

Supplementary file.

Figure S1. Monthly incidence of (A) Invasive pneumococcal disease (IPD), (B) Pneumococcal pneumonia, (C) All-cause pneumonia and (D) Influenza in January 2015 to March 2021.

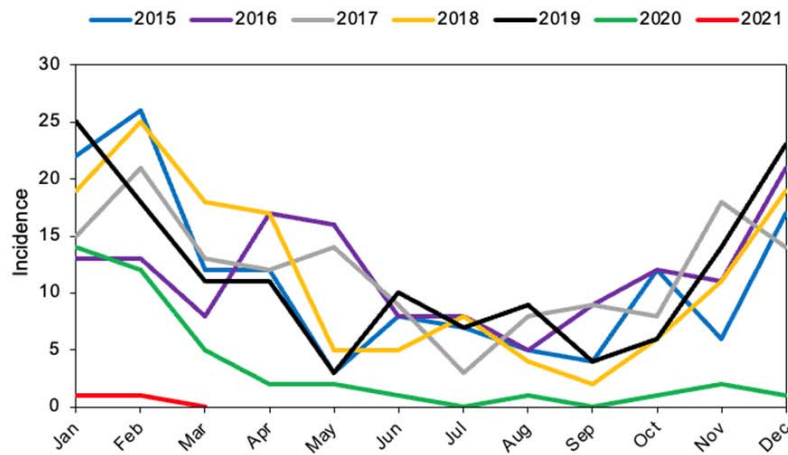
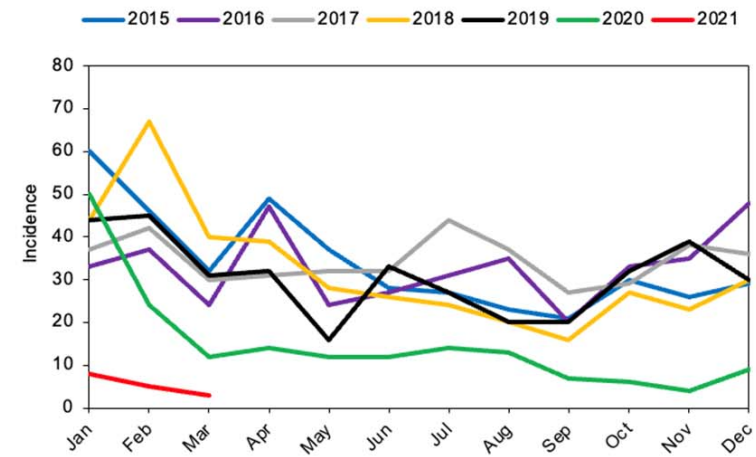
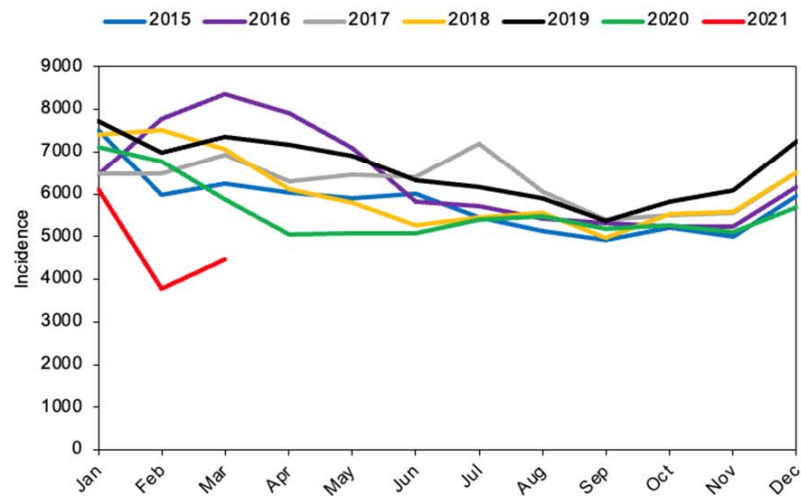
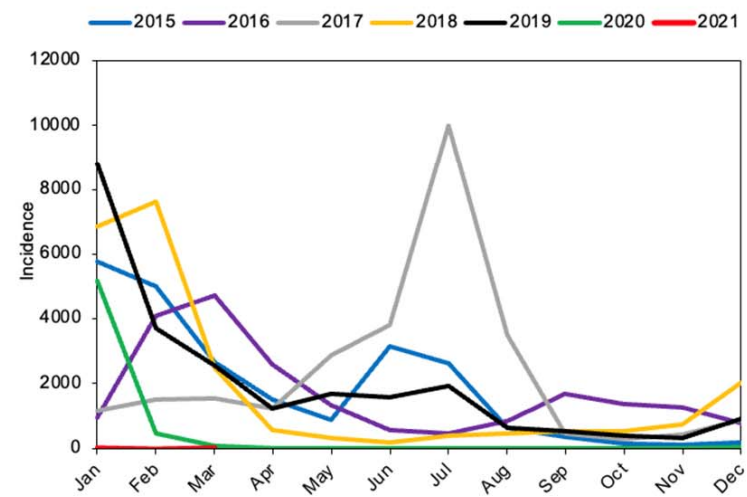
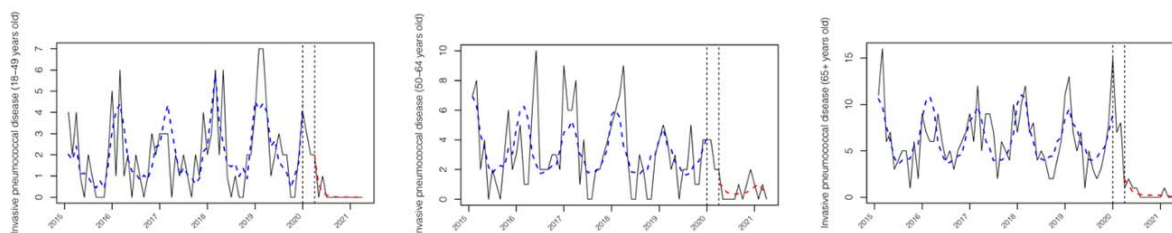
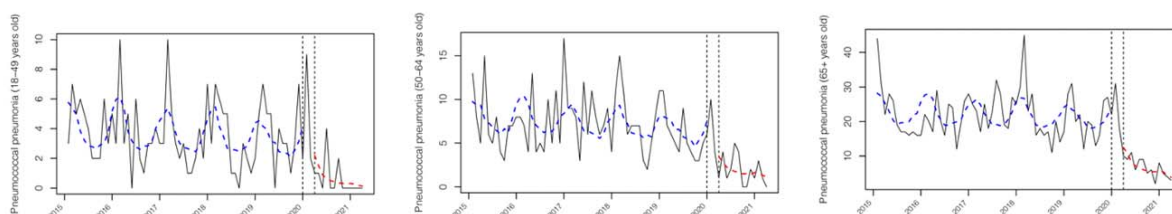
(A) Invasive pneumococcal disease**(B) Pneumococcal pneumonia****(C) All-cause pneumonia****(D) Influenza**

Figure S2. Trend analysis of monthly number of (A) age-stratified hospitalizations for invasive pneumococcal disease, (B) age-stratified hospitalizations for pneumococcal pneumonia, (C) age-stratified hospitalizations for and (D) monthly percentage of air quality health index (AQHI) high to serious and (E) monthly average ambient temperature.

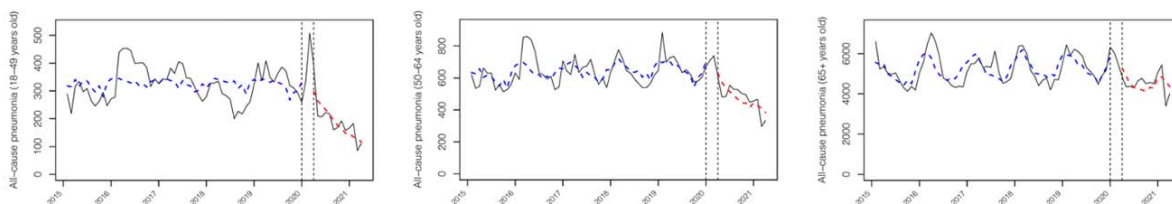
(A) Invasive pneumococcal disease



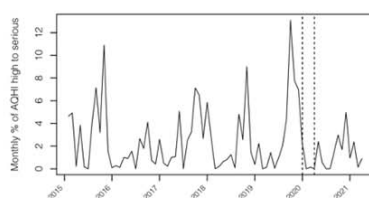
(B) Pneumococcal pneumonia



(C) All cause pneumonia



(D) Monthly % of AQHI high to serious



(E) Monthly average temperature

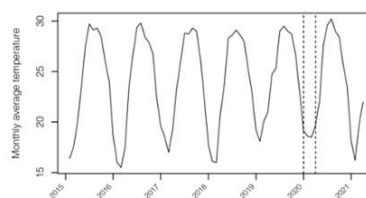


Table S1. Trend analysis of monthly number of hospitalization by age groups in periods before and after the COVID-19 pandemic

	Relative risk (95% CI)		Change in trend#
	Period 1 ^	Period 3^	
IPD			
All ages	1.0020 (0.9977-1.064)	0.8484 (0.7501-0.9597)**	-70.39% (-86.55% to -34.73%)**
18-49 years	1.0129 (1.0022-1.0238)	0.5272 (0.2176-1.2772)	-31.27% (-89.72% to 359.72%)
50-64 years	0.9969 (0.9888-1.0051)	0.9585 (0.8087-1.1362)	-70.43% (-92.80% to 21.42%)
65 years or above	1.0012 (0.9953-1.0071)	0.7777 (0.6111-0.9897)*	-70.83% (-91.59% to 1.12%)
Pneumococcal Pneumonia			
All ages	0.9978(0.9953-1.0004)	0.9042(0.8621-0.9483)***	-42.79% (-59.36% to -19.48%)*
18-49 years	0.9964(0.9887-1.0042)	0.6768(0.2171-2.1093)	-32.32% (-78.29% to 110.93%)
50-64 years	0.9962(0.9907-1.0017)	0.9174(0.8260-1.0189)	-50.21% (-76.93% to 7.48%)
65 years or above	0.9986(0.9954-1.0017)	0.9107(0.8612-0.9640)*	-41.19% (-60.82% to -11.73%)*
All-cause pneumonia			
All ages	1.0014(1.0012-1.0016)***	0.9835(0.9815-0.9855)***	-11.24% (-12.76% to -9.7%)***
18-49 years	1.0000(0.9992-1.0008)	0.9263(0.9164-0.9364)***	-6.05% (-13.41% to 1.94%)
50-64 years	1.0015(1.0009-1.0021)***	0.9620(0.9556-0.9684)***	-9.32% (-14.14% to -4.22%)***
65 years or above	1.0011(1.0009-1.0013)***	0.9879(0.9858-0.9901)***	-13.30% (-12.94% to -9.64%)***

^Trend in period 1 (January 2015 to December 2019) and 3 (March 2020 to March 2021), the relative risk expressed the month-to-month change in hospitalization numbers of period 3 compared to period 1

#Estimate the change in trend in the mean monthly number of cases in period 3, compare with the monthly trend in period 1

*p <0.05 to 0.01, **p <0.01 to 0.005, ***p<0.005