The Aufsichtsrat was apparently silent. There are enormous consequences of this mistake for at least 642,000 people (the residents of GT and WAF), if not nearly a million people, if we include BI. Given a general CFR of 1% for Covid-19, we can expect given the number of infected that some 15 of those people will die from it. Had such a massive failure and its serious, likely deathly, consequences happened in England, the Board (here: Vorstand and Aufsichtsrat) would have had to resign en masse. Were there indeed to be deaths among these infected, then in England the Board could be facing charges of corporate manslaughter. I propose:

- the management and supervisory boards (Vorstand and Aufsichtsrat) of the Tönnies company should resign in toto;
- the costs of transmission-suppression measures, including lockdown, in GT and WAF (and BI if it happens) should be calculated by the local government and paid by the Tönnies company.

That second proposal could bankrupt the company; I have no idea of the finances (other than that it is said to have an annual turnover in the billions of €). But should we citizens be paying through our taxes for such a private-company failure? Apparently the Federal Minister for Work Hubertus Heil thinks also that the company should pay, as reported in the NW on Tuesday 2020-06-23.

The Tönnies CEO has so far agreed to cover the costs of the pervasive testing and also, I understand, a part of the provision of his quarantined employees/employed for the quarantine period. But he has “rejected” resignation. (Although it might turn out that he does not have that luxury.) I can understand a personal reluctance somewhat. He and his now-deceased brother built this company up over a half-century from a small butcher's business owned by their parents to the largest slaughterhouse in Germany. He is a self-made businessman. But this event is an avoidable mistake which has resulted in serious damage to the community. The community cannot afford that lack of judgement from a large company, and I would argue that it cannot accept it.

People – everyone I have met since Wednesday 2020-06-18 who has a word to say about it, which most have – are saying: “This cannot go on. Things must change.” They mean by that two things. First (let me call it First Point): the myth of self-employment/temp personnel/no social insurance culture, which is constructed around deliberately imported workers and is extending throughout all kinds of domains, even into public service. This must change. The suggestion is that workers at Tönnies and places like it should be employees, with the usual rights to appropriate health care and other social insurance and obligations to contribute to it. There is already some activity towards this

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12 See my Notes, Part 10, entry on 2020-06-12 concerning statements by Profs. Neil Ferguson and David King how the number of deaths might have been reduced by a factor of 2 to 4 had stringent distancing been applied a week earlier.

13 Not all companies issue shares. Two common smaller company forms are the GbR and the GmbH. Owners are specified, as are CEOs. The proportion of the company owned by each named owner is specified, but there are no shares. In a GbR, the company owners are personally liable for claims against the company. In a GmbH, the liability is limited, as in an England&Wales “Limited” company.

requirement at the Federal level, led by Federal Work Minister Heil. Second Point: the factory-farming/"cheap meat" food culture (in German, it's now one word: "Billigfleischkultur") has to go. For the sake of both people and animals. Our ways of eating have to change.

Back to earth for a minute for a bit of political calculation. We (GT, WAF, BI) are only a million people in a state of 17 million (NRW) and a Federation of 80 million (Germany). Who knows what they think in Frankfurt, or Mannheim, or Dresden? Actually, there has been considerable support all over Germany for the two-point position above, for many years if not decades. It is not as if we in GT, WAF and BI are the only ones concerned. This could be the disaster that tips these two proposals into concrete policy.

In Bielefeld, up until Monday 16<sup>th</sup> June, we had 414 total confirmed Covid-19 cases and 5 deaths (roughly consistent with the 1% CFR). In the four weeks from 19<sup>th</sup> May up until Monday 16<sup>th</sup> June, we had up to 9-11 infected at one time, a total of 5 new cases and 1 death. In the week since, Monday 16<sup>th</sup> June to Sunday 21<sup>st</sup> June, we have 17 new cases.

Suppose the 15-death expectation is approximately fulfilled during this event. Whatever the current legal situation, there arises the question of what to do when the actions/inaction of a company's management is associated with such a number of deaths of workers. At the least, a rethink of workplace safety is required. As biotechnology companies already know, biosecurity is a workplace safety issue just as much as is wearing hard hats on a construction site. But an infectious disease knows no bounds between workplace and freetime ("Feierabend", as the post-work period is known in Germany – "Feier" is a celebration and "Abend" means evening). One issue would be which, and how much, of a worker's off-work activity can be legitimately considered the responsibility of the company. Traditionally, little if any of it is considered, but this surely requires a rethink for the social situation of "migrant workers" housed in on-site containers, as in construction activity, or in quasi-dormitories, as by Tönnies. Such arrangements are a different situation from that in which individuals come to Germany in order to live here and partake in wider society, as I did a number of decades ago. If the company were not there, these temporarily immigrant workers would not be here; there is a clear mutual dependency. What follows?

The mutual responsibilities of company and employed personnel in such a mutually-dependent situation was thought through a couple of hundred years ago by Robert Owen, but we can be fairly sure that such a Utopian solution such as he tried to build is not in the cards this time around. It worked fairly well in Lanarkshire, but was a lot less successful in the United States. We can infer that the success of such a scheme depends on unspoken social relationships that are not overt and not well understood. It also depends on participants acquiescing in social "lifestyle" requirements, which for well-rehearsed reasons are no longer regarded as an appropriate domain for anything but light regulation in 21<sup>st</sup> century democracies (don't murder your neighbour, don't scratch his car, don't push his kid off the bike, and don't tell him not to eat cheap sausages).

Much of the common thinking about changing slaughterhouse culture depends on the Second Point. Changing the eating culture tends to mean a move away from meat and towards plant-based food. This is likely inevitable, for well-rehearsed reasons, but it is unlikely to happen in the short term.

I eat vegetarian, with some sausage or pork chop every couple of months, amongst other things to keep up my Vitamin B12 levels, from the organic family farm in Werther, Bauer Maaß ("Bauer" means farmer), who raise their own animals. Indeed, I have only eaten meat from Bauer Maaß for some 14 years now, since I moved to Kirchdornberg. Food safety is assured; customers know the provenance of the produce (the vegetables they sell are also from their local colleagues, when possible), and the preparation of the product is the responsibility of a small number of people, known to the customers, whose existence as a family business is fully dependent on such trust.

Food safety is part of biosecurity. Vegetarian or not, that is the kind of food culture being spoken of in the Second Point. But I live nearby and shop with my bicycle. It is impractical to live so close to the source in Berlin, Hamburg, München, Frankfurt, Cologne and Düsseldorf. Ideal food supply is one thing; the logistics of food supply is another. Even if everybody went to “ideal food supply”, away from “factory farming” of animals, that does not entail that large slaughterhouses disappear. It does mean increased biosecurity measures and controls at those slaughterhouses, and those of course cost money. They are, in the lingo, “excise” measures rather than “revenue” measures. So consumer prices are almost bound to increase.

There is a hope that such increased prices will lead to demands for higher quality from consumers, which will lead to a “virtual spiral” in that people will spend the same proportion of their income on lower quantities of higher-quality product. But people have the chance to do that now, as I do, and most do not take that chance. I have knowledgeable, intelligent acquaintances for whom “I can't afford it” is a stronger motive than “I'll eat less of better”. Filling the tummy seems to be a far stronger human imperative than satisfying the taste buds. Popping a B12 pill is, to most people, far less satisfying than chomping a sausage. It is true of me also. I speak often of drinking two glasses of superb wine rather than four less interesting glasses, but I manage to achieve it mostly only by interspersing with a craft beer or so, even though I don't and won't drink plonk. According to some, I am on my way into the grave by drinking such beverages in such amounts, and they may well be right<sup>14</sup>.

So this business of changing food culture, even in developed “western” cultures, is harder than it might seem. It involves a transformation of the food-preparation industries, in particular the logistics (to which, to my mind, a lot of attention has not yet been paid) as well as a transformation of consumer preferences which is closely tied to basic psychology which we do not yet by any means fully understand. The question is what to do first. Biosecurity, including workplace safety and food safety, is the sine qua non. Recall this is not the first time recently in which basic biosecurity in the EU meat industries has been questioned – there was the 2013 contaminated meat scandal originating in but by no means confined to the UK<sup>15</sup>. Some have been led to question whether piecemeal reform is feasible. My answer: yes, of course it is – look at road safety and airline safety over the decades. I am pretty sure of the First Point: increased excise measures to contribute to biosecurity are inevitable; and that means that meat prices will go up. But I am much less sure about the Second Point: the very open question is how the “market” (that is, we ourselves and our eating habits) will adjust.

And all because of a tiny 120-nanometer visitor<sup>16</sup>. Well, lots of them.

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14 <https://www.theguardian.com/society/2020/jan/16/share-a-pint-or-glass-of-wine-to-drink-safely-says-expert>

15 <https://www.theguardian.com/uk/2013/feb/15/horsemeat-scandal-the-essential-guide>

16 [https://www.rki.de/DE/Content/Infekt/NRZ/EM/Aktivitaeten/SARS\\_CoV\\_2\\_Diagnostik\\_EM.pdf](https://www.rki.de/DE/Content/Infekt/NRZ/EM/Aktivitaeten/SARS_CoV_2_Diagnostik_EM.pdf)