

Influenza immunization and surveillance in Saudi Arabia

Sir,

Influenza is a serious respiratory tract infection and a major public health concern worldwide. Strains resistant to currently approved antivirals can emerge and spread suddenly. In addition, current trivalent and/or quadrivalent influenza vaccines are seasonal and mainly rely on annual predictions and recommendations by influenza experts from the World Health Organization. These recommendations are based on circulating influenza strains detected globally 6–9 months ahead of the targeted season. These drawbacks can result in strain mismatch and severely affect vaccine efficacy.^[1] In Saudi Arabia, transmission of respiratory pathogens is very common during religious mass gatherings in the holy cities of Makkah and Al-Madinah, which represents a global public health concern.^[2] During the month of Ramadan or during Umrah and Hajj pilgrimages, millions of Muslims from highly diverse geographical regions visit these holy places mostly via Jeddah City. These individuals remain in contact with each other for an extended period of time reaching up to 1 month during some occasions. This could introduce not only new or highly pathogenic strains but also resistant viruses into Saudi Arabia, particularly during peak influenza seasons.

The Saudi Thoracic Society has recently published its guidelines for influenza immunization with particular emphasis on Hajj and Umrah.^[3] Implementation of these guidelines will undoubtedly require the involvement of the Saudi Ministry of Hajj, its counterpart agencies in other countries and public health agencies worldwide. An accumulating body of evidence suggests that influenza infections are very common during Hajj and pilgrims can import influenza back to their home countries.^[2,4] Importantly, the incidence of influenza infection among vaccinated individuals is not uncommon most probably due to strain mismatch.^[1,2] Furthermore, pilgrims from countries where influenza circulates year-round or influenza seasons are usually ahead of the season in Saudi, which extends from September to March, could complicate the situation even more. This will be true in the Hajj seasons in the upcoming 10 or more years, especially for countries such as Indonesia, Pakistan, and India, which provide 40–45% of forging pilgrims each year or other countries in South and Southeastern Asia where influenza infections are more common from June to October.^[3,5] Therefore, inclusion of both influenza vaccines from the Northern and Southern Hemispheres could be considered for all pilgrims when the two vaccines are different.

Another critical point to consider is that current epidemiological and virological data on circulating influenza viruses in Saudi Arabia are seriously deficient, and there is no existing influenza surveillance program in the Kingdom. Only limited number of studies have reported and/or characterized circulating influenza viruses during few Hajj seasons. Therefore, it is important to monitor circulating influenza viruses by launching

and implementing an active human influenza surveillance program in Saudi Arabia with particular emphasis on Hajj and Umrah seasons. Such program can provide significant virological, molecular, and epidemiological information on circulating influenza strains, and its associated morbidity and mortality to decision-makers globally to make informed decisions and to undertake effective control measures in order to decrease the disease burden.

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Conflicts of interest

There are no conflicts of interest.

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