

b Investigation of influenza cases at a school in the Eastern Cape Province

On 14 July 2016 the National Institute for Communicable Diseases (NICD) of the National Health Laboratory Service (NHLS) was contacted by the resident doctor at a boarding school in the Eastern Cape Province, who requested public health advice. A significant proportion of pupils had developed influenza-like symptoms and school activities had been cancelled. The NICD together with the National and Provincial Departments of Health conducted an investigation including a medical record review of pupil consultations at the school sanatorium and completion of case investigation forms by consenting pupils.

Laboratory results from 38 pupils from whom nasopharyngeal swabs were collected revealed that 23 (61%) were positive for influenza A (H3N2). Among 308 boarders, 82 (27%) pupils reported symptoms compatible with influenza, including at least one of fever, cough, coryza, pharyngitis or headache over a 14-day period (Figure 3). Thirty-eight pupils (12.9%) had fever and cough (influenza-like-illness, ILI) and had sought medical care (MED-ILI). Amongst boarders, influenza vaccine coverage was 19% (57/308) and vaccine effectiveness against MED-ILI was 13% (95% confidence interval -68% to 55%). Scholars were more affected than the teachers (attack rate 24% (36/152) vs. 5% (3/63)). The impact on the school was significant: the mean time missed from school

was 3.4 days (range 1 – 11). Sport practices, matches, cultural activities and routine school activities such as assembly and chapel services were postponed or cancelled.

This investigation describes the significant impact of seasonal influenza in a 'closed' community. It illustrates the amplifying role that schools play in influenza transmission and highlights the importance of prevention measures, including vaccination, self-isolation and hand washing. We were not able to demonstrate statistically significant vaccine effectiveness, most likely related to imprecision of the clinical case definition for influenza. In addition, subtle changes in the seasonal circulating influenza strain may have altered vaccine effectiveness. The NICD advises seasonal vaccination against influenza particularly for persons in high-risk groups, as described in guidelines for influenza vaccination available at www.nicd.ac.za

Source: Centre for Respiratory Diseases and Meningitis, NICD-NHLS; Division of Public Health, Surveillance and Response, NICD-NHLS; National and Eastern Cape Department of Health. (cherylc@nicd.ac.za)

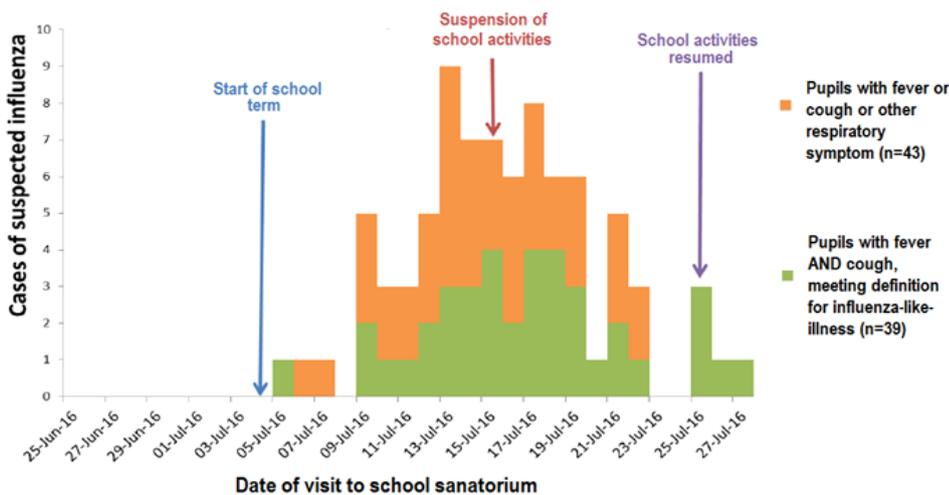


Figure 3. Cases of suspected influenza identified at a school in the Eastern Cape Province from 4th to 27th July 2016. Pupils that met the case definition for influenza-like-illness (i.e. with fever and cough) are shown in green.