Mumps virus is a highly infectious pathological agent, despite the use of vaccination, outbreaks continue to occur worldwide and affects all age groups. There is no specific treatment for mumps. The study aimed to investigate the epidemiologic features of a mumps outbreak in two districts located in the southern region of Babylon Governorate.

The study was a cross sectional descriptive epidemiologic survey that included all notified cases of mumps reported by the primary health care authorities in southern region of Babylon Governorate during the year 2016–February 2017, a total of 693 clinically diagnosed mumps cases were studied from the records during this period in 4 primary health care centers (two in Al-Qasim district and two in AL-Showmaly district). Person Place Time epidemiologic model was applied to describe the occurrences of the disease.

The Study results revealed that the male to female ratio of patients was 2:1 and most of the cases 26.4% occurred in January more than two thirds of cases were living in the city district (71%), about half of the patients (56%) were vaccinated against the disease.

In conclusion Mumps occurs more among males and the frequency of this viral disease is high during January. The role of vaccination was limited in protection of patients against this disease, third booster dose of mumps vaccine is recommended after serological monitoring to evaluate the levels of antibodies to prevent future epidemics.