that smoking marijuana not only affected the lungs and respiratory system – but it also weakened the immune system, especially for immune compromised individuals due to, intake of immunosuppressive drugs or certain diseases, which include HIV. Marijuana smoke effected the lungs' first line defense mechanism against infection by killing cells that help remove dust and germs as well as causing more mucus to be formed. Smoking marijuana also increases the risk of opportunistic infections among the HIV individuals, it does not affect the development of AIDS or lower white cell counts. A potential threat to the immune compromised was Aspergillus, a mold that could cause lung disorders. It grows on marijuana, which if then inhaled via smoked exposed the lungs to this fungus. However, it rarely caused problems in people with healthy immune systems.

**Conclusion.** Smoking marijuana clearly damages the human lung, and regular use leads to chronic bronchitis and can cause an immune-compromised person to be more susceptible to lung infections. Passive smoking is hazardous, as well. Due to the risks it poses to lung health, the American Lung Association strongly cautions the public against smoking marijuana as well as tobacco products. SMOKE, in any form is a killer, therefore quit smoking. Never give up, giving up!

Martynenko A.

**VACCINATION - AS PREVENTION OF CONTROL WITH PERTUSSIS IN CHILDREN OF KHARKIV CITY**

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**Introduction.** Pertussis (whooping cough) - an acute infectious disease, which is the most dangerous children diseases, is caused by gram-negative bacteria (stick Borde-Zhang), transmitted by airborne droplets, characterized by moderate intoxication, catarrhal inflammation of the respiratory tract, attacks of spasmodic cough with reprises and respiratory inspiratory delay. The causative agent of the pertussis - Bordetella pertussis, which exotoxin is tropic to the nervous system and vessels and leads to negative course of the disease. The disease tolerate both children and adults, received the infection in the lesion. The aim of the work: Estimate the incidence of whooping cough in children of Kharkiv sity in 2016-2017 for the development and implementation of effective preventive measures.

**Materials and methods.** According to official data, we’ve explored a retrospective epidemiological analysis of the incidence of whooping cough in children in the Kharkiv region for 2016-2017 years.

**Results.** The incidence of pertussis in Kharkiv sity amounted to 119 cases – in 2016 and 64 - in 2017 (8.3 per 100 thousand of the population in 2016 and 4.5 per 100 thousand of the population in 2017). Proportion of children under 17 year in overall morbidity prevailed and amounted to 92.4% (110 cases) in 2016, at 95.3% (61) in 2017, mainly sick children of preschool age. Proportion of diseased
children under one year amounted to 32.7% (36 children) in 2016 and 26.2% (16 children) in 2017, the proportion of affected children up to 4 years was 90% (99 children) in 2016 and 70.5% (43 children) in 2017, the number of cases among children aged 10 to 17 years was 11 (10% children) in 2016 and 18 (29.5% children) in 2017. The proportion of unvaccinated children among the sick decreased from 78.8% in 2016 to 68.8% in 2017, which indicates the necessitate for vaccinations for children to prevent whooping cough. In Kharkiv region immunization coverage with 3 doses of diphtheria-tetanus-pertussis vaccine (DTP-3) was 19% in 2016 and 37.5% in 2017, but didn’t reach 90% coverage of children under the age one year.

**Conclusion.** The conducted analysis of the epidemic situation in the Kharkiv city showed significant decrease in the incidence of whooping cough in children and adolescents compared to 2016 and increased vaccination coverage, which however did not reach 90%. For further reduce the incidence and improve the epidemic situation, it is necessary to improve pertussis vaccine prophylaxis and reach 90% coverage of DTP-3 children up to a year.

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**ACUTE WATERY DIARRHEA IN SUDAN**
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**Introduction.** Acute watery diarrhea is one of the leading cause of death in children due to dehydration. It is one of the three types of diarrhea classified by World Health Organization. The other two are: acute bloody diarrhea (dysentery) and persistent diarrhea which lasts 14 days or longer unlike the acute types which usually last several hours and days. Malnourished children or those with impaired immunity are more prone to gastrointestinal infections of them is Cholera caused by the bacterium Vibrio cholerae which produces an enterotoxin that causes painless watery diarrhea (the major symptom of cholera). It is transmitted through ingesting contaminated food and water. Adults who are exposed to infected children are more susceptible to get the infection specially in circumstances of poor hygiene. If untreated, cholera can kill within hours.

**Materials and methods.** Acute watery diarrhea outbreak in Sudan 2016-2017, more than 36 000 case and more than 800 deaths, according to UNOCHA. 18 states were involved with females constituting 54% and children below five 8.1% of all cases. According to the government the infection spread through contaminated food and water and person-to-person transmission as a result of poor hygiene. The UN agency said: “the source of infection is believed to be contaminated open water sources combined with poor sanitation and hygiene practices.”