

Impact of Influenza A(H1N1)pdm09 Virus on Circulation Dynamics of Seasonal Influenza Strains in Kenya

Abstract:

We describe virus variations from patients with influenza-like illness before and after the appearance of influenza A(H1N1)pdm09 in Kenya during January 2008-July 2011. A total of 11,592 nasopharyngeal swabs were collected from consenting patients. Seasonal influenza B, A/H1N1, A/H3N2, A/H5N1, and influenza A(H1N1)pdm09 viruses were detected by real-time reverse transcription-polymerase chain reaction. Of patients enrolled, 2073 (17.9%) had influenza. A total of 1,524 (73.4%) of 2,073 samples were positive for influenza A virus and 549 (26.6%) were positive for influenza B virus. Influenza B virus predominated in 2008 and seasonal A(H1N1) virus predominated in the first half of 2009. Influenza A(H1N1)pdm09 virus predominated in the second half of 2009. Influenza A/H3N2 virus predominated in 2010, and co-circulation of influenza A(H1N1)pdm09 virus and influenza B virus predominated the first half of 2011. The reduction and displacement of seasonal A(H1N1) virus was the most obvious effect of the arrival of influenza A(H1N1)pdm09 virus. The decision of the World Health Organization to replace seasonal A(H1N1) virus with the pandemic virus strain for the southern hemisphere vaccine was appropriate for Kenya.