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Prologue

The following collection of manuscripts emerged from an international and interdisciplinary Virtual Exchange that took place during Covid-19 Pandemic in March/April 2021 organised by Prof. Milena Valeva and Prof. Kathrin Nitschmann.

Covid 19 had, and still has in parts of the world led to severe restrictions of fundamental liberties worldwide and thus enhanced debates on ethics and human rights. This debate appeared as a common denominator connecting citizens in countries all over the world. One of the concrete consequences for students was certainly the reduction of mobility, not only in the sense of not being allowed to visit the university but also in canceling planned international exchanges. In this context, the virtual exchange offered a chance not only to overcome the still lasting restrictions on mobility but also to exchange daily life experiences of students in Covid-times, merging into restrictions and/or violation of human rights in a legal and ethical dimension.

Students from Peru, Israel and Bulgaria participated in the virtual exchange, which was supported by the International Teaching Award of Trier University of Applied Sciences, within the frame of of a summer school and had the opportunity to work synchronously and asynchronously in international and interdisciplinary teams on the topic "*Covid-19 – Ethical Dilemmas and Human Rights – Exploring international Dimensions*".

Colleagues from Cape Town, Peru, Spain and Israel supported the event by their professional presentations. This special issue and at the same time first issue of the *Journal of International and Digital Communication: Sustainability Perspectives* is a collection of the manuscripts of the speakers, which at the same time reflects the diversity of the topics discussed and the international perspectives. Since this is a compilation of manuscripts, the authors were responsible for the scientific formulation of the texts.

On the development of compulsory vaccination in Germany in the interplay between general health protection and individual self-determination – a never-ending story?

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Abstract: *The study traces the development of compulsory vaccination in Germany against the background of political discussion and legislative activities, focusing on the area of tension between state health protection and the right to medical self-determination in the context of constitutional balancing. It is based on the assumption that the right to medical self-determination traditionally dominates state decisions in a democratic constitutional state and that the scope for decision-making is constantly being further contoured in the face of current challenges.*

Summary: *I. Introduction. II. Legal Situation in Germany. 1. Evolution towards Epidemical Prevention. 2. The Measles Protection Act. 3. The Covid-19 Vaccination. III. Compulsory Vaccination in the light of Fundamental Rights. 1. Compatibility with Article 2 para 2 sentence 1 GG. a. Legitimate purpose. b. Suitability. c. Necessity. d. Proportionality. IV. Conclusion.*

I Introduction

In pre-Covid times in Germany, as in other European countries, the fundamental discussion about the constitutional permissibility of compulsory vaccination was repeatedly ignited by the - albeit regionally limited - occurrence of measles cases. In 2017, more than 900 measles cases were reported to the Robert Koch Institute, which is responsible for infectious diseases, meaning that the number had tripled since 2016 (Robert Koch Institute, 2017; Deutscher Bundestag, 2017). The situation in Germany seemed to be symptomatic for the development in the EU, which is why the member states started to focus on recommendations and coordination of the matter, even considering a uniform EU vaccination passport (Council of Europe, 2018; Regarding the effect of an obligation to vaccination and the vaccination rate in the measles scenario see Kerbl, Reinhold, 2017).

At the time, however, it was hardly imaginable that the debate on compulsory vaccination would gain such momentum within a short period of time and polarize society as it did in the pandemic under Covid-19. While compulsory vaccination was not on the political agenda in Germany at first, political decisions were made that were often perceived as indirect coercion in citizens' everyday life: There was talk of a "de facto" compulsory vaccination through the back door (Regarding the discussion in Germany see: Wein, 2021). In the course of the pandemic, politicians officially rejected compulsory vaccination for a long time in favor of a voluntary solution. A joint statement by the Permanent Vaccination Commission, the German Ethics Council and the Leopoldina also went in this direction; at least with regard to an "undifferentiated" compulsory vaccination, i.e. detached from specific groups of

people (Standing Committee on Vaccination, German Ethics Council, National Academy of Sciences Leopoldina, 2020; For the discussion see for instance: Frankfurter Allgemeine Zeitung, 2020).

Nevertheless, the idea of a general vaccination requirement in Germany continued to smolder and was once again the focus of public debate at the latest with the fourth pandemic wave - not least because of the comparatively poor vaccination rate in this country (on the low vaccination rate in German-speaking Europe and its consequences see Robert Koch Institute, 2021b). While in other countries, even with higher vaccination rates, compulsory vaccination had been implemented at least in institutional contexts quite quickly (for example France, Greece, Italy, for Details see Deutscher Bundestag 2021), in Germany it was (or is?) literally a "back and forth". The decision of the federal government to introduce an occupation-related compulsory vaccination was initially especially questioned in the federal state of Bavaria, where, paradoxically, the world's first compulsory vaccination was introduced in 1807 (Robert Koch Institute, 2021c).

The Federal Constitutional Court (BVerfG) has however, just as in the measles case, in principle confirmed the compulsory institution-based vaccination against Covid-19 decided by the Federal Government in December (Bundesregierung, 2021), in a proceeding for interim legal protection, thus giving priority in both cases to the protection of health of groups particularly at risk of infection (BVerfG, B.v. 11.05.2020, 1 BvR 469/20, marg. no. 1-17).

Resistance to general compulsory vaccination is clearly noticeable in society (up to and including circumvention strategies for applicable regulations that are relevant under criminal law, on this see Hensler, 2020). While justified doubts about the necessity of a general vaccination requirement are being raised against the background of the changed dynamics of the infection incidence, regarding the more harmless virus variant Omicron plus the lack of threat to the health system, and Austria temporarily plans to suspend the general obligation to vaccination (Deutschlandfunk, 2022), the German Government is sticking to its plans to introduce a general compulsory vaccination because, according to Health Minister Lauterbach, more would need to be done in Germany than "getting

on the nerves of the vaccination opponents" (Ärzteblatt, 2021c; ; on the political debate see Deutscher Bundestag, 2022; Mikus, 2022; Tagesschau, 2022); a decision on this is planned for the beginning of April.

The discussion about compulsory vaccination shows the now clear division in society and touches on fundamental questions of individual liberties in the constitutional state and the role of the administration as well as economical, ethical and moral questions connected with the responsibility of the individual towards society. Last but not least, the latter also calls for an intercultural perspective, which could offer additional explanations for the hesitancy or non-existence of vaccination and the actions of policymakers in different countries.

Against the background outlined above, the need for government action in vaccination context became apparent already with the re-occurrence of measles and continues nowadays under the intensified conditions of the Covid-19 pandemic with the introduction of compulsory vaccination being traditionally discussed as the ultima ratio. Under which conditions such a requirement can be constitutionally justifiable in a constitutional state will be examined in the following article with a view to the emergence of existing regulations, case law and the actual challenges caused by Covid-19.

II Legal Situation in Germany

The task of protecting against epidemics is traditionally understood as a task of the state's provision of services of general interest, which not only guarantees individuals a right to protection against the spread of infectious diseases, but also includes compensation in the event of damage during implementation. In this sense, infection protection law is also to be qualified as danger prevention law (in this regard Engels, 2014). This is evidenced not least by Section 1 of the Protection against Infection Act, IfSG, which states in para. 1: "It is the purpose of this Act to prevent communicable diseases in human beings, to detect infections at an early point in time and to prevent their spread."

To carry out this task, the IfSG contains enabling provisions which entitle the competent authorities to take the necessary measures and the associated encroachments on fundamental rights (§§ 16 et seq. IfSG). Beyond the question of a ge-

neral obligation to vaccinate, it is questionable (1.) whether a right of the child to protective vaccination can be derived (2.).

1. Evolution towards Epidemical Prevention

A historical view of the legal situation in Germany leads back to the year 1874 (Law of 08.04.1874, Reichsgesetzblatt 1874, pp. 31 ff), in which the Prussian vaccination law was enacted, which provided rules for the compulsory vaccination against smallpox. At the same time the compulsory vaccination provoked massive criticism which led to the so called "Anti-vaccination Movement". Critical voices of "medical authorities" can be found warning of vaccine damage and questioning the effect of vaccinations (Impfzwangsgegnerverein Dresden (ed.), 2015; Trapp, 2015; on the historical development of vaccination, see Robert Koch Institute, 2021a). Opponents of vaccination claimed that the hygienic conditions at the time would have prevented the spread of the disease even without vaccination, whereas the vaccinations carried out were the cause of severe diseases. These assertions can still be found at the core of the argumentation of the opponents of vaccination today (in this respect BVerwG, judgement of 14.07.1959, Az. I C 170.56 = BVerwGE 9, 78-83), whose lobby may have grown in the face of Covid-19 vaccines' scenario.

The Prussian Vaccination Law lasted 102 years before being replaced in 1976 (Law of 18.05.1976, Federal Law Gazette I, p. 1216) by the Smallpox Vaccination Act. With the repeal of this law in 1982 (Act repealing the Smallpox Vaccination Act of 24.11.1982, Federal Law Gazette I, 1529), the general vaccination obligation also ended. The protection against epidemics was granted by the Epidemic Protection Act of 1979 (Law of 18.12.1979), which was replaced in 2001 (Act of 20.07.2000, Federal Law Gazette I, 1045, last amended by Law Amending the Protection against Infection Act and other laws on the occasion of the repeal of the determination of the epidemic situation of national importance, 22.11.2021) by the Protection against Infection Act valid today. Originally, this Act did not provide regulations for compulsory vaccination, but relies generally on a system of recommendations by the Permanent Vaccination Commission (STIKO) of the Robert Koch Institute and voluntary vaccination. The German concept has been gi-

ven somewhat more shape by the Prevention Act of 2015 (Act to Strengthen Health Promotion and Prevention, Prevention Act – PräVg of 17.07.2015, Federal Law Gazette I, 1368.), which had the specific aim of strengthening vaccination prevention. Among other details, it regulated:

- the collection, processing and use of personal data of employees in hospitals and other medical institutions by the employer with regard to vaccine-preventable diseases, Art. 23a
- the temporary exclusion of persons not immunized against measles from communal establishments, Art. 28 para 2, and
- the obligation to present a certificate of a medical vaccination consultation carried out in accordance with the recommendations of the STIKO shortly before the first admission to a day-care centre, Art. 34 para 10a.

While the 2015 version of the legal scenario already took a further step in the direction of the supporters of compulsory vaccination, this tendency got confirmed some years later through the Measles Protection Act, which came into in 2020 (Law for protection against measles and to strengthen vaccination prevention, Measles Protection Act, 10.02.2020, Federal Law Gazette, p. 148).

2. The Measles Protection Act

The RKI's problem child was for a long time undoubtedly measles infection. The Regional Verification Commission of the European Regional Office in Copenhagen certified that the transmission of measles had been interrupted in Germany in 2016 (World Health Organization Regional Office for Europe, 2013). Reports from the RKI, however, sounded more critical: "Despite stricter laws, too few children continue to be vaccinated against measles. (...) in 2016, for the first time, all German states reached the vaccination rate of 95 percent for the first measles vaccination. In the crucial second measles vaccination, however, the nationwide vaccination rate increased only slightly to 92.9 percent." (Robert Koch Institute, 2018b; referring to the discussion before the introduction of the vaccination mandate see Neufeind, Betsch, Zylka-Menhorn, Wichmann, 2021)

With the Measles Protection Act from 2020 another crucial step towards more state coercion

in community related health issues was done and sharpened the states' double role in the health sector. The regulation on temporary exclusion from communal facilities in § 28 para. 2 IfSG pursues a dual protective goal: on the one hand, the individual is protected from infection, and on the other hand, further transmission of the infection can be prevented. In contrast to the previous regulations on the ban on entering schools, which were based on case law, the new regulation extends the scope of application of bans on entering schools to include "non-disruptive persons", i.e., persons who are not identified as sick or suspected of being sick. Under the previous legal situation, there had to be a suspicion of infection, which case law interpreted to mean that concrete facts made the assumption of infection appear more probable than the opposite. However, this was not considered to take sufficient account of the course of the disease, since transmission of the disease can occur even before the onset of symptoms (BVerwG, Judgment of 22 March 2012 - 3 C 16/11 -, BVerwGE 142, pp. 205-219).

The above-mentioned regulations and their evolution imply that the state tends to have a say in the decision on whether to vaccinate or on the consequences of non-vaccination, but that still for a long time the principle of self-determined medical decision remained untouched. § 28 IfSG, which contains the regulations on state protective measures, prohibits in general compulsory medical treatment in para. 1, sentence 3. However, this rule is broken by § 20 para. 6,7 IfSG and since the measles protection act by § 20 para. 8-14. § 20 para. 6,7 IfSG authorizes the Federal Ministry of Health or the state government to order compulsory vaccination based on a legal ordinance; § 20 para. 8-14 prescribe compulsory vaccination against measles in community settings. The prerequisite for the first, legally disputed scenario of § 20 para. 6,7, whose application is recently being discussed in the context of the Covid-19 vaccination, among other things, to compulsory vaccination of people over 60 years of age (Wissenschaftlicher Dienst des deutschen Bundestages, 2021), is the occurrence of a communicable disease with a clinically severe course that is expected to spread epidemically (Aligbe, 2021a).

In view of the German vaccination coverage rate of approx. 93% in the measles case in 2018,

however, this wasn't assumed. It might have been conceivable in individual cases of regional occurrence of the infection to demarcate threatened sections within a highly mobile society, but this would have involved a great deal of effort (Zuck, 2017). There were also doubts about the existence of a threat in the sense of § 20 Para. 6,7 IfSG. In the sense of danger defense law, a danger would have to be presupposed here, i.e. circumstances which, in the case of an unhindered course of events, would lead to damage with sufficient probability (for the concept of danger in police and public order law, see representative for many Krüger, 2013). By the time there were substantial doubts, that the mentioned legal conditions were fulfilled in the case of measles; epidemic occurrence with severe forms of progression with the weight required in § 20 para. 6,7 IfSG were not to be observed (Zuck, 2017). After all the decision of the legislator to act by completing § 20 in para. 8-14 and recently adding § 20a was the only way to implement a compulsory vaccination.

3. The Covid-19 Vaccination

While it was previously assumed that a vaccination offer, and thus even more a concept of compulsion, presupposed a secure state of research into the effectiveness and consequences of vaccines, this approach was called into question by the Covid-19 pandemic. A concept of voluntariness presupposes sufficient information to support an individual decision in such a way that the person concerned can act in full knowledge of the consequences of vaccination or non-vaccination (on voluntary informed consent, see Nitschmann, 2007, pp. 116-216). In the context of pandemic prevention, this is legally based on § 20 Para. 1-3, § 3 IfSG. According to § 20 para. 2 IfSG, the permanent vaccination commission of the Robert Koch Institute is responsible for the content of information on vaccinations. This commission develops its recommendations on standard vaccinations according to a formalized standard procedure (Robert Koch Institute, 2016). On the basis of these recommendations, which have no direct legal effect, the supreme federal or state health authorities inform the population through the appropriate agencies.

The system of public vaccination recommendations is interlinked with the obligation of physicians to provide information under the treatment

contract. Thus, within the framework of the respective treatment contract, the treating physicians have the duty to point out vaccinations, regardless of their own attitude towards vaccinations (in this regard, with further references Nassauer and Mayer, 2004). Public health services and physicians are jointly responsible for ensuring that as much information as possible is available to enable citizens to make a responsible, voluntary decision. Information includes not only the dangers of infection but also information about possible vaccine damage; details on the scope of the information discussion are typically dealt with by courts in the context of medical malpractice suits.

Regarding the infinite discussion about compulsory vaccinations which actually focuses on the Covid-19 vaccination, the legal dynamics around the fighting of the measles might be perceived as a precursor of change towards a less liberal system of disease control. While politicians initially ruled out compulsory vaccination overall, it became clear during the course of the pandemic that there would be a need for action, at least in the area of facilities for vulnerable groups. Therefore, it was not surprising that mandatory vaccination became law in Germany on a sector-specific basis in December 2021. § 20a IfSG which was introduced in December 2021 (Act on Strengthening Vaccination Prevention against COVID-19 and Amending Other Provisions in Connection with the COVID-19 Pandemic Federal Law Gazette, 11.12.2021, 5162) regulates an institutional based proof of immunity to Covid-19 from 15 March 2022 onwards aiming to protect vulnerable groups from infection with SARS-CoV-2. The Federal Constitutional Court rejected the constitutional complaint against § 20a and the connected § 22a, § 73 (1a) nos. 7e to 7h of the Protection Against Infection Act and declared the interferences with fundamental rights to be justified (see BVerfG, decision of 27.04.2022, I BvR 2649/21). Regarding the possibility of a legal ordinance within the meaning of § 20 para. 6, 7 IfSG, the possibility of compulsory vaccination for people over 60 was also discussed, as already indicated. Regarding the possibility of a legal ordinance within the meaning of § 20 para. 6, 7 IfSG, the possibility of compulsory vaccination for people over 60 was also discussed, as already indicated. However,

if one places the right to medical self-determination in the foreground, there is much to suggest that imposed health protection should also be rejected in this age group. At most, considerations of the common good and social costs would then open the possibility of a different, constitutionally tenable decision (Gebhard and Kießling, 2021; Huster and Kingreen, 2021; Aligbe, 2021b).

Apart from the strong standing of the right to self-determination, most likely the lack of a reliable licensing procedure and the associated risks of vaccination in individual cases, especially in a long-term perspective were among the reasons to prevent the legislator from enhancing the restrictive direction taken by inventing a general obligation of vaccination.

III Compulsory Vaccination in the light of Fundamental Rights

The discussion about the measles vaccination not only brought the fundamental right to medical self-determination in connection with bodily integrity back into focus which can be perceived as part of the right to privacy in general, but also revolved around the restriction of freedom rights affecting daily life. Whereas at that time it was essentially a matter of restricting access to public facilities, with the Covid-19 pandemics almost all areas of everyday life got affected to a greater or lesser extent.

The question of the constitutionality of compulsory vaccination in Germany brings into focus not only the fundamental right to physical integrity under Article 2 (2) sentence 1 of the Basic Law, but also the fundamental parental right under Article 6 of the Basic Law (on regulatory competence, see Deutscher Bundestag, 2016).

The classic case law on compulsory vaccination in Germany is a frequently cited ruling of the BVerwG from 1959, which considered the compulsory vaccination against smallpox, introduced by the Vaccination Act of 1874 to be constitutionally permissible. (BVerwG, judgement of 14.07.1959, I C 170.56 = BVerwGE 9, pp. 78-83). The anchor point of the court's argumentation was the right to life from Article 2 (2) sentence 1 of the Basic Law which should guarantee that one is protected from infection (BVerwG, judgement of 14.07.1959, Az. I C 170.56 = BVerwGE 9, 78-83, juris, marg. no. 19). In

the light of the fundamental rights' understanding of the human being the Court referred to a positive right to be protected from infection correlating with the obligation to vaccinate and from which individuals may not be excluded without special reason - such as belonging to a risk group (BVerwG, judgement of 14.07.1959, I C 170.56 = BVerwGE 9, 78-83, juris marg. no. 19). Based on the assumption that there is an encroachment on the scope of protection of Article 2 (2) sentence 1 of the Basic Law, the essence of which is not affected precisely when it is a matter of preserving integrity, the court refers to an expert opinion of the Federal Court of Justice from 1952, which documents the success of vaccination in the fight against the disease, and the decision of the court based on this to justify compulsory smallpox vaccination at the time (BVerwG, judgement of 14.07.1959, I C 170.56 = BVerwGE 9, 78-83, juris, marg. no. 18. BGH, Expert opinion of 25.01.52, VRG 5/51).

Recourse to the expert opinion makes clear that the core of the BVerwG's decision was closely linked to the conditions prevailing at the time and the development of the pandemics. Regarding the historical context and the sanitary conditions at the time a transfer of the supreme courts' jurisprudence on the Prussian Vaccination Act of 1874 to today's situation does not seem obvious (expressly stated by Zuck, loc. cit. and Trapp, loc. cit.). Although two aspects should be kept in mind to guide the actual debate: the fact that preserving integrity – also for society as a whole – can mean that a certain limitation of the individual's right must be tolerated and the fact that the measurable success of the vaccination should be considered as an indicator.

In the case of the institution-specific mandatory vaccination the guarantee of Art. 2 para 2 first sentence GG which protects the individual's right to physical integrity and the related right to self-determination is restricted by the obligation to provide proof of vaccination in certain institutional contexts which leads to a weakening of this fundamental freedom as an indirect effect of the state measure.

Generally, when examining the question of compulsory vaccination in infectious contexts, it is necessary to look closely at each set of facts and to conduct the fundamental rights examination un-

derlying the principle of proportionality step by step. In particular, the question of the legitimate aim, the necessity and the appropriateness of an infringement of the fundamental rights require closer consideration. The basic prerequisite for an encroachment is the existence of a legal basis in accordance with the principle of legal reservation.

4. Compatibility with Article 2 para 2 sentence 1 GG

a. Legitimate Purpose

The constitutional balancing decision principally takes place against the background of a clearly definable objective that is permitted by the rule of law. Obviously, the concern is to prevent the spread of a disease but on closer inspection, the precise description of the objective may well pose difficulties. First of all, with regard to compulsory vaccination, one could assume that combating the epidemic spread of an infection with a severe form of progression is a collective medical objective defined by law (Zuck, loc. cit.). This approach which has become standard during the Covid-19 pandemics to justify fundamental rights infringements, describes the requirements for the legitimate purpose more concretely than the mere intention of contributing to an improvement or protection of public health as a health policy standard. At the same time the state's duty to protect physical integrity as an individual medical goal is also used to describe the legitimate goal (BVerfG, NJW 1987, p. 2287; Schaks and Krahnert, 2015; Deutscher Bundestag 2016).

In this sense the BVerfG states that "Both the protection of life and health and the functioning of the health care system are already in themselves overridingly important public welfare concerns and therefore constitutionally legitimate legislative purposes".

From Article 2 (2) of the Basic Law, (...) the state may also have a duty to protect, which includes precautionary measures against health impairments (with further proofs BVerfG, B.v. 19.11.2021, 1 BvR 781/21, marg. no. 1-306, 176).

Other approaches to describe the legitimate purpose in the measles context were to meet the 95% vaccination rate or even to eradicate measles (Schaks and Krahnert, loc. cit.; in contrast Zuck, loc.

cit.). In this respect, a concrete legal definition is missing to define the legitimate goal, but through the legal mandate to the RKI from § 20 IfSG and its technical competence, a legal anchoring can be ascertained indirectly. In addition, even though not binding, since 1984 the agreements of the EU member states on the elimination of infectious diseases such as measles and rubella in the EU member states have served as a starting point for considerations on the legitimate purpose. As a consequence of the different approaches, the concrete concept of the objective pursued may have an impact on the further proportionality test. Finally, the Covid-19 scenario gives a good example of how the primary goal behind state intervention might change. From: preventing a wide spread of the disease in order to protect the weakest, medical professionals or even everybody to: avoiding the congestion of hospitals different nuances of these goals guided legislative and administrative decisions.

b. Suitability

While the suitability of vaccination for measles control can be understood relatively quickly in view of the contribution it makes to combating the infection when carried out properly on the basis of current professional knowledge and standards, this seems to be more difficult for Covid-19 vaccinations. Research on the effectiveness of the different vaccinations is still into course and might provoke doubts on the suitability. One problem might be that the Corona vaccination - unlike the measles vaccination - does not lead to the eradication of the disease or the virus - provided that one puts eradication as a legitimate goal in the foreground (critically, but with a view to the broad understanding of the characteristic of "suitability", affirming that Rixen, 2019).

Even though the threshold for suitability is traditionally considered to be low and actual developments in the pandemic's scenario can lead to the conclusion that vaccination is a key element to control the virus spreading (Schaks and Krahnert, loc. cit.; Trapp, loc. cit.; the BVerfG, c. 120, 224 = NJW 2008, p. 1137; Deutscher Bundestag, 2016), remains the doubt on the reliability of the vaccinations and the question whether a means which is not yet underlying recognized scientific standards can at all be suitable.

The BVerfG grants the legislature leeway in assessing the suitability of a regulation on a case-by-case basis, which relates to the assessment and evaluation of the actual circumstances, to any necessary prognosis and to the choice of means to achieve the objectives of the law. According to case law, the importance of the legal interests at stake is also decisive i.e., also the right affected by the encroachment and the weight of the encroachment (with further proofs BVerfG, B.v. 19.11.2021, 1 BvR 781/21, marg. no. 1-306, 185).

With regard to possible prognostic uncertainties, the court states: "If, however, the intervention is made in order to protect important constitutional goods and if, in view of the actual uncertainties, it is only possible to a limited extent for the legislature to form a sufficiently certain picture, the constitutional court's review is limited to the justifiability of the legislature's prognosis of suitability." (BVerfG, B.v. 19.11.2021, 1 BvR 781/21, marg. no. 1-306, 185).

c. Necessity

The necessity of an interference with a fundamental right is based on the protection of the common good and, according to the established case-law of the BVerfG, requires that (...) there is no "equally effective means available to achieve the objective of the common good, which burdens the holder of the fundamental right less and third parties and the general public no more." In addition, the objective equivalence of the alternative measures for achieving the purpose must be given (with further proofs BVerfG, B.v. 19.11.2021, 1 BvR 971/21, 1 BvR 1069/21, marg. no. 134.). In its jurisprudence, the ECHR focuses on the "urgent social need" to achieve a justified goal, which is legally concretized in the state's duty to protect life and health, and further refers to the discretion that the state organs have in their assessment (Vavříčka and Others v. the Czech Republic- 47621/13, 3867/14, 73094/14 et al, Judgment 8.4.2021 [GC] = EGMR, NJW 2021, p. 1657, 1659; regarding the legislators marge of appreciation BVerfG, B.v. 19.11.2021, 1 BvR 971/21, 1 BvR 1069/21, marg. no. 135).

Some object to the necessity of compulsory vaccination that the still prevailing concept of voluntary vaccination makes compulsory state measures unnecessary, since it offers a basis on

which individuals can protect themselves effectively against infection (Trapp, loc. cit.; Schaks and Krahnert, loc. cit.). Against this it was already in the measles-scenario argued that the introduction of compulsory vaccination had to be considered precisely because of gaps in vaccination within the population (Zuck, loc. cit.) and that the system based on voluntary vaccination seemed to be less effective at the time (Deutscher Bundestag, loc. cit.). Obviously same could be said regarding the voluntary Covid-19 vaccinations, even though the reservations and hesitations are far more understandable for the reasons already mentioned.

In the end, the decisive aspect might be whether the system of STIKO recommendations is considered effective and reliable, depending itself on the chosen legitimate purpose, i.e., either to prevent an epidemic spread of the respective infectious disease or simply to protect public health including the functioning of healthcare institutions or to achieve a vaccination coverage rate of 95% or eradication (Zuck, loc. cit.). However, the differentiation with regard to the stated purpose is obsolete if each one of them is achieved by voluntary vaccination, based on the system of recommendations, education and voluntary action. The need for state coercion would thus be eliminated on the basis of a milder, equally effective means (the inadequate vaccination advice criticised Rixen, loc.cit.). Regarding the requirement in § 20 IfSG to combat the spread of infectious diseases, it gets clear, that this parameter is subject to interpretation and can only be measured by scientific experts. Whether the vaccination quota has been reached or whether an infection has been eradicated can ultimately only be determined by corresponding central surveys, such as those controlled by the RKI. Either way, it is clear that the legal decision is ultimately based on an external scientific knowledge process.

d. Proportionality

Even if one wanted to adhere to the necessity of compulsory vaccination, it would still have to withstand the test of proportionality. The precondition for constitutional admissibility is that the burden associated with the infringement on fundamental rights is not disproportionate to the weight of the reasons justifying it. This requires a consideration

of individual rights concerned and the aims and interests served by the encroachment (for example BVerfGE 124, 43, 62 = NJW 2009, p. 2431). On the one hand, there is the individual's right to physical integrity under Article 2.2 sentence 1 of the Basic Law, which, as part of the right of personality, has its roots in human dignity and includes the right of self-determination to decide whether to run the risk of vaccine damage. As a right of defense, it requires the state to refrain from unreasonable interference with life and health. On the other hand, there is the state's duty to protect, which justifies restricting other fundamental rights, and which also arises from Article 2.2 sentence 1 of the Basic Law.

For a long time, the proportionality test in the measles-scenario excluded a constitutional justification of compulsory vaccination, taking into account, the low mortality rate of 0.1% compared to the former smallpox disease, which had a mortality rate of 30% (Deutscher Bundestag, 2016). Otherwise, so it was argued there would be the danger that "the physical right to self-determination would be eroded to the extent to what is medically achievable" (Trapp, loc. cit. p.18.), the ultima ration character of a compulsory vaccination dominated the picture (Erdle, 2018).

In the context of the Covid-19 pandemic the determination of the weight of the duty to protect, was partly based on uncertain facts, not only concerning the course of the infection but also the effectiveness of measures, up to and including vaccination and the effects on society (on the review of the constitutionality of individual acts Kingreen, 2020). Thus, seemingly unsteady state measures manifested the state's scope for decision-making when it comes to achieving the most effective protection status possible on an uncertain factual basis combined with the desire to limit the rights of freedom as little as possible. Whereas the high risk of contagion across societies was predominantly considered negligible in the measles-scenario, so that a low duty to protect was argued (Zuck, loc. cit.; Trapp, loc. cit.), the same could not be assumed in the Covid- 19 scenario, where clinically severe courses seemed to dominate the picture at least at some point, the functioning of the health system was repeatedly called into question and hence a higher duty to protect was argued. The dimension

of the state's margin of appreciation regarding the duty to protect became progressively clearer in the course of the pandemic; in addition to the temporal significance of measures, the aspect of their consistency also came increasingly into focus (on both with further references Kingreen loc. cit.). It is certainly true that the state should orient its maxims of action rationally and - unlike the individual - must focus on the best possible health protection for the individual and the collective (in this sense Schaks, 2019). The assumption that the vaccines used so far have little effect on the omicron variant admittedly weakens the health protection argument.

The extensive encroachment on the right to bodily self-determination proves to be serious in both the measles and the Covid-19 scenario - far more of course in the latter regarding all the uncertainties surrounding the vaccination. The question of the contour of the right to medical self-determination and physical integrity as the currently paradoxical counterpart of the state's duty to protect is joined by a plethora of previously unknown restrictions on freedom that have completely changed everyday life. Regardless of the fundamental right affected, the proportionality test is enriched by aspects that have played no or only a subordinate role in the history of pandemic control. In addition to the still insufficiently researched consequences of the Covid-19 infection, these include the comparatively little-tested vaccines and their possible medium- or long-term side effects, as well as the economic and social dimension. One thing is certain, however: proven serious consequences of disease, overburdened hospitals and increasingly serious consequences for the economy and society as a whole leave room for arguments in favor of compulsory vaccination.

This calls on the responsible politicians to emphasize the economic and social consequences of the pandemic more strongly in public discourse to promote the population's propensity to vaccinate and thus to make vaccination the dominant rational strategy (against the background of example models from game theory Wein, loc. cit.). It is possible that individual incentives are necessary for this, since in our society, which is more individual-orientated than collective, the well-being of the collective is apparently not sufficient as an incen-

tive for the decision to vaccinate. At the very least, this interculturally based finding could be another explanation for the lack of willingness to vaccinate in Germany.

IV Conclusion

As a result, from a constitutional point of view, it can be argued, that the right to physical self-determination should take precedence over nationwide state intervention by means of compulsory vaccination with its consequence of possible administrative coercion unwanted social side-effects. There were already in the context of the measles debate indications that this position could be relativized in favor of states' intervention in certain scenarios, depending on the severity of the infectious disease or the social context. It is the moment when the administration positions itself vis-à-vis the citizen and can save lives as a "good, determined administration". At the same time, it may intervene in a regulating way in the social field of tension between autonomy and commitment, freedom and responsibility, self-determination, and heteronomy, and accentuate the importance of the individual's relationship to the community (with regard to the Hobbesian understanding of the state, cf. Kingreen, loc. cit.).

Statutory regulations prohibiting access to communal facilities as well as the tendency of the courts to let the parent in favor of vaccination decide in cases of doubt prove that the state's duty to protect is nevertheless taken seriously. The actual political decision on the obligation to vaccination in special professional context, the so called "vaccination obligation light", confirms this tendency - being understood by some as a behavioral incentive that could be associated with an increase in freedom, being understood by others as an indirect restriction of freedom (for a differentiated view, see Kersten/Rixen 2021 p. 83 f.).

In the context of both the measles and the Covid-19 vaccination, one may nevertheless wonder, whether everything possible has been done within the framework of the system of recommendations and voluntary action to achieve sufficient vaccination coverage. Already since the measles story, the question arises whether the politically controlled information culture and discussion has not contributed to the fact that the scope for action in favor

of voluntariness has not been exhausted. It is definitely the right way to emphasize public relations work for vaccination strategies that strengthen the free decision of the individual through education and the motivation to vaccinate in order to achieve the highest possible social welfare (Wein, loc. cit.). But also, financial vaccination incentives and more transparency regarding the follow-up costs may be beneficial for the willingness to vaccinate (Wein, loc. cit.). This also requires addressing the arguments of vaccination critics, whether on health or religious grounds and an "effective risk communication" as well as an optimization of the interplay between the actors (with reference to the Finnish model, Marckmann, 2009; Council of Europe, loc. cit.). In this respect, the social media campaigns that the Federal Ministry has been running for several months on channels such as Instagram and Facebook are certainly an important step (Bundesministerium für Gesundheit, 2022). Last but not least, doctors as direct actors also play a key role when it comes to the question of willingness to vaccinate, which is why it is quite interesting to get a picture of the psychological parameters determining the vaccination behavior of this professional group (Neufeind/Betsch/Zylka-Menhorn/Wichmann, loc. cit.). Regarding the vaccination against Covid-19, it is certainly also true that questions concerning the safety and effectiveness of vaccines must be considered transparently when weighing up the advantages and disadvantages to maintain or strengthen confidence in vaccination (appellative in this sense Robert Koch Institute, loc. cit.; Voitl, 2020).

At the same time, in a democratically constituted state governed by the rule of law, in order to protect health and to decide on conflicts of highest-ranking interest, it is acceptable that even in the case of uncertain scientific knowledge, the legislative discretion is used in conformity with the constitution, insofar as the assessment is properly based on all available information and possibilities of knowledge (BVerfG, B.v. 19.11.2021, 1 BvR 781/21, marg. no. 1-306, 171). Against this background, a general vaccination obligation - not understood as compulsory vaccination - remains constitutionally justifiable at least if vaccination campaigns fail and it is the only possibility to break through

the repeated restriction of other civil liberties; here, the depth of the respective encroachments on civil liberties is decisive (statements by constitutional lawyers go in this direction, Redaktion Beck-aktuell, 2019, 2021; Schaks, loc. cit.). When introducing compulsory vaccination, attention will also have to be paid to the overall concept of rule and exception as well as consequences for those who refuse vaccination (Vavříčka and Others v. the Czech Republic- 47621/13, 3867/14, 73094/14 et al, Judgment 8.4.2021 [GC] = EGMR, NJW 2021, p. 1657, 1657). Finally, the history of vaccination remains, despite all reservations, a success story in human evolution.

Supplementary Notes

- I A regional delimitation would be conceivable in cases such as that of the measles outbreak in Coburg, to which -in the result successfully- the recommendation of a bar vaccination was reacted, so that there are doubts about the necessity of official compulsory order (Nassauer/Meyer, 2004).
- II Concerning the concept of danger in German on the concept of danger in police and regulatory law. For the concept of danger in police and public order law, see representative for many Krüger, 2013.
- III Interesting in this context is the study of see Neufeind, Betsch, Zylka-Menhorn, Wichmann, 2021, pp. 1-10.
- IV With regard to Art. 8 ECHR and the right to physical integrity as part of respect for private life in the context of compulsory vaccination of children, see only ECtHR, 2021, which points out, inter alia, that the legality depends on the overall concept of compulsory vaccination in the member states.
- V Quoted from juris. The background of the decision was a case in which parents asserted the right to vaccination of their 2-year old child, who was supposedly not to be vaccinated for health reasons. However, in the court's view, the fact that the defendant authority was afraid of the vaccination causing vaccination damage was ultimately decisive and it considered the refusal of vaccination legitimate, since the child had already exceeded the intended age limit. In its observations concerning compulsory vaccination, it referred, among other things, to the inadequacies of voluntary vaccination as it existed in England in the 1920s, where only about half of the children were subjected to vaccination and epidemics lasted longer. In favour of a child's right to vaccination, the Federal Civil Court confirmed in a more recent decision that the vaccination of a child is "a matter of considerable importance for the child". If parents disagree about the implementation of a vaccination, according to the BGH a transfer of the decision to the parent in favour of the vaccination is possible, BGH, decision of 03 May 2017 - XII ZB 157/16 - = NJW 2017, 2pp. 826-2927, juris; similarly, Thüringer OLG, decision of 07.03.2016, 4 UF 686/15, quoted juris.
- VI "The Regional Verification Commission of the European Regional Office in Copenhagen already verified measles and rubella elimination in 33 of 53 countries in the WHO European Region for 2016. A further 9 countries, including Germany, were certified as having interrupted measles transmission in 2016." See World Health Organization Regional Office for Europe loc. cit.
- VII Schaks/Krahnert, loc. cit., pp. 864-865 deal with the objections of "lack of effectiveness", "disease despite vaccination" and "disease due to vaccination"; under the special aspect of the precautionary measure, cf. the examination in Trapp, loc. cit., p. 16; on the requirements of suitability, cf. the constant case law of the BVerfG, c. 120, 224 = NJW 2008, p. 1137.
- VIII With reference to the stagnation of the vaccination rate despite the Prevention Act of 2015 Schaks, loc. cit., p. 8.
- IX pointing out that the goal of increasing the vaccination rate and eradication are precisely not legitimate goals. In contrast, Schaks/Krahnert, who point to the recurring epidemics in the absence of adequate treatment options, loc. cit.
- X But also Schaks/Krahnert, loc. cit., who, in view of the fact that only a small group of persons is actually affected, also assume the appropriateness of a compulsory import.
- XI For the added value of non-vaccination in an exemplary benefit/cost calculation, see Wein, loc. cit.
- XII Who concludes that "letting oneself be vaccinated" is not a dominant rational strategy, p. 119. on the use of vaccination incentives in the employment relationship see Bayer, 2021; also Benkert, 2021.
- XIII Questioning the effectiveness of obligation to vaccination in case of non-medical exception Kerbl, loc. cit. p. 152 f.; Voitl, loc. cit. p. 294 f.

Bibliography

- Aligbe, Patrick (2021b): *Infektionsschutzrecht in Zeiten von Corona*, 2021, chap. 6.10.
- Bayer, Bastian (2021): *Impfpflicht, Corona-Test, Corona-Pass – Möglichkeiten zur schrittweisen Rückkehr an den Arbeitsplatz*, ArbRAktuell 2021, p. 233-236.
- Benkert, Daniel (2021): *Wege aus der Pandemie – Impfpflicht im Arbeitsverhältnis*, NJW Spezial 2021, p. 50 f.
- Council of Europe (2018): *Recommendation on enhanced cooperation in the fight against vaccine preventable diseases*, COM (2018) 244 final 2018/0115 (NLE), 26.04.2018.
- Deutscher Bundestag (2017): doc. Nr. 19/320, 22.12.2017.
- Deutscher Bundestag (2016): *Verfassungsrechtliche Zulässigkeit einer Impfpflicht*, WD 3 - 3000 - 019/16, January 2016.
- Deutscher Bundestag (2021): *Wissenschaftliche Dienste, Corona-Impfpflicht in ausländischen Mitgliedsstaaten*, der EU, WD 9 - 3000 - 098/21, 03.12.2021.
- ECtHR (2021): *Vereinbarkeit einer Impfpflicht für Kinder mit der EMRK*, NJW 2021, p. 1657 f.
- Engels, Andreas (2014): *Infektionsschutzrecht als Gefahrenabwehrrecht?*, DöV 2014, pp. 464-474.
- Erdle, Helmut (2018): *Infektionsschutzgesetz*, Kommentar, 6th Ed. 2018, § 20, no. 7.
- Gebhard, Friederike/ Kießling, Andrea (2021): *IfSG*, 2. Auflage 2021, § 20 marg. no. 27.
- Hensler, Sven (2020): *Masernimpfpflicht, Maskenpflicht und unrichtige Gesundheitszeugnisse*, MedR 38 2020, p. 1000-1003.
- Huster, Stefan/Kingreen, Thorsten (2021): *Handbuch Infektionsschutzrecht*, 2021.
- Impfzwangsgegengerverein Dresden (ed.) (2015): *Der Impfspiegel. 300 Aussprüche ärztlicher Autoritäten über die Impffrage und zwar vorwiegend aus neuerer Zeit*, 1890.
- Kerbl, Reinhold (2017): *Impfpflicht in Europa. Derzeit in aller Munde – aber gibt es wissenschaftliche Evidenz?*, Pädiatrie & Pädologie 3 2020.
- Kersten, Jens/Rixen, Stephan (2020): *Der Verfassungsstaat in der Corona-Krise*, München 2020.
- Kingreen, Thorsten (2020): *Das Studium des Verfassungsrechts in der Pandemie*, Juristische Verwaltung 2020, p. 1019-1035.
- Krüger, Elmar (2013): *Der Gefahrbegriff im Polizei- und Ordnungsrecht*, Juristische Schulung, 2013, pp. 989-990 ff.
- Marckmann, Georg (2009): *Ist eine gesetzliche Impfpflicht ethisch zu rechtfertigen?*, Public Health Forum 17, issue 63, p. 8 f.
- Nassauer, A./Meyer, C. (2004): *Impfungen von Kindern und Jugendlichen auch gegen den Elternwillen? Ein Diskussionsbeitrag zu ärztlichen Aufgaben und rechtlichen Rahmenbedingungen*, Bundesgesundheitsblatt 12, 2004, pp. 1230-1238.
- Nitschmann, Kathrin (2007): *Das Arzt-Patient-Verhältnis im "modernen Gesundheits-system"*, Baden-Baden 2007.
- Redaktion Beck-aktuell (2021): *Juristen halten Impfpflicht für vereinbar mit Grundgesetz*, becklink 2021568, 23.11.2021.
- Redaktion Beck-aktuell (2019): *Staatsrechtler sieht keine Verfassungsprobleme bei Masern-Impfpflicht*, becklink 2013002.
- Robert Koch Institute (2021a): *Bundeszentrale für politische Bildung*, Das Impfbuch für alle, Rostock 2021, pp. 40-53, 60 f.
- Robert Koch Institute (2021b): *Die 4. Covid-19-Welle wurde durch fehlenden Impfschutz angestoßen: Was ist zu tun?*, Epidemiologisches Bulletin 49/2021.
- Robert Koch Institute (2021c): *Das Impfbuch für alle, Bundeszentrale für politische Aufklärung*.
- Schaks Nils/Krahnert, Sebastian (2015): *Die Einführung einer Impfpflicht zur Bekämpfung der Masern. Eine zulässige staatliche Handlungsoption*, MedR 2015, pp. 860-866.
- Trapp, Dan (2015): *Impfzwang – Verfassungsrechtliche Grenzen staatlicher Gesundheitsvorsorgemaßnahmen*, DVBl p. 11-19, 12.
- Voitl, Peter (2020): *Zur Impfpflicht in Europa*, Monatsschrift Kinderheilkunde 4 2020, 294 f.
- Wein, Thomas (2021): *Ist eine Impfpflicht gegen das Coronavirus nötig*, Wirtschaftsdienst 2021/2, p. 114-120.
- Zuck, Rüdiger (2017): *Gesetzlicher Masern-Impfzwang*, ZRP 2017, pp. 118-121.

Internetsources

- Ärzteblatt (2022a): *Einrichtungsbezogene Impfpflicht: Bayern und Hessen legen Pläne vor*, <http://www.aerzteblatt.de/nachrichten/132166/Einrichtungsbezogene-Impfpflicht-Bayern-und-Hessen-lege-Plaene-vor>, last accessed 01.03.22.
- Ärzteblatt (2022b): *Lauterbach dringt auf eine allgemeine Impfpflicht*, 09.02.2022, <https://www.aerzteblatt.de/nachrichten/131669/Lauterbach-dringt-auf-allgemeine-Impfpflicht> last accessed 03.03.22.
- Bundesministerium für Gesundheit: <https://www.facebook.com/bmg.bund/>; <https://www.instagram.com/bundesgesundheitsministerium/?hl=de>, last accessed 09.03.22.
- Bundesregierung (2021): *Impfpflicht für Beschäftigte in Kliniken und Heimen beschlossen*, <https://www.bundesregierung.de/breg-de/themen/coronavirus/einrichtungsbezogene-impfpflicht-1990672>, last accessed 10.02.22.
- Deutscher Bundestag (2022): *Kontroverse Impfpflicht-Debatte mit ersten Vorschlägen*, 26.01.22, <https://www.bundestag.de/dokumente/textarchiv/2022/kw04-de-impfpflicht-877070>, last accessed 09.03.22.
- Deutschlandfunk (2022): *Österreich/Allgemeine Corona-Impfpflicht wird ausgesetzt*, 09.03.2022, <http://www.deutschlandfunk.de/allgemeine-corona-impfpflicht-wird-ausgesetzt-102.html>, last accessed 09.03.2022.
- Frankfurter Allgemeine Zeitung (2020): *Lambrecht warnt vor Impfpflicht durch Hintertür*, 03.12.2020, <https://www.faz.net/aktuell/politik/inland/corona-lambrecht-warnt-vorimpfpflicht-durch-hintertuer-17082871.html>, last accessed 03.03.22.
- Neufeind, Julia/ Betsch, Cornelia/ Zylka-Menhorn, Vera/ Wichmann, Ole (2021): *Determinants of physician attitudes towards the new selective measles vaccine mandate in Germany*, Public Health 2021 21:566, <https://doi.org/10.1186/s12889-021-10563-9>, last accessed 09.03.22.
- Mikus, Renate (2022): *Einrichtungsbezogene und allgemeine Coronaimpfpflicht*, haufe.de 24.02.2022, https://www.haufe.de/recht/weitere-rechtsgebiete/strafrecht-oeffentl-recht/vereinbarkeit-einer-corona-impfpflicht-mit-dem-gg-und-eurecht_204_556372.html, last accessed 09.03.22.
- Rixen, Stephan (2019): *Verfassungsfragen der Masernimpfpflicht: Ist die Impfpflicht nach dem geplanten Masernschutzgesetz verfassungswidrig*, Rechtsgutachten, 11.10.2019, https://inviduelle-impfentscheidung.de/fileadmin/Downloads/Rechtsgutachten_Rixen_Langfassung.pdf, p. 5 last accessed 09.03.22.
- Robert Koch Institute (2017): *Annual Status Update on Measles and Rubella Elimination 2017*, https://www.rki.de/DE/Content/Kommissionen/NAVKO/Berichte/Bericht_2017_en.pdf?blob=publicationFile.de/DE/Content/Service/Presse/Pressemitteilungen2017/01_2017.html, last accessed 03.03.22.
- Robert Koch Institute (2018a): *Epidemiological Bulletin*, No. 16, 2018, https://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2018/Ausgaben/16_18.pdf?blob=publicationFile, last accessed 09.03.22.
- Robert Koch Institute (2016): *Standing Commission on Vaccination Standard Practice of the Standing Commission on Vaccination for the Systematic Development of Vaccination*, https://www.rki.de/EN/Content/infections/Vaccination/Vaccination_node.html, last accessed 09.03.22.
- Robert Koch Institute (2018b): *VacMap, Measles Vaccination Coverage in Germany*, <http://www.vacmap.de>, last accessed 09.03.22.
- Schaks, Nils (2019), *Schriftliche Stellungnahme zum Gesetzesentwurf der Bundesregierung „Entwurf eines Gesetzes für den Schutz von Masern und zur Stärkung der Impfprävention (Masernschutzgesetz) of 23.09.2019*, Deutscher Bundestag, Ausschuss für Gesundheit, Ausschussdrucksache 19(14)112(14), p. 4, https://www.bundestag.de/resource/blob/664474/8d6a-13763e5f5747b3f5e230898d875a/19_14_112-14_ESVProf-Dr-Schaks_Masernschutz-data.pdf, last accessed 09.03.22.
- Standing Committee on Vaccination, German Ethics Council, National Academy of Sciences Leopoldina (2020): *How should access to a COVID-19 vaccine be regulated?*, Position paper of the joint working group of members of the standing committee on vaccination, the German ethics council and the national academy of sciences Leopoldina, <https://www.ethikrat.org/fileadmin/Publikationen/Ad-hoc-Empfehlungen/englisch/joint-position-paper-stiko-der-leopoldina-vaccine-prioritisation.pdf>, last accessed 09.03.22.
- Tagesschau (2022): *Scholz weiter für Impfpflicht*, <http://www.tagesschau.de/newsticker/liveblog-coronavirus-mittwoch-295.shtml>, last accessed 09.03.22.
- Wissenschaftlicher Dienst des deutschen Bundestages (2021): *Corona-Impfpflicht durch Rechtsverordnung nach § 20 Abs. 6 IfSG für die Altersgruppe der über 60-Jährigen*, WD 3 - 3000 - 198/21, <https://www.bundestag.de/resource/blob/874866/ab4b2f5f5db50791e7930daa69191f72/WD-3-198-21-pdfdata.pdf>, last accessed 09.03.22.

- World Health Organization Regional Office for Europe (2013): *Experts meet to discuss verification process for measles and rubella elimination*, <https://www.euro.who.int/en/health-topics/disease-prevention/vaccines-andimmunization/news/news/2013/02/experts-meet-to-discuss-verification-process-for-measles-and-rubella-elimination>, last accessed 09.03.22.