

## **Abstract:**

Measles is a highly contagious rash disease, with human as the only natural source. Although there is an effective vaccine, so measles could be another eradicated disease, there are still measles outbreaks all around the world. This master's thesis deals with the occurrence of measles in Czechia in years 2005–2021 in terms of time and space. The source of data is the Information System of Infectious Diseases and the Czech Statistical Office. The first objective of this master's thesis is to find seasonality of the incidence of measles for individual months from January 2005 to December 2021. The second objective is to map the occurrence of measles in Czechia in years 2017–2019 from the perspective of age- and gender-specific annual incidence rate and also from the spatial point of view, which means the annual standardized incidence rate in different districts of Czechia. The third objective is to identify effects of some epidemiological and demographic factors on the occurrence of measles in districts of the Czech Republic in year 2019, when the strongest epidemic took place.

**Keywords:** measles, measles vaccine coverage, epidemic, districts of Czechia, Czechia