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ISDS INTERNATIONAL SOCIETY FOR DISEASE SURVEILLANCE

Morbidity patterns associated with seasonal influenza A/H1N1in Swaziland

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Objective

To establish morbidity patterns of influenza A/H1N1 in Swaziland from 10th July to 15th August 2017.

Introduction

Influenza infection is caused by the influenza virus, a single-stranded RNA virus belonging to the Orthomyxoviridae family. Influenza viruses are classified as types A, B and C. Influenza A and B viruses can cause epidemic disease in humans and type C viruses usually cause a mild, cold-like illness. The influenza virus spreads rapidly around the world in seasonal epidemics, resulting in significant morbidity and mortality. On the 10th of July 2017, a case of confirmed Influenza A/H1N1 was reported through the immediate disease notification system from a private hospital in the Hhohho region. A 49 year old female was diagnosed of Influenza A/H1N1 after presenting with flu-like symptoms. Contacts of the index case were followed and further positive cases were identified.

Methods

Upon identification of the index case, the rapid response teams conducted further investigations. Two nasal swaps from each sample were taken and sent to a private laboratory in South Africa for the detection of the virus RNA using RT-PCR to assess for the presence Influenza A, B and Influenza A/H1N1. Further laboratory results were sourced from a private laboratory to monitor trends of influenza. Data was captured and analyzed in STATA version 12 from STATA cooperation. Descriptive statistics were carried out using means and standard deviations. The Pearson Chi square test and student t test were used to test for any possible association between influenza A/H1N1 and the explanatory variables (age and sex).

Results

Surveillance data captured between 10th July 2017 and 15th August 2017 indicated that a total of 87 patients had their samples taken for laboratory confirmation. There were 45 females and 42 males and the mean age was 27 years (SD= 17). At least 25 of the 87 patients tested positive for influenza A while only 1 tested positive for influenza B. The prevalence of influenza A/H1N1 was 16%. The prevalence of influenza A/H1N1 among males was 19% compared to 13% in females; however the difference was not statistically significant (p=0.469). There was no association noted between age and influenza A/H1N1 (p=0.427). Upon further sub-typing results indicated that the circulating strain was influenza A/H1N1 pdm 09 strain which is a seasonal influenza. The epidemic task forces held weekly and ad-hoc meetings to provide feedback to principals and health messaging to the general population to allay anxiety.

Conclusions

Though WHO has classified the influenza A/H1N1 strain pdm 2009 as a seasonal influenza, surveillance remains important for early detection and management. There is therefore an urgent need to set up sentinel sites to monitor and understand the circulating influenza strains. Health promotion remains crucial to dispel anxiety as the general public still link any influenza to the 2009 pandemic influenza. Finally the Ministry of Health should consider introducing influenza vaccines into the routine immunization schedule especially for children.

Keywords

Morbidity; Influenza; Swaziland

Acknowledgments

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