

Mass gatherings medicine and global health security

Mass gatherings continue to draw ever larger crowds from all corners of the globe.¹ Although these events offer great potential for a health legacy through intense periods of unprecedented focus and funding for improvements in health systems, they pose several significant public health challenges to health and security authorities both within the host country and abroad.^{2,3} There is no existing global consensus or evidence base regarding the most effective public health measures that are required to be in place within the host country. Thus, the introduction, transmission, and amplification of infectious diseases during and after mass gathering events remain serious public health concerns. Mass gatherings present major opportunities to obtain consensus for developing optimum recommendations for global health security.⁴

One large mass gathering, the 2012 UEFA European Football Championships, has just ended. It saw 16 teams compete in cities across Poland and Ukraine and attracted visitors from around the globe with more than 5.5 million supporters gathering in fan zones during its first 2 weeks. The second half of 2012 will see two more major mass gathering events. First, the London 2012 Olympic Games, which begin on July 27, are expected to be one of the world's largest mass gatherings with an estimated 10 million spectators and 10 500 athletes from 205 countries taking part in 34 venues across the UK. Later in the year on Oct 24–29, 2012, during Dhul-Hijjah, the twelfth month of the Islamic calendar, about 3 million people from 183 countries will gather in the city of Mecca, Kingdom of Saudi Arabia, for the annual Hajj pilgrimage.

The Kingdom of Saudi Arabia's Government has accumulated a wealth of knowledge about the management of risks to health during mass gatherings through decades of planning for the Hajj. At the 2010 Global Forum on Mass Gathering Medicine, hosted by the Kingdom of Saudi Arabia's Ministry of Health and held jointly with *The Lancet Infectious Diseases*, the Jeddah declaration was adopted, which outlined proposals for the formalisation and establishment of a new discipline of mass gatherings medicine (MGM).^{1,5} The declaration outlined steps to achieve internationally coordinated goals, credentialling standards, education programmes, formal support for academic study and research, distinguished practitioner awards, and the

need for a reference authority based in the Kingdom of Saudi Arabia. The Jeddah declaration was supported by the 35th meeting of the Arab League health ministers in Beirut, Lebanon, on March 9–10, 2011, and by WHO's meeting of regional health ministers on Oct 2–5, 2011, in Cairo, Egypt.

On May 27, 2012, the WHO World Health Assembly endorsed the 130th Executive Board Decision "Global mass gatherings: implications and opportunities for global health security", as well as expanding its scope to include joint planning, the enhancement of health infrastructures, and taking the proper pre-emptive and preventive measures to control the occurrence of infectious diseases on an international scale.^{6–8}

This now presents an ideal opportunity for the Kingdom of Saudi Arabia to establish a virtual research network of institutions and individuals in partnership with the Collaborating Centres on Mass Gatherings set up by WHO and with the existing Virtual Interdisciplinary Advisory Group on Mass Gatherings (VIAG). This network would conduct longitudinal and cross-sectional cohort research; review and publish literature that will provide a central repository of learning to consolidate the specialty of MGM; and bring together a coalition of interested partners to gather and translate an appropriate evidence base into public health policy by working with WHO, governments, and non-governmental organisations to drive the best health promotion, prevention, and educational gains from mass gatherings.

See Editorial page 1

For 2012 London Olympic Games see <http://www.olympic.org/london-2012-summer-olympics>



The exchange of experiences between the organisers and hosts of the 2012 Olympic Games and the Hajj provides an ideal platform to take the formal discipline of MGM forward. Both events will provide the opportunity for appropriate research⁹ to obtain an evidence base and for guidelines approved by WHO that will be generally applicable in all countries of the world for a spectrum of mass gatherings, ranging from the hundreds of thousands of people who attend football matches and rock festivals, to the forthcoming 2013 Kumbh Mela, which is expected to attract nearly 70 million pilgrims.

*Abdullah A Al Rabeeah, *Ziad A Memish, Alimuddin Zumla, Shuja Shafi, Brian McCloskey, Ahmad Moolla, Maurizio Barbeschi, David Heymann, Richard Horton*
 Ministry of Health, Riyadh 11176, Kingdom of Saudi Arabia (AAR, ZAM); Alfaisal University, Riyadh, Kingdom of Saudi Arabia (ZAM); Division of Infection and Immunity, University College London, London, UK (AZ); Muslim Council of Britain, London, UK (SS); WHO Collaborating Centre on Mass Gatherings, Health Protection Agency, London, UK (BM); Imperial College London, London, UK (AM); World Health Organization, Geneva,

Switzerland (MB); Chatham House, London, UK and London School of Hygiene and Tropical Medicine, London, UK (DH); and *The Lancet*, London, UK (RH)
 zmemish@yahoo.com

We declare that we have no conflicts of interest.

- 1 Memish ZA, Stephens G, Al Rabeeah A. Mass gatherings medicine. *Lancet Infect Dis* 2012; **12**: 10.
- 2 Abubakar I, Gautret P, Brunette GW, et al. Global perspectives for prevention of infectious diseases associated with mass gatherings. *Lancet Infect Dis* 2012; **12**: 66–74.
- 3 Steffen R, Bouchama A, Johansson A, Dvorak J, Isla N, Smallwood C, Memish ZA. Non-communicable health risks during mass gatherings. *Lancet Infect Dis* 2012; **12**: 142–49.
- 4 WHO. Global mass gatherings: implications and opportunities for global health security. Report by the Secretariat. Dec 22, 2011. http://apps.who.int/gb/ebwha/pdf_files/EB130/B130_17-en.pdf (accessed June 28, 2012).
- 5 Memish ZA, Stephens GM, Steffen R, Ahmed QA. Emergence of medicine for mass gatherings: lessons from the Hajj. *Lancet Infect Dis* 2012; **12**: 56–65.
- 6 Ministry of Health, Kingdom of Saudi Arabia. WHO General Assembly embraces the Saudi proposal of creating a program for mass gathering medicine. May 27, 2012. <http://www.moh.gov.sa/en/Ministry/MediaCenter/News/Pages/news-2012-05-27-001.aspx> (accessed June 29, 2012).
- 7 WHO. Executive Board 130th session. EB130/DIV/3. Jan 30, 2012. EB130(3) Global mass gatherings: implications and opportunities for global health security. http://apps.who.int/gb/ebwha/pdf_files/EB130/B130_DIV3-en.pdf (accessed July 3, 2012).
- 8 WHO. Sixty-fifth World Health Assembly. A65/2. Report of the Executive Board on its 129th, 130th and special sessions. March 22, 2012. http://apps.who.int/gb/ebwha/pdf_files/WHA65/A65_2-en.pdf (accessed July 3, 2012).
- 9 Tam JS, Barbeschi M, Shapovalova N, Briand S, Memish ZA, Kierny MP. Research agenda for mass gatherings: a call to action. *Lancet Infect Dis* 2012; **12**: 231–39.

For 2013 Kumbh Mela see <http://www.kumbhamela.net/maha-kumbh-mela.html>