Contagious diseases have been the major cause of death, especially in younger population, for thousands of years. People used various means to fight infection, unfortunately with poor results due to the fact that they knew nothing about the etiology and the mechanisms of disease transmission. Thus, big epidemics used to extinguish only by natural immunization or death. The discovery of vaccine and immunization saved more lives than any other intervention for health protection. Immunization is the fastest and cheapest way to control, eliminate, and finally eradicate many contagious diseases, being also the most powerful means that modern medicine could offer to humanity. Smallpox, a pernicious and severe viral disease, has been eradicated at a global level, so vaccination has been stopped. In 1972 was the last epidemics of smallpox in Serbia when 175 cases were registered out of who 35 died. That epidemics was stopped by urgent application of obligatory vaccination within the entire then Yugoslavia, and a wide action here and worldwide resulted in a complete eradication of this disease in 1979.

There is a long tradition of immunization in Serbia and many decades of efforts led to eradication of infantile paralysis (last cases registered back in 1996 in the area of Kosovo and Metohija, and in 1963 in the Central Serbia), elimination of diphtheria, while some diseases that could be prevented with immunization were reduced to only individual cases. Up to the 80s of the 20th century measles, rubella, and parotitis were common diseases at infant age, sometimes manifested by hard forms and complications, even death. Thanks to vaccination they are very rare today, so it is no wonder we almost forgot them. Before immunization measles caused death in thousands of children in Europe and the USA. More than 30,000 children used to get sick, and a few hundred die. In the 40s and 50s of the last century many tens of thousands of children got disability after catching infantile paralysis. The number of children with this disease in Serbia in 1956 was 854 having permanent consequences, while 44 of them died. These diseases have not changed, they still could cause paralysis, pneumonia, suffocation, brain damage, cardiac and many other problems in not vaccinated children. Children still die of these diseases in some parts of the world.

Immunization leads to a gradual reduction of the number of diseased due to a double effect: there appears individual immunity, similar to the natural one, on one side, and a vaccinated person is protected against infection for many years, sometimes even permanently. On the other side, there is the effect of making collective immunity. A cause present in the population could stay into it, could not spread since there are no sensitive individuals to grow and multiply in and to further transmit from. The cycle of natural spreading of infection ends, thus no epidemics could burst. To keep on the obtained results and achieve new aims (elimination of measles, rubella, and congenital rubella syndrome) it is necessary that each child get a dose of each vaccine, to the maintain immunization coverage of more than 95% that is one of the most important issues for public health.

A decrease in the vaccination coverage implies the appearance of epidemics. In the past years the countries of the European region were faced with epidemics of measles, rubella, and parotitis in sensitive, not vaccinated population. There are no borders for infections, so epidemic spreads from country to country. In 2009, for example, a total of 7,175 cases of measles were registered, out of whom 91% in 5 countries (Bulgaria, France, Switzerland, Great Britain, and Germany), while 10 individual died (3 months to 39 years old, 7 in Bulgaria, 2 in France, and 1 in the Netherlands). In 2010 a total of 30,367 cases of measles were registered, the majority in Bulgaria, France, Germany, and Italy. Out of that number 21,877 cases were treated in the hospital, 21 died (18 in Bulgaria, 2 in France, and 1 in Romania). A decrease in the vaccination coverage caused the reappearance of diphtheria in the countries of former SSSR, whooping cough in Britain, measles in Europe, infantile paralysis in numerous countries. Under such conditions it is
more difficult or impossible to implement vaccination to the necessary coverage and rate.

Anti-vaccination movement in Serbia, culminating in the 2009/2010 swine flu pandemic, now shows its adverse effects on vaccination coverage as the increasing number of diseased children and the announced measles epidemic in a few parts of our country. Public confidence in vaccines and vaccination has been weakened, so in time it could compromise all the positive effects of immunization that were difficult to obtain over decades. Anti-vaccination movement worldwide tends to lessen the significance and points out, even fabricates, adverse effects of immunization, with no arguments and proofs, all the time doubtful about the ethics and humanity of the promoters of immunization, that is health workers. Every single negative information about vaccination spreads around quickly, also thanks to the Internet. Unfortunately, this is not the first time since that anti-vaccination movement appeared in history before. In the 70s in England spread the story about adverse effects of the whooping cough vaccine, about it as a conspiracy hatched by pharmacology, that resulted in the decrease of the vaccination coverage to 39%. Whooping cough, eradicated disease, came back and killed a great number of children, then people started to vaccinate children again. If anti-vaccination movement succeeded today, it would be easy to imagine the consequences. So, countries that take care of their nations work hard to promote immunization.

Studies performed worldwide indicate immunization as the most secure way to protect health of children. It is known for sure today that vaccine does not cause autism, diabetes, multiple sclerosis, asthma, nor attention disorder (hyperactivity) in children. Numerous studies confirmed no association between autism and MMR (measles/mumps/rubella) vaccine, such as the one performed in Denmark on half a million children born in 1991–1998. A total of 82% of those children were vaccinated with MMR, but the risk for autism was the same both in vaccinated and not vaccinated children: there is no association of MMR vaccine and autism.

Vaccines used in Serbia are safe. There are adverse effects of any drugs, while those of a vaccine are mild pain in a hand or leg to which it is administered or negligible higher temperature, very rarely they are severe. Eventual adverse vaccine effects are prevented by temporary or permanent contraindications prior to vaccination, safe vaccination, strictly recommended vaccines combination, time period between two succeeding vaccines, etc. Anyhow, the advantages of vaccination surpass the risks for eventual adverse effects.

Immunizations are realized as national programs that are based on a long-standing tradition, experience, and research. Disease prevention, including vaccination as the most effective and specific measure, is far more cost-effective than treatment itself. There is even no need to mention the significance of the reduction in death rate. So, there is no a single person, the doctor, nor health institution behind immunization, but the whole community and national interest, the whole state. Immunization with no support of the whole state is not possible. Thus, citizens themselves, as well as the parents alone, could not stand the burden of making decision on immunization.

It is a general interest of all of us, of our posterity, their health and well-being that the common sense prevails and immunization as the public health measure turns into more modern vaccines and discovering new using and appreciating the major principle of medical ethics – Premium non nocere (First, do no harm).