Peer Review File

Article information: https://dx.doi.org/10.21037/jtd-23-833

Reviewer 1

Comment 1: Respiratory infections are a major public health challenge worldwide. Monitoring respiratory pathogens to understand the characteristics of different pathogens and providing scientific evidence for related policies is indeed a very good idea. However, why only monitor during winter and spring? What are the prevalence patterns of respiratory pathogens in other seasons? We are also very interested in data on pathogen surveillance at other times.

Reply 1: Because the data for 2023 were only collected in the spring prior to the writing of the article, only winter and spring data from other years were extracted for comparison, and we will gradually fill in the prevalence of respiratory pathogens in other seasons in a subsequent series of articles.

Comment 2: Are there any differences in respiratory pathogens between children, adults, and the elderly?

Reply 2 : We compared annual viral detection rates between groups based on age stratification, the data show the difference in overall viral positivity rates between age groups is significant and (please see the following results). As there is a word limit for letter in JTD, this result will be highlighted later in our series of articles as the magazine's letter has a word limit.

Year	Group[#]	P value*
2018	A VS. B A VS. C A VS. D	0.85 <0.001 0.149
2019	A VS. B A VS. C A VS. D	0.014 <0.001 <0.001
2020	A VS. B A VS. C A VS. D	<0.001 <0.001 <0.001
2021	A VS. B A VS. C A VS. D	0.278 <0.001 <0.001
2022	A VS. B A VS. C A VS. D	1.00 0.022 0.001

2023	A VS. B A VS. C A VS. D	1.00 0.064 <0.001

#Group A, B, C and D refer to the population of 1-14, 16-24, 25-64 and >65 years-old respectively.
*Comparision between groups were conducted in Bonferroni correction

Comment 3: Additionally, knowing the incidence of pathogen infections in different seasons and populations may bring more benefits to developing more detailed prevention and control policies.

Reply 3: Thank you for your advice. Our articles are published quarterly, a seasonal change in viruses detection will be shown and discussed in later articles.

Reviewer 2

Comment 1：The article "Epidemiology dynamic of the common respiratory virus in winter-spring, 2018-2023 in Guangdong Province, China" presents valuable insights into the epidemiological patterns of respiratory viruses in a specific region and timeframe. The study is well-conducted and contributes to the existing knowledge in the field of respiratory infections. Addressing the mentioned points would enhance the scientific rigor and impact of the study.

Reply 1：Thank you for your advice. We will keep updating the virus detection based on the monitoring platform.

Reviewer 3

Comment 1：How did testing practices change after 2020? Authors said "Additionally, this may be due to the medical resources heavily allocated to diagnosing and treating COVID-19 cases. As a result, the testing for other respiratory pathogens may have been limited, leading to a decrease in their positive detection rates" But were these tests limited to individuals with medically-attended respiratory illnesses

Reply 1：Thank you for raising this issue. The methodology of pathogen testing did not change before and after 2020, it's all done by nucleic acid test. In addition, this data includes not only individuals with medically-attended respiratory illnesses, but also patients with diarrhea, immune thrombocytopenia, sepsis, and many other conditions. About what we said "Additionally, this may be due to the medical resources

heavily ……", this means that massive screening during the COVID-19 pandemic resulted in a shift of focus towards COVID-19, the routine pathogen tests may be overlook, leading to a decrease in detection rates.

Comment 2 ：Figure 1 is not about transmission dynamics, it just presents virus detection frequencies and percentages

Reply 2：Yes, figure 1 appears to present virus detection frequencies and percentages rather than transmission dynamics. It shows the trends in the detection rates of respiratory pathogens over time. We have modified our text as advised (see Page 3, line 89)

Change in the text：Our research illustrates the detection frequencies and percentages of common respiratory virus in Guangdong Province, revealing the epidemic risk of them in the post COVID-19 er