

Veretelnik Olena, Prokopenko Kostiantyn

Dynamics of immunization rate from highly dangerous infectious diseases in Ukraine.

Kharkiv National Medical University (Department of Social Medicine, Organization and Economic of Public Health), Kharkiv, Ukraine

Introduction: The effectiveness of vaccination around the world is universally recognized, there is no other health program that would have produced such impressive results. Practically during the life of one generation, more than a dozen serious infections that previously caused heavy damage were eliminated or minimized. Over the past 10 years, significant progress has been made in developing and implementing new vaccines and expanding the coverage of the population with immunization programs. Due to immunization, the number of deaths of children under 5 years from controlled infections (diphtheria, measles, neonatal tetanus, pertussis, poliomyelitis) decreases annually. However, in Ukraine many parents and some part of the population have a negative opinion about the necessity in vaccination, which is the main reason of descent of the number of vaccinated children and increasing the likelihood of different epidemic.

Materials and methods: the study of this issue were provided with bibliography, mathematical, statistical and analytical methods. Basic data for the analysis of immunization in Ukraine is WHO's and UNICEF's health statistics.

The main indicators which were chosen for analysis are next:

- child immunization rate for BCG (% of one-year-old children);
- child immunization rate against DPT (diphtheria, pertussis and tetanus), % of children ages 12-23 months;
- child immunization rate against hepatitis B (% of one-year-old children);
- child immunization rate against measles (% of children ages 12-23 months);
- child immunization rate against poliomyelitis (% of one-year-old children).

Results: Analysis of indicators specified earlier shows that:

–the worst situation we can see in child immunization data against hepatitis B. Immunization was started in 2000. Top-rate was achieved in 2004 (98%) and then began to reduce. In 2014-2015 it was 22%;

– child immunization rate against DPT had become below 90% in 2009 (71%) and it fluctuated within 50-76% during 2009-2013, but in 2014-2015 it was the lowest (23%);

– Prevalence of tuberculosis in Ukraine is incredibly high compared with Europe (91 cases per 100 000 population in Ukraine / 36 cases per 100 000 population in Europe), however, child immunization rate for BCG from 89-99% during 1992-2013 years had decreased and in 2014-2015 this rate was 39% only;

– better situation with child immunization rate against poliomyelitis and measles, but also we can see a decrease of immunization rate from 2009 to the present day (for polio it decreased from 74% in 2009 till 45% in 2014-2015 and for measles: from 75% in 2009 till 56% in 2014-2015);

– child immunization rate against

Conclusions: Negative trends in the field of child immunization in Ukrainian society can lead to the following consequences:

- a decrease in the immune layer of society;
- outbreaks of infectious diseases;
- an increase in government spending to fight the consequences of the epidemic;
- recession of the country's economy, etc.

That is why the state should take care of the proper level of immunization of the population and allocate funds for the support of immunization programs in order to prevent the return to the region of highly dangerous infectious diseases that lead to disability and death.