

Throughout history, pests have killed millions of people around the world, but thanks to enormous research efforts, progress has been made in preventing epidemics. To achieve this goal, mathematicians around the world have gathered data related to epidemics in order to build models. One of the most important of these models is probably W. O. Kermack and A. G. McKendrick's dynamic model, also called the SIR model. However, the desired goal of these models is to extract a tool to measure the risk of disease and thus prevent the appearance of an epidemic, and it is precisely this tool that we will discuss in this paper. This tool is the basic reproduction number R_0 and we are going to present a method to calculate its value in a dynamic system.