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*Dynamics of an Age-Structured SIR Epidemic Model.*

We investigate an SIR epidemic model with discrete age groups to understand the transmission dynamics of an infectious disease in a host population with an age structure. Basic reproduction number  $R_0$  is derived and shown as a sharp threshold parameter. The global stability of the endemic equilibrium when  $R_0 > 1$  is established under a mild condition. This model is also used to analyze the measles outbreaks in India. (Received September 25, 2017)