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## 17F. SCIENCE: VACCINE EFFECTIVENESS AND EFFICACY

### VACCINATION COVERAGE BEFORE AND AFTER INTRODUCING POLYVALENT VACCINES IN BITOLA

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#### Background

Our country has mandatory vaccination policy against the following diseases: tuberculosis, diphtheria, tetanus, pertussis, poliomyelitis, measles, parotitis (mumps), rubeola, hepatitis B and hemophilus influenza tip B. Polyvalent vaccines, hexavalent and pentavalent, were implemented for the first time in August 2015.

The aim of the study is to evaluate the vaccination coverage of preschool children before and after introducing polyvalent vaccine in Municipality of Bitola.

#### Methods

The survey was conducted in the Office for preventive health care of preschool children in Bitola. In retrospective epidemiological study the vaccination data were analyzed in the period of 2011 to 2017.

#### Results

Since 2015 the vaccination coverage rates increased.

- The coverage with the HB vaccine increased from 98% (2015) to 99.2% of children.
- Primary-vaccination against HiB in 2015 covered 93.3-99% of children, re-vaccination covered 89.7-99% (2015) and the coverage range of polyvalent vaccines was 98.3-99%.
- Primary-vaccination against DTP covered 91.1-98.3% (2015) while 98.3-98.7% of children were covered with polyvalent vaccine. Re-vaccination covered 97-99% (2015) of children while 98-99% were covered by polyvalent vaccines.
- OPV primary-vaccination coverage range was 91.1-98.7% (2015) while polyvalent vaccine's coverage range was 97.7-98.7%. Re-vaccination covered 98.5-99% (2015) of children i.e 98-99% after 2015.
- Only the coverage range of the vaccine against MMR has continuously decreased since 2011 (99.9%) but still, it is over 95%.

#### Conclusions

In Macedonia the implementation of multivalent vaccines increased the immunization coverage. The benefits for the parents are reduced number of visits to the doctor, less stressful conditions and side effects and increased trust in the quality and positive effects of the vaccination.