Tracking the HIV Epidemic in the Philippines Using Phylogenetic Analysis

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According to a study published in 2016 by Pendse et al., while the number of newly infected individuals in the majority of countries in Southeast Asia has been decreasing, more and more individuals are continuing to be infected in the Philippines. The purpose of this study was to observe HIV epidemiology in the Philippines, offer a possible reason as to why its continuing to get worse, and perhaps even contribute to finding a solution. The study found that the HIV epidemic in the Philippines had different characteristics than the rest of Southeast Asia. These characteristics could be attributed to several unique geographic and demographic properties. Notably, the Philippines are an archipelago of over 7,000 islands, resulting in abnormal spread of virus within different populations. Another important property is a large population of oversea Filipino workers, or OFWs, which can bring different strains of HIV back from various countries. A difference was observed between HIV subtype distribution in the Philippines and the rest of Southeast Asia. This could have been associated with differences in geography and economic situation, as well as the presence of OFWs. The epidemiological trend of HIV in the Philippines was observed shifting over time after 2009, with a large increase in CRF01_AE and similarly large decrease in subtype B, suggesting that HIV dynamics in the Philippines are being altered by new developments in the epidemic. This change could also be explained by the decreasing presence of OFWs from the Western world, and the spread of HIV localized within specific geographic locations.

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