

Influenza Vaccine Sales During The Covid-19 Era

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Background

- Following the COVID-19 pandemic, many health systems updated their influenza vaccination policies in accordance with the WHO 2020 interim guidance on influenza vaccination
- However, the SarS-CoV-2 responsible for the COVID-19 pandemic is still active and represents a threat to vulnerable populations

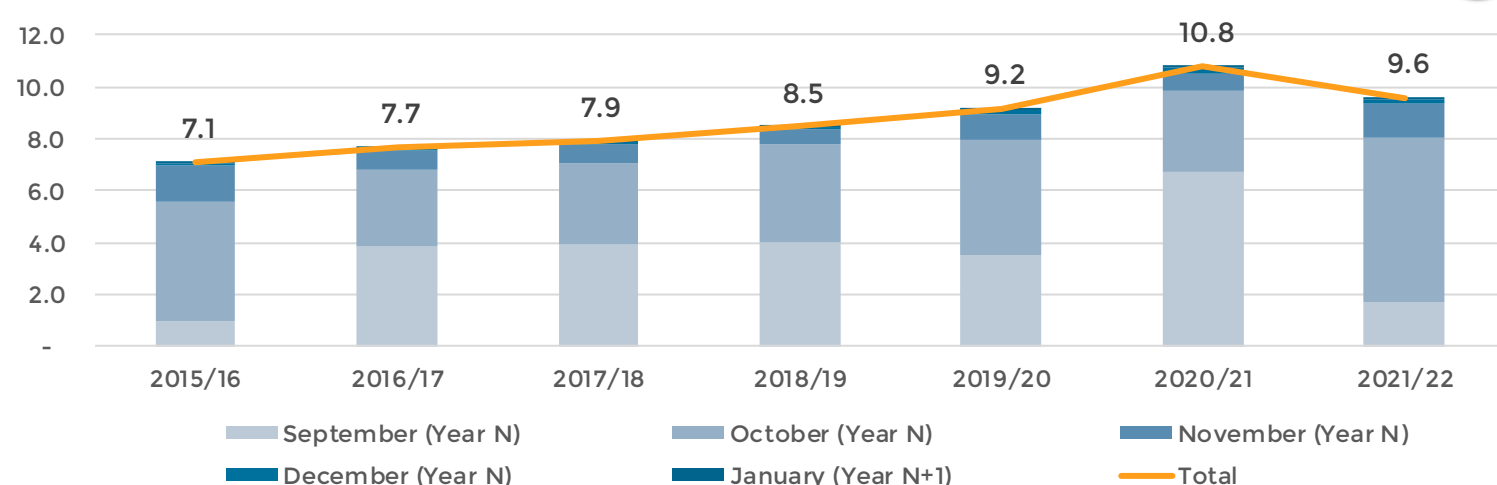
Objective

- Previous research conducted by Ngami et al. showed influenza vaccine sales and prescriptions increased in 2020/21 compared to previous years.¹ We pursued this work and compared influenza vaccine sales/prescriptions between 2015/20 (Pre-COVID-19 era) and 2020/22 (COVID-19 era).

Results

- Influenza vaccine sales/prescriptions significantly increased in 2020/22 compared to 2015/20 in all 3 countries (France: +26.28% ; UK: +28.83% ; US: +16.96%, all p < 0.05) (Table I)
- However, decreases in sales/prescriptions were observed in 2021/22 compared to 2020/21 for all 3 countries: (Figure 1A - 1C)
 - France: 9.6M vs 10.8M (-11.0%)
 - UK: 12.2M vs 12.3M (-0.36%)
 - US: 174.7M vs 195.3M (-11%)

Figure 1A: Influenza vaccines sales/distribution per season (FR)

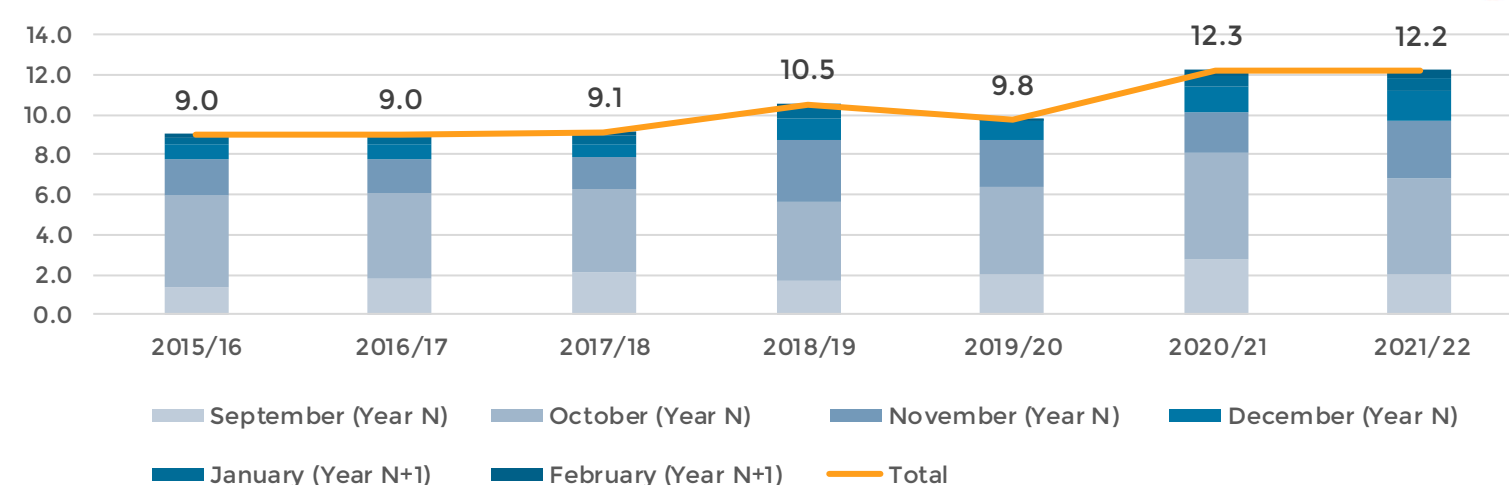


Source: Assurance Maladie

Methods

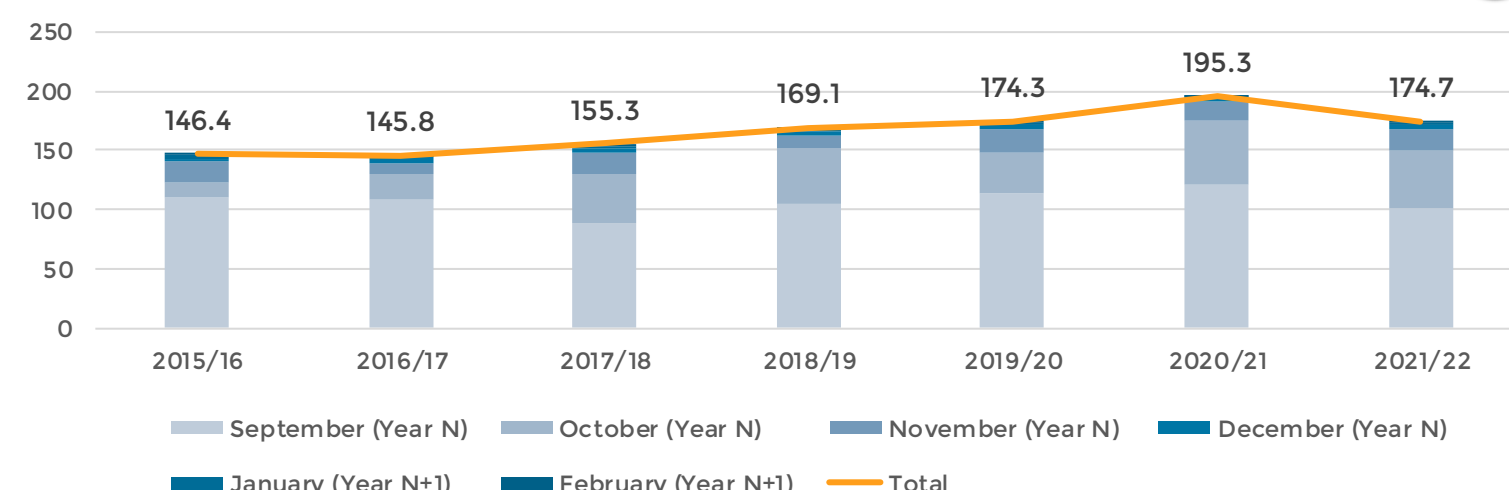
- We leveraged the same methodology described in Ngami et al. and focused on influenza vaccine sales or prescription/reimbursement for the influenza seasons 2015/16 to 2020/22 in three countries: France, UK and US¹
- Data were collected for each season from the first month of the vaccine campaign to January/February
- Reimbursement data from Assurance Maladie were collected in France; prescription data from Vantage IQ were used for UK, whereas dispensation data were available on the CDC website for the US
- Significant vaccine sales variation were highlighted by comparing the sales in the 2020/21 season to the average sales number of the last five seasons using the non parametric Wilcoxon signed-rank test

Figure 1B: Influenza vaccines sales/distribution per season (UK)



Source: Vantage IQ

Figure 1C: Influenza vaccines sales/distribution per season (US)



Source: CDC

Discussion

- Our objective was to assess the evolution of influenza vaccine sales/reimbursement during the 2020/22 seasons
- Sales/prescriptions remained high compared to pre-COVID-19 seasons, although drops were observed between 2020/21 and 2021/22, potentially revealing early signs of vaccine fatigue. Reasons behind those decreases are probably multiple and could include: belief that influenza disease is less dangerous than COVID-19 disease, masks and social distancing are better alternatives to vaccines.
- Our study limitations include a low number of observation points as we only considered 7 influenza seasons, and co-founding factors that could have impacted our results (i.e. introduction of quadrivalent vaccines in France in 2015/16 and vaccination by pharmacists)
- We reiterate the conclusion made last year by Ngami et al. and insist on the importance of continuing monitoring influenza vaccine sales for several years¹

Table I: Influenza vaccine prescription/distribution variations in 2020/22 compared to previous seasons

	France		United Kingdom		United States†	
	% (value of the test statistics)					
September	-		31.42%*	(0)	5.76%	(2)
October	29.23%*	(0)	19.17%*	(0)	18.53%*	(0)
November	23.77%	(0)	17.27%	(3)	17.80%*	(0)
December	16.20%	(4)	68.16%	(0)	17.99%*	(0)
January	80.53%*	(0)	91.20%*	(0)	17.14%*	(0)
February	94.72%*	(0)	76.93%*	(0)	16.96%*	(0)
Total	26.28%*	(0)	28.83%*	(0)	16.96%*	(0)

* Meaningful difference at level of significance of 5%

† August was not considered because the vaccine campaign started in August only during the 2020/21 season

1. Ngami A, Christie T, Ménin G, Guelfucci F, Bianic F, Net P, POSC402 Impact of COVID-19 on Influenza Vaccine Sales in France, United Kingdom and United States. Value in Health. 2022 Jan;25(1):S267.