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Juriquilla No. 3001, 76230 Juriquilla, Queretaro, Mexico. *Transmission Dynamics of Two Dengue  
Serotypes with vaccination scenarios*. Preliminary report.

A mathematical model that incorporates two Dengue serotypes is presented. We consider two viral strains and temporary cross-immunity with one vector mosquito population. Results suggest that vaccination scenarios will not only reduce disease incidence but will also modify the transmission dynamics. Indeed, vaccination and cross immunity period are seen to decrease the frequency and magnitude of outbreaks but in a differentiated manner with varied effects depending upon the interaction vaccine and strain type. (Received September 19, 2016)