

Why vaccinate our kids?

Vaccination is the most effective medical intervention against the spread of infectious diseases. Yet, in many countries, the public confidence in vaccines is eroding and the subsequent drop in vaccination coverage is responsible for the reemergence of many pathogens. To build up public confidence it is important to recall the multiple benefits associated with vaccination. Mathematical epidemiology quantifies the costs and the benefits associated with medical interventions and thus provides a rational framework to help decide whether or not we should use vaccination. I will discuss the short-term consequences of vaccination at the scale of the individual and the community, but also its long-term (evolutionary) repercussions.