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Short Communication

Immunization - The Path to Proper Vaccination

Nada A. Gladović[1], Ljubinka I. Nikolić[2], Dragana A. Kastratović[3]

[1] Doctors and parents for science and ethics, Serbian Citizens' Association, President, Belgrade, Serbia.
[2] Medical Faculty University of Belgrade, Belgrade, Serbia
[3] Section for Clinical Pharmacology „dr Srdjan Djani Marković", Serbian Medical Society, President, Belgrade, Serbia

SUMMARY

Topic: In recent months, the Serbian public has increasingly been hearing claims from certain immunologists, epidemiologists, as well as so-called „fact-checking" portals, that mandatory childhood vaccination is „the standard in the vast majority of developed countries" and that any assertion regarding broader parental rights of choice in Europe is „misinformation" or even a „dangerous falsehood".

Some paid fact-checkers have gone a step further, declaring as true the claims that vaccination is legally mandatory in most European countries. They also state that parents do not have the right to refuse it without facing misdemeanor penalties. At the same time, there has been almost no serious comparative analysis of legal frameworks across Europe and beyond in the public sphere; instead, citizens are often presented with simplistic claims lacking broader context.

This is precisely why this text was written. Not with the intention of persuading anyone what to think about vaccination, but rather to present, in one place and on the basis of official government sources, legislation, national immunization programs, and scientific studies, how this field actually functions in different countries of Europe and one Eurasian country.

The countries discussed are presented in alphabetical order, in the paper.

Conclusion: The proportion of European countries that enforce mandatory vaccination frameworks hovers around 40%. The findings of this study suggest that no legal mandate - except for compulsory immunization against strictly life-threatening diseases (such as BCG, diphtheria, tetanus, pertussis, polio, pneumococcal, and meningococcal diseases) - genuinely serves the best interests of children. Consequently, the authors strongly advocate for a personalized, individualized approach to pediatric vaccination.

As our esteemed colleague, Dr. Srdjan Djani Marković, noted, the systematic reporting of adverse drug effects directly reflects the maturity of a nation's healthcare system and its overall efficiency in medical treatment. Furthermore, from a psychiatric and behavioral perspective, Dr. Jovana Stojković note that the polarizing label of „anti-vaxxer" is frequently misapplied.

Furthermore, reporting any suspicion of an adverse vaccine reaction must be made strictly mandatory for all healthcare professionals and parents alike, with non-reporting legally sanctioned.

The authors call for the implementation of robust, independent retro-prospective obser-

Corresponding author:
Primarius Dragana A. Kastratović, MD, PhD
Specialist in Clinical Pharmacology
Section for Clinical Pharmacology „dr Srdjan Djani Marković", Serbian Medical Society, Džordža Vašingtona 19, 11000 Belgrade, Serbia
E-mail: prim.drmaca.kastratovic@gmail.com

vational trials, alongside rigorous academic financial cost-benefit analyses, to comprehensively evaluate the efficacy and safety profiles of modern vaccines.
Ultimately, the truth regarding the comprehensive effects of vaccination is far more nuanced and complex than the simplistic slogans currently presented to the public in our nation and many others.

Keywords: Vaccination, Children, Pediatric, Adverse Effects, No Legal Mandate, Personalized Individualized Approach

TOPIC

In recent months, the Serbian public has increasingly been hearing claims from certain immunologists, epidemiologists, as well as so-called „fact-checking" portals, that mandatory childhood vaccination is „the standard in the vast majority of developed countries" and that any assertion regarding broader parental rights of choice in Europe is „misinformation" or even a „dangerous falsehood".

Some paid fact-checkers have gone a step further, declaring as true the claims that vaccination is legally mandatory in most European countries. They also state that parents do not have the right to refuse it without facing misdemeanor penalties. At the same time, there has been almost no serious comparative analysis of legal frameworks across Europe and beyond in the public sphere; instead, citizens are often presented with simplistic claims lacking broader context.

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Not with the intention of persuading anyone what to think about vaccination, but rather to present, in one place and on the basis of official government sources, legislation, national immunization programs, and scientific studies, how this field actually functions in different countries of Europe and one Eurasian country.

The countries discussed are presented in alphabetical order.

Albania

There is mandatory childhood vaccination under the national immunization schedule. The law provides for mandatory childhood vaccines, and in practice, a vaccination record is also required for enrollment in kindergarten and school.

According to available data and scientific publications on Albania's immunization system, the mandatory schedule includes vaccines such as:

- BCG (tuberculosis)
- Hepatitis B
- DTaP/DTP (diphtheria, tetanus, pertussis)
- Polio
- Pneumococcal vaccine
- MMR (measles, mumps, rubella)

In addition, vaccination records in Albania are maintained digitally through a state-run system and are used for enrolling children in educational institutions [1].

Andorra

Yes, there is mandatory childhood vaccination under the systematic vaccination schedule. A vaccination record is required for children, and unvaccinated children may face restrictions regarding access to the school system. There is an official regulation concerning the „systematic and mandatory vaccination" of children [2, 3].

Andorra is somewhat unique in that, in practice, vaccination status is often linked to school attendance, and some schools require proof of vaccination at the time of enrollment. DTPa, IPV, Hib HB, Men B, Rota, Nc13v, MCC, TV, Men ACWY, VVZ, HPV.

Austria

Vaccination is not mandatory but recommended. Parents make their own decisions regarding the vaccination of their children, and there is no general legal requirement for childhood vaccinations. Austria operates a free government vaccination program, but there are no legal penalties if a child is not vaccinated [4].

Belarus

Belarus represents a specific case. Formally, the country has a national vaccination schedule; however, parents have the legal right to refuse vaccination for their child by signing a declaration of refusal.

This means that, in practice, vaccination is not absolutely mandatory as it is in

some countries that impose penalties, since there is a legal mechanism allowing parents to refuse vaccination without financial or other sanctions [5].

Belgium
Vaccination is partially mandatory.

Only one vaccine is legally required for all children: polio (poliomyelitis). It must be administered by the age of 18 months, and proof of vaccination must be submitted to the local municipality. All other vaccines are recommended but are not generally mandated by law at the national level [6].

Bosnia and Herzegovina
Childhood vaccination is mandatory. There is a legally prescribed immunization schedule, and in both entities (the Federation of Bosnia and Herzegovina and Republika Srpska), routine childhood vaccination is implemented as a legal obligation and is provided free of charge. In case of non-implementation of the legal provision of mandatory immunization, according to the BIH Law, a fine in the amount of 100 KM to 2,000 KM is imposed on the parent or guardian [7].

Bulgaria
Mandatory childhood vaccination is in place. The country has a legally prescribed schedule of mandatory immunizations and booster vaccinations, which are provided free of charge through the public healthcare system [8].

Croatia
In Croatia, childhood vaccination is mandatory. The Law on the Protection of the Population from Infectious Diseases and the compulsory immunization programme prescribe mandatory vaccines for children, and parents who refuse vaccination may be subject to misdemeanour proceedings and fines. Implementation program of mandatory vaccination in the Republic of Croatia in 2026 against diphtheria, tetanus, pertussis, polio, measles, mumps, rubella, tuberculosis, hepatitis B, diseases caused by Haemophilus influenzae type B and pneumococcal disease. [9]

Cyprus
Vaccination is not legally mandatory but recommended. In practice, parents are often asked to present a child's vaccination record when enrolling in public schools; however, this is not a formal legal requirement for admission. Cypriot health authorities have stated that there is an „indirect expectation" of vaccination, but there is no general legal mandate [10].

Czech Republic
In the Czech Republic, childhood vaccination is mandatory. The law prescribes a compulsory vaccination schedule, and for certain groups (especially kindergartens), proof of vaccination is a condition for enrollment, except in cases of a recognized medical exemption [11].

Denmark
Vaccination is not mandatory; it is recommended and voluntary. The country has a free national childhood vaccination program, but there is no legal obligation or penalty for parents who choose not to vaccinate their children [12].

Estonia
Vaccination is not mandatory but voluntary and recommended. Parents or legal guardians make decisions regarding the vaccination of their children, and they have the right to refuse vaccination. Officially, vaccination is administered with parental consent.

Estonia has a national immunization schedule and provides free vaccines for children, but there is no general legal requirement comparable to those in Serbia, Bulgaria, or Croatia [13].

Finland
Vaccination is not mandatory but voluntary and recommended. Finnish health authorities explicitly state that all vaccines included in the national immunization program are voluntary and are administered on the basis of informed parental consent.

The country provides a free and highly comprehensive childhood vaccination program, including vaccines against MMR (measles, mumps, and rubella), diphtheria, tetanus, polio, pertussis (whooping cough), Haemophilus influenzae type b (Hib), pneumococcal disease, and other infectious diseases. However, there is no legal obligation to vaccinate, no penalties for non-vaccination, and school enrollment is not contingent upon a child's vaccination status [14].

France
Childhood vaccination is mandatory. Since 2018, the number of mandatory childhood vaccines has been expanded from three to eleven, and compliance with these vaccination requirements is a condition for admission to day-care centers, nurseries, kindergartens, and schools [15].

Germany
There is no general mandatory vaccination requirement covering all childhood vaccines; however, vaccination against measles is required by law.

Since 2020, under the Measles Protection Act (Masernschutzgesetz), children attending kindergarten, school, or other communal educational settings must provide proof of measles vaccination (usually through the MMR vaccine) or proof of immunity [16].

For other vaccines (including diphtheria, tetanus, polio, hepatitis B, and others), vaccination is recommended but not legally mandatory. German health authorities strongly recommend these vaccinations through the Standing Committee on Vaccination (STIKO), but there is no general legal obligation comparable to that in Serbia or Italy.

There are also consequences for non-compliance with the measles vaccination requirement:
- Unvaccinated children may be excluded from kindergarten attendance;
- Parents may be subject to fines of up to €2,500 in certain cases.

Greece
Vaccination is not formally mandated by law in the same manner as in Serbia. The National Immunization Program is recommended rather than compulsory. Physicians responsible for patient care (pediatricians, pathologists, family physicians, general practitioners, or specialists) recommend and prescribe vaccines [17].

Hungary
In Hungary, childhood vaccination is mandatory, and the country is considered to have one of the strictest systems in Europe. The law prescribes a compulsory vaccination schedule for children, and vaccination status is monitored through the healthcare and school systems. [18].

Iceland
Vaccination is not mandatory but voluntary and recommended. Children have access to a free national immunization program, but there is no legal obligation or penalty for non-vaccination.

Vaccination is administered through the public healthcare system with parental consent, and enrollment in preschool or school is not dependent on a child's vaccination status [19].

Ireland
Vaccination is not mandatory; it is voluntary and recommended. There is no legal requirement for routine childhood vaccinations, nor are there financial penalties if parents decide not to vaccinate their children.

Ireland operates a state-funded vaccination program free of charge through the Health Service Executive (HSE), but participation is based on informed parental consent. Furthermore, enrollment in preschool or school is not conditional upon vaccination status [20].

Italy
Italy has mandatory childhood vaccination and is among the European countries with the largest number of vaccines required by law.

Under legislation introduced in 2017, ten vaccines are mandatory for children up to 16 years of age, and vaccination status is linked to attendance at nursery schools and educational institutions [21].

Latvia
Childhood vaccination is mandatory, but with one specific feature: parents may formally refuse vaccination by signing a declaration and acknowledging that they have been informed of the possible consequences. No penalties are imposed for such refusal. Nevertheless, the law establishes a mandatory national childhood vaccination schedule [22].

Liechtenstein
Vaccination is not generally mandated by law but is recommended and voluntary. The country has a national vaccination schedule; however, it is based on public health recommendations and informed parental consent, similar to the system in Switzerland, with which Liechtenstein maintains close healthcare cooperation.

The health authorities of Liechtenstein actively recommend childhood vaccinations, including measles, mumps, rubella, diphtheria, tetanus, polio, and others. However, there is no general legal obligation to vaccinate children, nor are there penalties imposed on parents if their child is not vaccinated [23].

Lithuania

Vaccination is not mandatory; it is recommended and voluntary. Parents have the right to decide whether to vaccinate their children, and there is no general legal requirement for childhood vaccination as exists in Serbia, Italy, or Bulgaria.

Official Lithuanian health authorities state that „there are no mandatory vaccinations in Lithuania".

Lithuania has a national immunization schedule and provides free vaccines for children (against tuberculosis, hepatitis B, measles, mumps, rubella, polio, and other diseases), but vaccination is carried out with parental consent.

There have been previous attempts to introduce restrictions on attendance at preschool institutions for unvaccinated children; however, mandatory vaccination has not been introduced [24].

Luxembourg

Vaccination is not mandatory but is strongly recommended. The country has a national vaccination schedule and provides free vaccines for children; however, there is no legal obligation or penalty for parents if a child is not vaccinated. Luxembourg's official health portal clearly states: „Vaccinations are not mandatory, but they are strongly recommended" [25].

Malta

Vaccination is partially mandatory. The entire vaccination schedule is not legally compulsory as it is in Italy; however, certain vaccines are required by law. According to Malta's official health authorities, vaccination against diphtheria, tetanus, and polio is legally mandatory, and some regulations also refer to rubella vaccination.

Other vaccines (such as the MMR vaccine as a whole, hepatitis B, Hib, and certain others) are generally recommended but are not all legally mandatory [26].

Moldova

Childhood vaccination is mandatory. The country has a national immunization program that includes mandatory vaccines, and vaccination status is linked to enrollment in educational institutions (kindergartens and schools) [27].

Monaco

Childhood vaccination is mandatory. The Principality has legislation requiring childhood vaccination, and at the end of 2025 this regime was expanded to include a larger number of mandatory vaccines (diphtheria; tetanus; polio; whooping cough (pertussis); invasive Haemophilus influenzae type b infections; hepatitis B virus; invasive pneumococcal infections; meningococcal serogroups, measles; mumps; rubella) [28].

Montenegro

In Montenegro, childhood vaccination is mandatory. The Law on the Protection of the Population from Infectious Diseases prescribes compulsory immunization against certain infectious diseases, and vaccination is carried out in accordance with the national immunization schedule [29].

Netherlands

In the Netherlands, vaccination is not mandatory but is voluntary and recommended. The state has a national immunization programme, but there is no legal obligation or financial penalties if a parent chooses not to vaccinate their child.

Children's vaccines (MMR, diphtheria, tetanus, polio, whooping cough, Hib, HPV, and others) are provided free of charge through the state programme, but they are based on voluntary parental consent. Enrollment in kindergarten and school is also not conditional on vaccination.

Why is the vaccination schedule in the Netherlands different compared to other countries?

Children all over the world are vaccinated against infectious diseases. All countries have established vaccination schedules for this purpose. These vaccination schedules are generally the same. Vaccination schedules in other countries (link is external) are posted online by the European Centre for Disease Prevention and Control (ECDC) and by the World Health Organisation (WHO). The aim

is always to protect children from dangerous infectious diseases as effectively as possible. Vaccination schedules in different countries depend on which infectious diseases are prevalent in that country, how the healthcare system is structured, the available resources, and the history of immunisation programmes [30].

North Macedonia

Childhood vaccination is mandatory. The Law on Protection of the Population from Infectious Diseases provides for mandatory immunization against certain diseases, and a child's vaccination status is also linked to enrollment in kindergartens and schools [31].

Norway

Vaccination is not mandatory but voluntary and recommended. Norwegian health authorities explicitly state „All vaccination in Norway is voluntary".

Childhood vaccines are provided through a free national immunization program and are administered with parental consent.

Children in Norway receive free vaccination against a number of diseases (including MMR, diphtheria, tetanus, polio, pertussis, and others), but there is no legal obligation or penalty for parents who decline vaccination, nor is school enrollment generally conditioned upon vaccination status, as is the case in some other countries [32].

Poland

Childhood vaccination is mandatory. Polish law provides for a mandatory vaccination schedule for children and young people up to the age of 19. The requirement applies to all children residing in Poland for longer than three months.

Parents are legally obligated to ensure that their children receive vaccinations in accordance with the national immunization schedule [33].

Portugal

Vaccination is generally not mandatory but recommended. However, there is one important exception: vaccinations against diphtheria and tetanus must be up to date for enrollment in educational institutions and for sitting certain examinations.

This means that Portugal does not impose a general legal requirement covering the entire childhood vaccination schedule, as is the case in countries such as Italy or Serbia, but it does apply certain conditional requirements related to vaccination status.

Portugal's National Vaccination Program is free of charge and highly comprehensive; however, most vaccinations are formally administered on the basis of recommendation and parental consent rather than legal compulsion [34].

Romania

Romania has a national vaccination schedule; however, a general legal requirement covering all childhood vaccines has not been fully implemented in the same manner as in Serbia or Italy. For many years, legislative proposals concerning mandatory vaccination and related penalties have been introduced, amended, and repeatedly postponed. At the same time, in practice, the Romanian healthcare system relies on a routine immunization schedule and strong public health recommendations to promote childhood vaccination [35].

Russia

Russia has a national schedule of routine (mandatory) childhood vaccinations; however, there is one important distinction: parents formally have the right to refuse vaccination for their child by submitting a written declaration.

Therefore, Russia does not apply its vaccination policy with the same degree of strictness as countries such as Serbia or Italy. Instead, it operates a system based on a mandatory immunization schedule while allowing formal refusal, although such refusal may result in certain restrictions in specific circumstances [36].

Serbia

Childhood vaccination is mandatory. The Law on Protection of the Population from Communicable Diseases and related secondary legislation prescribe mandatory immunization against certain infectious diseases, and the vaccination schedule is implemented through the state healthcare system.

- A vaccination record is required when enrolling a, child in kindergarten and school;
- Failure to comply with mandatory vaccination requirements may result in misdemeanor proceedings and financial penalties for parents [37].

Slovakia
Childhood vaccination is mandatory. The law and regulations issued by the Ministry of Health prescribe a mandatory immunization schedule, and financial penalties may be imposed for failure to comply with the required vaccinations, although enforcement may vary in practice [38].

Slovenia
Childhood vaccination is mandatory. Slovenia has one of the stricter mandatory vaccination systems in Europe, with a legally prescribed immunization schedule and the possibility of sanctions for failure to comply with vaccination requirements. Medical exemptions are available in Slovenia for children who meet the prescribed medical criteria. Parents who refuse mandatory vaccination may be subject to misdemeanor proceedings and financial penalties [39].

Spain
In Spain, vaccination is not generally mandatory by law, but is voluntary and recommended. A national immunization schedule exists and is funded by the state, but parents formally have the right to refuse routine childhood vaccination [40].

However, there is an important specific feature: in exceptional epidemiological situations, regional authorities and courts may approve public health measures that include vaccination or restrictions, but this is not the same as a general mandatory vaccination policy.

Sweden
In Sweden, vaccination is not mandatory but is voluntary and recommended. The state has a national immunization programme for children, but there is no legal obligation or financial penalties if a parent chooses not to vaccinate their child. Vaccines (MMR, diphtheria, tetanus, whooping cough, polio, Hib, HPV, and others) are provided free of charge through the public healthcare system, but they are administered with parental consent.

In addition:
- enrolment in kindergarten and school is not conditional on vaccination,
- there are no general legal sanctions for unvaccinated children [41].

Switzerland
In Switzerland, vaccination is not generally mandatory but is voluntary and recommended. Parents make the decision regarding their child's vaccination, and there is no national legal requirement for routine childhood vaccines.

Switzerland offers free or subsidized recommended vaccines (MMR, diphtheria, tetanus, polio, HPV, and others), but:
- there are no penalties for not vaccinating,
- school enrolment is not conditional on vaccination at the national level [42].

Turkey
In Turkey, vaccination is not formally mandatory in the sense of strict legal enforcement, but there is a state national immunization schedule that is routinely implemented and actively monitored. An important specific feature is that Turkish courts have ruled in several cases that parental consent is required for vaccination, so in practice the state does not enforce a classic „mandatory with penalties" model like Serbia or Hungary [43].

Ukraine
In Ukraine, there is a mandatory childhood vaccination schedule, but the system is mixed in practice. Formally, the state prescribes routine (mandatory) vaccines, and proof of vaccination is required for kindergarten and school enrolment. However, there is an important specific feature: parents may formally refuse vaccination, but unvaccinated children may face restrictions on attending kindergarten or school, especially in regular attendance and depending on the epidemiological situation. Mandatory vaccinations are given from the first day of life, as in many other European countries [44].

The United Kingdom (England, Scotland, Wales, and Northern Ireland)
Vaccination is not legally mandatory but recommended. Parents have the right to choose, and there are no general financial penalties or legal requirements regarding routine childhood vaccinations [45].

Through the National Health Service (NHS), the government provides a free vaccination schedule; however, it is based on recommendation rather than legal compulsion.

Furthermore, enrollment in nursery

schools and schools is not contingent upon vaccination status, unlike in some other European countries.

Based on an analysis of 43 European and one Eurasian countries, grounded in official legal regulations, national immunization schedules, state health portals, and scientific sources, it can be concluded that the situation is far more complex than the claim often heard in the Serbian public that „mandatory vaccination is the rule in the majority of countries."

The percentage of European countries with mandatory vaccination policies hovers around 40%, a figure directly reflected in the findings of our study [46]. Out of a total of 44 analyzed countries, childhood vaccination is strictly legally mandatory in 19 nations, featuring regulatory sanctions, strict conditions for enrollment in kindergartens or schools, and limited possibilities for medical exemption.

On the other hand, in 18 countries, vaccination is not legally mandatory but is instead based on informed parental consent, public health recommendations, and voluntary acceptance or refusal. Additionally, 7 countries utilize a mixed or partially mandatory model, where certain obligations, institutional conditions, or selective restrictions exist, yet parents retain the ultimate right to refuse immunization without severe legal consequences. Consequently, approximately 60% of European nations grant parents or legal guardians the autonomy to accept or decline vaccination for their children.

Conflicting opinions exist within the literature regarding which specific vaccines-and how many-should be rendered legally compulsory [47]. However, the authors of this paper contend that the clinical severity of a disease serves as the most objective criterion for mandatory status, alongside an imperative commitment to maintaining herd immunity.

Given the populist debates surrounding the highly complex scientific topic of childhood vaccination-which is of vital importance to the health of the youth demographic due to rapidly evolving manufacturing technologies and decades of rigorous pharmacovigilance tracking adverse vaccine reactions-the authors align with two specific professional observations that encapsulate a balanced clinical, parental, and scientific approach to immunization.

As our esteemed colleague, Dr. Srdjan Djani Marković, noted, the systematic reporting of adverse drug effects directly reflects the maturity of a nation's healthcare system and its overall efficiency in medical treatment [48, 49, 50, 51]. Furthermore, from a psychiatric and behavioral perspective, Dr. Jovana Stojković notes that the polarizing label of „anti-vaxxer" is frequently misapplied; it is fundamentally inconsistent with parental psychology to arbitrarily deny children protection against infectious illnesses. Instead, parental hesitation or resistance is typically rooted in deep-seated anxieties over suspected serious adverse reactions and a perceived deficit of clear, accessible technical explanations from the physicians administering the vaccines [52].

This systemic communication gap is observable across other European nations, where public health frameworks increasingly emphasize an individualized approach to determining mandatory schedules based on the educational, economic, and socio-cultural characteristics of the local population [53]. Undeniably, a rational, healthy distinction between mandatory and non-mandatory immunizations must rely on the life-threatening severity of the target infectious disease.

From the shared viewpoint of parents and legal professionals, infectious diseases are fundamentally categorized into life-threatening conditions and non-life-threatening conditions. Regarding medical ethics and the evolving dynamics of clinical practice, there is little debate over which approach yields the most sustainable public health outcomes. Safely protecting children from life-threatening conditions requires an interplay of up-to-date expert knowledge, administrative flexibility, and supportive legislation.

To summarize the global landscape: out of the 44 countries analyzed, 25 do not legally compel or penalize parents regarding childhood vaccination. Within this subset, 18 nations rely entirely on autonomous parental choice, while 7 utilize targeted recommendations. Conversely, 19 countries employ strict administrative regulations to mandate vaccination on behalf of the public. Interestingly, data from several researchers indicate that certain economically dominant nations exhibit some of the lowest baseline percentages of childhood vaccination coverage [54].

The primary life-threatening diseases for which viable vaccines exist include:
- Poliomyelitis

- Tuberculosis
- Smallpox
- Diphtheria
- Tetanus
- Pertussis (whooping cough)
- Severe clinical variants of measles
- Meningococcal disease
- Pneumococcal disease

As a critical observation, the authors note that two contradictory epidemiological trends are currently occurring simultaneously. On one hand, administrative bodies are expanding mandates for non-life-threatening pediatric illnesses. On the other hand, rapidly fatal infections-such as bacterial meningitis caused by *Neisseria meningitidis*-frequently remain uncovered by routine mandatory schedules, meaning the existing vaccine is available only upon personal request and private payment [55, 56].

Finally, the stated concerns of regulatory bodies in highly influential nations (such as the United States) often focus on severe clinical complications arising from measles outbreaks. Because these discussions occur in medically prominent countries, they have driven renewed debate over the utility of deploying monovalent (single-component) measles vaccines rather than the standard trivalent MMR vaccine mix [57].

This means that within this sample, strictly mandatory vaccination is not the dominant model; rather, the number of countries applying voluntary or mixed approaches is almost twice as high. Legal mandates and real-world coverage are only loosely correlated [58].

It is particularly notable that many developed European countries, such as Norway, Sweden, Denmark, Finland, the Netherlands, Switzerland, the United Kingdom, Ireland, Austria, and Spain, do not have legally mandatory childhood vaccination, but instead base their systems on institutional trust, informed consent, and voluntary uptake [58].

In contrast, stricter models are more common in parts of the Balkans, Central and Eastern Europe, as well as in certain countries that later tightened regulations following declines in vaccination coverage, such as France and Italy.

Therefore, it may be more accurate to say that there is no single European vaccination model, but rather multiple different approaches, ranging from fully voluntary to strictly legally mandatory. This is why public debate on this topic requires more facts and fewer slogans, labels, and oversimplifications [57].

Given the current topic in Serbia regarding the introduction of the HPV vaccine into the mandatory immunization schedule, it is important to note that this vaccine in Europe and Eurasia-i.e. across all 44 analyzed countries-is mandatory only in North Macedonia.

Although immunization programs constitute the most critical component of public health policy in any nation, there remains a notable lack of comprehensive, independent studies evaluating the precise long-term impact on overall pediatric health and the true eradication patterns of the infectious diseases relevant to this discussion [59]. Consequently, the authors emphasize the critical need to conduct rigorous, retrospective and prospective observational trials, as well as academic cost-benefit and financial analyses focusing on both the efficacy and adverse profiles of these interventions.

Furthermore, a closer analysis of the surveyed nations where immunization is not legally mandated reveals an indirect correlation: a country's economic development and financial stability heavily influence its capacity to adopt a voluntary, choice-based vaccination model.

The authors support the view that proper vaccination and the achievement of herd immunity require a personalized approach to vaccination, as well as a thorough understanding of the technological manufacturing process by which a vaccine is produced. A personalized approach involves making an informed decision based on the patient's personal and family medical history and distinguishing between life-threatening clinical manifestations of disease and those that are amenable to treatment.

The authors advocate for a personalized approach to immunization supported by highly educated medical personnel. By adopting this model, it is possible to effectively protect the pediatric population while simultaneously shielding children, parents, and legal guardians from both preventable health complications and social stigmatization.

CONCLUSION

The proportion of European countries that enforce mandatory vaccination frameworks hovers around 40%. The findings of this study suggest that no legal mandate-except for compulsory immunization against strictly life-threatening diseases (such as BCG, diphtheria, tetanus, pertussis, polio, pneumococcal, and meningococcal diseases)-genuinely serves the best interests of children. Consequently, the authors strongly advocate for a personalized, individualized approach to pediatric vaccination.

Furthermore, reporting any suspicion of an adverse vaccine reaction must be made strictly mandatory for all healthcare professionals and parents alike, with non-reporting legally sanctioned. The authors call for the implementation of robust, independent retro-prospective observational trials, alongside rigorous academic financial cost-benefit analyses, to comprehensively evaluate the efficacy and safety profiles of modern vaccines. Ultimately, the truth regarding the comprehensive effects of vaccination is far more nuanced and complex than the simplistic slogans currently presented to the public in our nation and many others.

CONFLICT OF INTEREST

All authors declare no conflict of interest.

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Imunizacija - Pravi put do vakcinacije

Nada A. Gladović[1], Ljubinka I. Nikolić[2], Dragana A. Kastratović[3]

[1] Lekari i roditelji za nauku i etiku, Udruženje gradjana Srbije, Predsednik, Beograd, Srbija
[2] Medicinski fakultet Univerziteta u Beogradu; Beograd, Srbija
[3] Sekcija za kliničku farmakologiju „dr Srdjan Djani Marković" Srpskog lekarskog društva, Predsednik, Beograd, Srbija

KRATAK SADRŽAJ

Tema: Poslednjih meseci srpska javnost sve češće sluša tvrdnje pojedinih imunologa, epidemiologa, kao i takozvanih portala za „proveru činjenica", da je obavezna vakcinacija dece „standard u ogromnoj većini razvijenih zemalja" i da je svaka tvrdnja o širim pravima roditelja na izbor u Evropi „dezinformacija", pa čak i „opasna neistina". Pojedini plaćeni proveravači činjenica otišli su i korak dalje, proglašavajući tačnim tvrdnje da je vakcinacija zakonski obavezna u većini evropskih zemalja. Takođe navode da roditelji nemaju pravo da je odbiju bez suočavanja sa prekršajnim sankcijama. Istovremeno, u javnom prostoru gotovo da nije bilo ozbiljne komparativne analize pravnih okvira širom Evrope i šire; umesto toga, građanima se često plasiraju pojednostavljene tvrdnje lišene šireg konteksta.

Upravo iz tog razloga nastao je ovaj tekst. Ne sa namerom da bilo koga ubeđuje šta treba da misli o vakcinaciji, već da na jednom mestu, na osnovu zvaničnih državnih izvora, zakonskih propisa, nacionalnih programa imunizacije i naučnih studija, prikaže kako ova oblast zaista funkcioniše u različitim evropskim zemljama i jednoj evroazijskoj državi.

Zemlje obuhvaćene analizom predstavljene su u radu abecednim redom.

Zaključak: Udeo evropskih zemalja koje primenjuju zakonski obavezne programe vakcinacije kreće se oko 40%. Nalazi ove studije ukazuju da nijedna zakonska obaveza - osim obavezne imunizacije protiv strogo životno ugrožavajućih bolesti (kao što su tuberkuloza (BCG), difterija, tetanus, veliki kašalj, poliomijelitis, pneumokokne i meningokokne bolesti) - istinski ne služi najboljem interesu deteta. Shodno tome, autori snažno zagovaraju personalizovan, individualizovan pristup pedijatrijskoj vakcinaciji. Kao što je istakao naš uvaženi kolega, dr Srđan Đani Marković, sistematsko prijavljivanje neželjenih dejstava lekova neposredno odražava zrelost zdravstvenog sistema jedne države i njegovu ukupnu efikasnost u pružanju zdravstvene zaštite. Takođe, iz psihijatrijske i bihejvioralne perspektive, dr Jovana Stojković ističe da se polarizujuća etiketa „antivakser" često neopravdano primenjuje.

Pored toga, prijavljivanje svake sumnje na neželjenu reakciju nakon vakcinacije mora biti strogo obavezno za sve zdravstvene radnike, kao i za roditelje, pri čemu neprijavljivanje treba da bude zakonski sankcionisano.

Autori pozivaju na sprovođenje obimnih, nezavisnih retro-prospektivnih opservacionih studija, zajedno sa rigoroznim akademskim finansijskim analizama odnosa troškova i koristi, kako bi se sveobuhvatno procenili efikasnost i bezbednosni profili savremenih vakcina.

Na kraju, istina o sveukupnim efektima vakcinacije daleko je nijansiranija i složenija od pojednostavljenih slogana koji se trenutno predstavljaju javnosti u našoj zemlji i mnogim drugim državama.

Ključne reči: vakcinacija, deca, pedijatrijski, neželjeni efekti, bez zakonske obaveze, personalizovani individualizovani pristup

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