b Surveillance for respiratory pathogens amongst pilgrims attending Hajj 2015

Every year, more than 2 million Muslims from all over the world, embark on the holy pilgrimage of Hajj. This is the largest annual religious mass gathering in the world and all able Muslims are required to do so at least once in their lifetime. The timing of Hajj is based on the Islamic lunar calendar and therefore changes annually. This year Hajj will take place from 20-25 September (Georgian calendar) and according to the Islamic lunar calendar, from the 8th through the 12th days of Dhu al-Hijja, the last month of the Islamic year.
Hajj involves a series of Muslim prayer rituals and rites. Pilgrims fulfil these by visiting holy sites in Makkah in a particular order, commencing at Ka'aba. Although the actual distances travelled by pilgrims are not far, the immense congestion of people increases the health risks exponentially, creating the so called epidemiological 'amplifying chamber'. Emerging infectious diseases have the potential to quickly become epidemics, especially airborne agents. The risk of spreading infections during Hajj is further enhanced by the physical requirements to perform certain rituals, specifically when using the pedestrian tunnels leading to the Jamarat Bridge in Medina and during the circumambulation of the Ka'aba inside the Great Mosque. Well-structured and organized mass gatherings such as Hajj present many opportunities to generate evidence-based recommendations for prevention, management and control of infectious diseases and improving safety of future travellers.

The aim of the Hajj Surveillance study is twofold: to investigate the knowledge, attitude and practices of travellers with regards to recommendations for safe travel (including vaccination recommendations); and to identify respiratory tract pathogens, infection and colonisation, amongst South African citizens participating in the Hajj pilgrimage.

Surveillance will take place at the Oliver Tambo International Airport (ORTIA) in Johannesburg. Participants will be invited to answer questionnaires to evaluate knowledge, attitudes and practices. Oropharyngeal swabs will be taken to identify pre- and post-travel organisms. Due to logistical difficulties, it might not be possible to collect swabs from the same travelers pre- and post-travel; therefore two analytical cross-sectional studies will be done, allowing for a comparison of cohort data collected pre- and post-travel.

Data will be used to describe the association between practice of travel recommendations (including vaccination recommendations) and infection or colonisation with respiratory tract pathogens, and travel advice for pilgrims can be adjusted accordingly. The current outbreak of MERS -CoV in Riyadh is raising concerns of possible importation of the virus. The surveillance done at the airport as part of the study would further provide the opportunity to safeguard the health of pilgrims and their families.

Source: Division of Public Health Surveillance and Response, NICD-NHLS; Centre for Respiratory Diseases and Meningitis, NICD-NHLS