Immediate Release

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Preparing for Infectious Diseases at the 2012 Summer Olympic Games

3 April 2012, LONDON: Less than four months ahead of this year’s Summer Olympics in London, the 22nd European Congress of Clinical Microbiology and Infectious Diseases (22nd ECCMID)—the world’s largest conference on infectious diseases—will feature a final-day symposium focusing on mass gatherings health. Currently the subject of a six-article Series in The Lancet Infectious Diseases, which is co-sponsoring the symposium, the multidisciplinary speciality traces its origins to the study of the annual Hajj pilgrimage to Mecca.

“Mass gatherings health goes beyond the scope of typical public health provision,” says Lancet Infectious Diseases Editor John McConnell. “Mass gatherings are events such as religious occasions, music festivals, or sports events that attract enough people to exceed the capacity of routine health and public safety measures. Managing such events requires providing for all eventualities from infectious disease outbreaks to security against terrorist attacks.”

Indeed, when some three million visitors converge on London in late July, they’ll bring with them organisms from every corner of the globe. And while an infectious outbreak is unlikely, say experts, prevention is paramount as authorities prepare for the big event.

Dr. Brian McCloskey, London director of the UK’s Health Protection Agency (HPA) and a co-author of an article in The Lancet Infectious Diseases Series—“Infectious disease surveillance and modelling across geographic and scientific specialties”—will lead off the symposium with a talk on the HPA’s strategic risk-assessment process aimed at monitoring national and international health risks.

Dr. Kamran Khan of the University of Toronto will outline the conceptual analysis used to assist UK authorities in prioritising which global outbreaks warrant closer attention and in identifying the most effective public health measures to mitigate risk. Khan’s work integrates global airline transportation modelling of populations travelling to London at the time of year when the Olympic Games are scheduled with global epidemic intelligence from infectious disease surveillance systems.

That analysis was facilitated by novel technologies like Bio.Diaspora, which uses worldwide patterns of air travel to anticipate the spread of infectious diseases, and
HealthMap, an online surveillance tool capable of overcoming some of the limitations of traditional surveillance systems, including delays in reporting and poor sensitivity.

In the lead up to the 2010 Winter Olympics in Vancouver, Khan and colleagues determined that the vast majority of expected visitors originated from just 25 cities. That intelligence allowed Canadian authorities to focus real-time surveillance and monitoring of potential disease threats on those cities before, during, and immediately after the Games, thereby helping to protect both the local population and those to which visitors return.

“Cooperation between national, regional and international partners is essential to the management of health threats, especially for surveillance after an event,” says Dr. Phillipe Gautret, an infectious diseases expert at North University Hospital in Marseille, France who will give a talk at the symposium on the prevention and control of infectious diseases at mass gatherings. A co-author on the second paper in The Lancet Infectious Diseases Series—“Global perspectives for prevention of infectious diseases associated with mass gatherings” --Gautret adds that though MGs pose a complex challenge,” they also provide “an untapped opportunity for host countries to promote global health diplomacy and to model ideal public health behaviours.”

Saudi Arabia offers a good example of mass gatherings’ positive potential. As described in the first paper in the Series—“Lessons learnt from the management of the Hajj pilgrimage could help strengthen global health security”—decades of hosting the Hajj, the world’s largest annual MG, has equipped the country with a wealth of unique expertise. According to lead author Dr. Ziad Memish of the Saudi Ministry of Health, who will give a talk on the subject at the symposium, that expertise could help other communities and countries better prepare for, and respond to, mass gatherings’ multifaceted challenges.

“Saudi Arabia’s experience of Hajj medicine contains rapidly developing public health solutions to several global challenges,” says Memish, who was part of the successful effort to avert large outbreaks of H1N1 influenza at the Hajj in 2009. “Multiagency and multinational approaches to public health challenges are likely to become major factors in the speciality of global health diplomacy, engaging societies globally, and drawing the west a little closer to the east.”

While UK authorities have seen their own share of mass gatherings, including major music festivals and sporting events, the Olympic and Paralympic Games represent “an unusual challenge,” says McConnell, and one that underscores the need for greater research in the area of mass gatherings health. “We hope that this Series will be among the foundations on which the emerging specialty is built.”

The Lancet Infectious Diseases Series can be viewed at http://www.thelancet.com/series/mass-gatherings

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