

Olla Hamdan

M.P.H. Candidate, Epidemiology Track

olla.r.hamdan@vanderbilt.edu

Practicum Site: The Eastern Mediterranean Public Health Network

Practicum Site Supervisors: Sara Abu Khudair, B.D.S.;
Natasha Halasa, M.D., M.P.H.

Seasonality of Respiratory Viruses in Young, Hospitalized Children in Jordan: A Prospective Viral Surveillance Study



Introduction: Respiratory Syncytial Virus (RSV) is one of the most common viruses that frequently infects children globally, the burden and seasonality of respiratory viral diseases in young, hospitalized children remain under documented in low- and middle-income countries. A significant gap exists in understanding the epidemiology and seasonality of RSV in Jordan. This study aimed to determine the seasonality and burden of RSV and other respiratory viruses in Jordan.

Methods: This ongoing prospective study includes children <5 years old hospitalized with fever and/or respiratory symptoms within 72 hours of presentation at Al-Bashir Hospital in Amman, Jordan. Children under 5 years admitted within a pre-specified 72-hour window presenting with fever or respiratory symptoms from January 2023 to July 2023 were included in this analysis. Clinical and demographic data were sourced from parent/guardian interviews and chart reviews. Nasal or throat swabs were tested using RT-qPCR.

Results: Data from 01/08/2023 to 07/31/2023 was analyzed, with 935 children enrolled. The median age was 5.4 months; 58.5% were male, and 15.7% were born prematurely. Moreover, 83.5% of enrolled children had an exposure to smoking, 30.1% had at least one comorbidity, and only 0.40% reported receiving the influenza vaccine. The median illness duration at admission was 3 days. The predominant symptoms were cough (77.1%), congestion or runny nose (73.8%), shortness of breath (68.5%), and fever (68.2%). Throughout the study period, RSV had limited circulation. In contrast, human rhinovirus/enterovirus was more prevalent in the samples than other viruses.

Conclusions: Human rhinovirus/enterovirus emerges as a primary cause of respiratory illness in hospitalized Jordanian children, indicating a significant health burden. This analysis is part of an ongoing study, and comprehensive data is anticipated in the future.