

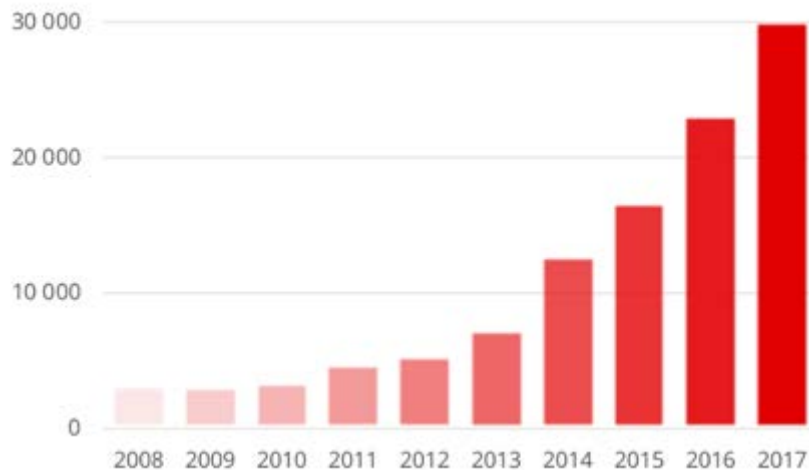
MICROECONOMICS 3

DEBATE MATERIAL – SHOULD VACCINATIONS BE MANDATORY?

Vaccinations in Poland

According to data from the Chief Sanitary Inspectorate (*Główny Inspektorat Sanitarny*), there are more and more people in Poland who decide not to vaccinate their children. While in 2009 the number of refusals amounted to 3,100, in 2017 it was already nearly 30,000.

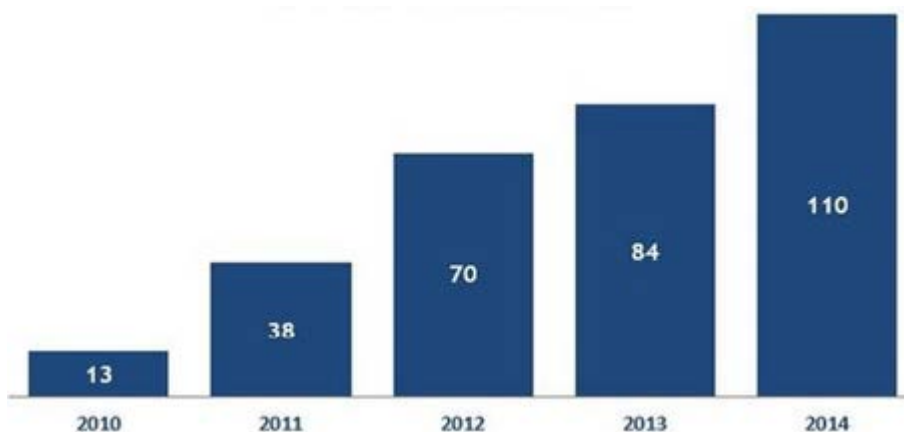
Fig. 1. Number of persons evading mandatory vaccinations (2008-2017)



Source: Annual Bulletins “Protective vaccinations in Poland” (*Biuletyny roczne “Szczepienia ochronne w Polsce”*).

In recent years the number of measles (a highly contagious infectious disease caused by the measles virus) cases in Poland has been increasing. According to specialists, this is related to the increase in the number of persons evading vaccinations.

Fig. 2. The number of measles cases in Poland

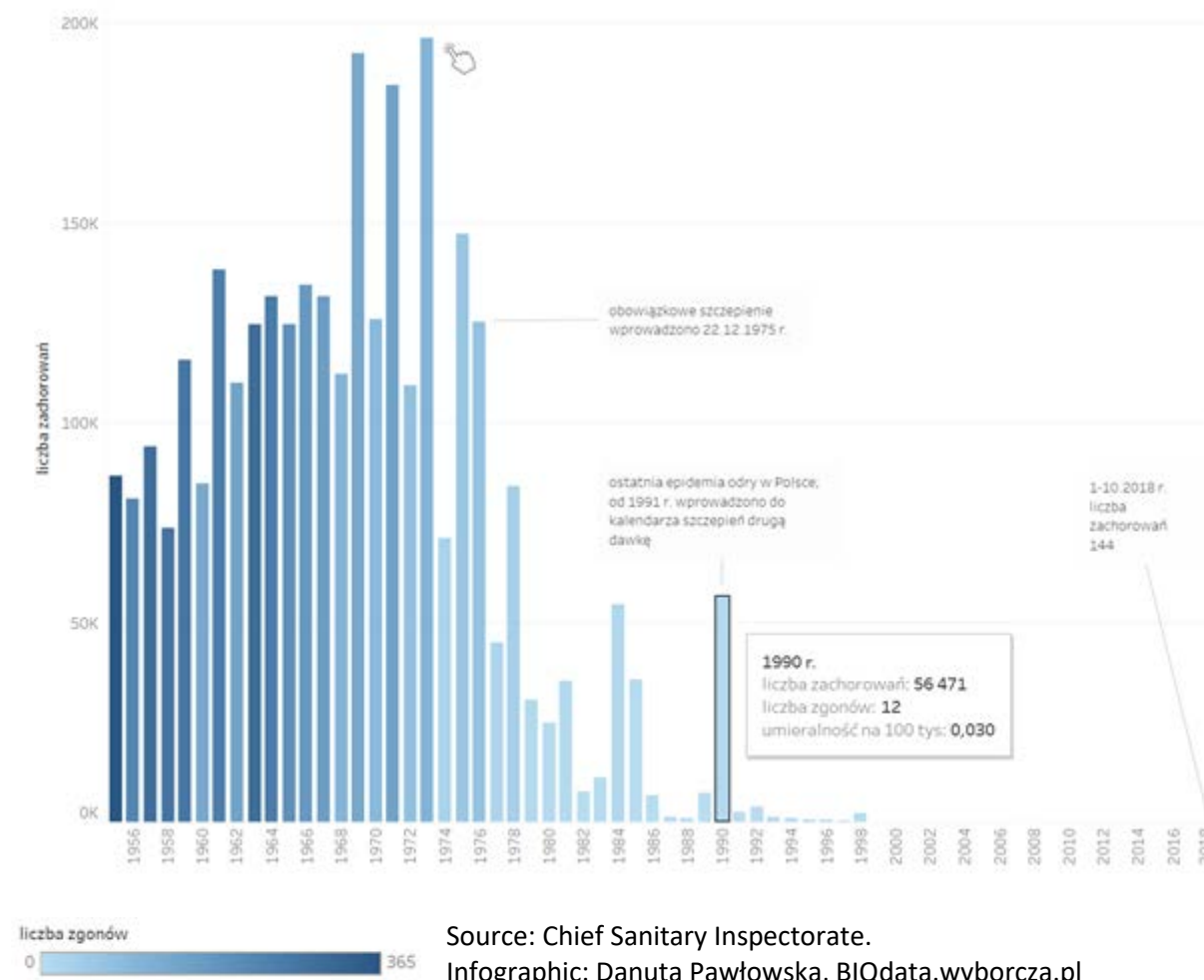


Source: Money.pl based on National Institute of Public Health (*Narodowy Instytut Zdrowia Publicznego – Państwowy Zakład Higieny*) data¹.

¹ <https://www.money.pl/gospodarka/wiadomosci/artukul/szczepienia-w-polsce-za-darmo-szczepic-sie,87,0,1735255.html> (in Polish).

According to a report by the National Institute of Public Health, before the measles vaccine became publicly available, about 130 million people suffered from this disease each year in the world. In Poland, compulsory measles vaccinations were introduced in 1975; before this took place 120,000-200,000 people suffered this disease per year, of whom 100-300 died².

Fig. 3. Measles in Poland – cases, mortality, and vaccination



Polish-English translations for Fig. 3: *liczba zachorowań* – number of cases; *obowiązkowe szczepienie wprowadzono 22.12.1975* – mandatory vaccination introduced on 22.12.1975; *ostatnia epidemia odry w Polsce...* - the last measles epidemic in Poland, from 1991 the required second dose was introduced in the vaccination calendar; *liczba zgonów* – number of deaths; *umieralność na 100 tys.* – mortality per 100,000.

Until recently, children's mortality due to measles decreased systematically. In 2012 the number of deaths caused by measles was five times lower than in 2000. This trend was so pronounced that it was even predicted that measles would be completely eliminated in some regions of the world. In Europe this was to happen in 2015. It is already known that this will not be possible.

² <http://szczepienia.pzh.gov.pl/> (in Polish).

Applicable law

Under current law in Poland, certain vaccinations are obligatory for children³. And although no one can force a child to be vaccinated, non-vaccinating parents can be punished. An exceptional case justifying the use of coercion can be based on the suspicion or diagnosis of a particularly dangerous and highly contagious disease. This stems from Article 36.1 of the Vaccination Act: "With respect to a person who does not submit to the vaccination obligation, sanitary-epidemiological tests, sanitary procedures, quarantine or isolation, when a particularly dangerous and highly contagious disease is suspected or diagnosed for this person, posing a direct threat to the health or life of others, a direct coercion measure may be used consisting of holding, immobilizing or compulsory administration of medications".

The standard procedure is that vaccinated and unvaccinated children are listed in a special register, where their names are submitted by their clinics on the basis of the content of their so-called immunization cards and if it appears that certain parents did not vaccinate their child, they first receive a special notice from the sanitary-epidemiological station. If they do not reply to this notice, punishment is imposed on them. In theory, when people do not want to vaccinate their children, the doctors are obliged to undertake certain educative activities, i.e. provide these parents with full information on vaccinations, dispel unjustified doubts and inform about medical and legal consequences for the parents of the refusal to have their child vaccinated.

If nevertheless parents do not agree to mandatory vaccinations, then administrative proceedings begin, the last element of which is the imposition of a fine. The spokesman for the Chief Sanitary Inspectorate, Jan Bondar, reminds that parents who do not comply with the obligation to vaccinate, may be fined up to PLN 1,500 based on the Code of Misdemeanors. The punishment is imposed on each of the parents separately. It usually amounts to several hundred *zlotys*, but it is not a one-time punishment and may be applied several times – until the parents vaccinate their child. The fine may, however, not exceed PLN 10,000 at any one time.

There are voices that currently applicable regulations are not sufficient. For example, from the National Institute of Public Health report it stems that "measles vaccine (MMR) is highly effective (95-98 percent)". Doctors assure that this vaccination protects against this illness and its serious complications, in particular neurological ones. However, to prevent viral circulation in the population, a minimum of 95% of the population must be vaccinated each year. This is why voices are increasingly heard that parents who evade compulsory and free vaccinations should be punished because they pose a potential threat.

But how? There are ideas that non-vaccinated children should not be admitted to state kindergartens or nurseries. The draft resolution concerning this proposal was put forward by a member of the Cracow City Council and according to it only children who have undergone compulsory vaccinations are to be admitted to kindergartens administered by the (local) self-government. He argued that in order to maintain the so-called **population resistance** and prevent the spread of infectious diseases in the future, it is necessary to oblige the city authorities to enforce the obligation for parents to provide child vaccination certificates.

Collective resistance⁴ (or put differently: **population resistance**, herd resistance, group resistance) is the protection (against a given disease) of people, who are not immunized, as a result of vaccinating a large share of the society. This concept evolved on the basis of observing that the presence in the population

³ <http://prawo.sejm.gov.pl/isap.nsf/download.xsp/WDU20082341570/U/D20081570Lj.pdf>,
<http://prawo.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20180000753> (both in Polish).

⁴ <http://szczepienia.pzh.gov.pl/wszystko-o-szczepieniach/co-to-jest-odpornosc-zbiorowiskowa/> (in Polish).

of persons immunized against a given disease reduces the likelihood of developing the disease also in non-immunized patients (e.g. small, not yet immunized children; ill children; children with contraindications against vaccinations; or the elderly). This concept is applicable to diseases that spread from person to person (does not concern diseases such as tetanus, tick-borne encephalitis, or rabies).

According to specialists, the operative catalogue of mandatory preventive vaccinations should be extended to include e.g. pneumococcal vaccination, which apart from health benefits, would also reduce the costs related to the treatment of diseases⁵.

Anti-vaccination movement in Poland – towards a draft amending the current legislation

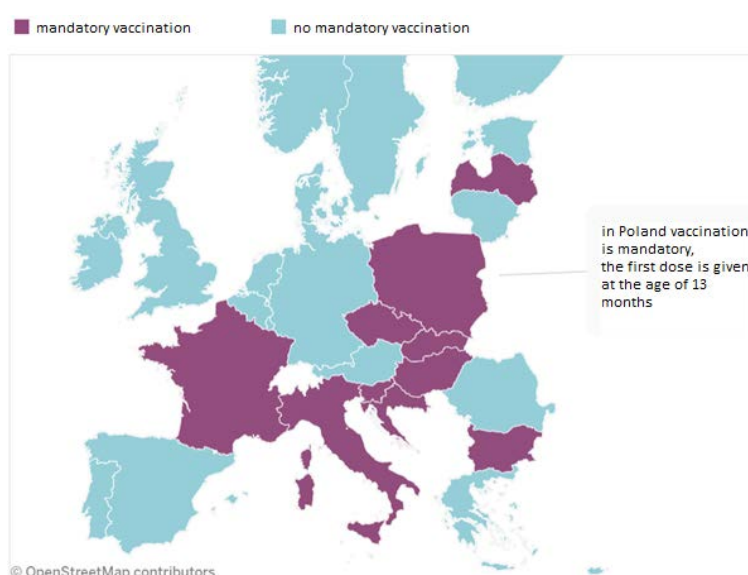
On the other hand, drafts liberalizing the currently operative law are being put forward. In March 2018, a civic draft was submitted to the Polish Parliament upon the initiative of the National Association of Vaccination Knowledge "STOP NOP"⁶. According to this draft, preventive vaccination should not be mandatory except in cases of epidemics or epidemic threats.

On August 28, 2018, the Speaker of the Sejm directed this civic draft, under which the Stop NOP anti-vaccination organization collected 121,000 signatures, to the first reading. In October 2018, the project was sent to the parliamentary commission.

In the justification, the authors of the draft argue that people should have the choice whether their children will be vaccinated or not, even more so because of the fact that vaccinations are connected with risks of complications. In their opinion, the obligation to vaccinate is a violation of human rights.

In addition, the authors of the draft justify it by arguing that in Western European countries, where the obligation to vaccinate was abolished, there are no epidemics of infectious diseases. They argue that since in the majority of EU countries the citizens have a choice regarding vaccination of their children, the same should be possible in Poland.

Fig. 4. The obligation to vaccinate against measles



Source: European Centre for Disease Prevention and Control.

Infographic: Danuta Pawłowska, BIQdata.pl

⁵ <https://www.nik.gov.pl/plik/id,10407,vp,12736.pdf> (in Polish).

⁶ <http://stopnop.com.pl/>

Vaccination against measles raises particular controversies. This is largely the aftermath of an article published in the prestigious *Lancet* journal in 1998. In this article, the authors suggested a link between a combined measles, mumps and rubella (MMR) vaccine and a "new syndrome" encompassing autism and an intestinal disease. This publication, after many years, turned out to be a fraud and its main author, Andrew Wakefield, was deprived of his right to practice the medical profession. However, according to the proponents of the new legislative draft, there is not enough evidence denying the link between MMR vaccination and autism. In this situation, parents should have the right to choose whether their child will be vaccinated.

Debate

Two teams participate in the debate: the Supporters and the Opponents of obligatory vaccination. There is also one special role in the debate – the moderator.

Prior to the debate each team should gather as many arguments supporting their position as possible. They should also specify the proposed regulation, e.g.: which disease should it apply to, etc.?

The debate may but does not have to concentrate on the currently operative (e.g. Polish, EU, or US) law. It may also but does not have to focus on the Covid-19 context. It is not necessary to use advanced knowledge concerning the current capabilities of medical science as regards vaccination, however general knowledge of this kind could be helpful. The debate should rather concern broader concepts which are significant for an economist, such as: the market mechanism and its failures – asymmetric information, externalities, network effects, public goods (public health), competition and its restrictions (e.g. state monopolies), efficiency; effectiveness of sanctions; taxation and budget revenues; etc.

Each of the teams – the Supporters and the Opponents, will be divided into three subgroups of more-less equal size: the Agitators, the Polemists, and the Legislators. The Agitators' task is to prepare arguments supporting their position. The Polemists' task is to foresee the argumentation of the opposing team and prepare to resist them. The Legislators' task is to formulate optimal (and conforming with the general position of the team – "for" or "against" obligatory vaccination) proposals of (legal) regulation. They should also be prepared to explain how their proposal solves the signaled problems. It will be helpful to refer to existing legal solutions and gather data concerning their observed positive and negative effects. The selection process (selecting team and subgroup members) should be organized by the moderator; the course instructor will only intervene when this does not succeed. It is important that subgroups are of similar size.

Each of the six sub-groups should meet in the weeks preceding the debate and formulate its position. During the debate sub-groups should organize themselves so that each member has the opportunity to speak. For preparing the argumentation it will be necessary to refer to relevant literature. Slides may be used for presentations.

The debate

The debate is conducted by the moderator, who at the outset specifies its rules, keeps the time, gives the speakers the floor (ensuring that speakers introduce themselves) and cuts them off.

The proposed agenda (the moderator may modify it provided that this is done in agreement with the participants and sufficiently in advance):

Agitators from the team of Supporters:	10 minutes
Polemists from the team of Opponents:	5 minutes
Comments/questions from the audience regarding these positions and short answers:	5 minutes

Agitators from the team of Opponents:	10 minutes
Polemists from the team of Supporters:	5 minutes
Comments/questions from the audience regarding these positions and short answers:	5 minutes
BREAK	
Legislators from the team of Supporters:	10 minutes
Legislators from the team of Opponents:	10 minutes
[The legislators may and should allow for modification of their proposal at the last moment (during the break?) based on unexpected arguments of the opposing team.]	
Comments/questions from the audience regarding these proposals and short answers:	5 minutes
Summary of the debate by the moderator, possibly with support from the course instructor	