1116-92-1053   **Fred Brauer*** (`brauer@math.ubc.ca`), Department of Mathematics, University of British Columbia, Vancouver, BC V6H 4C3, Canada. *A new formulation of a simple epidemic model.*

We consider an epidemic model in which all disease transmission is through shedding of virus by infectives and acquisition by susceptibles, rather than by direct contact. This leads to an SIVR (susceptible-infectious-virus-removed) model for which we can determine the basic reproduction number and the final size relation. We extend the model to an age of infection model with virus shedding a function of the age of infection. (Received September 16, 2015)