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Recently, the Zika arbovirus transmitted through the *Aedes aegypti* mosquitoes has been shown to be transmitted to humans, not only through vector transmission, but also through sexual contact. While there is a lot of research currently being conducted to find vaccines for the treatment of the disease, other methods of prevention and eradication of the disease recommended by the Center for Disease Control and Prevention include using insecticide treated bed nets (ITN) and indoor residual spraying (IRS). The ITNs developed using chemicals such as pyrethroids, can maintain effective levels of insecticide for a long time as well as repel mosquitoes. In this work, we investigate an enhanced mathematical model that incorporates ITNs and IRS as methods for eradication of Zika. In this work, we develop an ordinary differential equation system that builds on classical SEIR epidemiological models, with added constraints for the two preventive measures, namely ITN and IRS. We derive the basic reproduction number analytically and compute the final size for the epidemic for various conditions involving ITNs and IRS numerically. We present ranges for combination of compliance and efficacy for ITNs and IRS that can potentially eradicate the disease. (Received September 21, 2016)