# Assessing the Impact of Vaccination and Treatment on Measles Transmission Dynamics

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Measles is an infection of the respiratory system caused by a virus of the genus *Morbillivirus*. The disease is spread through respiration following contact with fluids from an infected person's nose and mouth, either directly or indirectly. The disease is contagious with 90% chances of being infected by individuals (without immunity). Measles infects about 30-40 million children each year [1, 2]. In this talk we present A deterministic model for the transmission dynamics of measles in a population with fraction of vaccinated individuals. The model is rigorously analyzed for its dynamical features. Results for the existence and stability of equilibria, as well as bifurcation analysis is presented. Some numerical results to assess the impact of vaccination and treatment are also presented.

## References

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