



▶ GHD | EMPHNET: working together for better health

GHD | EMPHNET: *Policies for Progress Series*

Policy Brief#1

Institutionalization of real-time surveillance during Arba'eenia mass gatherings in Iraq and its integration into the national system

This policy brief provides practical recommendations on how to institutionalize real-time surveillance during Arba'eenia mass gatherings (MGs) in Iraq and how it can be integrated into the national system to enhance the prevention of Weapons of Mass Destruction (WMD) attacks and the adoption of threat mitigation best practices.

October 2022

- The Arba'eenia mass gathering (MG) is one of the largest religious MGs globally and *the* largest in Iraq. It occurs annually in Karbala City with the participation of several million visitors from Iraq and more than 40 countries from the region and other parts of the world.
- This mass gathering poses biosecurity concerns as it may become a hotbed for the rapid transmission and spread of dangerous diseases in Iraq and its after-event spread globally. In addition, MGs can serve as a target for bioterrorism attacks organized by terrorist groups such as ISIS.
- Rapid, real-time surveillance of communicable diseases and other health events is key in the identification of any unusual event or outbreak, and in helping distinguish between natural or intentional outbreaks. GHD has been supporting Iraq in this important area since 2014.
- Institutionalization of real-time surveillance during Arba'eenia mass gatherings (MGs) in Iraq and its integration into the national system is a crucial policy choice that can enhance the prevention of WMD attacks and the adoption of threat mitigation best practices.¹

GHD and EMPHNET: Working together for better health

Global Health Development (GHD) is a regional initiative created to support countries in the Eastern Mediterranean Region (EMR) and to strengthen their health systems to respond to public health challenges and threats. GHD was initiated to advance the work of the Eastern Mediterranean Public Health Network (EMPHNET) by building coordinating mechanisms with Ministries of Health, International Organizations and other institutions to improve population health outcomes. As an implementing arm to EMPHNET, GHD aligns its strategies with national policies and directions. Serving as a collaborative platform, GHD | EMPHNET is dedicated to serve the region by supporting national efforts to promote public health policies, strategic planning, sustainable financing, resource mobilization, public health programs, and other related services.

BACKGROUND

In 2019, the estimated number of Arba'eenia MG visitors was 15,000,000 people², and despite the COVID-19 pandemic and the restriction imposed, the estimated number was 14,500,000 in 2020³ and jumped to 17,000,000 in 2021⁴ and 21,000,000 in 2022⁵. All these huge crowds amass across a span of 12 days. Most MG attendees walk toward the City of Karbala, with such a huge number accounting for about 40% of the whole country's population. Thus, on one side, MGs can stretch health systems beyond their capacity while, on the other hand, these events can also present opportunities for long-lasting positive legacy in the form of strengthened public health systems, enhanced medical and hospital services, improved living environment, and increased public health awareness.⁶

further increase the risk of importing various hazards.



WHAT IS AT STAKE?

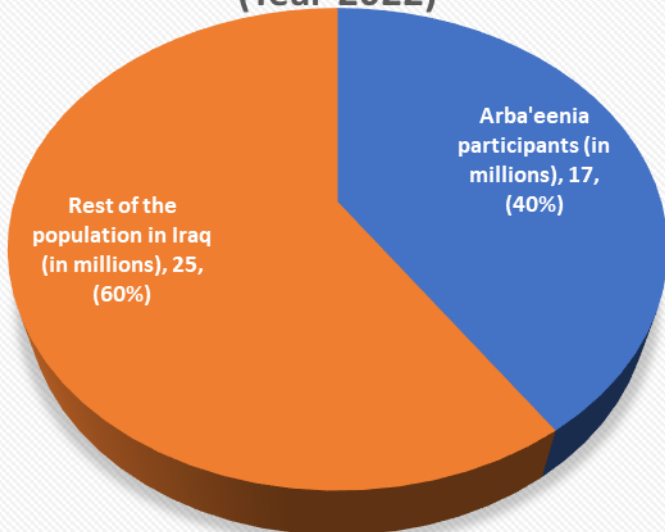
Although this huge population's walk takes place several days before the event and via different routes, such a huge gathering is enough to overwhelm any health system in the world.

The presence of massive crowds at all times around the day of Arba'een is an issue of concern to public health security^{5,7}. Mass gatherings of such sizes, which take place within a relatively limited space and time, are usually associated with concerns over communicable disease outbreaks, health conditions associated with weather changes due to seasonal variation (hot or cold weather, including heat exhaustion/heat strokes), wounds and accidental injuries, concerns related to non-communicable diseases such as exacerbation of ischemic heart disease symptoms and other chronic health conditions, and potential terroristic attacks by biological and non-biological agents.

In case of a disease outbreak, the mass gathering can pose a serious challenge to global public health because of the potential for the spread of diseases both during and after the event due to crowd density and population movement⁸. In addition, MGs can serve as a target for bioterrorism attacks organized by terrorist groups such as ISIS.



Proportion of Iraq Arba'eenia visitors
(Year 2022)



Faith-based organizations and the general public are the main providers of water, food, accommodation, and to a certain level, health services. These services are provided for free to the attendees, but they are under limited monitoring and health inspection by the official health authorities. Meanwhile, the large influx of people attending Iraq from different countries over a short period of time with limited health security inspection at the Point of Entry can

A lab-based real-time surveillance and response system that is well-established, institutionalized, and fully integrated into the national system will help the health system to trigger timely alerts of any outbreaks and avoid the threats mentioned above from happening. Such a system also includes case-based surveillance and lab-based surveillance for certain epidemic-prone diseases with significant spread.



UNDERLYING CAUSE OF THE ISSUE:

Over the preceding years, there has been limited progress in the surveillance work during MGs that MOH runs. The only real-time surveillance is the one that GHD | EMPHNET implements in certain years as projects. This fact indicates the need to have MG RT surveillance be part of the ongoing national surveillance system and fully adopted and funded by the Iraq MOH. The existing MG surveillance run by MOH and the RT surveillance projects implemented by GHD | EMPHNET in certain years lacks the lab part, which makes it deficient in identifying the pathogens/threats. Many outbreaks of food poisoning were reported during the previous years, but no lab investigations were done. Similarly, community-acquired pneumonia (CAP) frequently occurred during Hajj MGs, and there are publications⁹⁻¹¹ on the identified responsible microorganism due to the availability of Lab testing. We do not have such capability for Iraq MGs due to the lack of lab capacity.

The lack of a well-functioning system of lab-based real-time surveillance that is well-established, institutionalized, and fully integrated into the current national system will always keep the current health system in Iraq during Arba'eenia and other religious and non-religious mass gatherings vulnerable to the threats mentioned earlier in this policy paper.

Key Stakeholders/Partners:

The following partners play key roles in an institutionalized and integrated real-time surveillance disease surveillance system:

- Ministry of Health Iraq

- Directorate of Public Health, MOH,
- Directorate of Technical Affairs, MOH,
- Directorate of Kimadia, MOH,
- Directorate of Planning and HR Development, MOH,
- Directorate of Operation and Specialized Services, MOH,
- Directorate of Health in the concerned Governorates, MOH,
- Directorate of Inspection, MOH
- Directorate of Management and Financing
- Al-Atabat
- Ministry of Municipalities, Iraq
- Ministry of Environment, Iraq
- Ministry of Transport, Iraq
- Ministry of Interior, Iraq
- Council of Border Ports
- Ministry of Defense
- Ministry of Foreign Affairs
- Ministry of Finance
- Iraqi National Monitoring Authority (INMA)
- National Biorisk Management Committee (NBMC)
- Kurdish National Biorisk Management Committee (KNBMC)
- Prime Minister National Operations Center
- National Security Agency and security services.
- Ministry of Higher Education Iraqi Red Crescent Society and other National NGOs
- Any form of community representation.
- Iraq Field Epidemiology Training Program, which is under the Directorate of Public Health of MOH
- GHD | EMPHNET (Technical Advisory Role)

* * * * *

POLICY OPTION 1 - Mission: *Establishment of a Mass Gatherings Public Health Body/Structure within the Ministry of Health of Iraq that is closely involved from the MOH side with all the relevant departments, sections, and programs.*

Objective(s) to accomplish the mission: Such a technical oversight and coordination Body/Structure

will serve as a secretariat for all MOH partners' meetings and a coordination body in addition to its technical oversight, harmonization, and advisory role. The proposed Body/Structure will assume a key role in ensuring appropriate preparedness and response to MGs. Among these roles (but not limited to) are capacity-building and conduction of timely surveillance and other required public health measures not only during religious but also sports, cultural, and other types of mass gathering events. Moreover, the proposed Body/Structure will ensure the integration of MG-related policies, procedures, and guidelines into other technical documents of the MOH and other government entities. This Body/Structure will be part of the MOH organogram and chaired by HE, the Minister, or his deputy. There should be a budget item allocated for this body/structure to ensure its sustainability.

POLICY OPTION 2 – Mission: *Establishment of a Permanent Mass Gatherings Council*

Objective(s) to accomplish the mission: Such a policy and technical oversight and coordination body will be a permanent council rather than a temporary one that is established every year prior to MG events. The Council will have the representation of all the concerned bodies from different ministries and national and international organizations will have a more overarching role across all the partners. (Similar councils that involve multiple partners from different ministries and agencies are currently available in the country, most of which are connected with the Ministries Council. Such a connection will facilitate the official coordination among the members and ensure a smooth implementation of the decisions made in the council) This is not a second option; instead, it is complementary to the first one. The first MOH body will coordinate the health work within MOH and includes all concerned directorates. In contrast, the second will be responsible for steering the MG activities, including health, and ensuring the engagement of partners outside MOH in delivering support to the health services.

Similar to the proposed Body/Structure within MOH, the ministries with significant work and engagement during the MG events like the Ministry of Interior,

Ministry of Municipalities, Council of Border Ports, and others should develop similar committees/bodies within their current structures to coordinate and harmonize the work related to the MG event including the activities relevant to health within these ministries. Many times, more than one directorate or department in each of these ministries is engaged in the provision of certain activities during MG. These bodies will be represented in the National MG Council and will bring one voice representing the ministry's opinion to the national council.

IMPLEMENTATION CONSIDERATIONS

To ensure institutionalization and a broad foundation for the MG-related efforts, the proposed Body/Structure will need to set clear policies, standards, and guidelines for continuous surveillance data collection, flow, access, use, and dissemination of the alerts among various partners.

Additionally, the proposed Body/Structure will need to formulate short-, medium-, and long-term action plans based on the country-specific context and priorities.

External funding for the implementation of the suggested options under this policy brief (e.g., funds from ISN/CTR and other sources) will be used to supplement any allocated government funds and/or to fill gaps till more sustainable country-based mechanisms are established for regular functioning of this policy initiative.

SOURCES:

1. Iraq MG Reports from 2016 to 2020.
2. Alsumaria TV. "العتبة العباسية: عدد زوار اربعينية الامام الحسين بلغ "أكثر من 15 مليوناً" <https://tinyurl.com/ykywj9vq>.
3. Mawazin News | "العتبة العباسية: أكثر من 14 مليون زائر أحيوا زيارة "الأربعين" <https://www.mawazin.net/Details.aspx?jimare=125552>.

4. Al-Monitor. Influx of Iranians bolsters Iraq's Arbaeen pilgrimage. September 17, 2022. Available from https://www.al-monitor.com/originals/2022/09/influx-iranians-bolsters-iraqs-arbaeen-pilgrimage_
5. The Jordan Times. 21 million Shiites mark Arbaeen in Iraq's Karbala. September 17, 2022. Available from https://jordantimes.com/news/region/21-million-shiites-mark-arbaeen-%C2%A0iraqs-karbala_
6. World Health Organization. International Health Regulations, Mass Gatherings (MGs). WHO, May 2015. Available from http://www.who.int/ihr/about/IHR_Mass_Gatherings_pr_event.pdf?ua=1&ua=1.
7. Lami F, Amiri M, Majeed Y, et al. Real-Time Surveillance of Infectious Diseases, Injuries, and Chronic Conditions During the 2018 Iraq Arba'een Mass Gathering. *Heal Secur*. Epub ahead of print 3 May 2021. DOI: 10.1089/hs.2020.0074.
8. WHO website. Surveillance, forecasting and response. <http://www.emro.who.int/surveillance-forecasting-response/surveillance-events/mass-gathering-medicine.html>
9. AlBarrak, A., Alotaibi, B., Yassin, Y., Mushi, A., Maashi, F., Seedahmed, Y., Alshaer, M., Altaweel, A., Elshiekh, H., Turkistani, A., Petigara, T., Grabenstein, J., & Yezli, S. (2018). Proportion of adult community-acquired pneumonia cases attributable to *Streptococcus pneumoniae* among Hajj pilgrims in 2016. *International Journal of Infectious Diseases*, 69, 68-74. <https://doi.org/10.1016/j.ijid.2018.02.008>.
10. Memish, Z. A., Almasri, M., Turkestani, A., Al-Shangiti, A. M., & Yezli, S. (2014). Etiology of severe community-acquired pneumonia during the 2013 Hajj—part of the MERS-CoV surveillance program. *International Journal of Infectious Diseases*, 25, 186-190. <https://doi.org/10.1016/j.ijid.2014.06.003>.
11. Asghar, Atif H.; Ashshi, Ahmad M.*; Azhar, Esam I.**; Bukhari, Syed Z.+; Zafar, Tariq A.#; Momenah, Aiman M.###. Profile of bacterial pneumonia during Hajj. *The Indian Journal of Medical Research*: May 2011 - Volume 133 - Issue 5 - p 510-513.