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## **Seroprevalence of Antibodies to Measles and Mumps among Medical Science Students in Palestine**

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## **Abstract**

### **Introduction:**

Measles and mumps is an acute and highly contagious but vaccine-preventable infectious diseases. Despite years of being considered eliminated, they have produced outbreaks in several countries, including Palestine. The study aims to measure seroprevalence of Measles and Mumps among medical and paramedical students at An-Najah University-Northern part of Palestine, to roughly determine measles and mumps seroprevalence in Palestine for the first time and to formulate an evidence-based prediction of possible future outbreaks.

### **Materials and methods:**

in a cross-sectional study, serum samples were obtained from 401 aged 18-23 years and were tested for specific antibodies (IgG) to measles and mumps, using specific ELISA procedure. All participants answered a questionnaire on history of vaccination with MMR and demographic background

### **Results:**

The number of seropositive participants was 268(66.8%) for measles and 306(76.3%) for mumps. There was a significant association between measles and age and between measles and gender. Moreover, there was a significant association between measles and mumps seropositivity; 217 subjects with positive measles results were also positive for mumps (p-value of 0.002).

### **Conclusion:**

Participants were found to have relatively low immunity to measles and mumps. As medical science students who are at a higher risk for being affected by these diseases and outbreaks, it is recommended for booster vaccine. Further studies need to be done to evaluate the causes of such low immunity.