

THE ANALYSIS OF IMMUNIZATION COVERAGE IN UKRAINE AND IN WHO EUROPEAN-REGION COUNTRIES

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Vaccination is deservedly considered the most significant achievement of medicine in the last two centuries, because it showed the most significant medical intervention effects on human health by eliminating of certain particularly dangerous infectious diseases. Today thanks to modern vaccines that can simultaneously create immunity against several infections it has become much easier to prevent the emergence of infectious diseases and their spread.

According to the National immunisation schedule in Ukraine routine vaccination against tuberculosis, measles, rubella, hepatitis B, pertussis, tetanus, mumps, diphtheria, poliomyelitis and Haemophilus influenza type B is carried.

Recommendations of the World Health Organization (WHO) established immunization coverage, at which an enough level of population immunity is created and only sporadic occurrences of diseases are provided and which should be 95%. However, a much lower rate of immunization coverage for certain infectious nosologies, especially in recent years, is observed, because of low government funding and the lack of vaccines in clinics to perform routine vaccinations in required terms in Ukraine.

Based on the above, the purpose of our research was to analyze the level of immunization in Ukraine and to compare the indicators with European.

Based on the results of the immunization coverage's analysis of children under 1 year, which are considered the most susceptible to infectious diseases, it was found that in Ukraine since 2010 this rate has been decreased. For some infections it was less than 50%, which is a critical indicator. Particularly difficult situation remained in 2013, when recommended level of immunization coverage of 95% has not been reached for any infection.

If we trace the dynamics of European indicators of immunization coverage, it can be argued that in most infections they are in line with recommendations of WHO. Only against Haemophilus influenza type B and hepatitis B immunization coverages are high enough – 83% and 81% respectively, but not considered by WHO experts as critical indicators (Table 1).

**Comparative analysis of immunization coverage of children under 1 year
in Ukraine and in WHO European-region countries during 2009-2013, %**

Year	Ukraine						WHO European-region countries					
	Tuberculosis	Poliomyelitis	Measles, mumps, rubella	Haemophilus influenza type B	Hepatitis B	Pertussis, diphtheria, tetanus	Tuberculosis	Poliomyelitis	Measles, mumps, rubella	Haemophilus influenza type B	Hepatitis B	Pertussis, diphtheria, tetanus
2009	96	74	75	66	68	71	94	95	94	72	77	95
2010	92	57	56	51	48	52	95	95	93	74	78	94
2011	90	58	67	26	21	50	94	95	94	77	78	94
2012	95	74	79	83	46	76	95	96	95	83	79	96
2013	80	62	39	39	24	60	95	96	95	83	81	96

Thus, a sufficiently high level of immunization coverage in Ukraine until 2009 contributed to the achievement of a high level of population immunity, which allowed for some time to inhibit the growth and spread of infectious diseases, controlled by routine immunization.

However, the sharp decline in immunization coverage, especially in 2013, threatens of sudden infectious disease outbreaks and its uncontrollable spread. Too acutely this applies to such diseases as measles and rubella, characterized by extremely highly contagious and quick spread, and immunization coverage of which in 2013 was, unfortunately, very low (39%).

Thus with a view to create and support well-being of epidemic situation in Ukraine, in our opinion, the first step is to ensure sufficient immunization coverage recommended by WHO and The National Program on Immunization, at the level of not less than 95%, which is possible only if we completely ensure the needs of healthcare facilities in medicinal immunological products for routine vaccination and their uninterrupted and rhythmic delivery in regions.