#69 Viral Respiratory Infections in Children in a Resource Limited Setting
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**Background.** Children under 5 years of age bear the highest burden of severe disease from respiratory illness. Surveillance of respiratory viral infections in hospitalized children informs local burden of disease and may assist in identifying potential sources of epidemics. In resource-limited countries, like Haiti, lack of infrastructure, resources, and oversight are barriers for such surveillance programs. Just before the onset of the pandemic in December 2019, we completed the preparation to implement a respiratory surveillance program at Hôpital Saint Damien (HSD). Furthermore, other major events such as a 7.2 magnitude earthquake and the assassination of the president of Haiti had an impact on the political and economic stability of the country, impacting the hospital and this study. Despite these challenges, we report the preliminary findings of a hospital-based surveillance program of severe acute respiratory illness (SARI) in children at a mother and child hospital in Tabarre, Haiti.

**Method.** Participants were included if they were <18 years of age; met the World Health Organization definition for SARI, which includes presence of 1 cough, 2 history of fever or measured fever ≥38°C, 3 onset within the last 10 days, and 4 requirement of hospitalization; and consented to participate. We collected demographic and clinical data for enrolled patients and obtained a nasopharyngeal swab sample. Samples were rapid tested for influenza A, influenza B, respiratory syncytial virus (RSV), and SARS-CoV-2 and stored and shipped for genomic sequencing.

**Results.** As of January 6th, 2022, we had enrolled and tested 143 patients who presented to the hospital with SARI. Of these cases, 31 were RSV-positive. 7 were positive for influenza B-positive, 1 was positive for influenza A-positive, and 1 was SARS-CoV-2-positive. 97 cases are currently available for descriptive analysis, with 10 RSV-positive cases, 2 influenza B-positive cases, and 1 SARS-CoV-2-positive case. 53% (n=53) of participants are male, with an average age of 2 years (standard deviation = 2.8 years). Along with fever and cough, 18% (n=17) presented with wheezing, 60% (n=58) presented with shortness of breath, 37% (n=36) presented with tachypnea, 7% (n=7) presented with nasal congestion, 1% (n=1) had a sore throat, 2% (n=2) had nausea, 7% (n=7) were lethargic, and 9% (n=9) had diarrhea. Nearly all enrolled children, 99% (n=96) live in households where coal or biofuel is used for cooking indoors. In regard to type of respiratory tract infection (RTI), 18% (n=17) were upper RTI, 30% (n=29) were lower RTI, and 53% (n=51) were both upper and lower RTI. While sequencing of influenza A and B isolates remains to be conducted, sequencing for the SARS-CoV-2 sample revealed the isolate to be of P1 lineage.

**Conclusion.** In children requiring hospital admission for SARI, our limited testing identified 40 children with respiratory viruses that were circulating during the SARS-CoV-2 pandemic. Identifying these viruses can support healthcare providers to provide better preventive measures, including compliance with vaccination, and administering appropriate therapeutics, such as antibiotics. Further testing with additional primers against other pathogens will be conducted to identify other potential causes of illness.