Hajj – the pilgrimage of Muslims - archetype of a mass gathering

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Muslims have to respect five pillars of Islam:

- Shahadah (profession of faith) – sala’at (prayer) - zakat (purification, tax for the poor) – saum (fasting) – hajj (annual pilgrimage)

The Noble Qur’ân, surat 2, al-baqarah (‘the cow’) 196: “And perform properly (i.e. all the ceremonies according to the ways of Prophet Muhammad (SA), the Hajj and ‘Umrah (i.e. the perennial pilgrimage to Makkah) for Allah”. Every year about 2-3 Mio Muslims follow this demand of Muhammad.

The extremely diverse population from about 185 countries performs the same activities within 6 days in a state of purity and holiness (Ihram). Many of these people were not able to afford their attendance before getting old and are restricted in their health. The security of the pilgrims and their health care is a huge challenge for Saudi Arabian authorities. During the hajj, pilgrims often neglect obvious and hidden health risks.

Possible and probable health risks

Communicable diseases
- Malaria, and other VBD
- Hepatitis A, E
- Cutaneous leishmaniosis
- Invasive meningococcal meningitis
- Tuberculosis
- Influenza
- Gastroenteritis, diarrhea
- Poliomyelitis

Non-communicable diseases
- Sunstroke/heat exhaustion/cramps
- Circulatory collapse, coronary syndrome
- Renal failure
- Panic attack and other psychiatric disorders
- Exacerbation of preexisting diseases like diabetes or coronary heart disease

Other risks
- Road accidents
- Stampede
- Injuries, for example by falling down
- Acts of terrorism

Assessment of persistent health risks of the holy sites and the routes to get there; legend: 0 = no risk, + = little risk, ++ = moderate risk, +++ = high risk

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<th>Estimated health risks</th>
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<td>Stay in Mina</td>
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<td>Jamaraat-Bridge</td>
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<td>Great Mosque</td>
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<td>Public routes</td>
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Results: Hajj, obligatory pilgrimage of the Islamic world, reveals a lot of different risks to health. The knowledge of the rites, holy sites and the health state of the traveler will allow adequate advice to travel medicine staff.

Figure: Route of hajj (CDC); Pictures: Ministry of Haj (SAI); References: The Noble Qur’ân[Darussalam], Schmolz G, Hadschi/FTR 2009:117-124), ECDC Rapid risk assessment for the hajj [10.08.2017], WHO-WER