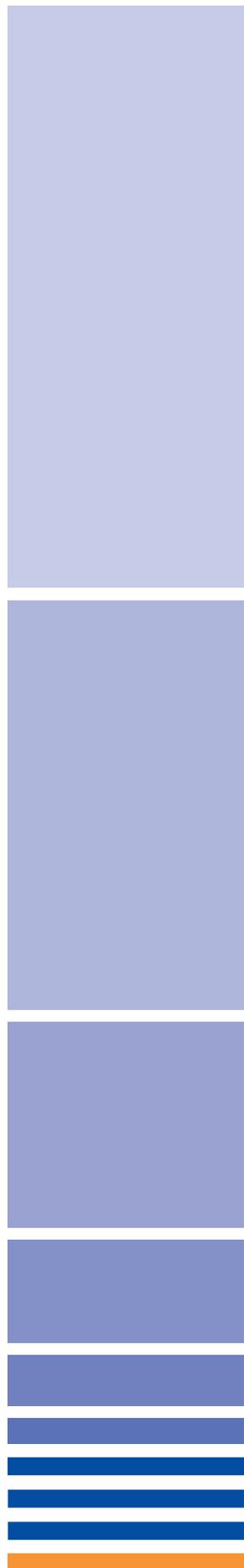


Global forum on mass gatherings

Rome, Italy
26–29 October 2009



GLOBAL ALERT
AND RESPONSE



World Health
Organization

Global forum on mass gatherings

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Introduction

Global forum on mass gatherings

A Global Forum on Mass Gatherings was held in Rome, Italy, on 26–29 October 2009 at the Italian National Institute for Infectious Diseases and was opened by the Italian Deputy Minister of Health. It brought together 71 experts in the field of mass gatherings (including a number of WHO staff) from 25 countries. The attendees included the organizers of 10 major upcoming gatherings and the organizers of numerous previous events. The Forum had four objectives:

- to review the strategy and structure of WHO's Virtual International Advisory Group on mass gatherings,
- to review existing WHO tools and resources relevant for mass gatherings,
- to test four training modules for mass gatherings and
- to engage the relevant organizing committees of mass gatherings.

The Virtual Interdisciplinary Advisory Group is an informal international network of technical experts in the field of major event-planning and related fields, such as emergency management, food safety, geospatial systems for alert and response and urban planning. During the year before the first Global Forum, the advice of the Group was sought by mass gathering organizers on numerous occasions, either during the planning stages of events or while the events were under way. Members of the Group were also deployed on several occasions for short on-site consultations, making recommendations based on event-specific risk assessments. After the first year of operation of the Advisory Group, it was considered necessary to evaluate the experience gained and the lessons learnt.

The mass gathering programme has also developed an array of tools to help event organizers in making preparatory assessments for mass gathering and reducing the additional risks for infectious disease associated with mass gatherings. These tools, which were discussed and assessed during the Forum, are designed to:

- ensure that event organizing committees are aware of the health sector requirements, so that health concerns are adequately addressed in the early stages of event planning;
- allow national medical services to assess their ability to meet the health needs of a mass gathering; and
- provide advice and methods for these services and address any deficiencies identified in the assessment.

Mass gatherings and WHO: the context

Following requests for assistance from several WHO Member States that were hosting mass gatherings and in the light of emerging risks, such as severe avian respiratory syndrome (SARS) and pandemic (H1N1) influenza 2009, a programme on mass gatherings was established by WHO's department of Global Alert and Response in 2007. Its mandate is to provide advice or technical assistance on health protection, disease prevention and planning, and alert and response measures for mass gatherings. The busy first year of operation of the programme and pandemic (H1N1) influenza 2009 illustrate its utility. The programme is run by the Health and Security Interface team within the Global Alert and Response department.

Mass gatherings present some of the most complex management challenges faced by governments. The influx of large numbers of people, often from different countries and cultures,

and the infrastructural changes needed to support them can place a severe strain on public health systems and services, compromising the country's ability to detect developing problems and make effective responses. In order to meet the challenges posed by a mass gathering, countries and organizers must conduct advanced risk assessment, planning and system enhancement. These are critical to identifying potential public health risks, both natural and man-made, and to preventing, minimizing and responding to public health emergencies.

Methods and discussion

Review of the Virtual Interdisciplinary Advisory Group

The aim of the review was to examine the composition and activities of the Group in the early stages of its existence, identify its successes and formulate a strategy for improving operation of the network and its tools. This included evaluating the philosophy, structure and function of the programme in the light of issues raised by newly emerging diseases, such as pandemic influenza 2009 (H1N1). With the increasingly global character of mass gatherings (partly as a result of the increased ease of international travel) and public awareness about them, the Group must be introspective and constantly renew itself in order to provide valid, effective advice for mass gathering organizers. The Group was reviewed in three sessions.

The first session set the context for the review and consisted of two presentations. The first, by Paul Arbon, outlined trends in mass gathering medicine, future challenges to organizers and innovative solutions for health security. The second, by Maurizio Barbeschi, Health and Security Interface Team Leader, provided an overview of the first year of the Group's operations and described its tools, strategies and working methods.

In the second session, the Global Forum participants worked in three groups, to discuss independently: the Group strategy and working methods; the Group structure, composition and membership; and WHO tools available to the Group. The discussions were led by facilitators, who chaired the groups, prepared a concise report listing the outcomes of the discussions and the recommendations and presented it during plenary; the discussions were recorded by rapporteurs.

In the final session, all three working groups discussed the proposed recommendations and sought consensus on final recommendations, which were grouped as follows:

- pre-event screening: identifying mass gathering events as active or passive;
- promotion of the Group;
- funding issues related to the Group;
- post-event functions: creating an effective, adaptable cycle of 'lessons learnt'; and
- coordination of the Group and other strategic and operational issues.

Refinement of WHO tools for mass gatherings

The WHO mass gathering team has attempted to codify the knowledge and expertise of the Group in various resources, as follows:

- a core guidance document, *Communicable disease alert and response for mass gatherings: key considerations* (WHO 2009), which is a comprehensive description of the issues to be considered in setting up and implementing communicable disease alert, response and operation plans for mass gatherings; and

- the *Mass gatherings checklist tool*, which presents the same information on a computerized spreadsheet, for use as a checklist for assessing the level of preparedness of a country or organizing committee.

Both resources are under constant review and are refined or expanded as necessary in the light of experience and with the emergence of new risks. The third resource is:

- the Group SharePoint site, a private workspace for sharing information, documents and situation reports. The site, hosted by WHO's Global Outbreak Alert and Response Network web site, contains resource material and risk assessments produced by countries hosting mass gatherings, which are valuable examples for other organizers.

The participants in the Forum were asked to judge these tools and to consider the creation of new ones from the point of view of:

- their usefulness in planning healthy, safe mass gatherings;
- their ease of use for organizers;
- their applicability to different events, countries and situations; and
- the quality and up-to-dateness of their content.

Finally, the groups were asked to state any additional modification to or use of the tools that they considered relevant to the development of the Group or the WHO mass gathering team.

During the discussion, participants recommended that WHO include advocacy on mass gatherings as a new operational area, build an evidence base and therefore conduct research (both qualitative and quantitative) on public health in mass gathering activities. They agreed that the concept of the WHO checklist is excellent and that it could be useful in planning and managing events, highlighting risks, addressing potential threats and encouraging an integrated, multisectoral approach to mass gathering activities. Participants agreed that these activities would in the longer term contribute to strengthening health systems, and the recommendations were phrased with this potential in mind.

Review of training modules

The WHO mass gathering team and the Virtual Interdisciplinary Advisory Group pilot-tested four modules of a new training course for planning health security measures, including devising and implementing communicable disease alert, response and operation plans for mass gatherings. The modules draw on the experience of the Group and form the basis of a planned full-scale programme that organizers of mass gatherings can consult when planning events. The course is also intended to promote recognition of 'mass gathering medicine'.

The topics of the four initial modules were: cross-cutting issues, risk assessment and risk management, surveillance and alert systems, and outbreak alert and response. Each module consisted of both didactic theory and several case studies of real events, with the problems faced and how they were solved. The participants analysed the modules for content and approach; discussed issues such as whether training should be certified by WHO; and emphasized the importance of designing each module as a single resource, with sub-sections from which users could pick and choose. A number of conclusions were drawn:

- Case studies reflecting practical experience and lessons learnt are useful and should be included in the training modules.

- While specific types of mass gathering (e.g. sporting events, religious gatherings) have distinctive characteristics, all types of mass gathering have essential core elements that should be considered by planners, which, for the purposes of training, can be categorized by functional area, such as surveillance and outbreak response.
- Training modules can be delivered in various ways, including in a classroom and by e-learning, both of which are appropriate.

After assessing and discussing the modules in the light of these issues and the goals of the planned training course, recommendations on the future content and approach were prepared.

Organizing committees, organizers and partners for mass gatherings

The fourth aim of the Global Forum was to create an effective partnership between the Group and representatives of organizing committees and agencies responsible for mass gatherings (or specific aspects thereof). A new concept that was discussed was that these organizations are concerned not only about human health but also about avoiding damage to the public image of the event or venue, including its legacy to the country, as a result of poor public health planning. The Forum was reminded that public health security plays an important role in both the bidding process and in venue selection for a mass gathering. They were therefore asked to consider the following questions:

- What are the minimum requirements of organizing committees with regard to health? Can major organizing committees prepare a harmonized list of requirements?
- How can the partnerships between health authorities, event organizers and organizing committees be strengthened to resolve common issues of accreditation?
- How should the effectiveness of the public health security measures planned by bidding cities be assessed?
- What are the results of a public health risk assessment? How can they be verified? Are the recommendations made on the basis of the assessment realistic?
- If public health will be a deciding factor, how should different plans be assessed?
- How can the Group ensure that organizers update public health security regularly?
- How can the effectiveness of measures be assessed?
- Is there a benchmark for public health planning of mass gatherings?

These issues were discussed in a round table. Presentations by the International Olympic Committee (via video link), the Union of European Football Associations and the organizers of the 2010 Shanghai World Expo and the 2016 Olympic Games in Rio de Janeiro, Brazil, illustrated the diverse challenges of each event. WHO, including the Food Safety, Health Promotion and Physical Activity and Global Alert and Response departments and the joint project with the United Nations Interregional Crime and Justice Research Institute on health security, and the European Centre for Disease Prevention and Control also presented their work on mass gatherings. These presentations showed the significant capabilities upon which the Group can call to support event organizers.

The discussion provided a framework for WHO to identify priorities in designing tools for research on mass gatherings and helped define the priorities of the Group. The goal of the discussion was to build links between WHO, the Virtual Interdisciplinary Advisory Group and organizing committees and to foster better understanding of roles and responsibilities and

opportunities for networking and future collaboration. This section of the Forum discussion therefore made no recommendations.

Conclusions and recommendations

The work of the Group and the lessons learnt so far from managing mass gatherings show that effective management is complex, involving risk assessment, work on preparedness, health promotion and legacy-building. In any consultation with host countries, use of the WHO tools and the knowledge and experience of the Group will provide useful guidance for planners of mass gatherings. A strategic priority of WHO is to facilitate knowledge transfer about one mass gathering to another, in order to increase and propagate global health security; to this end, specific training will be an important part of building capacity for organizing mass gatherings in Member States.

Most importantly, all the relevant actors - WHO, host States, Group members and the health community at large - must work together. Mass gathering organizers must give priority to vertical integration of the relevant concerns, from preparedness to legacy-building, from Member State organizing committees (local and federal), to WHO (as an international organization across regions) and to international organizing committees. From this point of view, high-profile international organizing committees, such as the International Olympic Committee and the International Federation of Association Football, have tremendous influence and offer a huge opportunity to safeguard public health concerns.

To ensure continuation of the sharing, improvement and propagation of knowledge, experience, research and expertise related to mass gatherings, WHO will continue as the organizing body and secretariat of the Group, attempt to integrate the relevant expertise across disciplines in a horizontal manner and implement the recommendations of the Forum.

Membership and structure of the Virtual Interdisciplinary Advisory Group

It was agreed that the roles, responsibilities and obligations of Group members should be clearly defined and that commitment to those responsibilities is a necessary prerequisite of Group membership. The Forum recommended that the Group steering committee should be made up of people with of a range of experience (e.g. of running mass gatherings; of participation in organizing committees; of expertise in relevant technical areas such as GIS, epidemiology, crowd control, policing, etc.; of membership of major organizing bodies such as FIFA and the International Olympic Committee; etc.), who should be listed by their category of expertise.

The criteria for Group membership were considered from three points of view: the technical capacity of candidates, their commitment and the WHO perspective. For each one these categories, the following criteria were recommended:

Technical criteria

- experience in mass gathering organization within a local, regional or national authority;
- experience at an office for health within an international organizing committee;

- demonstrated and renowned expertise in a public health setting;
- demonstrated and renowned expertise in a field of science related to mass gatherings, such as epidemiology, surveillance or event management.

Commitment criteria

- willingness to dedicate time (up to several days) to assist in planning mass gatherings, including time for responding to policies or making site visits;
- some degree of spontaneity, to allow occasional short-notice departures to countries hosting mass gatherings;
- agreement in principle (except for extraordinary circumstances) to at least one annual Group meeting in a country hosting a mass gathering, funded by WHO, to advise on refinement of tools and the work plan for a mass gathering and to discuss Group issues;
- agreement to a code of conduct designed to ensure successful, safe, healthy mass gatherings for which consultation is sought for public health, with no conflict of interest; and
- consideration of any privileged information divulged during consultation or through the SharePoint database as confidential, unless specifically stated otherwise.

WHO selection criteria

- The Group should include a minimum of at least two members from each WHO region.
- The membership of any Group assembled to meet a request for assistance should be balanced by gender and religion and have the appropriate spectrum of skills, knowledge and disciplines, including:
 - risk management,
 - surveillance and alert,
 - laboratory capability,
 - outbreak response,
 - medical services and corporate social responsibility (CSR),
 - deliberate planning response,
 - infection control and quarantine,
 - food and water safety,
 - risk communication,
 - disaster and emergency management and
 - health–security collaboration.

A further recommendation for membership was that the existing plethora of material, information and experience on the organization and management of internally displaced people and refugee camps should be exploited better for managing mass gatherings.

Strategy and working methods of the Virtual Interdisciplinary Advisory Group

The recommendations of the Forum, grouped according to the categories described above, were:

Pre-event screening for Group involvement

- Any request for involvement of the Group should be sent to WHO by a host country or the organizing committee of a mass gathering. Local WHO offices should identify mass gatherings that could or should concern the Group and coordinate with the host country.
- The Group cannot be actively involved in all mass gatherings, and a mechanism is needed to decide in which events it should participate. The mechanism should be designed to filter and evaluate requests from host countries or organizers, provide advice on which mass gatherings the Group should be involved in and to decide whether organizers or host countries should be approached proactively for particular events that appear to require input.
- The Group should not become involved in mass gatherings that occur regularly and are handled routinely by a host country (unless specifically invited to do so, as for the Hajj in 2009). It should not be involved in events with no significant international component, those with a strongly political component or those that stem from or are part of conflicts (e.g. in camps for refugees or internally displaced people, military gatherings or major political gatherings).

Promotion of the Group

- The Group should advise and assist WHO in advocating the group's involvement in mass gatherings. In order to promote itself further (and to audit its own activities), it must collect data on its work and its impact. Such data should be both active (collected while members are performing risk assessments and other activities) and passive (collected from use of its tools).
- WHO should provide information about the Group and its operations to regional and country offices, which should then advise host countries and mass gathering organizing committees about involvement of the Group.
- An important promotional point is that the Group can help in bidding for major events (like the Olympic Games) and assist WHO Member States in capacity-building.

Revenue issues

The Forum discussed the funding of the Group, although it was aware that it had no influence over funding and could only provide advice. The recommendations below are therefore intended as suggestions that the Group organizers might use in discussions with potential sources of funds, including WHO.

If the Group were to become largely self-financing, it would still require seed money from WHO for its core strategic activities. Hybrid forms of funding could be considered, possibly on the model of the Global Outbreak Alert and Response Network.

- The funding sources might depend on whether the Group is used passively or actively: passive use could continue to be funded by WHO and active use funded wholly or in part by the host country.

- The size of user fees for Group involvement might depend on the resources of the user and the level of impact of the mass gathering on international health.
- Any shortfall might have to be made up by WHO (as in the Global Outbreak Alert and Response Network model), by higher charges on entities that are able to pay or by seeking funding from a suitable donor for each mission when necessary.

Activities after events and deployment

- A tool is needed to record lessons learnt before, during and after a mass gathering, which should be available to any group organizing such a gathering. It is recommended that a specified Group member monitor which version of the tool is used and how it develops over time.
- Lessons will be learnt any time a delegation conducts a risk assessment, and a standardized learning exercise should follow each deployment. Lessons should be recorded by the team leader or another designated person, in coordination with the organizing committee or host country. The record should cover the involvement of the Virtual Interdisciplinary Advisory Group, the tools used and strategies for improvement. Additionally, the Group should encourage the host country or organizers to undertake their own learning exercises and should provide experts for that purpose (including writing) if requested. Even if this service is not formally requested, the Group should participate in other post-event activities, to assist in and learn from the process.
- Most of the data on a mass gathering will be the property of the host country and should be kept by that country. The Group should nevertheless encourage host countries to share the information with the Group and with other countries that might request it. It is recommended that information on the activities of the Group during a mass gathering be maintained by the Group and shared with others (including the host country) at the discretion of the Group.
- The Group could assist a host country or an organizing committee in writing, editing and formal publication of findings (with joint credit for publication).

Coordination of the Group and other strategic and working issues

- The Group should give support and advice on a much wider range of hazards than those related to communicable disease, with a subsequent implication for wider Group membership.
- The Group functions at two levels (members can function at one or both): active participation in risk assessment, and passive participation on an advisory basis without deployment.
- The Group is too small to be an implementing partner, i.e. to work as part of an organizing committee. For example, for activities such as surveillance and response, the Group should advise at the planning stage but not become part of the implementing group. The size and composition of a Group consultation team will depend on the disciplines needed for an event, which will be determined by the request of the organizing committee or host country. These may raise membership and training issues.
- The Group should use multiple means to communicate between members and with clients, including annual meetings to ensure common understanding, acting as the forum for

updating tools and manuals, teleconferences (particularly for subgroups working on specific issues), and other channels, such as e-mail and web-based meetings.

Refinement of the WHO tools for mass gatherings

The participants recognized that the organization of a mass gathering from beginning to end is complex and that tools should be available for each stage of the process. The final purpose of such tools should be to strengthen existing public health systems, i.e. to leave a public health legacy. Therefore, an integrated, cross-sectoral, team approach should be taken to mass gathering activities and tools. Training in use of the tools should be available for all potential users on request. Use of existing resources should be a priority in developing tools, drawing as much as possible on the expertise of people who have experience in organizing mass gatherings, designing relevant tools and training users.

Spreadsheet

The spreadsheet tool should have the following attributes:

- *Allow monitoring and evaluation:* The tool should have a function that allows users to monitor and evaluate activities before, during and after an event to determine progression and overall impact.
- *Easy adaptability and versatility:* The tool should respond to both large and small events and to planned and more spontaneous events.
- *Use by all:* The tool should have a built-in mechanism to allow all relevant users to work on and use separately the part of the tool relevant to their area of work and to be able to ‘view only’ the work of other users.
- *‘Crunch’ function:* For ease of use, after basic questions about the event have been answered, only questions relevant to a specific event type should remain in view.
- *Key issue identification:* Once the type of mass gathering has been established, the tool should have a function that summarizes and highlights key considerations. Users should be made to understand that some event-specific issues might not be identified by the tool and that any list produced is indicative only.
- *Stratification function:* A mechanism should be built in to stratify strategic and operational work, with a function to give an overview of how all the components in the tool fit together.
- *Reference and support documentation:* Links to relevant reference material should be incorporated (e.g. when addressing food safety, links should be provided to relevant food safety material).
- *Report function:* The tool should be able to generate situation reports highlighting issues determined by the user.
- *Country information:* A mechanism should be developed to determine whether a country can host a mass gathering.
- *Milestones:* Milestone and deadline functions should be built in.
- *Quality assessment:* A quality assessment function should be built in.
- *Disaster management:* Disaster management should be a separate element or component of the tool.

- *Planning*: The tool should have specific planning functions.
- *Alarm signals*: Alarm signals should be built in.

Project management, training and resources

- *Project management*: It was suggested that WHO tools could be integrated into existing management systems and that WHO could develop a project management framework for mass gatherings.
- *Capacity-building*: Training materials, methods and technical support should be available so that the toolkit will be used effectively. Local capacity-building and awareness-raising are favoured over reliance on consultants.
- *WHO as a coordinator*: WHO, a recognized global leader, should be the coordinating body that brings stakeholders together in a spirit of international collaboration.
- *Training of WHO staff*: WHO staff should be trained in supporting use of the tool; subsequently, a person in each WHO country office should be nominated as a focal point to provide support for mass gatherings.
- *Catalogue of organizational resources*: It was suggested that a catalogue of organizational resources be built and made available, which provides basic information on various organizations and how stakeholders can work together.
- *Future availability of tools and resources*: Public health tools for mass gatherings should be made available in various formats for long-term availability, on a range of platforms including the Internet (a real-time source of information), CDs and hand-held devices.
- *Material development and information tracking*: It was proposed that the available resource material be updated continuously, as part of an iterative learning process designed to keep the material dynamic and relevant; and that a library and archiving system be developed to track the history of work on mass gatherings.
- *Resource portal*: It was proposed that a resource portal be made available as a reference.
- *Awareness and advocacy*: Given the relative novelty of this operational area, awareness should be built, with advocacy for public health activities surrounding mass gatherings, through a variety of channels, including the Internet, radio, television and published material.

Review of mass gathering training modules

Recommendations were made on the content and development of the mass gathering training programme. These recommendations stipulated that training modules must contain the following messages:

- It is essential that public health messages be taken into consideration at the earliest stages of planning for a mass gathering, including bidding for the event.
- Representatives of the health services (both clinical services and public health) should be members of the various planning bodies from the beginning and at every subsequent stage.
- Building partnerships and using timely information will allow early warning systems to trigger a prompt, efficient investigation and containment of an incident of public health concern.

- Effective involvement of health services in mass gatherings requires a structured planning and communication system, which must be in place in advance of the gathering.
- An agreed, simple command and control system is needed in all aspects of planning a mass gathering.
- Any new systems for a specific event should be complementary to existing systems, especially any new or additional surveillance system.
- A mass gathering might be far greater than any event previously handled by local health (and other) services, both in terms of the area covered and the numbers of people involved.
- Mass gatherings are likely to attract the media (both accredited and unaccredited). Good links should be forged with the media from the earliest stage, so that they can assist in distributing public health messages, rather than hindering the public health response by reporting rumours.
- The fact that the reputation of the host country is involved increases the pressure on the organizers and the need for friendly media. There is likely to be significant political interest in any major mass gathering.
- International events draw persons from all over the world (including heads of state and international dignitaries, with their entourages). This presents problems of security, language and cultural and dietary specificities, which must be anticipated.
- Surveillance and health response mechanisms should be upgraded to take into account possible importation of diseases not usually seen in the host country. Surveillance should focus on issues identified in a formal risk assessment but should cover all hazards.
- Mass gatherings are a potential target for terrorists, so that public health and security personnel should work closely together throughout the planning stages.
- Staff must be cleared and accredited well in advance of the mass gathering, to ensure that public health doctors and health teams have access to the event.

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- B. Conway, Health and Security Interface, WHO, Geneva, Switzerland
- E.L. Engelsman, Surveillance and Population-based Prevention, WHO, Geneva, Switzerland
- F. Fontannaz-Aujoulat, Food Safety and Zoonoses, WHO, Geneva, Switzerland
- E. Garcia, Alert and Response Operations, WHO, Geneva, Switzerland
- A. Gatto, Health and Security Interface, WHO, Geneva, Switzerland
- B. Gilbert Miguet, Health and Security Interface, WHO, Geneva, Switzerland

- N. Isla, Health and Security Interface, WHO, Geneva, Switzerland
- D. Lavanchy, Global Alert and Response, WHO, Geneva, Switzerland
- C.K. Lee, Combating Communicable Disease, WHO Country Office, Beijing, China
- H. Lewis, Combating Communicable Disease, WHO Country Office, Vientiane, Laos
- A. Li, Medical Officer, Communicable Disease Surveillance and Response, WHO Regional Office for the Western Pacific, Manila, Philippines
- D. Lo Fo Wong, Food Safety, WHO, Geneva, Switzerland
- D. Nitzan Kaluski, WHO Country Office, Belgrade, Serbia
- H. Papowitz, Health Action and Crisis, WHO, Geneva, Switzerland
- G. Pomerol, International Health Regulations Secretariat, WHO, Geneva, Switzerland
- C. Smyth, Health and Security Interface, WHO, Geneva, Switzerland

Annex 2. List of presentations

Copies of the presentations in original digital format can be obtained by contacting massgatherings@who.int.

Pilot training session

| Speaker | Title |
|--|---|
| Dr Andy Stergachis | Health challenges associated with mass gatherings |
| Dr Paul Arbon | Trends in mass gathering medicine, future challenges to organizers and innovative solutions for health security |
| Dr Maurizio Barbeschi | Managing the health consequences of mass gatherings |
| Dr Brian McCloskey (Chairman of the session) | London 2012, preparing the Health Protection Authority |
| Dr Peter Fuhri | 2009 FIFA Confederations Cup |
| Dr Gabrielle Poggensee | FIFA World Cup Germany 2006. National Information and Cooperation Centre |
| Dr Mike Hills (session facilitator) | Risk assessment and management |
| Dr Mike Hills | Legionella control, Sydney 2000 |
| Dr Mark Salter | Glastonbury festival and H1N1 |
| Dr Jat Sandhu | Surveillance and alert |
| Dr Eldonna Boisson | Mass gathering surveillance for the ICC Cricket World Cup, 2007 |
| Sarah Thackway | Surveillance during a decade of mass gatherings in Sydney, Australia |
| Dr Predrag Kon | Emerging influenza pandemic and mass gathering in Serbia |
| Dr Nikoletta Mavroidi | Outbreak prevention and management, Athens 2004 Olympic Games |
| Dr Jeremy McAnulty | World Youth Day, Sydney |
| Dr Danilo Lo-Fo-Wong | Assuring safe food during mass gatherings |

Organizing committees, organizers and the Virtual International Advisory Group

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| Dr Zhengmao Li (Health Emergency Response Office, Ministry of Health, China) | National coordination and cooperation for the Beijing 2008 Olympic Games |
| Dr Patrick L. Schamasch (International Olympic Committee) | Videoconference with International Olympic Committee |
| Dr Joao Grangeiro | Rio de Janeiro Summer Olympics 2016 |
| Dr Pahurat K. Taisuwan (Ministry of Public Health, Thailand) | Mass gatherings in Thailand |
| Dr Francesco Botre (Anti-doping laboratory, Rome) | The role of anti-doping laboratories |
| Eddy L. Engelsman (Surveillance and Population-based Prevention, WHO) | Sport for health: it is time for the sport community to become a real player |
| Morgan Krutzfeld (Union of European Football Associations) | UEFA considerations in public health |
| Francoise Fontannaz (Food Safety, WHO) | Health promotion campaign during mass gathering: the example of the Beijing Olympics |
| Erika Garcia (Global Alert and Response, WHO) | Alert and response at WHO and the event management system |
| Massimiliano Montanari (United Nations Interregional Crime and Justice Research Institute) | The UNICRI–WHO joint project on health security at mass gatherings |
| Lara Payne (European Centre for Disease Prevention and Control) | ECDC activities on mass gatherings |
| Ms Alshaluk Bhatiasevi | Mass gatherings and working with the media |