

Part 9:

Evaluation of the Success of the Covid-19 Measures in Europe

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Steering European Union Through Poly-Crises Storms: The Role of Public Administration - Policy design and evaluation in an Era of Poly-crisis

EGPA Permanent Study Group XXI on Policy Design and Evaluation

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Prologue: What will be the right path through the pandemic?

Even at the beginning of the pandemic, the question arose as to what is the right path: Zero Covid as in Australia, New Zealand and China, or a liberal policy as in Sweden. Many southern European countries that initially seemed to be particularly affected by Covid, such as Italy and Spain, immediately responded with tough Corona measures such as curfews.

The images from the northern Italian city of Bergamo have had a strong impact on media coverage¹ and subsequently on political reactions. In Bergamo, imposing a very strict lockdown seemed to be the solution.² On the other hand:

“We also report that local organization and, more important, the large natural immunity against SARS-CoV-2 of the Bergamo population developed during the first wave of the epidemic, can explain the limited number of new COVID-19 cases during the more recent second wave compared to the numbers in other areas of Lombardy.”³

The research question, which will have become obvious by 2021 at the latest, is therefore which strategy was more successful, hard lockdowns (“Zero-Covid”) or natural immunization (“herd immunity”)? Successful, of course, in terms of (excess) mortality. There cannot be a more important goal than avoiding deaths.

1 What data can be used to answer the question? Weak and strong data ..

At the beginning of the pandemic, many German media tried to unsettle the population with absolute numbers. E.g. the State-affiliated ZDF reported:

“Corona highs. -India: More than 400,000 new infections. India is desperately fighting the Corona pandemic. Numbers are rising dramatically, hospitals and crematoria are overcrowded. International aid kicks in.”⁴

There was similar news for Brazil, the USA, etc. The population figures were not taken into consideration. The following table shows that the infection rate in France, for example, was significantly higher than in Brazil or India.

Date	Country	New Infections	Inhabitants	Infection Rate
15. Apr 21	GER	30.000	83.020.000	0,04
25. Mrz 21	BRA	100.156	212.780.000	0,05
08. Jan 21	USA	307.911	331.420.000	0,09
01. Mai 21	IND	400.000	1.379.000.000	0,03
07. Nov 20	FR	86.852	65.300.000	0,13
12. Mrz 21	IT	26.793	60.109.000	0,04

¹ See e.g. <https://www.france24.com/en/europe/20210318-a-year-on-italy-s-bergamo-still-traumatised-by-onslaught-of-Covid-19>.

² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7933506/>.

³ Ibid.

⁴ <https://www.zdf.de/nachrichten/panorama/Corona-indien-impfung-neuinfizierte-100.html>. (Translation with DeepL).

Table 1-1. Maximum number of new infections until 18.04.2021 for individual countries in relation to the number of inhabitants, own calculations.⁵

However, the data in the table above is not meaningful. And this is because, among other things, the number of (identified) new infections was not reliably determined.

1.1. First laughed, then thought: The problem of weak data

The number of infections detected is undoubtedly dependent on the number of tests performed. The more tests, the more infections, it seems. But that is not even half the truth. In Germany, for example, the expansion of no-cause testing has not led to more detected cases. The problem was that the number of infections led to more tests. However, it was mainly people with symptoms who were tested beforehand. Therefore, the "success rate" was high. The problem with the increased number of tests from week 31/2020 onwards is presumably that the tests have not been carried out systematically (e.g. across the board in schools or in representative samples). In Austria a special screening ("test section") on the motorway showed that the people who had travelled to or back from Croatia were infected with Corona 13 times more frequently than the average in Austria (1.7% infected compared to 0.15%).⁶ However, most of the people who tested positive were asymptomatic, i.e. did not show any symptoms of the disease.⁷ However, testing symptomless people leads to more false test results (positive and negative). False test results (positive and negative) distort the statistics in any case. In order to obtain reliable data, the number of new infections should have been collected in representative studies and determined in the same way in all countries (e.g. the EU). This has not been done. **The number of new infections or the incidences conveyed in the media were therefore pointless.** Although there were Approaches to this, such as the so-called "Heinsberg Study"⁸ under the direction of the Bonn virologist Hendrik Streeck, which was published very early in 2020, or a study by the LMU Munich⁹ with the conclusion: "School closures or school opening with compulsory testing? Epidemiological-statistical aspects speak in favour of school openings with compulsory testing." Politically, however, this strategy was not wanted, because in Germany politics and the media wanted school closures and "Zero-Covid".

The number of new infections or their development (incidence) could therefore hardly serve for a rational, evidence-based policy. Even less could the "alleged" deaths due to Covid account for this. **Statistically, there is a big problem in distinguishing whether a person died from or with Corona.** "From" means Corona was the main cause, "with" means the person "also" had Corona. But this can also be the case in a traffic accident. However, there are also medical cases where flu or Corona is not the main cause, but the person (perhaps) would not have died without this additional health burden. This is why England¹⁰ is very meticulous in its statistical approach:

"Every person who dies has an 'underlying' cause of death recorded, and any other causes that may have contributed to the death ('contributory' causes) – taken together, these are called 'mentions'. For many conditions, e.g., lung cancer and stroke, the ONS¹¹ uses the underlying cause to count deaths. However, like influenza, Covid-19 can cause death directly

⁵ Source New Infections:https://ec.europa.eu/eurostat/data/database?node_code=demomwk, download 18.04.2021.

⁶ See. <https://wien.orf.at/stories/3063631/>.

⁷ See <https://www.krone.at/2244346>.

⁸ See e.g. <https://www.uni-bonn.de/neues/111-2020>.

⁹ See [Codag - Bericht 14 \(uni-muenchen.de\)](https://www.uni-muenchen.de/codag/Bericht_14).

¹⁰ England" always means "England and Wales".

¹¹ <https://www.ons.gov.uk/>.

or precipitate death from other causes, hence ONS uses 'mentions' to get a more complete count of Covid-19 deaths."¹²

In Germany, the official body (RKI¹³, responsible for the official data) did not distinguish between "on" and "with" Corona¹⁴. This may be due to the fact that politicians and a large part of the media in Germany preferred to have high death rates in order to enforce the toughest possible anti-Corona-measures (Zero-Covid).¹⁵

A statistically hardly reliable study¹⁶ in Germany based on Autopsies comes to the result, that "In 86% of the cases investigated, COVID-19 was the underlying cause of the death of the infected persons". In 14% of cases, however, it was not (only concomitant).

There is no doubt that the number or proportion of people who died because of or with Corona decreases over time. **According to the Autopsies study in Germany During the 1st wave (Weeks 10 to 20 2020) 3.2% of all deaths died "because of" Corona. During the second wave (Week 43/20 - Week 10/21) and the third wave (Week 12-23/21) not more than 1 percent.** (This means that in the first wave, out of a total of 194,342 people who died, 6,218 probably died from Corona. In the second wave, 4,553 out of a total of 455,280 died presumably of Corona.) If one also takes into account that the data of the autopsy study already ended in October 2021, but the significantly less lethal "omicron variant" only became dominant in the winter of 2021/22¹⁷, it can be concluded that the numbers of "Corona deaths" were mis-estimated to an ever-greater extent over time; i.e. Corona was detected more and more frequently, but was neither the main nor secondary cause.

Furthermore, the autopsy study also showed that especially older persons aged 65 and over, but especially 80 and over, died more frequently (And men earlier than women). This is not meant to sound cynical, but if the virus has killed the older, vulnerable groups, this must also lead to a decrease in deaths from Corona.

"Corona-Waves"	GER	SVE	UK	AUT
Feb. 20 - Okt. 20	3,3	6,3	12,5	2,8
Okt. 20 - Mrz. 21	2,8	1,2	2,1	1,8
March. 21 - Juni 21	1,5	0,4	1,8	1,1
June 21- Aug. 21	4,1	0,8	0,1	1,3

Table 1-2. Relative proportion (%) Corona deaths / Corona cases, comparison by countries and time periods, Source: <https://ourworldindata.org/Covid-deaths>. Own calculations

In Table 1-2 above, it is immediately noticeable that especially the countries Sweden (SVE) and England (UK), but also Austria (AUT) confirm the thesis that the proportion of deaths attributed to Corona, however determined, has decreased. To more or less 1%. The situation is different in Germany. Initially, the proportion of "alleged" Corona deaths also declines in Germany, but then rises to a record level for Germany (4.1%) in the summer of 2021. Did this have a real background because the vulnerable groups were initially better protected in Germany? But then why was this no longer successful? Or is it a "statistical trick" in that as many statistical Corona deaths as possible were

¹² <https://www.kingsfund.org.uk/publications/deaths-Covid-19>.

¹³ https://www.rki.de/DE/Home/homepage_node.html.

¹⁴ For the discussion on data collection in Germany, see e.g.: <https://www.telepolis.de/features/Wer-zaehlt-als-Corona-Toter-5035504.html?seite=all>. (in German language).

¹⁵ See e.g. <https://www.deutschland.de/de/news/bundesregierung-und-Corona-krise>.

¹⁶ <https://www.sciencedirect.com/science/article/pii/S2666776222000230>.

¹⁷ See e.g.

https://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2023/Ausgaben/24_23.pdf?__blob=publicationFile.

generated in order to be able to "sell" the population Corona measures that were as harsh as possible?¹⁸

The figures regarding the "alleged" Corona deaths are hardly comparable between different countries, because they are determined using different methods. But there is another serious problem with using "Corona deaths" as a statistical metric. The "anti-Corona measures" can lead to "collateral damage". For England, it appears that Corona is no longer the major cause of excess mortality in England and Wales as of spring 2022:

“In addition to its direct impact on overall mortality, the Covid-19 pandemic may have caused an increase in the number of people dying from other serious conditions, such as heart disease. The number of people seeking and receiving health care from GPs, accident and emergency and other health care services for other conditions fell significantly during the early waves of the pandemic. Routine and elective care, referrals and care for cancer and other outpatient referrals were also postponed or cancelled because of pressure on NHS services, leading to backlogs in diagnosis and treatment. It is too early to say what the full impact of the pandemic on the number of people dying from other conditions will be.”¹⁹

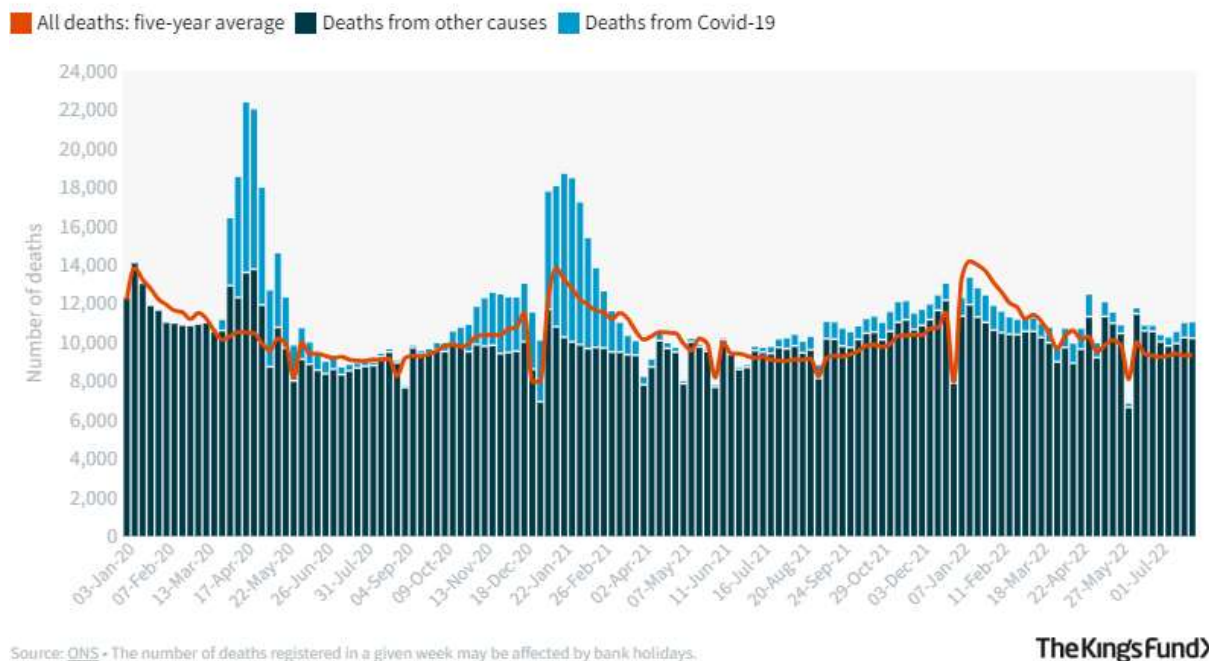


Figure 1-1: Number of deaths registered by week from week ending 3 January 2020 to week ending 29 July 2022, England and Wales

Figure 1 shows that in England, at the latest since May 2021, Corona was no longer the cause of excess mortality in England. As early as 19 July 2021, the British government, as one of the first in Europe, lifts the Corona restrictions for England. This was the so-called "Freedom Day". As Figure 1

¹⁸ According to analyses by the IGES Institute in Berlin, the mortality from Covid-19 is clearly overestimated by the RKI in Germany; in fact, by an impressive 80% (Corona was probably not the cause of death in 80% of the official Covid deaths, since the infections occurred more than five weeks ago, but the deaths were nevertheless counted as "Covid cases". See https://www.iges.com/Corona/#sect_e735 & <https://www.welt.de/politik/deutschland/plus233426581/Corona-bei-80-Prozent-der-offiziellen-Covid-Toten-wohl-nicht-Todesursache.html>.

¹⁹ <https://www.kingsfund.org.uk/publications/deaths-Covid-19>.

shows, the data seem to justify this, because Corona has "lost its terror", i.e. the number of deaths due to Corona is only marginal. Table 1-2 confirms this.

The question is therefore why the state-affiliated media in Germany in particular have criticised this move by the British government so strongly.²⁰ And the data in Figure 1-1 show that Freedom Day had no negative consequences; on the contrary. The question arises in particular because no valid and reliable data on Corona are available in Germany until today. An evaluation of the Corona measures commissioned by the German Federal Government²¹ came to the following conclusion:

"Many protection measures could ... not be evaluated at all, also because Germany did not collect enough useful data, is one of the main criticisms of the Committee of Experts."²²

The unwillingness to collect reliable data may be due to the fact that in Germany, unlike in other countries, the number of Corona deaths has increased over time (see Table 1-2), but people still wanted to stick to the hard lockdown strategy (Zero-Covid)?

On the other hand, there is reliable data that can be used to determine the success²³ of the Corona measures.

1.2. Strong data: "information" as "a difference that makes a difference"²⁴

Good data are valid and reliable, i.e. they measure what they are supposed to measure and they are comparable over time and between i.e. countries.

1. First of all, **mortality or excess mortality before 2020 and after 2020 can be compared.**

These figures have been collected in the same way in all EU countries for many years and are difficult to manipulate²⁵. The impact of Corona measures must, at the end of the day, have an impact on the number of deaths, either directly due to Corona as a cause of death, or indirectly due to collateral damage, e.g. from unrecognised cancers.²⁶

For the comparison, the average mortality rate was first calculated for all countries before Corona, i.e. for the years 2016 to 2019. This is then compared with the pandemic years 2020-2022. Comparing 2020 with the 2016-2019 average, the excess mortality for Spain, for

²⁰ See for example: <https://www.deutschlandfunk.de/freedom-day-in-england-gefaehrliche-freiheit-ohne-lockdown-100.html>.

²¹

https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/3_Downloads/S/Sachverstaendigenausschuss/220630_Evaluationsbericht_IFSG_NEU.pdf.

²² https://www.zeit.de/politik/deutschland/2022-07/Corona-massnahmen-evaluation-maskenpflicht?utm_referrer=https%3A%2F%2Fwww.google.com%2F.

²³ From business administration we know that "success" can be positive or negative, i.e. the expenditure can be higher or lower than the income. In the case of the Corona measures, these may result in a higher or lower number of deaths compared to the period before Corona (2020).

²⁴ <https://www.cs.bham.ac.uk/research/projects/cogaff/misc/information-difference.html#:~:text=It%20is%20widely%20believed%20that,difference%20that%20makes%20a%20difference%22>.

²⁵ As always, exceptions prove the rule: „Social fraud has already made the headlines several times in debt-ridden Greece. In August, it became known that the pension fund had stopped payments to 1473 pensioners who were in fact no longer alive. As a result, the ruling socialist party launched an investigation. It was discovered that 9000 pensioners over the age of 100 were registered with the pension fund - according to this, Greece would have the highest rate of over-100s in the world. In a 2001 census, only 1700 people of this age had been registered.“, [Rentenbetrug: Griechenland zahlte acht Milliarden Euro an Tote - FOCUS online](#). However, data from Greece were not included in this study.

²⁶ The main source of data is EUROSTAT, except for England, whose data has not been entered since the BREXIT (The source for the English data is therefore ONS (<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths>)).

example, is increased by about 3.5%, while for Denmark it is only 0.2%. We will come back to these figures later. Because these results might have something to do with the Corona measures in these countries ...

2. Statistically, it is always interesting to have data available over longer periods of time, because short-term developments can easily lead astray. Italy is a good example here. At first, it looked as if Italy would be able to curb excess mortality from Corona through very tough measures. However, it very quickly became apparent that, despite very tough measures, excess mortality kept rising. In contrast to Spain. **The extent to which Corona was even a pandemic or endemic or epidemic remains to be negotiated. In Spain, the country with the highest excess mortality in 2020, "only" 0.16% of the population died more this year than in the average of the years 2016-2019** Previous pandemics looked different: The plague (the Black Death) took the lives of between 25% and 33% of the population in Europe in the 14th century²⁷. At that time, people had every reason to be worried. (Moreover, people gathered in churches to protect themselves from the plague. That was demonstrably a mistake, because of the today suspected transmission by fleas. Today one tried in the Lockdown to prevent each meeting of humans which did not work either. (There one was probably scientifically on the state of the 14 century)).
3. Information on the severity of the "lockdown measures" is provided above all by the data portal "**Our World in Data**"²⁸ (OWID) of Oxford University (UK): **The Oxford Stringency Index (OSI)**. The Stringency Index is part of the Oxford Coronavirus Government Response Tracker (OxCGRT). **The Stringency Index measures the "severity" of Corona-related restrictions on populations in a country** and comprises nine key figures: school closures, workplace closures, cancellation of public events, restrictions on public gatherings, closures of public transport, stay-at-home requirements, public information campaigns, restrictions on internal movements and international travel controls.²⁹

²⁷ See Walter, Rolf: Geschichte der Weltwirtschaft, Cologne, 2006, p. 77.

²⁸ <https://ourworldindata.org/>

²⁹ The index can take values from 0 to 100 (100 = strictest / Zero Covid). The University of Oxford deserves the highest respect and thanks for compiling the many data from countless countries over the entire period of the pandemic and making them available for scientific analysis.

COVID-19 Stringency Index, Nov 27, 2021

The stringency index is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest). If policies vary at the subnational level, the index shows the response level of the strictest subregion.

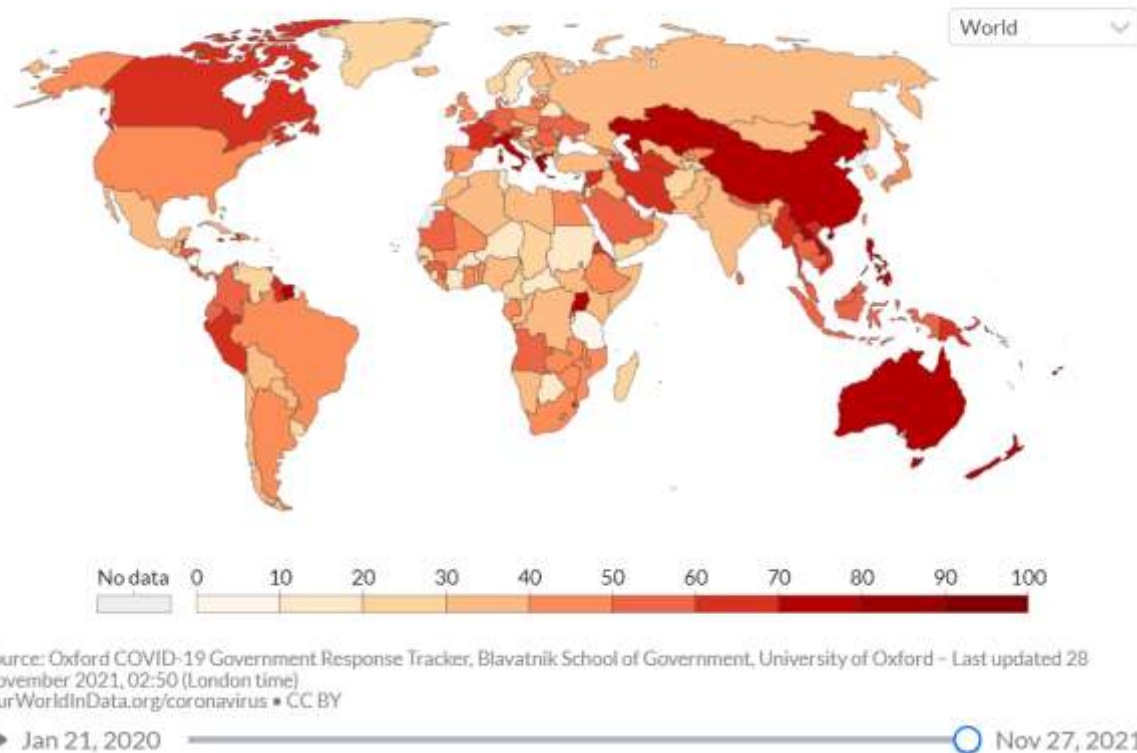


Figure 1-2: OSI, Global Overview 27.11.2021, Source: OWID³⁰

For the period between the beginning of 2020 and September 2021, Spain has an OSI of 38.5 and a number of new infections of 102 cases per million inhabitants in September. Denmark has an average OSI of 33 and 667 new cases per million inhabitants for the same period. We will come back to these figures later.

4. The data portal OWID provides much more interesting data. For our purposes, two further facts are particularly useful:
 - a. **The number of people vaccinated against Corona.** We mainly use the indicator of twice vaccinated persons. At least for Germany, double vaccination was the standard.³¹
 - b. **Hospitalization.** Are the clinics overburdened by Corona? Of course, this sounds absurd when, as in Spain, there is a maximum excess mortality of 3.5%, in Denmark even only 0.2%! But in Germany this has been seriously discussed. We will come back to these figures later.

However, the data from EUROSTAT (and other national statistical authorities) as well as from OWID allow a comparison both over time (time series) and between countries. This makes an evaluation of the "success of the Corona measures" possible.

³⁰ <https://ourworldindata.org/Covid-stringency-index#learn-more-about-the-data-source-the-oxford-Coronavirus-government-response-tracker..>

³¹ <https://www.bundesregierung.de/breg-de/weitere-themen/Coronavirus/Coronavirus-vaccination-faq-1959802>.

2 In the Short Run: Pandemic or “Pseudo-Pandemic”?

The term "pseudo-pandemic" points to an important question with regard to the necessity of the measures: How deadly was Corona really? The following comparison (Table 2-1), is based on data for deaths in 2016-2019 with the first "pandemic year" 2020. For Germany³², the calculation is as follows: There are a total of 4,698,055 deaths for Germany in 2016-2020. Relative to the total number of deaths in 2016-2020, the total 973,328 deaths in 2020 result in a share of 20.7%. The 931,181.75 deaths per year 2016-2019 result in an average share of 19.8% over the four years. This therefore results in a relative excess mortality, i.e. a higher number of deaths, of 0.9% for Germany for the year 2020 compared to the years 2016-2019.

Table 2-1 is limited to 15 countries out of an initial 30. On the one hand, this helps to clarify the presentation and avoids redundancies, since many countries have a comparable development pattern (see section 2.1).

Country	Diff 20 Ø 16-19 (%)
ESP	3,49
PL	3,40
BEL	3,11
IT	2,82
BUL	2,73
GB	2,68
CH	2,57
NL	2,13
AUT	2,08
FR	1,94
HUN	1,43
SVE	1,40
GER	0,90
EST	0,48
DEN	0,21

Table 2-1: Comparison of excess mortality (difference of years 2016-2019 and 2020 in percent) for 15 European countries, own calculations.³³

First, Table 2-1 shows that, in terms of mortality, the countries considered have come through the first year 2020 of the “alleged Pandemic” differently. For example, Spain (ESP) and Poland (PL) have relatively high excess mortality percentages (3.5% and 3.4%, respectively). In other countries, however, such as Germany and Denmark, excess mortality is less than 1% (0.9% and 0.2%, respectively).

But how dramatic is this increase in excess mortality? In chapter 1.2 it was already stated that, in relation to the approx. 47.1 million inhabitants of Spain, 0.16% of the inhabitants died additionally. (In the years 2016-2019, an average of 416,406 inhabitants died per year. In 2020, the number was

³² Data-Source: <https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Sterbefaelle-Lebenserwartung/sterbefallzahlen.html>.

³³ Additional Data-Sources: Sweden: <https://www.scb.se/en/finding-statistics/statistics-by-subject-area/population/population-composition/population-statistics/>, England & Wales: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales>, Austria: https://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/bevoelkerung/gestorbene/index.html, All other: https://ec.europa.eu/eurostat/en/data/database?node_code=demo_mor.

491,684, an increase of 75,278 people; 0.075 million more people died gives a share of 0.16% for a population of 47.1 million). For Sweden, with its 10.4 million inhabitants, this results in about 0.09%, and for Germany, with about 83.2 million inhabitants, in about 0.05% additional deaths. Pandemic or hysteria?

Thomas Maul³⁴. calculates a lethality of the virus of about 0.2% for Germany in March 2020, based on the competent authority RKI and its figures of people who died "of or with" Corona. Moreover, the median age of those who reportedly died from Corona was over 85 years, and the lethality of 0.2% is consistent with normal influenza. Maul's figures, based on the official Corona deaths, which were undoubtedly overestimated (see chapter 1.1), and our figures, based on the "incorruptible" death toll, basically come to the same conclusion: there could never be any question of a "lethal Pandemic", at least in 2020.

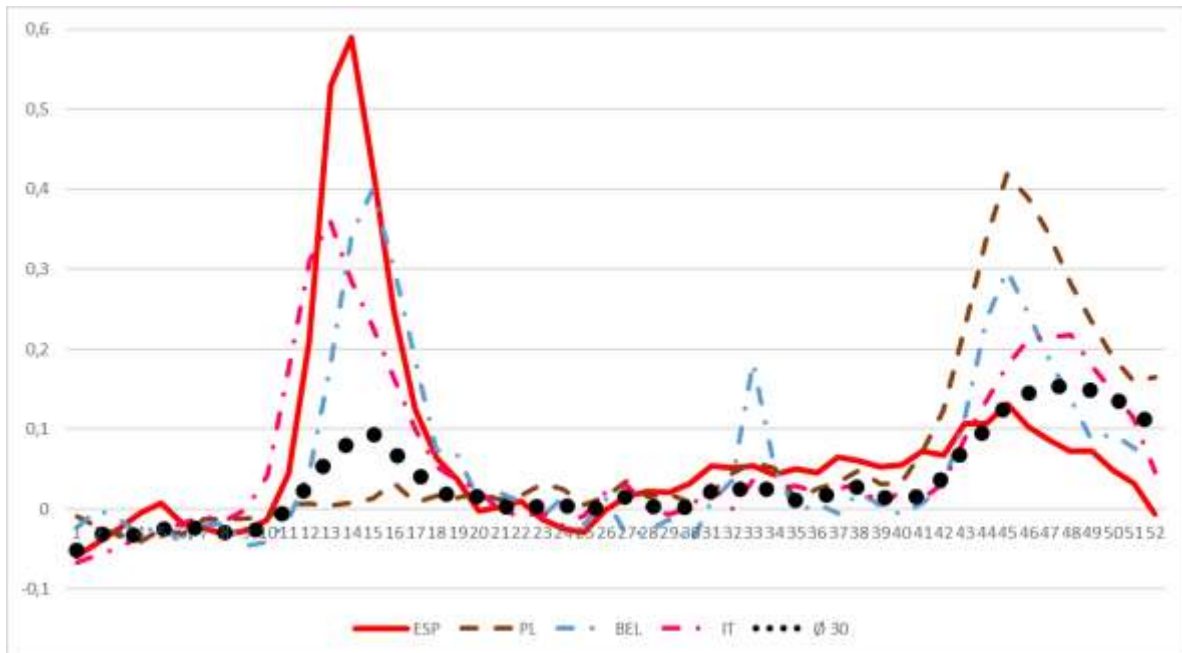
The lethality, i.e. the number of deaths in relation to the number of infected persons, is also in the same range in other countries: Italy: 2,2%, USA: 1,5%, Spain: 1,4,% France: 1,2%, Sweden: 1,2% and UK: 1,1%.³⁵ It is interesting that especially countries with comparatively harsh Corona measures (lockdowns, Zero-Covid fantasies) such as Italy and Germany show a comparatively high lethality (see also chapter 2.3).

2.1. Sometimes Lightning (Corona) strikes several times in the same place. But why are only some Countries affected?

The basis of the following graphical analyses is the excess mortality of the original 30 European countries considered: Comparison average of deaths in 2016-2019 with 2020 on the basis of 2016-2019 = 100%. For better clarity, a further reduction of the considered countries as four particularly and four less affected countries is done. To classify the individual country values, the average of all 30 countries considered was always reproduced in the same way (same calibration and by round dots).

³⁴ Maul, Thomas (2023), Was man wann wissen konnte. Hinweise zur Aufarbeitung der Corona-Verbrechen“, BoD Norderstedt, pp. 83-84

³⁵ Status at the beginning of 2022, See https://www.uni-speyer.de/fileadmin/Lehrstuehle/Knorr/5_11_Laender_Stringency_Index_Vaccinations.pdf, particularly: <https://www.Corona-in-zahlen.de/weltweit/>.



4

Figure 2-1.a: 4 Countries with high excess mortality in 2020, comparison average 30 European countries (dotted line), calendar weeks (CW) from 2020, own calculations

Although Italy (IT) has claimed to be the most affected country because of the images from Bergamo, Spain was clearly the most affected country at first. However, after the high excess mortality during the "first wave", Spain has hardly experienced any increased mortality from week 10 2020 onwards. This is in contrast to Belgium (BEL) and Italy, which have twice (ITA) and three times (BEL), respectively, increased mortality in 2020. This is particularly surprising for Italy, had they learned nothing from Bergamo?

Poland (PL), which has the second highest value for excess mortality in 2020, will be hit only in the "second wave" starting in the fall of 2020 (from week 40). This applies to all south-eastern and eastern European countries, they were affected by the "Pandemic" at the end of 2020 at the earliest."

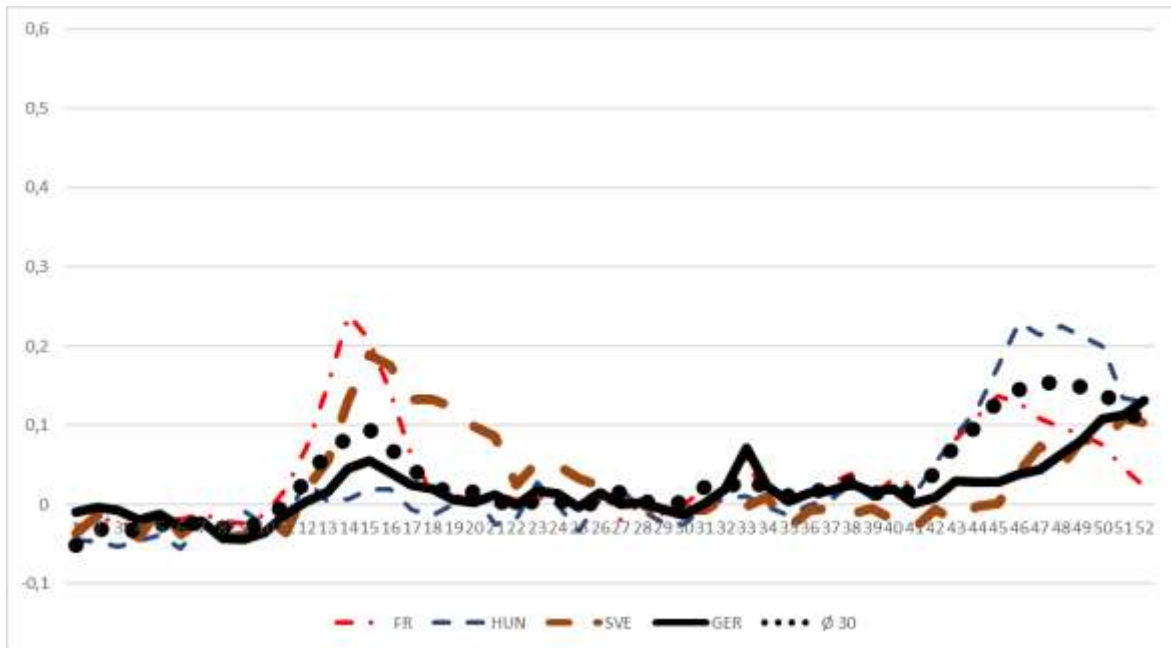


Figure 2-1.b: 4 Countries with low excess mortality in 2020, comparison average 30 European countries (dotted line), calendar weeks (CW) from 2020, own calculations

Overall, all four countries considered in Figure 2-1.b have relatively low excess mortality. France (FR) and Sweden (SVE) are relatively affected in the first wave (spring 2020), but then not to the same extent in the second wave. Hungary, like all other countries in South-Eastern and Eastern Europe, only in the second wave. For Germany in particular, the trend is "upward" since autumn 2020. Why?

However, for the year 2020, three different courses of the development of excess mortality can be identified: 1) Strongly affected in the course of the first wave in spring 2020 (mainly Southern European countries, here especially Spain), 2) Countries that were affected only in the second wave, i.e. from fall/winter 2020 (affected were mainly Eastern European countries, but also in Germany excess mortality increases from week 42 2020). "The lethality has therefore migrated from "West to East and Germany".

2.2. "Corona deaths": Over 80 years old and with multiple pre-existing conditions

Most "Corona deaths" (not only in Germany) have multiple pre-existing conditions and the median age³⁶ of the "fatalities" was about 83 years old³⁷. This means that the alleged "Corona dead" have become somewhat older than the average population. John Ioannadis³⁸ calculated for the global Corona Infection Fatality Rate (IFR). Ioannidis arrives at a global IFR of about 0.15 at the end of March 2021; and 0.03 to 0.04 for under 70-year-olds³⁹. For those under 70, the likelihood of dying from Corona was thus about the same as from a common cold.

In Table 2-1.a Spain shows the highest excess mortality for the year 2020. The following figure (2-2.a) shows the difference in (absolute) mortality rates differentiated by the age groups under (up to) 75 years and 75 years and older.

³⁶ half were younger, the other half older.

³⁷ Very severe obesity, high blood pressure, chronic lung disease and kidney weakness, cancer, among others, see e.g. https://www.uke.de/allgemein/presse/pressemitteilungen/detailseite_104325.html.

³⁸ <https://apps.who.int/iris/handle/10665/340124?locale-attribute=de&>.

³⁹ See also: [Variation in the COVID-19 infection–fatality ratio by age, time, and geography during the pre-vaccine era: a systematic analysis - The Lancet](#).

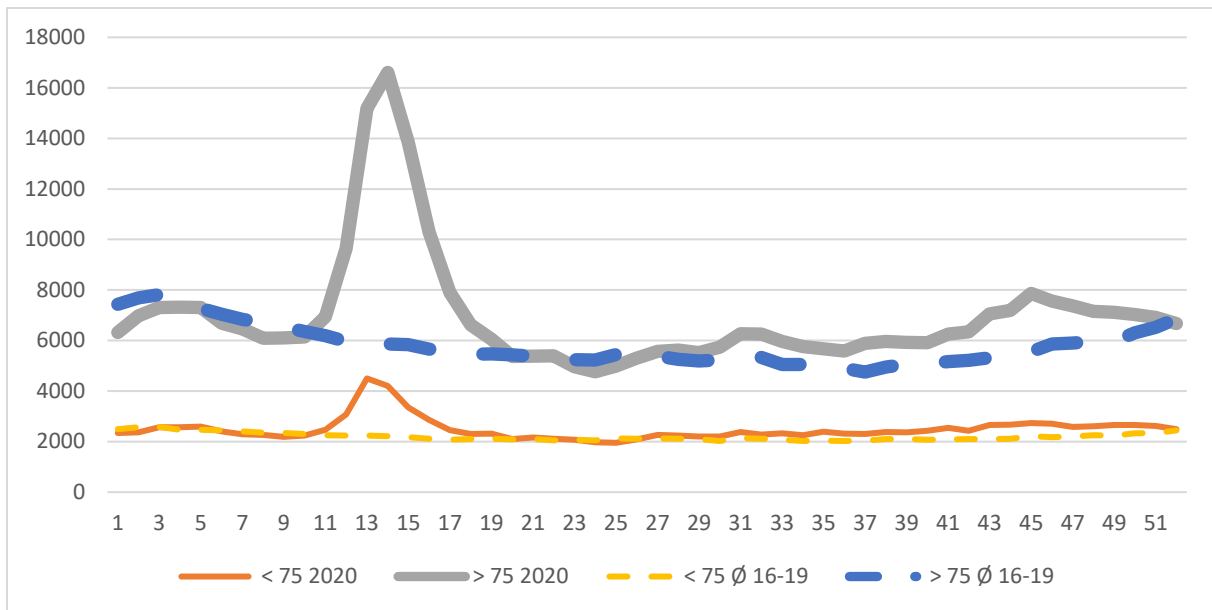


Figure 2-2.a: Spain, Excess mortality in 2020 differentiated by age group (</> 75 years), comparison with 2016-2019, calendar weeks (CW), absolute values.⁴⁰

Of course, mortality is generally higher in the group over 75 years of age (blue broken line) than in the younger group (yellow broken line). In spring 2020, however, the number of deaths among the over 75-year-olds will rise from the usual (2016-2019) level of approx. 6,000 to 16,000, i.e. by a factor of 2,6. Although mortality among the under-75s also increases during this period from approx. 2,000 to 4,000, it does so only by a factor of 2. In the following period, there are no longer extreme increases in mortality in Spain, but the elderly people continue to be significantly more affected. In the case of Sweden. The increase for the under 65 years old is zero. (It seems to make a significant difference if you draw the age line at 65, rather than 75)

The following figure for Sweden differs from that for Spain, as the age limit is 65 rather than 75. **For the under-65 age group, there is no difference for the years 2016 to 2019 and the year 2020!**

⁴⁰ Data-Source: Eurostat.

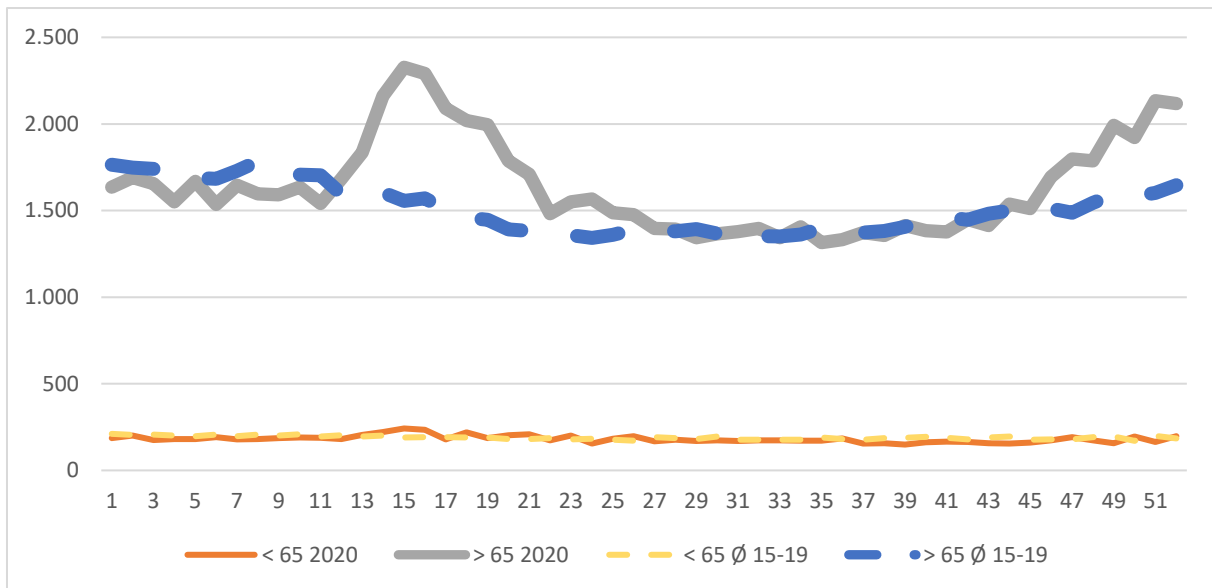


Figure 2-2.b: Sweden, Excess mortality in 2020 differentiated by age group (</> 65 years), comparison with 2016-2019, calendar weeks (CW), absolute values.⁴¹

The picture for Italy is initially very similar to that for Spain, but ..

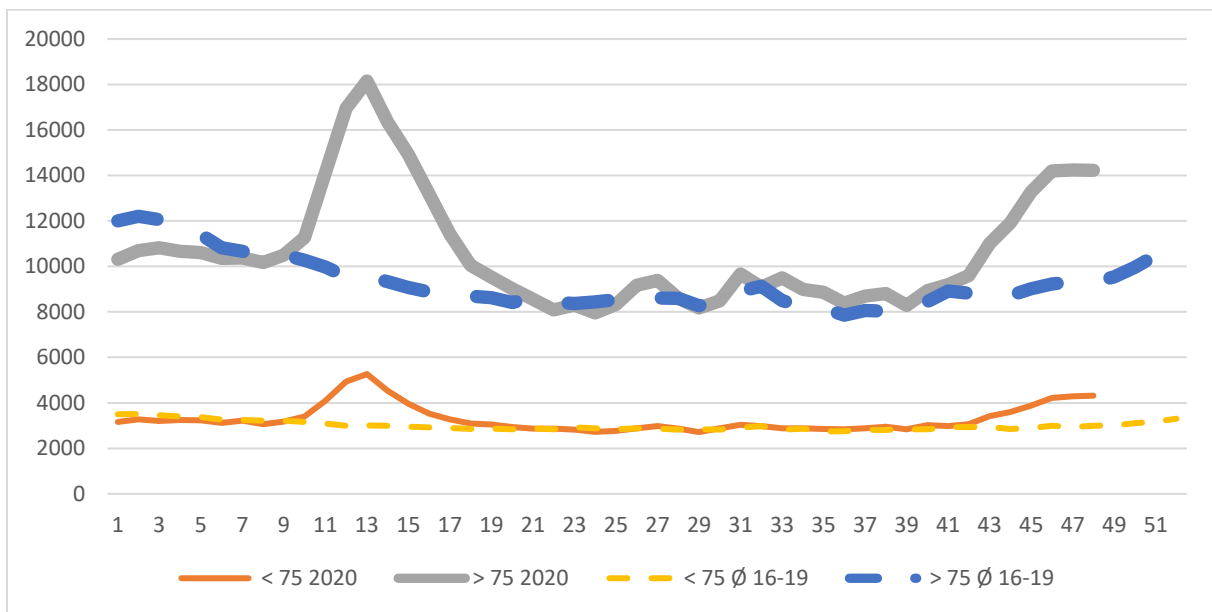


Figure 2-2.c: Italy, Excess mortality in 2020 differentiated by age group (</> 75 years), comparison with 2016-2019, calendar weeks (CW), absolute values.⁴²

A first wave of increased mortality in the spring of 2020 is followed by a second wave in the fall / winter of 2020/21; as in Sweden, only somewhat more pronounced.

In this context, it is interesting to note that Italy consistently had the toughest Corona measures, up to and including exit bans, until the end of 2021. Sweden, on the other hand, together with Denmark, had the most liberal approach with only a few restrictions on civil liberties. Why then did Italy perform so poorly, even compared to Spain. This question will be explored below.

⁴¹ Data-Source: SCB.

⁴² Data-Source: Eurostat.

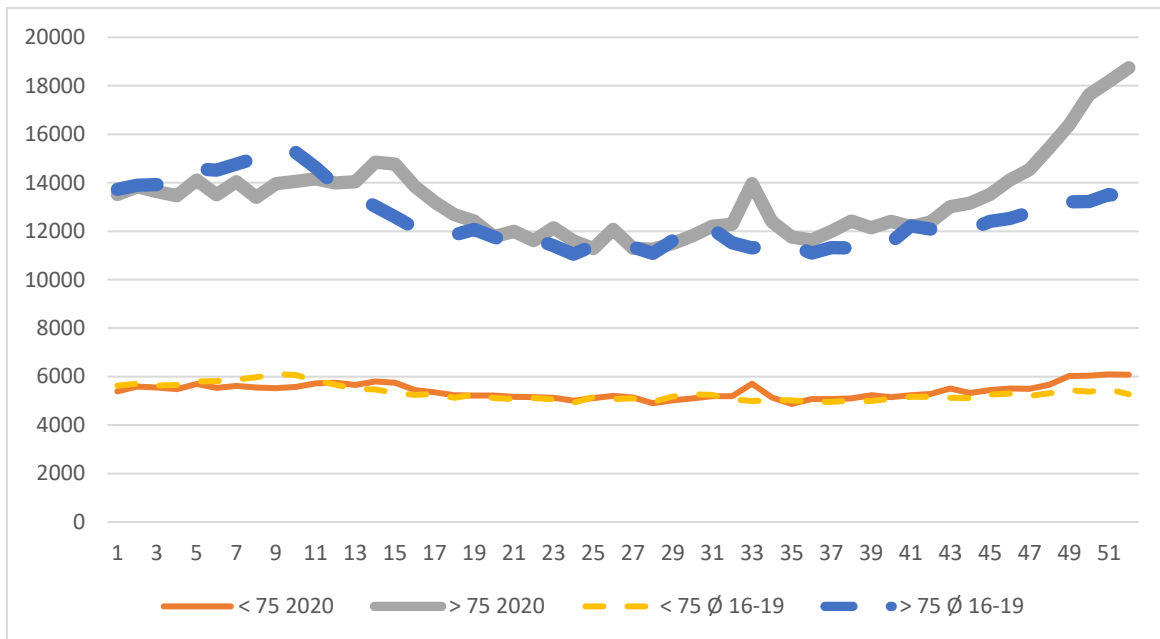


Figure 2-2.d: Germany, Excess mortality in 2020 differentiated by age group (</> 75 years), comparison with 2016-2019, calendar weeks (CW), absolute values.⁴³

For Germany, it is again noticeable that a relevant excess mortality, of persons over 75 years of age, of course, occurred only in the context of the second wave in autumn / winter 2020/21. Although hard Corona measures were introduced very early in Germany. Has the "Zero Covid strategy" not been sustained long enough? Or is the "Zero-Covid strategy" revenging because the population is not sufficiently immunized due to too few infections?

2.3. Corona Measures: Is Less is More?

“Daniel Kahneman called it anchoring; I call it tunnel vision. It’s when we depend too heavily on our pre-existing ideas and first pieces of information – the anchor – to inform our judgments. How a problem is perceived, how it is described, how it makes us feel alongside our individual experience and expertise shapes the decisions we make. Anchoring ensures emerging evidence is ignored. Even in the face of this new contradictory evidence, we refuse to change our early decisions.”⁴⁴

In this chapter the (statistical) analysis is extended to include the Oxford Stringency Index.⁴⁵ The Stringency Index is part of the Oxford Coronavirus Government Response Tracker (OxCGRT) at the University of Oxford (UK). The Stringency Index measures the "severity" of Corona-related restrictions on the population.

Insofar as the above calculations (see esp. chapters 1.2 & 2) regarding Corona's excess mortality in 2020 are correct, i.e. a maximum excess mortality of 0.2%, then the Corona measures (such as curfews) can actually have had little effect. But they have. Statistically, more people died as a result of the Corona measures.

In the case of a Pandemic that was not a (lethal) Pandemic at all⁴⁶, to what extent can we expect anti-Pandemic measures to have a positive impact on population mortality? Unfortunately, the

⁴³ Data-Source: Destatis.

⁴⁴ <https://www.spectator.co.uk/article/the-real-Covid-19-threat>.

⁴⁵ For more information see Chapter 1.2, in particular Figure 1-3.

⁴⁶ With respect to (excess) mortality that is not attributable to medical errors. The latter is historically very often responsible for excess mortality, see e.g. Reuther, G. & R. Reuther: Hauptsache Panik. Ein neuer Blick auf Pandemien in Europa, Leipzig 2023.

Anti-Corona measures tended to have the opposite effect, leading to more deaths (especially in the long run).

In order to assess the stringency of the Corona measures in the countries we looked at, we used the "Oxford Stringency Index" (OSI) already explained in chapter 1.2. The indicator measures from 100 (total lockdown / Zero Covid) to 0 (no measures at all). The data was collected on a daily basis since the beginning of 2020. For the following comparison of 11 countries, the OSI values were added up to 20.11.2021. For this period, the highest value is 46,219 for Italy and the lowest value is 32,804 for Denmark.

Actually, one would expect that harsh Corona measures would lead to lower infection rates ... The opposite is the case! Both Pearson and Spearman (rank correlation) correlation analyses⁴⁷, show that the number of new infections increases rather than decreases with increasing severity of Corona measures. **In fact, however, it is hardly surprising that in a "Pandemic" with a lethality rate of usually 1% and 2% of the sick, measures such as curfews, school closures, etc. could hardly have a positive effect (see Chapter 2). On the contrary, the Anti-Corona measures had a statistically negative impact in many countries, i.e. the Corona measures might have been the cause of higher mortality among the population.** The analysis of Table 2-2 below using Spearman's Rank-Order Correlation⁴⁸, we find that as the severity of the Corona measures (OSI) increases, more people tend to have died "from or with Corona". The value of the statistical correlation is 0.32. This means that in countries with harsher Corona measures, more people have died "from or with" Corona or because of Corona measures.

Country	OSI	New Cases	New Deaths	2x Vaccinated
ITA	46.219	155	1,0	73
UK	39.981	605	2,2	68
GER	39.919	586	2,4	67
FR	39.893	270	0,7	69
ESP	38.397	102	0,4	80
AUT	38.332	1.532	4,9	64
NED	37.133	1.227	1,9	73
SWE	34.388	88	0,4	69
HUN	33.171	870	13,5	60
DEN	32.804	667	1,2	76
CH	32.079	527	0,9	65

Table 2-2: OSI (added), new Corona cases and new deaths (Per Million) and the relative proportion of those "supposedly" vaccinated, i.e. 2 times, as of 21.11.2021

For example, Germany has had much tougher Corona management than Sweden (OSI GER=39,919 vs SWE=34,388). However, Germany has 2,4 deaths per million population on 11/21/2021. Sweden, on the other hand, only 0,4. (Italy, with an extraordinary OSI of 46,219, has a relatively low death rate of 1,0, but still significantly higher than other countries with much lower OSI such as ESP, FR, and of course SWE. We are not medical professionals. But two possible reasons for the higher mortality due to though Corona-Measures can be found in the literature:

1. **As already seen in chapter 1.1. on the basis of an UK-study, there are indications that the Corona-Measures have led to collateral damage:** "Routine and elective care, referrals and

⁴⁷ See e.g. [A comparison of the Pearson and Spearman correlation methods - Minitab.](#)

⁴⁸ See <https://statistics.laerd.com/statistical-guides/spearmans-rank-order-correlation-statistical-guide.php>.

care for cancer and other outpatient referrals were also postponed or cancelled because of pressure on NHS services, leading to backlogs in diagnosis and treatment". (p. 4)⁴⁹

2. **However, at least at the beginning of the Pandemic, it could also have been due to incorrect treatment in the clinics: "There is too much intubation and invasive ventilation"**⁵⁰: "COVID-19 patients were significantly more likely to develop VAP⁵¹ than patients without COVID ... COVID-19 is associated with an increased risk of VAP, which is not fully explained by the prolonged duration of ventilation. The pulmonary dysbiosis caused by COVID-19, and the causative organisms of secondary pneumonia observed are similar to that seen in critically ill patients ventilated for other reasons."⁵² (see also Fig. 2.5.a/b).

So, was it a mistake that Corona patients who actually only had a "better" cold were immediately given invasive ventilation and then died from the common causes of death of this form of ventilation?⁵³

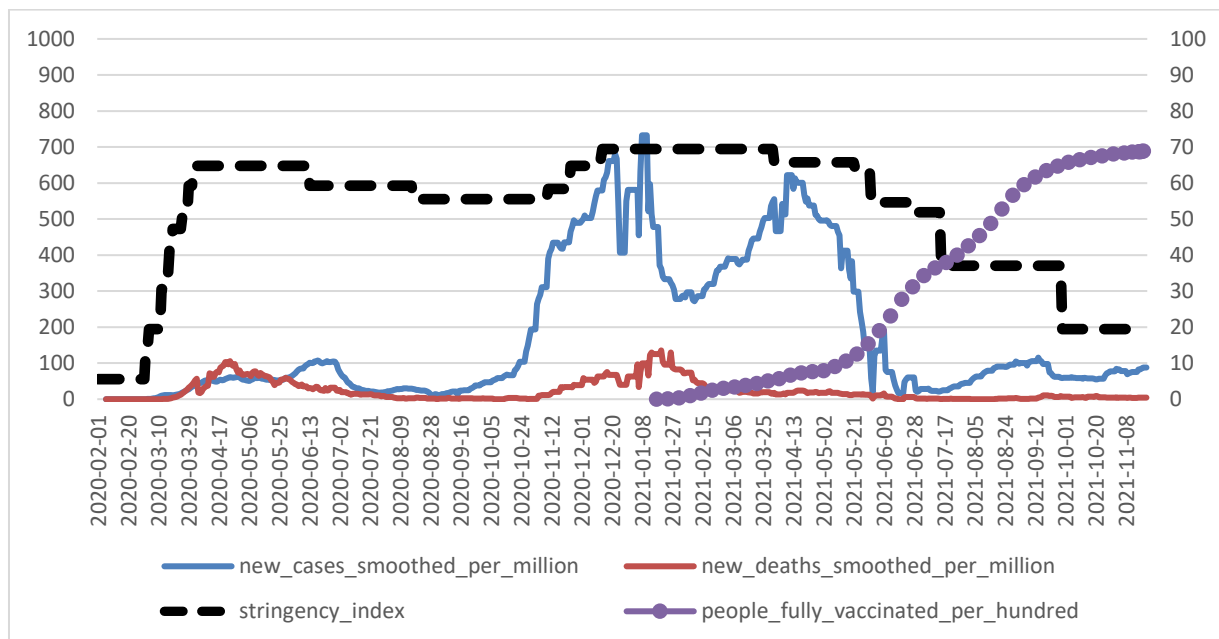


Figure 2-3.a: Sweden: New Covid and Covid deaths (in million population) and stringency index and vaccination coverage (per 100 population), beginning 2020 to end 2021⁵⁴⁵⁵

What is striking is that Sweden has never implemented a "hard" lockdown (OSI never above 70) and has sharply scaled down the measures by summer 2021 (June) at the latest. It is also interesting that the deaths in spring 2020 were due to only a few infections. In winter/spring 2020/21, the number of deaths increased once again, but this time with an exponentially higher number of infections. After spring 2021, there is still a very high number of new infections in some cases, but the number of deaths attributed to Corona approaches zero. From summer 2021 onwards, the number of new

⁴⁹ Although the "epidemic tragedy" of the plague of the Occident in the 17th century was possibly "home-made". According to the studies of Reuther & Reuther, 95% of the alleged plague victims actually resulted due to countermeasures and reactions of the communities, Reuther, G & R. Reuther, *Hauptsache Panik. Eine neuer Blick auf die Pandemien in Europa*, Leipzig 2023, p. 28.

⁵⁰ See e.g. [\[D1_HP_PPI-7\] FAZ/DUW_NEU/SEITE01<UNTITLED> ... 07.04.20 \(vpneumo.de\)](#). (Own translation).

⁵¹ ventilator-associated pneumonia.

⁵² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7797892/>.

⁵³ See also Maul (2023), pp. 105.

⁵⁴ The number of "new cases" per 1 million inhabitants is plotted here and in the case of the figures for the following countries on the right vertical axis (0 - 1,000). All other values on the left vertical axis (0- 100).

⁵⁵ Data source of all figures ch. 2-3 & 2-4: OWID.

infections also remains at a constantly low level. This is despite the fact that the proportion of vaccinations at that time was still less than 10% of the population.

The number of new infections (here as of 21.11.2021) also shows that the Corona measures or their severity have tended to lead to more Corona cases. As Table 2-2 (and Fig. 2-3.a) show, **Sweden in particular, with its very liberal Corona management, has the lowest number of new infections since November 2021.** Austria and the Netherlands, on the other hand, with a much tougher approach, have many more new infections. Denmark and Switzerland, with very few tough measures, on the other hand, have a very low number of new infections too.

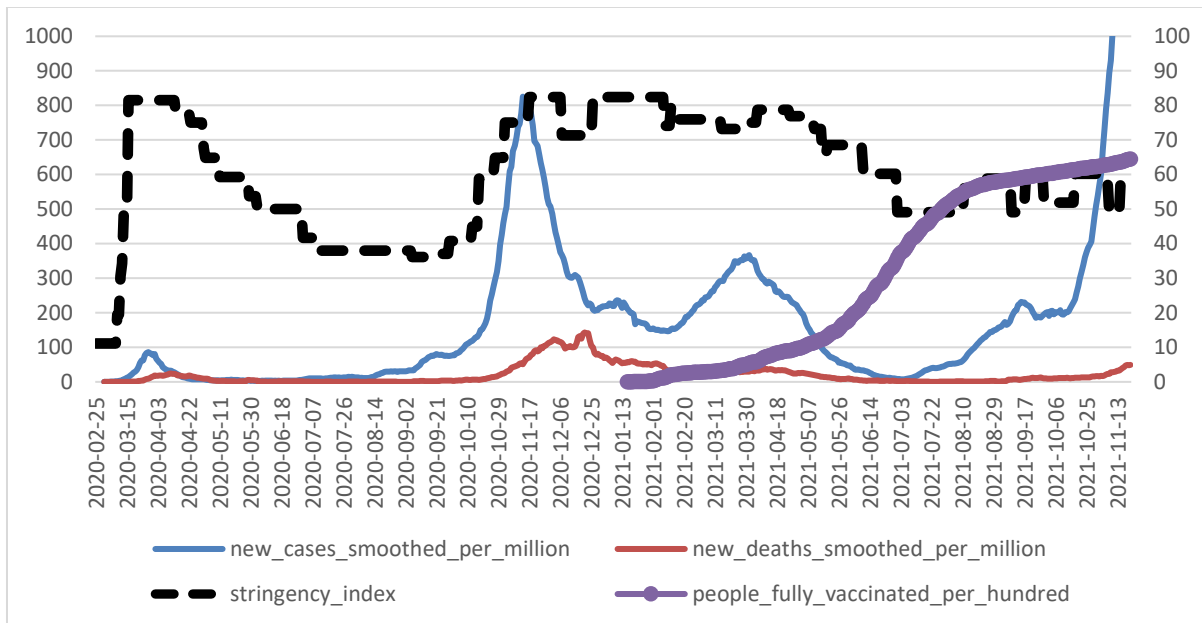


Figure 2-3.b: Austria: New Covid and Covid deaths (in million population) and stringency index and vaccination coverage (per 100 population), beginning 2020 to end 2021

Austria is the country with the toughest restrictions on public life (OSI) and at the same time maximum success, i.e. the highest number of new infections (see Table 3-2.b) at the beginning of November 2021. However, the figure also shows that even though the number of new infections has increased sharply since then. Of course, it is particularly interesting that just at the end of 2021 the number of new infections increases exponentially, although at that time more than two thirds of the population have already been vaccinated at least twice. The number of infections always increased sharply when the measures were relaxed even slightly.

Both statistical ratios, the Spearman and Pearson correlation, show a coefficient of approx. 0.22, i.e. the number of new infections tends to increase the harsher the Corona measures are. Again, two main explanations can be identified from statistical and literature evidence:

1. **End of lockdown = Exponential increase in infections:** Like Figure 2-3.b for Austria, it can also be observed in many other countries such as the Netherlands, Hungary, Denmark, Italy, UK and Germany⁵⁶ that after a phase of relatively hard lockdowns or their withdrawal, the number of new-infections immediately rose sharply; and sometimes also the number of deaths, although not dramatically. **It can therefore be concluded that the hard lockdowns have resulted in only a small proportion of the population developing immunity to SARS-Covid-19. The withdrawal of the lockdowns has thus encountered an unprepared**

⁵⁶ See https://www.uni-speyer.de/fileadmin/Lehrstuehle/Knorr/5_11_Laender_Stringency_Index_Vaccinations.pdf.

population. Unlike Sweden.

For Switzerland, as in the case of Sweden, one can state a rather relaxed approach to Corona measures. It is interesting to note that in the case of Switzerland, at the beginning of the Pandemic in spring 2020, very few cases initially died with, from or because of Corona. This initially changes in the winter of 2020/21, but from spring 2021 onwards, hardly any Corona deaths are recorded; quite unlike, for example, in the "lockdown country" of Italy. Although the infection figures have been rising sharply since October 2021, the severity of the measures has hardly been increased (deaths with, from or due to Corona have been consistently low since spring 2021).

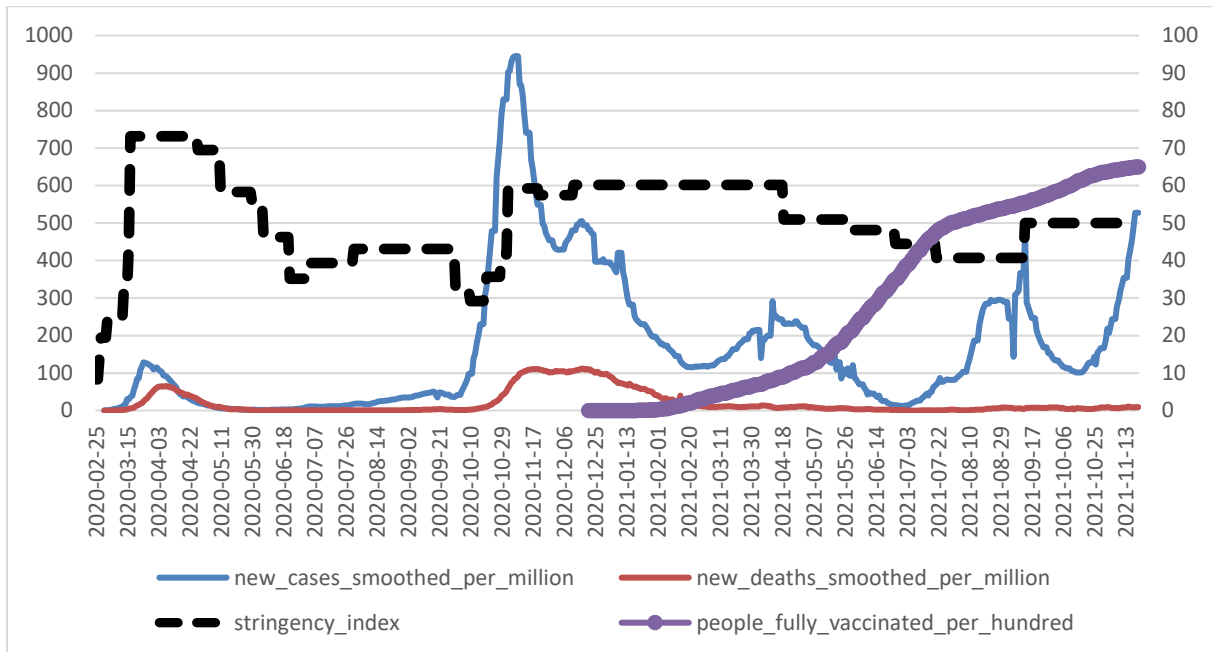


Figure 2-3.c: Switzerland: New Covid and Covid deaths (in million population) and stringency index and vaccination coverage (per 100 population), beginning 2020 to end 2021

Again, it is interesting to note that the vaccination rate has no effect on the number of people who allegedly die from Corona and even less on the number of new infections.

2.4. "The Great Vaccination Swindle": "A nice big epidemic"⁵⁷?

If we look at Switzerland (Figure 2-3.c) we see that as the vaccination rate increases, the number of new infections tends to increase (Correlation: 0,16) as well (Period 1.03.2021 until 19.11.2021): Means the number of new vaccinations has tended to lead to more new infections? The same applies to Austria (Figure 2-3.b), where the correlation is as high as 0.22, i.e. infections are increasing significantly despite rising vaccination rates. This is despite the fact that Austria has adopted a much tougher Corona policy (OSI) compared to Switzerland (see Table 2-2).

In the case of Sweden (Figure 2-3.a), we can see that significantly more people had become infected with Corona virus than in other countries (by summer 2021). From May 2021, the number of infected people does not increase significantly; unlike other countries, such as Austria, France and the Netherlands.

"Cold viruses are spreading epidemically. Because they mutate rapidly, spread occurs in waves of new variants. As our immune system learns, the waves become less and less

⁵⁷ [A history of herd immunity - The Lancet.](#)

dangerous, ... From omicron onwards, we can assume a transition to endemicity. Herd immunity was achieved in 2021, as evidenced by antibody studies.”⁵⁸

A study in the journal Radiology of the RSNA (Radiological Society of North America) comes to this conclusion:

“Both the Omicron variant and vaccination were associated with less typical chest CT [Computed tomography] manifestations of COVID-19 and lesser extent of disease).”⁵⁹

However, the results of the multivariate analysis of the study suggest that the Omicron variant contributed to the increasing harmlessness of Corona to a greater extent than the vaccinations. In the New England Journal of Medicine another study comes to the conclusion:

“Primary immunization with two doses of ChAdOx1 nCoV-19 or BNT162b2 vaccine provided limited protection against symptomatic disease caused by the omicron variant. A BNT162b2 or mRNA-1273 booster after either the ChAdOx1 nCoV-19 or BNT162b2 primary course substantially increased protection, but that protection waned over time.”⁶⁰

The above results for Sweden confirm the above quotes (studies). By allowing many infections early on, Sweden achieved "herd immunity" early on. Other countries that have relied longer on hard measures such as lockdowns and waited for vaccination as salvation had been in a much worse position.

England has followed a relatively tough Corona regiment compared to Sweden (see Table 2-2). While in the summer of 2021 in Sweden the number of Corona infections has decreased extremely after very high numbers winter/spring 2020/21, in the UK the number of infections increased again significantly at that time; maybe because the UK had curbed the infections in autumn/winter 2020/21 by very tough measures. Thus, unlike in Sweden, the number of new infections did rise sharply despite vaccinations. The fact that the number of Corona deaths is not increasing may be due to the fact that Corona was significantly less dangerous while the delta variant was still predominant, or because many of the people with several previous illnesses and older than 80 years had already died in 2020 or early 2021.

⁵⁸ Frank, Gunter, 2023, Das Staatsverbrechen. Warum die Corona-Krise erst dann endet, wenn die Verantwortlichen vor Gericht stehen, p.65 (Own translation).

⁵⁹ <https://pubs.rsna.org/doi/full/10.1148/radiol.222730>,

⁶⁰ <https://www.nejm.org/doi/full/10.1056/NEJMoa2119451>.

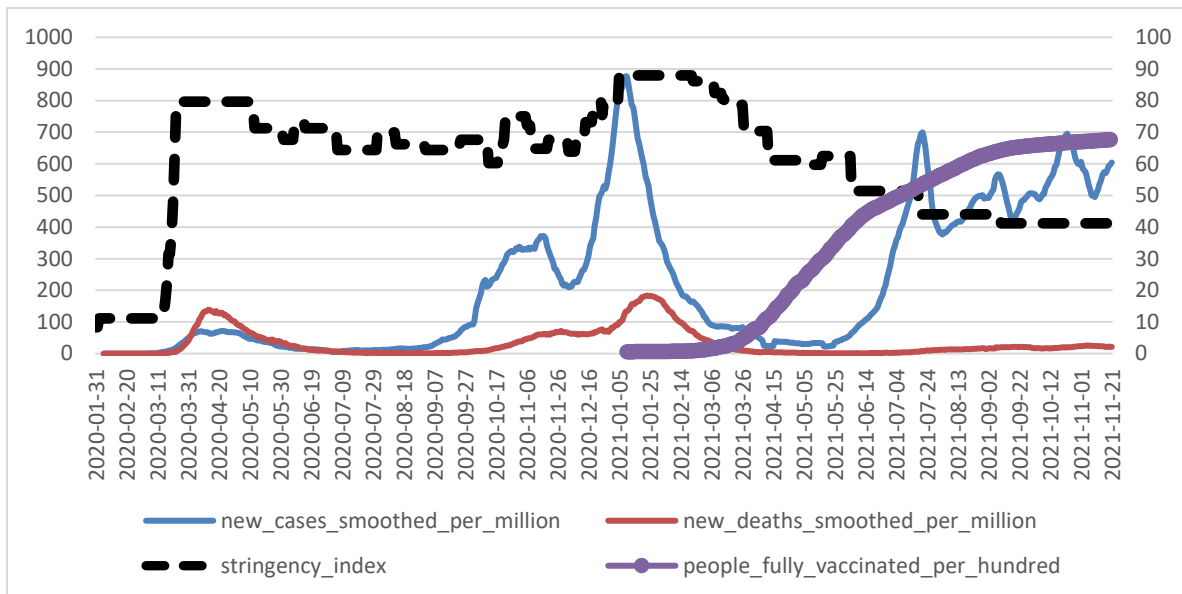


Figure 2-4.a: UK: New Covid and Covid deaths (in million population) and stringency index and vaccination coverage (per 100 population), beginning 2020 to end 2021

In conclusion, Germany is a very interesting case. Because, one has apparently managed to keep the number of infections very low through very tough Corona-Measures. Nevertheless, the number of people who allegedly died of Corona is very high. (see Table 2-2).

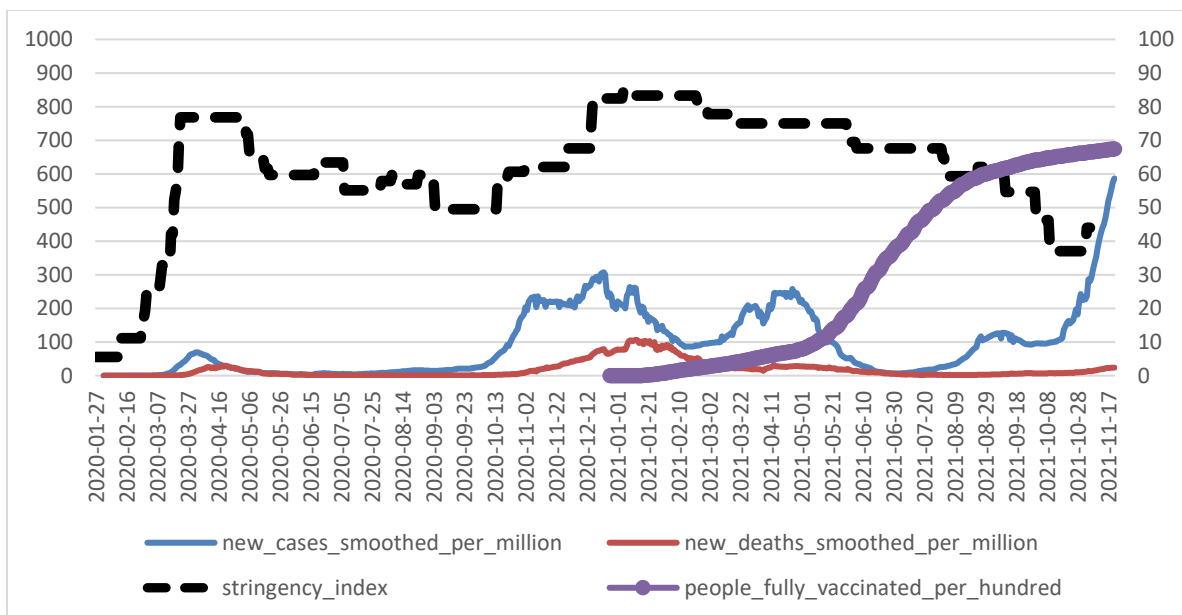


Figure 2-4.b: Germany: New Covid and Covid deaths (in million population) and stringency index and vaccination coverage (per 100 population), beginning 2020 to end 2021

As in many other countries, with the exception of e.g. Sweden, the number of infections in Germany rises sharply in winter 2021 despite tough Corona-Measures (OSI) and high vaccination rates. **What is particularly interesting, however, is that the number of collateral losses in Germany, i.e. excess mortality in the population, is especially high.**

2.5. Interim Conclusion: The Concept of "Herd Immunity" was perhaps successful after all!

The extent to which the alleged Corona deaths occurred is doubtful. For one thing, deaths, especially among older people, have simply been counted as Corona deaths, even though they already had far more serious illnesses and Corona simply came along; especially since the alleged Corona deaths have usually reached a higher age than the average of the population.

The extent to which vaccination has done anything to contain the alleged Pandemic is doubtful. The example of Sweden shows that the concept of "herd immunity" was probably much more successful.

Whether it is herd immunity, vaccination coverage, or lower lethality of the Omicron variant, there has been a significant decrease in deaths correctly or incorrectly attributed to Corona for all countries considered.

3 In the Long Run: "We are all not Dead" (At least not because of Corona)

"In the long run" means, of course, first and foremost that the data of the 10 countries considered in this chapter could be analyzed over a significantly longer period than before (Chapter 2 "in the short run"): From 2016 to 2019 and from the beginning of 2020 to the end of 2022. But it also means that trend lines (based on regression analyses)⁶¹ could be used in addition to graphical evaluations and correlation analyses. The latter are particularly interesting with regard to the development of (excess) mortality as a dependent variable, i.e. how mortality is likely to develop further. As independent variables, i.e. the variables that have essentially influenced mortality, the severity of the Corona measures and the vaccination rate continue to be considered first and foremost.

3.1. The comparison between Germany and Sweden is "illuminating"

Before Corona, in 2016-2019, the trend value of the regression analysis of mortality in Germany was -6, i.e. people tended to become significantly older because fewer people died in each year. In Sweden, the corresponding value was -0.5. The Swedish population has therefore become older to a lesser extent. (However, it must be taken into account that life expectancy in Sweden was already significantly higher at approx. 83 years (2021) than in Germany (approx. 81 years⁶²).

During the Corona years (2020-22), this changed dramatically, with mortality increasing by +8% in Germany and only +3% in Sweden. And the trend⁶³ for Germany looks even bleaker: +8.8 compared to -1.6 for Sweden. (I.e. in Sweden mortality is already clearly decreasing again, while in Germany it is clearly increasing. Before Corona, i.e., in 2016-2019, both countries still had values of about -0.71 (Sweden) and -0.78 (Germany) for the mortality trend, i.e., life expectancy increased in both countries, in Germany even slightly more than in Sweden.) So, the question must be, what has gone better in Sweden?

Country	(Over)Mortality		Stringency (OSI)		Vaccinations
	Rise from 2020	Trend	Ø from 2020	Trend	End 2022 (%)
GER	8%	8,8	50	-0,21	76
SVE	3%	-1,6	41	-0,3	72

⁶¹ See e.g. <https://www.educba.com/regression-analysis-in-excel/>

⁶² See <https://de.statista.com/statistik/daten/studie/954/umfrage/lebenserwartung-bei-geburt-in-ausgewaehlten-laendern-der-europaeischen-region/>

⁶³ See e.g. <https://support.microsoft.com/en-gb/office/slope-function-11fb8f97-3117-4813-98aa-61d7e01276b9>.

Table 4-1. (Over)mortality & trend in mortality 2020-2022, OSI & Vaccinations (%), GER & SVE

The increase in excess mortality in Germany compared to Sweden could therefore be due to two factors, 1) significantly **higher rate and later and more hesitant withdrawn Corona measures** (OSI Trend), or 2) significantly **higher vaccination rate**.

The following two graphs show the development of the death rates of the two countries comparing the years 2016-2019 (blue lines) and the Corona years 2020 to the end of 2022 (orange lines). (Solid line = absolute number per week; dotted line = trend), and OSI (gray line like mortality, rendered on the right axis).

Although Germany has achieved a higher vaccination rate compared to Sweden, (over)mortality is significantly higher, and this is despite the fact that Sweden has implemented significantly less restrictive Corona measures and has downscaled them earlier and to a greater extent. And, the trend for Germany is going in the completely wrong direction, namely a massive trend of an increase in excess mortality. Quite differently in Sweden, there the trend goes already again in the direction of a higher life expectancy, despite very many corona infections (see Fig. 2-3.a).

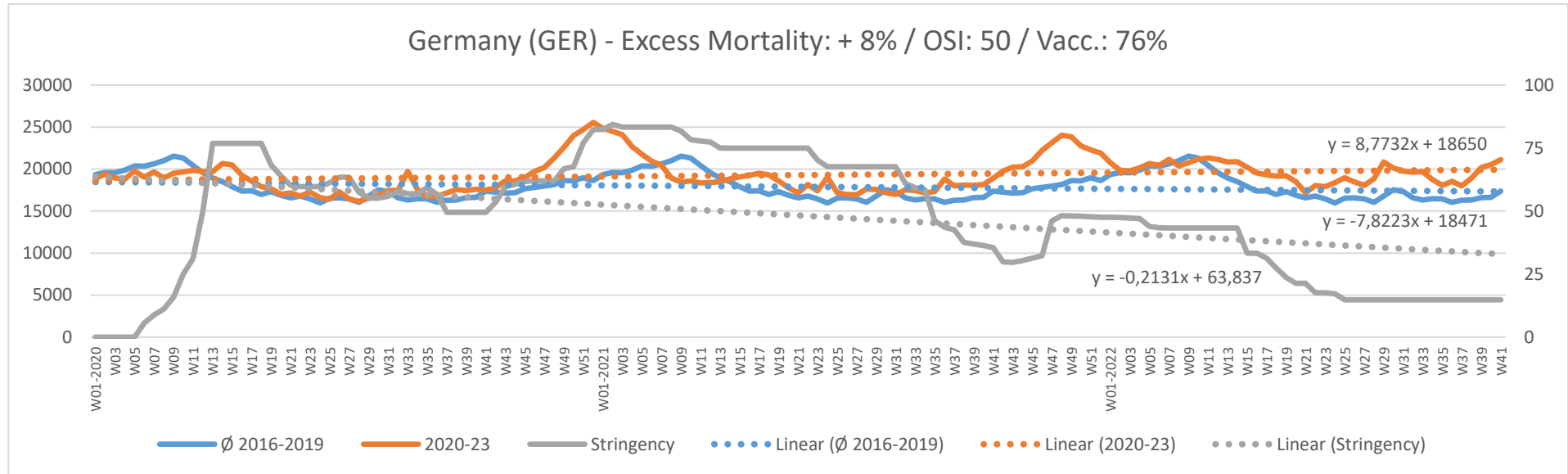


Figure 4-1.a: Germany (GER), excess mortality 2020-2023 compared with average (\emptyset) 2016-2019, extended by OSI & trend lines.

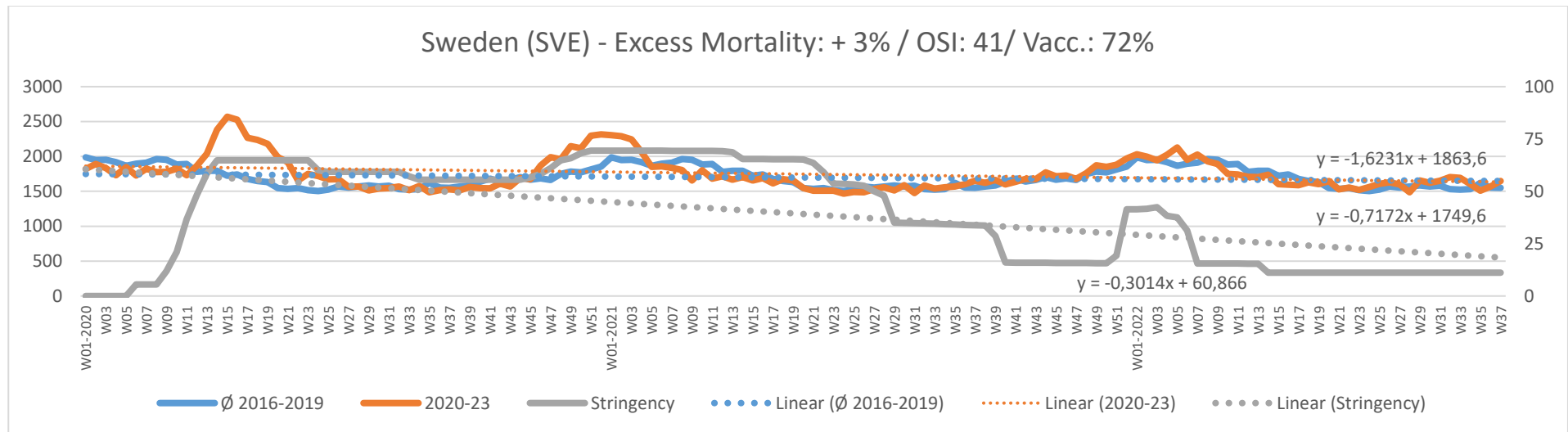


Figure 4-1.b: Sweden (SVE), excess mortality 2020-2023 compared with average (\emptyset) 2016-2019, extended by OSI & trend lines.

3.2. The comparison between Denmark and Italy is "illuminating"

As the figures 2-3a. (Sweden) and 2-4b. (Germany) show, Sweden admitted many more infections than Germany, especially at the beginning of the alleged pandemic. The consequence was an early "herd immunity" in Sweden, in Germany it was hoped in the sense of the "Zero-Covid" strategy that the number of infections had to be kept as low as possible in order to then get the virus under control by means of vaccination. The numbers and the trend of (over)mortality speak a clear language, which strategy was the more successful.

Country	(Over)Mortality		Stringency (OSI)		Vaccinations
	Rise from 2020	Trend	Ø from 2020	Trend	End 2022 (%)
GER	8%	8,8	50	-0,21	76
SVE	3%	-1,6	41	-0,3	72
DEN	5%	0,7	39	-0,3	81
IT	12%	-10,0	55	-0,26	82

Table 4-2. (Over)mortality & trend in mortality 2020-2022, OSI & Vaccinations (%), GER & SVE, extended by DEN & IT

Italy has the highest vaccination rate of all 10 European countries, at about 82%. However, Italy also has the highest (excess) mortality rate of the years 2020-2023 with approx. 12%, next to the Netherlands and Spain. And with a value of 55, it has the highest OSI of all the countries considered. It is interesting to note that Corona measures have been reduced to a comparatively high degree (trend = -0.26). However, this was done much later than in Sweden, for example, but above all the regime was very tough at the beginning. Compared to other countries such as Sweden or Spain, the number of Corona infections has been kept low⁶⁴, but at what cost?

Denmark has also been trying for a very long time (until mid-2021) to keep the number of infections limited. This was initially successful, but even the high vaccination rate did not prevent a drastic increase in infections at the end of 2021.⁶⁵ (However, it must be noted at this point that Omicron became the predominant variant from the end of 2021. Omicron was far more contagious than e.g. the Delta-Variant before, but also more harmless; moreover, it must be noted that medical errors such as in the case of ventilation, as at the beginning, generally no longer occurred in 2021 (see chapters 1.1., 2.4 & 2.5).)

However, Figure 4-2.b shows that Denmark, like Sweden, has never had a high OSI compared to Italy and Germany. The excess mortality from 2020-2023 was accordingly also marginal in trend (0.72). (Unlike Sweden, an (under)mortality was narrowly missed). The Corona measures (OSI) were scaled down early and sustainably, as in Sweden.

In fact, it looks like less harsh Corona measures would have led to less (over)mortality. The vaccination rate is beside the point.

⁶⁴ See https://www.uni-speyer.de/fileadmin/Lehrstuehle/Knorr/5_11_Laender_Stringency_Index_Vaccinations.pdf, Abb. 5-2.c.

⁶⁵ See https://www.uni-speyer.de/fileadmin/Lehrstuehle/Knorr/5_11_Laender_Stringency_Index_Vaccinations.pdf, Abb. 5-2.h.

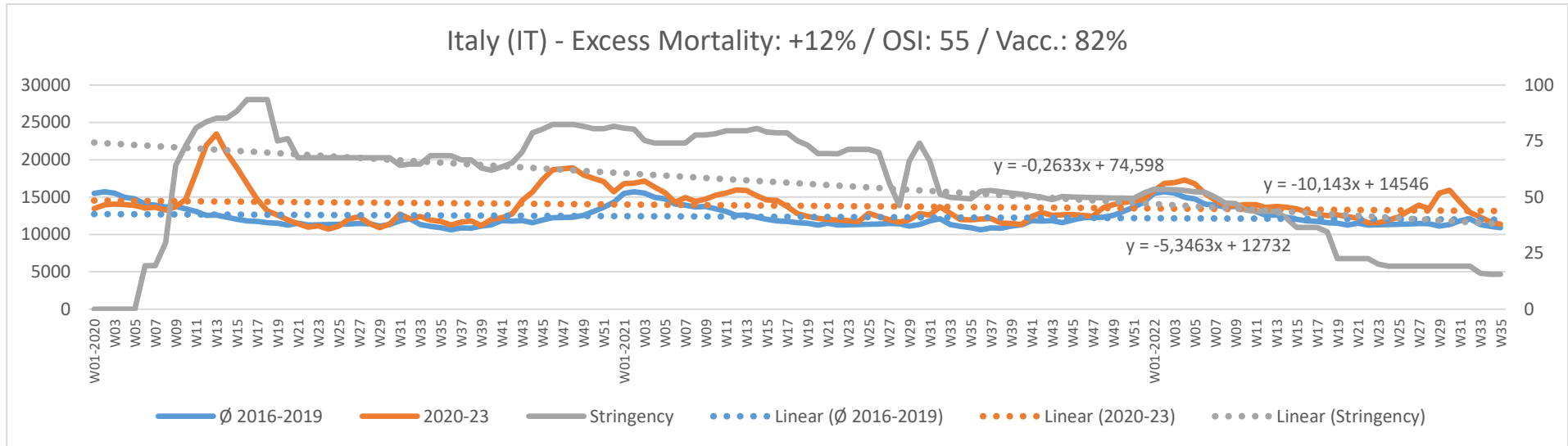


Figure 4-2.a: Italy (IT), excess mortality 2020-2023 compared with average (\varnothing) 2016-2019, extended by OSI & trend lines.

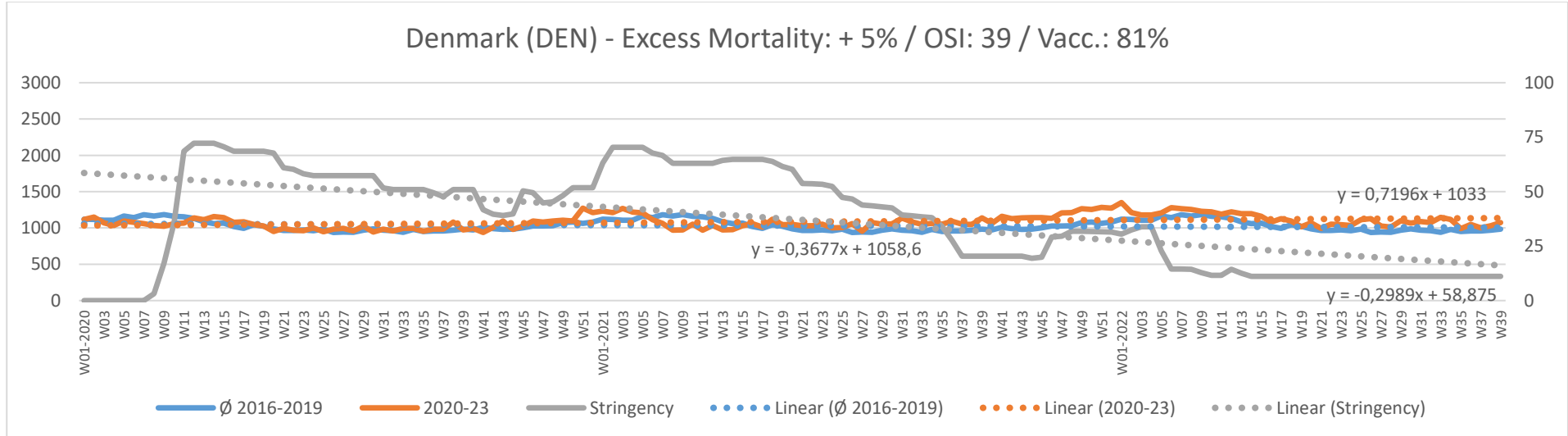


Figure 4-2.b: Denmark (DEN), excess mortality 2020-2023 compared with average (\varnothing) 2016-2019, extended by OSI & trend lines.

3.3. The comparison between Spain and Austria is "illuminating"

Spain is a very interesting case. After a high number of deaths despite an actual low number of infections (maybe due to incorrect medical treatment, i.e. ventilation at the beginning?) were detected very early in 2020, very harsh Corona measures (OSI) were imposed. However, these did not prevent further, much more frequent infections during 2020; but without by far leading to a corresponding increase in deaths. On the contrary, although the number of infections is increasing, the number of deaths is decreasing 2021, the number of infections increases again significantly, but not the number of deaths, although the Corona measures have been significantly relaxed. The drastic rollback of Corona measures in Spain then began in summer 2021.⁶⁶

Due to the very tough Corona measures until around the end of spring 2021 and the subsequent drastic scaling back of measures, the trend shows the strongest scaling back of measures for all countries considered (-0.34). (Countries such as Sweden or Denmark, which did not have comparably restrictive measures (lockdowns) at any point in time, cannot logically have a correspondingly strong "withdrawal trend"). Although Spain, together with Italy, has a very high mortality rate of 12%, which is also accompanied by an overall high stringency index (OSI), the significant withdrawal of measures in these two countries makes the trend far more favorable than in Germany and Austria, which have held on to the "lockdown" for much longer.

Country	Mortality		Stringency (OSI)		Vaccinations End 2022 (%)
	Rise from 2020	Trend	Ø from 2020	Trend	
GER	8%	8,8	50	-0,21	76
SVE	3%	-1,6	41	-0,3	72
DEN	5%	0,7	39	-0,3	81
IT	12%	-10,0	55	-0,26	82
AUT	11%	0,3	53	-0,11	76
ESP	12%	-9,5	39	-0,34	81

Table 4-3. (Over)mortality & trend in mortality 2020-2022, OSI & Vaccinations (%), GER & SVE, DEN & IT, extended by ESP & AUT

As in the case of Germany and Italy, Austria has a very high value for the OSI index (53), the second highest of all countries. Consequently, Austria also has a very high excess mortality rate. Measures have been gradually but comparatively hesitantly scaled back from spring 2021 (trend: -0.11). Although under-mortality in Austria was already low before 2020 (trend: -0.71), after 2020 there is a trend toward over-mortality, albeit slight (0.33).

⁶⁶ See https://www.uni-speyer.de/fileadmin/Lehrstuehle/Knorr/5_11_Laender_Stringency_Index_Vaccinations.pdf, Abb. 5-2.b.

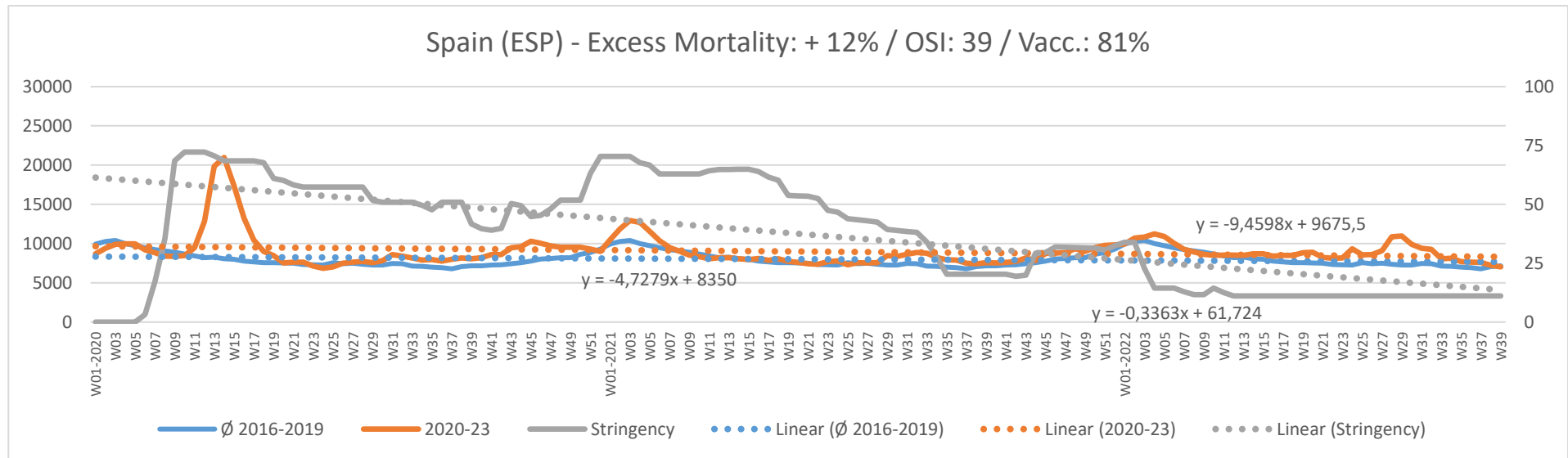


Figure 4-3.a: Spain (ESP), excess mortality 2020-2023 compared with average (∅) 2016-2019, extended by OSI & trend lines.

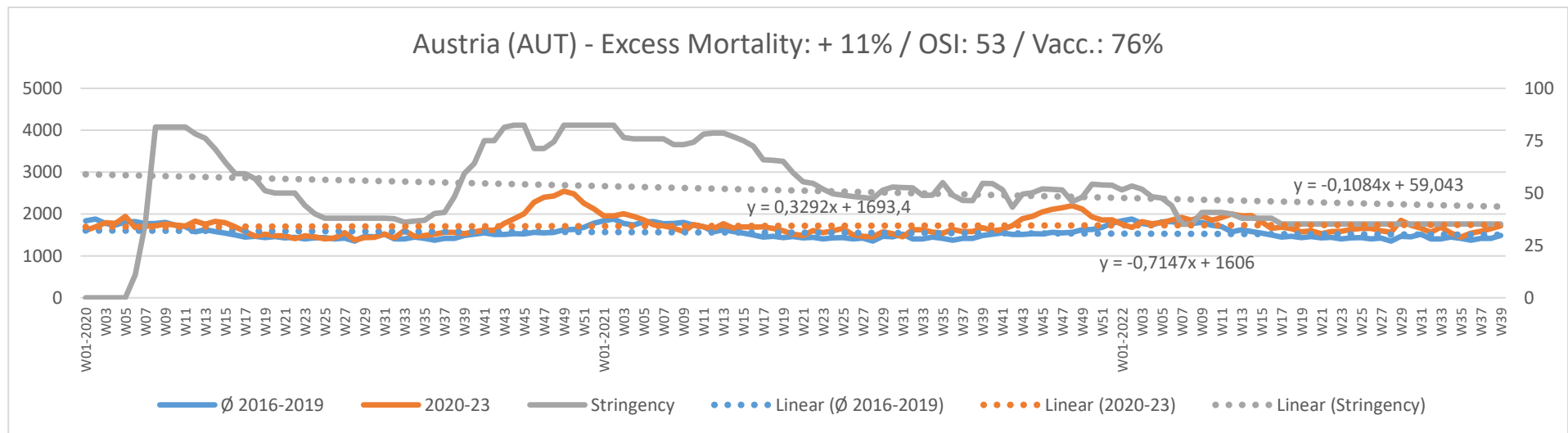


Figure 4-3.b: Austria (AUT), excess mortality 2020-2023 compared with average (∅) 2016-2019, extended by OSI & trend lines.

3.4. To sum up: The comparison between ten countries is "illuminating": "The more aggressively the measures were applied, the more people died"

"Our high-tech conventional medicine seemed as helpless in 2020 as herb women, ... and the few doctors in the 14th century, when the plague wave swept across Europe. Lockdowns, intensive care units, antiviral drugs and FFP2 masks had as little effect as fumigation, plague masks or walling up houses.⁶⁷ **On the contrary, the more aggressively the measures were applied, the more people died.**"⁶⁸

The following table 4-4 shows by means of the coloured markers⁶⁹ that **there must be a correlation between the hardness of the Corona measures (OSI) and the increase in (excess) mortality since 2020, in the sense that harder measures (lockdowns) have led to higher mortality.** For example, Denmark and Sweden have very few hard Corona measures, which they also scaled back early (OSI - trend), while also showing very low (excess) mortality. In the case of Italy and the Netherlands, the opposite is the case, hard and long-lasting lockdowns with very high (excess) mortality.

Country	Mortality		Stringency (OSI)		Vaccinations End 2022 (%)
	Rise from 2020	Trend	Ø from 2020	Trend	
DEN	5%	0,7	39	-0,3	81
ESP	12%	-9,5	39	-0,34	81
SVE	3%	-1,6	41	-0,3	72
CH	9%	-0,1	42	-0,15	69
FR	10%	-4,3	47	-0,18	78
UK	11%	-11	49	-0,32	75
GER	8%	8,8	50	-0,21	76
NED	12%	-0,1	50	-0,25	68
AUT	11%	0,3	53	-0,11	76
IT	12%	-10,0	55	-0,26	82

Table 4-4. (Over)mortality & trend in mortality 2020-2022, OSI & Vaccinations (%), 10 European Countries, sorted by OSI

The Spearman rank correlation between OSI and (excess) mortality is approximately 0.45. This is an indicator of a relatively high (positive) correlation between the harshness of the Corona measures (OSI) and high excess mortality. That is, the harsher the Corona measures were in a country, the higher the mortality.

Only data from two of the ten countries appear to contradict the association of high (excess) mortality and stringent Corona measures. Spain, in particular. But, as already seen in chap. 4.3, Spain initially operated a very harsh Corona regime, only to end it abruptly. Therefore, this results in a relatively low OSI for the entire period 2020 to the end of 2022, but the very harsh measures until mid-2021 then still explain the very high value for (excess) mortality. **If we disregard Spain from Spearman's calculation of the correlation coefficient, the coefficient for the statistical relationship between excess mortality and harshness of Corona measures (OSI) is 0.78!** This is an almost perfect correlation (which is at a value of 1).

The second country that stands out somewhat is Germany. Although lockdowns have been used for a very long time, (excess) mortality is high, but not as high as in the Netherlands, Austria and Italy, for

⁶⁷ See [Assessing mandatory stay-at-home and business closure effects on the spread of COVID-19 \(wiley.com\)](#).

⁶⁸ Reuther, G. & R. Reuther: Hauptsache Panik. Ein neuer Blick auf Pandemien in Europa, Leipzig 2023, p.107. (and passim). (Own translation, highlighting.)

⁶⁹ Green = low values, yellow/orange = medium values and red = high values.

example. This probably has something to do with the fact that, however, you may be paying a high price for this. Germany is the only country to show a significant increase (+8.8) in (excess) mortality in the trend. Here, further monitoring of the development of (excess) mortality must shed light on whether specifically the suppression of Covid infections in Germany ("Zero Covid strategy") has ultimately led to a much higher number of collateral deaths compared to deaths due to Corona.

The vaccination rate, it seems, has no influence at all on (excess) mortality (correlation between the trend of excess mortality and the vaccination rate according to Spearman = 0.1). As Table 4-4 shows, although Denmark has a very high vaccination rate of 81% and a very low (over)mortality rate. Sweden, however, has an even lower (over)mortality and a much lower vaccination rate (72%). Italy has the highest vaccination rate (82%) and also the highest (excess) mortality. However, one could say that the vaccinations only started in spring 2021 and therefore could not have had a positive effect on the (excess) mortality in the years since 2020. In addition, vaccination was initially still carried out against the delta variant of the virus, although the omicron variant had long been predominant: "The SARS-CoV-2 Omicron variant has demonstrated enhanced transmissibility and escape of vaccine-derived immunity."⁷⁰

But even if one uses the increase in (excess) mortality as a yardstick, there is hardly any correlation. At 0.15, however, the correlation is weak. **In other words, the vaccinations would actually have led to a statistical tendency towards more deaths?**

Excursus: This is how the correlation between (over)mortality and lockdowns could be explained medically

Basically, there were two strategies to counter Covid, which were epidemiologically fundamentally different: 1) the concept of herd immunity, which, as in the case of Sweden, trusted that the population would be "contaminated" after a certain period of time and thus the virus would be stopped in its spread, and 2) the concept of lockdowns ("Zero-Covid"), i.e. preventing the spread of the virus through curfews, school closures, etc. until a vaccine has been developed, as in Germany and many other countries, especially China.

The development of (excess) mortality (see e.g. Table 4-4) clearly proves the Swedish approach of herd immunity right in hindsight. But why?⁷¹

Basically, the concept of herd immunity is based on the ability of the immune system to develop an "acquired defence" against pathogens such as viruses: "With this form of immune defence (...) the body learns to recognise certain parts (antigens) of pathogens and to form precisely matching lymph cells (...) and proteins (...) against them. In the course of the initial infection, memory cells are formed, This is why a second infection often goes unnoticed or is weaker. .. Often there is then ... a long protection, sometimes even lifelong."

In contrast to a previous infection, vaccinations have only a very limited effect on viral respiratory diseases: Above all, vaccinations do not provide protection against infection and transmission, but they are able to mitigate severe courses of disease.

To put it in a nutshell once again:

⁷⁰ <https://www.nature.com/articles/s41591-023-02219-5>.

⁷¹ The following medical and epidemiological arguments are taken from: Frank, Gunter, 2023, Das Staatsverbrechen. Warum die Corona-Krise erst dann endet, wenn die Verantwortlichen vor Gericht stehen, pp.88. (Own translations).

- “Vaccination against a Corona virus offers in principle no protection against infection, no protection against transmission (foreign protection) and only variable protection against severe courses at a low level and of short duration.”
- “A vaccination against Corona viruses that is given during a Covid disease or is repeated in too short a period of time basically weakens one's own immune system and makes one more susceptible to disease.”
- “The best protection against a viral respiratory disease is and remains immunisation after an illness has been overcome.”

“Therefore, the right strategy was set from the beginning: to let the infection run outside the risk groups, especially in children, with the aim of quickly achieving herd immunity.”

3.5. For what reasons did more people die from 2020, even though Corona was not the (immediate) cause?

Already in chapter 1.1⁷² it could be seen for the UK that Covid could no longer be the reason for (over)mortality since May 2021 at the latest, as it occurred there e.g. at the beginning of 2022.

One important reason why more people died in 2022, at least for Germany, was that many people could or no longer wanted to go for preventive and check-up examinations. This could have resulted in more cancer deaths last year:

“In the Corona years 2020 and 2021, the number of inpatient hospital treatments was down in many areas. The high utilization of hospitals by COVID-19 patients, keeping bed capacities free, and tightened hygiene concepts led to "scheduled" treatments being postponed. In addition, many people probably avoided hospitalization unless they considered it absolutely necessary.”⁷³

The following data are from Germany: In 2020, there were already 6% fewer inpatient cancer treatments. In 2021, the number of cancer-related hospitalizations decreased by another 1.2%. Overall, a decrease from the "pre-Corona year" of 7.2%.⁷⁴

The following estimate comes from the USA:

“A report in the Journal of Clinical Oncology shared that, at the height of the pandemic in April 2020, colon cancer screenings by colonoscopy were down 75%. Modeled experiences show that at 10 years (2030), there are up to potentially 4,000 more deaths from colon cancer. Essentially, the warning is that these delayed screenings due to [COVID-19] are a ticking time bomb with a 10-year fuse.”⁷⁵

“It is important to note [that] cancer incidence and mortality data lag 2–4 years behind the current year due to the time it takes to collect, compile, quality check, analyse and interpret the data,” ... “Therefore, we do not have a full picture just yet on how the pandemic has affected these statistics.”⁷⁶

Another reason given for the (excess) mortality is the side effects of the vaccinations against Covid-19, especially due to the mRNA vaccine.⁷⁷ A big problem is that the data basis for this is very weak, at

⁷² See e.g. Fn. 19 & Figure 1-2.

⁷³ https://www.destatis.de/DE/Presse/Pressemitteilungen/2023/02/PD23_N007_231.html (Own Translation).

⁷⁴ See <https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Gesundheit/Todesursachen/inhalt.htm>.

⁷⁵ [Why is there an increase in cancer diagnoses? \(medicalnewstoday.com\)](https://www.medicalnewstoday.com/articles/why-is-there-an-increase-in-cancer-diagnoses).

⁷⁶ Ibid.

⁷⁷ See e.g. https://www.achgut.com/artikel/impfopfer_behoerden_ignorieren_horrorhafte_verdachtszahlen.

least in Germany. For England, however, the ONS provides figures.⁷⁸ For the period March 2020 to June 2023, 64 cases of vaccines causing adverse effects in therapeutic use and 56 cases where vaccination was actually the cause of death were recorded in England and Wales. It should be taken into account here that vaccinations only started in spring 2021. Still, the 56 deaths seem a small number compared to the approximately 5 million vaccinated (75% of the population) in the summer of 2022. On the other hand, it can be argued that only about 5% of vaccine injuries are recorded and reported⁷⁹. But even if one were to assume that the rate of deaths from vaccination had been under-reported by 95%, one would only arrive at a figure of about 1,100 to 1,200 "vaccine victims" between 2020 and 2023. However, this would not even account for a tenth of the excess deaths in the UK in one week (2020).

4 Epilogue: What will be the right path through the next pandemic? Or why has there been so little and such poor evaluation (especially in Germany)?

The German government had commissioned an expert report to evaluate the Corona measures.⁸⁰ The central finding of the experts was:

"Many protection measures could ... not be evaluated at all, partly because Germany did not collect enough useful data, is one of the main criticisms of the Committee of Experts."^{81,82}

This is remarkable because Germany has two authorities directly subordinate to the Federal Ministry of Health, the Robert Koch Institute⁸³ and the Paul Ehrlich Institute⁸⁴. These two authorities, whose task it would have been to collect, collate and analyze data on the pandemic since 2020, have not done so.

"The federal government's Corona Expert Council always met behind closed doors. In 33 meetings between December 2021 and April 2023, the Council had made recommendations that significantly influenced policy decisions such as lockdowns, mandatory masking, school closures or facility-based mandatory vaccination. The Council was known for recommending ever tougher measures. What exactly and on what scientific basis the recommendations were decided was not told to the public. The minutes of the individual meetings were secret. Detailed questions were not answered. ... What decisions were made during the pandemic? How strong was the influence of which experts on policy? On what scientific basis did the federal government attempt to combat Corona?"⁸⁵ "

⁷⁸

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/monthlymortalityanalysisenglandandwales>.

⁷⁹ See <https://pubmed.ncbi.nlm.nih.gov/16689555/>.

⁸⁰

https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/3_Downloads/S/Sachverstaendigenausschuss/220630_Evaluationsbericht_IFSG_NEU.pdf.

⁸¹ https://www.zeit.de/politik/deutschland/2022-07/Corona-massnahmen-evaluation-maskenpflicht?utm_referrer=https%3A%2F%2Fwww.google.com%2F. (Own translation & highlighting).

⁸² Identically quoted in chapter 1.1 (p.7 fn. 22).

⁸³ See https://www.rki.de/EN/Home/homepage_node.html.

⁸⁴ See <https://www.pei.de/EN/home/home-node.html>.

⁸⁵ <https://www.faz.net/aktuell/politik/inland/Corona-expertenrat-protokolle-werden-nur-geschwaerzt-herausgegeben-18996492.html>.

“The federal government does not want to publish the minutes of the Corona Council of Experts in their entirety. Only redacted.”⁸⁶

The experts, who were essentially representatives of the Zero Covid strategy such as Christian Drosten, Melanie Brinkmann, Alena Buyx, Viola Priesemann, Lothar Wieler and Christian Karagiannidis, could not and cannot of course have any interest in evaluating the success of the German Way in the alleged Corona pandemic; after all, the Swedish Way of herd immunity (or community immunity) in particular has proved to be the more successful.⁸⁷

Be that as it may, for the future it seems to be an important lesson from the Corona years that one should start early to evaluate the measures taken and to derive the right consequences from the evaluations. Whether this will happen, especially in Germany, is probably written in the stars.

⁸⁶ Ibid.

⁸⁷ See in particular Table 4-4 and passim.