**Understanding of measles epidemiological situation in Ukraine**

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**Introduction:** Nowadays elimination of measles is a global strategy for all countries. But only 42 of 53 countries have stopped endemic transmission of measles in the World Health Organization European Region by the end of 2016. The most affected countries are Romania (measles incidence is 24.49 per 100'000 population, 2017) and Italy (measles incidence is 8.48 per 100'000 population, 2017). Romania borders with Ukraine. Italy is one of the top 5 countries for migration from Ukraine (238'566 Ukrainians annually). Due to the visa-free travel and high levels of labor migration and tourism in the countries of European Union (EU) it is important to control the disease in Ukraine. The aim of study was to access the true epidemiological situation in Ukraine and challenges facing the country.

**Materials and methods.** Observational study of the all reported cases of measles from 2001 to 2017 in Ukraine was conducted. National data about measles cases and vaccination coverage were used.

**Results.** We observed a stable tendency to the decrease of measles incidence in Ukraine until 2014. But, due to the humanitarian crisis, weak health care systems in the regions affected by the conflict, broad anti-vaccination propaganda, high levels of external and internal migration of population (about 5.9 million Ukrainians are external migrants and more than 1.6 million Ukrainians are internal ones) the vaccination coverage has been declined since 2009 and the surveillance deteriorated. The vaccination coverage of the first dose of the measles-containing vaccine (MCV1) decreased from 98.6% in 2007 to 42% in 2016. The lowest rates of MCV1 coverage are in Western regions. In previous years measles incidence was 0.32 per 100'000 population in 2015 and 0.2 per 100'000 population in 2016. Nowadays, the epidemiologic situation is growing worse in Ukraine. Measles incidence in Ukraine has been increasing since 2014 especially in the Western regions bordered on EU. The incidence of the disease in 2017 is 10.90 per 100'000 population that is more than 50 times higher than in 2016.

**Conclusion.** In order to prevent measles in the European region and to achieve its elimination, it is necessary to improve immunization coverage and surveillance in Ukraine and other countries.

**Key words:** vaccination coverage, migration, incidence, surveillance.