



London 2012 Olympic and Paralympic Games
UK Health / WHO International Mass Gatherings Observer
Programme

3 – 6 September 2012
London, England

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Introduction

The Observer Programme is a regular mechanism run alongside major deliberate mass gathering events, by which knowledge and experience gained in preparing and running one event can be transferred to others, in line with the World Health Organization's strategic framework for mass gatherings.

This particular Observer Programme provided a unique opportunity to share learning from the delivery of the UK's health commitments during the Olympic and Paralympic Games in London 2012. The programme was aimed at delegates involved in the planning and delivery of future mass gatherings, such as Rio 2016 Olympic and Paralympic Games.

The Olympic Games took place between 27 July 2012 and 12 August 2012; and the Paralympic Games took place between 29 August and the 9 September 2012. Both the Olympic Games and the Paralympic Games took place at a range of locations across England, with football Games also being held in Scotland and Wales. The majority of sporting events for both Games, however, were held in and around London.

The Programme was delivered by the UK's Health Protection Agency and the World Health Organization, in partnership with the UK Government's Department of Health, NHS London (part of the National Health Service), and the London Ambulance Service NHS Trust. This enabled the sharing of the cross-health experience.

Observers on the Programme heard about the experience across health during the London 2012 Games and learned about the significant health aspects and planning which need to be considered when hosting or bidding for an international mass gathering

The Programme ran during the Paralympic Games, from Monday 3rd September to Thursday 6th September. It was not part of the official observer programme run by the Olympic organising committees; the International Olympic Committee or the London Organising Committee of the Olympic and Paralympic Games.

Key Agencies Delivering the Observer Programme

- Health Protection Agency (HPA)

An independent UK organisation that was set up by the UK government to protect the public from threats to their health from infectious diseases and environmental hazards. It does this by providing advice and information to the general public, to health professionals such as doctors and nurses, and to national and local government.

The HPA hosts the World Health Organization collaborating centre working on mass gatherings and high visibility/high impact events. <http://www.hpa.org.uk>

- Department of Health (DH)

The UK government department providing strategic leadership for public health, the National Health Service (NHS) and social care in England. <http://www.dh.gov.uk>

- NHS London

Part of the National Health Service in England, NHS London is the Strategic Health Authority for the whole of the Greater London area. NHS London provides strategic leadership for the London's healthcare. <http://www.london.nhs.uk>

- London Ambulance Service NHS Trust (LAS)

Part of the National Health Service in England, the London Ambulance Service responds to emergency calls, providing medical care to patients across London, 24 hours a day, 365 days a year. Other services include providing pre-arranged patient transport and finding hospital beds. Working with the police and the fire service, the London Ambulance Service is prepared for dealing with large-scale or major incidents in London. <http://www.londonambulance.nhs.uk>

- World Health Organization (WHO)

The directing and coordinating authority for health within the United Nations system. The WHO is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends. <http://www.who.int>

Countries Attending the Observer Programme

The Programme was attended by health professionals from a range of countries. The table below details the countries in attendance, and their area of interest/ mass gathering type.

Country	Interests and/or background	Mass gatherings
Brazil	Medical services, operations emergency, trauma, civil defence, international, surveillance, security	World Youth Day (2-4 mill) 2013 World Cup 2014 Olympics 2016
Iraq	Religious mass gatherings, football	Arba'een (10-20 mill), annually
Japan	Health Crisis Management, emergency preparedness and response, IHR national focal point, CBRN	Olympics 2020 bid
Morocco	Epidemiology and disease control, mass gatherings	2015 Africa Cup of Nations
Myanmar (Burma)	e-health preparedness, surveillance, response, command and control, emergency medical services	South East Asia Games 2013
Qatar		FIFA World Cup 2022
South Africa	Epidemiologist, surveillance, medical delivery including emergency services, notifiable medical conditions, ports, FIFA World Cup 2010	Orange Africa Cup of Nations in January 2013
Taiwan	Medical, Epidemic Intelligence, Disease Control, Surveillance, Emergencies, mass gatherings	2017 Universiade

United States	Travellers' health, US CDC	Mass gatherings, traveller
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Format of Report

This report is set out in three parts.

- **Part One**

Part One outlines the agenda of the Programme, and provides a brief summary and key messages from the agencies involved in planning for the London Olympic and Paralympic Games.

- **Part Two**

Part Two summarises the learnings from the Programme participants, and highlights the issues they will be taking back to their host nations.

- **Part Three**

Finally, Part Three provides a brief analysis of the Programme itself and how future Programmes might be undertaken.

Unless individually stated, this report collectively talks of 'the Games' as relating to planning and operations for both the Olympic Games and the Paralympic Games.

PART ONE - Observer Programme Presentations

The Observer Programme was held over four consecutive days from Monday 3 September 2012 until Thursday 6 September 2012. At this time, the Olympic Games had finished, but the Paralympic Games were still underway. For each day of the Programme, a summary of each of the presentations is given, and themes are summarised at the end.

Monday 3 September 2012

The Observer Programme was launched at the UK Department of Health, with a welcome from the Parliamentary Under-Secretary of State for Public Health. The morning was hosted by the Department of Health with presentations and tours as outlined below.

Crisis and Consequence Management Operations during Games Time

Presented by the Department of Health (DH)

- The Crisis and Consequence Management (CCM) context for the Games was driven by health drivers such as the Annual NHS Operating Framework; and also the resilience agenda as outlined in the Civil Contingencies Act 2004 and the Government's Cabinet Office.
- The Crisis and Consequence Management Centre (CCMC) supports the Cabinet Office Briefing Rooms (COBR) (a government crisis response committee, coordinating the response to instances of national or regional crisis, or during events abroad with major implications for the UK).
- The CCMC is available to COBR 24 hours a day/ 7 days a week, and can be up and running within 60 minutes. The CCMC has the capability to run three separate incidents 24/7 for up to one month. In a major emergency the CCMC will carry out a range of functions, e.g.:
 - dynamic risk assessments
 - coordination of DH involvement (e.g. media, subject matter experts)
 - liaison with other agencies, communication and information provision
 - back office support to COBR
- During the Games, the operational routine established in the CCMC included:
 - support to COBR and Ministerial meetings as required
 - daily situation reports (SITREPs)
 - rolling brief of information each evening
 - roster of response staff and volunteers

NHS Operations during Games Time

Presented by the Department of Health (DH)

- NHS Operations, including the NHS Preparedness Team, specifically focused on NHS services, such as hospitals and ambulance services.
- All liaison with these services was coordinated via strategic health authorities (SHAs). NHS Operations functions included:
 - strategic oversight of the NHS
 - support to NHS London and SHAs if required
 - ensuring that any plans developed by the SHAs were aligned to overarching NHS plans
 - ensuring that all designated hospitals had very detailed plans
 - ensuring business as usual is not compromised
 - developed Games-time reporting structure

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- ensuring that as much as possible, existing templates and structures provided the basis for systems
- developed a suite of Action Cards for the Chief Executive outlining his role during events

Tour of the DH Crisis and Communications Centre

Conducted by the Department of Health (DH)

The afternoon was hosted by the HPA and WHO, with presentations as outlined below.

Sharing Mass Gathering Experience

Presented by the Health Protection Agency (HPA) and World Health Organization (WHO)

- The WHO is in the process of establishing a number of Collaborating Centres around the world, to develop and disseminate guidance on planning, management, monitoring and evaluation of mass gatherings
- The HPA is the first WHO Collaborating Centre for Mass Gatherings, with four other centres currently being finalised
- There is not currently a wealth of information on the planning for, management of and evaluation of Olympic Games, specifically. Books were written following the Athens and Beijing Games but these are focused on their experience rather than advice for future hosts. This is in part due to the way Games are organised, where the International Olympic Committee franchises the Games to the host city.
- Legacy is an important part of any mass gathering, so the WHO has established its international Observer Programme, which has previously been active at the Winter Games in Vancouver and the FIFA World Cup in South Africa.
- A valuable mechanism of information sharing is the WHO Virtual Interdisciplinary Advisory Group (VIAG) on mass gatherings and its SharePoint site
- The HPA will be writing a book on their Games experience, focusing on advice and expertise that will be transferable to those planning future mass gatherings

Extreme Events and Mass Gatherings

Presented by the Health Protection Agency

- Extreme events, particularly flooding, have been informative in terms of planning and response to emergencies
- Extreme events have national and international implications
- Messaging and information provision is critical – the HPA has both Twitter and Facebook presence.

Learning from Experience

Presented by Flinders University, Australia

- Consideration of the type of mass gathering (i.e. is it in an enclosed or open area) and the proactive approaches that can be taken in terms of health protection and community safety
- Planning and responses need to be tiered/ scalable and consider the enjoyment of the participants/ spectators
- Health and event managers need to work together

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- Consider the health services outside of the event area – can they cope with potential increase in requirements?
- Consider what modelling can be done in advance, e.g. patient presentation rates and transport to hospital rates
- Use every opportunity to give mitigation messages, e.g. health promotion information on tickets and large screens at the event
- Consider how security and police are represented at events, e.g. in uniforms or not?
- Issues related to drugs and alcohol need to be managed by all involved in the event – health services, event managers, event promoters, police and security etc

Planning Tools

Presented by the Health Protection Agency and University of Washington

The WHO Mass Gatherings web based toolkit was introduced.

- The toolkit is designed to provide a framework for the host of a mass gathering to self assess its current public health capacities, and to determine where enhancements might be required
- The University of Washington has developed an e-learning module 'Mass Gatherings: Are you Prepared?'
- The current module has a US focus, and takes a hypothetical case study approach. There are plans to develop the module, with the WHO, to provide an international context.

Integrated and Mobile Geospatial Technology for Mass Gathering Data

Presented in conjunction with the UN Operational Satellite Programme UNOSAT.

A report providing a list of resources suitable for mass gatherings coordinators, and an introduction to applications and data sources that allow mass gathering planners to make the most of Geospatial Information Systems (GIS) technology in planning/response for major events was introduced.

Themes from Day One

- The Olympics is not an emergency; it is an event with a defined start and end date
- Rather than plan for an emergency, therefore, planning should focus on enhancing and improving existing systems, to ensure that they cope; acknowledging that if an event occurs, systems will need to 'step up'
- There is an insatiable demand for information from the outset, which needs a strong commitment to communications planning. Communications systems need to be established well in advance
- As the event unfolds, do not be suspicious if there is 'nothing to report'. It can be a challenge, however, ensuring Ministers are comfortable with the nil report
- Establish what the baseline is for certain incidents, e.g. average number of measles cases for that time of year, and communicate that well. This will help Ministers to understand that 'one case is not an epidemic'
- Ensure that the systems that are developed/ enhanced in the Games planning can be sustained after the Games
- Health and event managers need to work together
- There is a lack of mass gathering research that has been widely published and disseminated

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Tuesday 4 September 2012

Day Two was hosted by the Health Protection Agency, who presented each session, as outlined below.

Emergency Preparedness and Response to CBRN Events

- HPA have an emergency response department at their Porton Down site, which would lead any HPA response to CBRN events, delivers training and exercising and carries out cross government liaison
- The HPA is one of three providers of scientific information within government; along with the Atomic Weapons Establishment and the Defence Science and Technology Laboratory. During the Olympics, the three agencies worked together, with the HPA talking the lead on public health and environmental safety issues
- The HPA also has regular liaison with a range of other agencies including the Department for Environment, Food and Rural Affairs; the Department of Health; the Foreign and Commonwealth Office; the Government Office for Science; and the Home Office (including police, counter terrorism, serious and organised crime)
- In planning for potential CBRN events, the social disruption is hard to quantify; and the economic implications can be surprisingly large
- National resources will be slower to respond than regional resources, so building regional capability is critical.

HPA Contribution to London Olympics and Paralympics – Infectious Diseases

- The HPA undertook three principal phases of planning:
 - risk analysis (what might happen)
 - surveillance and reporting (how will we know what is happening)
 - response (what will we do if something happens)
- HPA used the WHO Toolkit to evaluate progress
- Worked in conjunction with many key partners including LOCOG, DH and the WHO
- Risk analysis considered:
 - current epidemiological situation
 - environmental hazards
 - specific issues for mass gathering e.g. scale, location
 - safety and security
 - deliberate release
- Gaps were highlighted and a risk assessment undertaken
- Systems were enhanced or modified for the Games period, including:
 - enhanced surveillance systems and follow up of 'signals'
 - enhanced microbiological services and increased testing
 - daily reporting, including teleconferences, and SITREP
 - single points of contact
 - presence in the polyclinic and reporting from venues
 - good stakeholder working arrangements; robust business as usual (emergency planning and response)
- Existing response systems were used, but quicker and smarter:
 - investigation - standard processes but smarter and lower threshold
 - expert risk assessments; provision of expert advice and information (tailored)

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- information shared across key partners
- reactive and pro-active media - managing rumours
- resilience - surge capacity and robust out of hours processes and mutual support
- Stakeholder engagement was critical in the planning
- Many of the stakeholders are not regular collaborators with the HPA and required extensive education regarding public health
- Communications, both internal and external, are critical
- Testing and exercises are critical
- Lessons learned included:
 - importance of testing staff and operational logistics early, steady state and in anger - room set up, reporting arrangements, teleconference protocols, standardised contact information, single point of contact
 - ensure an understanding of normal business
 - need for clarity of reporting to non-experts (background / baseline document)
 - rapid response to information requests / requirements from LOCOG (precautionary, not always evidence led)
 - clarify arrangements for formulating, agreeing and disseminating public health advice across partners.

Radiation, Chemicals and Environmental Hazards

- HPA's Centre for Radiation Chemicals and Environmental Hazards has a remit to protect against the adverse health effects of acute and chronic exposure to chemicals, poisons and other environmental hazards
- The Centre's functions include:
 - public health (medical exposure, physical dosimetry, extreme events, epidemiology)
 - operational services (operational protection, occupational services, dosimetry)
 - research (biological effects, toxicology)
 - environment and health (environmental assessments, environmental hazards and emergencies)
- It also commissions the National Poisons Information Service
- Of particular interest for Games planning was air quality
- HPA established the HPA Olympics Air Quality Coordination Group, a collaborative partnership with key stakeholders to provide appropriate briefings on air quality during the Games
- Messages were also regularly disseminated to the public
- HPA also worked in collaboration with other agencies to monitor environmental hazards such as flood risk, UV levels, temperature and pollen

Introduction to Infectious Disease Detection and Control in the Olympic Period

MICROBIOLOGY

- Planning started in earnest in 2010, with work really escalating in 2011
- Public health microbiology carried out by:
 - network of clinical laboratories
 - food, water and environmental labs
 - National Reference facility
 - research and development facility at Porton Down
- During the Games, microbiology needed to deliver:
 - business as usual

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- frontline public health diagnostic microbiology and specialist advice
- risk assessment; sampling support - enhanced typing response from key reference units
- rapid testing (e.g. measles) and reporting
- guidance for outbreaks and incidents
- surge capacity and advice
- daily returns to MS Cell; and advice for SITREPs
- Threat assessment considered the mass gathering nature of the Games, unusual mixing patterns, the potential for explosive outbreaks and terrorist threats
- Most likely problems, however, were gastrointestinal and respiratory conditions, waterborne diseases and rashes, i.e. everyday health problems, but potentially at much higher levels
- Games planning carried out across four workstreams:
 - microbiology (clinical services, assay implementation)
 - information flows (data collection and processing, information and task management)
 - workforce planning (capability and capacity, exercises, logistics)
 - delivery (Games time microbiology services cell, emergency response and business continuity)
- Games preparation included:
 - Microbiology Services Colindale operational planning days
 - workforce planning (weekend cover, surge capacity, 24/7 medical cover)
 - coordination structures
 - technical developments and enhancements (e.g. tracking systems)
 - CBRN capacity
 - Olympics exercises
 - Microbiology Services Client Guide

COMMUNICABLE DISEASE CONTROL AND HEALTH PROTECTION SERVICES COLINDALE

- HPA's network of activities is widespread, with specific activities carried out around the country
- HPA's Health Protection Services at Colindale provides:
 - national surveillance and expert public health information
 - intelligence and advice on infectious diseases prevention and control
 - national focal point for co-ordinating infectious disease investigations and responses for England and the UK
 - discharging many of the UK's international obligations
- Olympic Surveillance Group was established to review current systems and undertake a gap analysis for Olympic requirements
- This group identified the following requirements:
 - enhancement of existing systems (increased frequency of reporting and analysis)
 - addition of data specific to Olympics venues
 - development of new systems (emergency department, out of hours and walk-in centre reporting)
 - international scanning and risk assessment
 - event based surveillance; and venue reporting
 - communications with clinicians and public health teams
 - coordination of surveillance systems for situation reporting

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INFECTIOUS DISEASE and REPORTING

- The HPA committed to provide a daily public health SITREP to LOCOG, DH and other key partners. Enhanced public health surveillance and enhanced microbiological diagnostics implemented
- Two main streams of surveillance were established – event based teams and the national surveillance centre
- Events that were reported were those directly affecting athletes, their families, visitors and spectators; with reporting coming from all venues, not just London
- Surveillance must also consider issues occurring outside of the Games area, but that could have wider implications, such as national food borne outbreaks and national pertussis outbreak
- Some small events were noted - e.g. legionella in Edinburgh before the torch relay arrived and measles in Liverpool near one of the training centres – but in general, there were few issues of concern

Microbiology – Olympic Innovations and Practical Arrangements

- Although the rate of infectious disease at previous Games has been low, needed to ensure that robust systems were in place to protect both the health system and also reputation
- Rapid diagnosis of all possible threats is critical
- Remember to think about all sporting events taking place and any particular issues associated with that sport, e.g. leptospirosis in the freshwater events
- A mechanism to collect and collate all the data generated by the gastrointestinal and respiratory PCRs was established using *datamart*
- A daily aggregate of data of all the positives and negatives were generated automatically by *datamart* from the four testing laboratories
- The daily aggregate report was sent to the Microbiology Services Cell, and the cell disseminated the data to other departments
- The data was also included in the daily Microbiology Briefing distributed by the MS Cell at the end of everyday
- Exercises were carried out to test capacity, reporting, communication and resilience arrangements

Four Surveillance Systems were Enhanced or set up for London 2012

EVENT BASED

- Two pronged approach – enhancing existing regional reporting and the use of a newly developed HP Dashboard System
- HPA has a bespoke health case management system called HP Zone. The HP Dashboard was set up as the next stage of reporting, in time for the Olympics, to interrogate HP Zone in real time
- During the Games the Dashboard issued automatic emails for Olympic related events, and was also interrogated by the Event Based Surveillance team at 0900, 1200 and 1500, for Games related cases
- In planning surveillance, remember those parts of the country that had Games related events, however brief. For example, the torch relay, or venues used as training sites

INTERNATIONAL

- Identification and risk assessment of infectious disease events occurring outside the UK that might impact on London 2012

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- Briefing to LOCOG and other key partners about any incidents identified via the HPA Situation Report
- Collection of data about process and outcomes to facilitate evaluation of system used
- Team included HPA, National Travel Health Network and Centre, and the European Centre for Disease Protection and Control
- Planning started two years before the Games with the development of possible operational models
- Models were refined following trialling
- A range of support tools were developed:
 - database for recording events and risk assessments
 - password protected communication platform for team members with establishment of 'backup' contact mechanisms
 - background documents on epidemiology, travel patterns, criteria for London 2012 significance, risk classifications
 - operational protocols for daily routine of meetings and data handling
 - staff were trained and participated in exercises
- Early evaluation/ lessons include
 - value of thorough planning, testing and preparation of support resources
 - one route of information to ensure standardised approach to risk assessment
 - an event does not have to be an actual threat to cause concern
 - media interest
 - tailoring reports for target audience

SYNDROMIC

- Aiming to achieve a strengthened Syndromic surveillance service to:
 - provide early warning of incidents
 - describe the extent and spread of incidents
 - provide reassurance about the lack of impact of incidents
- Existing systems were enhanced, and two new systems developed – an emergency department syndromic surveillance system and an out of hours syndromic surveillance system
- Emergency department syndromic surveillance system was particularly time consuming, with complex agreements, multiple systems and multiple coding
- Early lessons learned include:
 - have a suite of flexible systems able to respond to a range of incidents impacting on a variety of health care providers
 - note limitations of new systems (modelling scenarios)
 - reassurance of *lack of impact of incidents*
 - the games planning is a huge challenge, but also a massive opportunity to enhance existing programmes

POLYCLINIC

- LOCOG provided free medical services and care for athletes, team officials, accredited press and the volunteer workforce
- The polyclinic, within the Olympic Village, hosted primary care, accident and emergency, and sports massage services
- The HPA had a public health expert embedded within the Polyclinic during the Olympic and Paralympic Games periods

- For the first time surveillance for various syndromes (e.g. rash, fever, diarrhoea and vomiting and respiratory symptoms) was undertaken
- Reporting was done by group, i.e. athletes, press, Games family, team officials or workforce. Interpretation of the data was not straightforward:
 - it was forwarded in PDF format
 - covered all venues
 - had no known denominator population or daily movement of people information
- Early lessons include:
 - understand the system from which data is drawn
 - try to get epidemiological input in to the design of data extraction early on
 - try to establish a baseline for data comparison

Themes from Day Two

- Stakeholder engagement
- Consistent messaging and communication, using a single point of contact
- Media interest
- Robust planning (enhancing business as usual), testing and exercising
- Workforce planning
- Consider possible legal changes required to allow new ways of working, or registration of non resident medical practitioners
- Do not leave legacy planning until the end – it is an integral part of the planning
- Establish, and test, early on the ‘daily rhythm’ of briefings, information sharing
- In addition to having systems that tell you when something is happening, also need systems to reassure you that nothing is happening

Wednesday 5 September 2012

Day Three was hosted by NHS London, who presented each session, as outlined below.

The NHS in London – Supporting the 2012 Games

- The NHS:
 - accountable to Parliament through the Secretary of State
 - 5 Primary Care clusters
 - 27 acute hospital trusts
 - 10 mental health trusts
 - 2 community trusts
 - 1,511 GP practices and 5,351 GPs
 - 1 ambulance service
 - approximately 200,000 staff
- NHS responsibilities as detailed in Bid Commitments and Host Contract:
 - ambulance cover at sports venues
 - 3 designated ‘Games Family’ hospitals
 - free healthcare for Games Family
 - NHS volunteers
 - public health surveillance
 - well tested emergency response capability
 - ‘Business as usual’ service levels for local
 - health legacy

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- Planning assumptions based on:
 - demand similar to a mild Winter (traditionally a time of high pressure)
 - increased A&E attendance for substance / alcohol misuse
 - workforce pressures due to volunteering, transition, Summer leave and Ramadan
 - transport disruption for staff, patients and suppliers
 - heightened threat levels over sustained period

Health Services Planning

- Undertook a needs analysis to identify:
 - baseline position
 - impact of the Games on population
 - impact on demand for health services
 - specific Games requirements
 - assess resource gaps
 - a common set of assumptions, across Government
- Business planning is critical to:
 - understand LOCOG requirements via London Ambulance Services, Games-specific hospitals
 - inform general planning across system
 - assess potential costs to meet any gaps
 - inform NHS spend
- Agree contingency plans with key partners e.g. Memo of Understanding with Transport for London and International Liaison Unit
- Ensure Games-time plans reflect the dynamic nature of the programme (day by day)
- Incorporate lessons from Torch Relay and Olympics
- Use and build on tried and tested systems for planning – this ensures that the health care system has a legacy from the Games
- Factor in any contextual changes e.g. change in government
- Ability to be flexible
- Understand your interdependencies, underpinned with an early Stakeholder engagement to ensure integrated planning and delivery

Health Promotion and Signposting

- To minimise the impact of preventable illness and injury on NHS services during the Games
- To ensure a healthy experience for Londoners, spectators and visitors
- Five areas of focus:
 - signposting and public health messaging
 - sexual health
 - alcohol and substance abuse
 - sun safety
 - healthy events
- Build up to the Games offers opportunities to stimulate stakeholder action to reinforce healthy behaviours
- Stakeholders need to be identified and buy-in secured in the early stages of planning
- Understand and plan for limitations working with sponsors e.g. branding restrictions

- Focus public facing health promotion interventions and messaging at Games-time on encouraging behaviours that provide immediate rather than long term health gain
- Ensure signposting messages are targeted and consistent so they do not get lost in the noise
- Health promotion is a key public health theme in mass gathering planning - it can help reduce preventable illness and injury, and reduce the impact on Health Services
- By developing and incorporating health promotion principles into routine planning and licensing processes, the profile of public health in event planning can be raised

NHS Emergency Preparedness

- NHS roles in emergency preparedness, response and resilience:
 - provide a 24-hour a day emergency response
 - coordinate local NHS response including the National Blood Service and NHS Direct (24 hour telephone service providing clinical information, confidential advice and reassurance)
 - coordinate the public health response locally, including health protection
 - maintain links with NHS Direct
 - provide resources to support the local effort using mutual aid either locally or regionally
 - liaise with the DH to support the local effort using mutual aid nationally or internationally
 - liaise with the DH to support response elsewhere regionally, nationally or internationally
 - support screening, epidemiology and long term assessment and management of the effects of an incident
 - maintain a link with the security services
 - ensure arrangements for convening a Science Technical Advice Cell
- Planning, testing and training is essential for success
- Testing and training needs to be from local and regional up to the national response
- Ensures all plans and responses were assured and signed off early

Games Time Coordination Centre

- Establish a daily rhythm:
 - scheduled information flow
 - teleconferences
 - dealing with ad-hoc queries by phone or email
 - briefings prepared and submitted (both internal and external)
 - handovers and debriefings between shift changes
- Planning takes time – if you have a system management role, and others are dependant upon you for guidance, get it out early so that they have adequate time to respond and build their plans robustly
- Lessons:
 - planning takes longer than you think
 - documentation (SOPs etc) important, but training, exercising and testing is critical
 - backup / fallback essential

- Role clarity, but ability to cross cover
- flexibility (staff and processes)
- skill mix
- connection to the event
- Multi disciplinary team approach, ensuring that members of the team in the control room constantly supported by a larger team with broader skills and knowledge areas, giving arrangements resilience, and spreading the workload

Games Time – View from a Designated Hospital

- Planning:
 - two fold: delivery of business as usual, and athlete and team official pathways
 - close working with LOCOG to ensure appropriate and responsive pathways in place
 - engaging with the organisation and clinical staff
 - capacity planning – ensuring ability to flex
 - engagement with the various National Olympic Committees
- Lessons:
 - ensuring single point of contact
 - managing admissions with potentially unknown infectious diseases
 - being prepared for the unexpected
 - admission capacity
 - monitoring and reporting structure
 - keeping the organisation informed
 - repatriation planning

Games Time Communications

- Key considerations:
 - media focus begins with the torch
 - 'minor' incidents can attract increased attention
 - accredited media focus on sport; non-accredited may not
 - far more foreign media than usual
 - foreign media become a priority
 - foreign media may work different hours
 - foreign media may not understand how the NHS works
 - if something happens on the field of play 4bn people could see it
 - social media
- Consider the health issues the media may want to cover, prepare model responses and media train spokespeople
- Work closely with partners – share media enquiries and responses
- Media focus on health provision will be in the run up to the Games: during the Games the focus is on sport

The Approach to Health Legacy

- Health legacy formed part of the Bid Commitments
- The health legacy planning must start early, and be part of everything
- NHS Chief Executive: *“Use the once in a lifetime opportunity for hosting the Games as a catalyst for generating a sustainable increase in physical activity participation and for promoting healthier lifestyles among Londoners up to and beyond 2012”*

Go London

- Outline of the Go London Health Legacy:
 - physical activity for health and wellbeing
 - child health
 - partnerships

YOUR PERSONAL BEST

- National campaign launched January 2012 to encourage people with long term health conditions, aged over 55, to set personal and realistic activity goals
- Key features:
 - website to engage people with long term health conditions, in collaboration with SAGA (a magazine for older people)
 - information for patients and healthcare professionals (posters, leaflets)
 - endorsement by patient groups and healthcare professional organisations from across the UK

MY BEST MOVE

- Tailored approach to help London GPs (and other health professionals) to support patients with long term health conditions to become more active and to make it easier and quicker for them to do so effectively
- Timed to integrate with approaches used by health professionals to:
 - encourage people with long term health conditions to consider their current levels of activity
 - help Londoners to understand the everyday physical activities they can do to improve their quality of life

BRAIN TRAIN

- Used the Games to reinforce messages about benefits of physical activity to mental health.
- Threefold approach:
 - influencing clinical behaviour
 - 60+ clinicians attended academic workshop
 - booklet on benefits of physical activity on alleviating the symptoms of anxiety and depression
 - fitness into Practice session and launch
 - 120 clinicians 5k run in Regent's Park
 - call for good service practice
 - evidence the effectiveness of local exercise programmes since March
 - 12 applications from IAPT services, best 4 receive development grants

East London Regeneration

- Regeneration addresses the wider determinants of health (skills, employment, wages, housing, environment)
- On-going investment in sports and physical activity programmes so that people will use Olympic venues and Olympic Park post-Games
- Cycling and walking on the increase, and better cycling and walking routes as a result of Olympic investment

- ‘Celebrate and Protect’ aims to increase the take-up of childhood vaccinations in the Host Boroughs where it is below 90%, GPs sending birthday cards as a reminder
- Lessons:
 - focus on legacy from the start
 - local people’s lives were disrupted, so they should be rewarded with access to tickets, volunteering and cultural events
 - Games can be a catalyst for regeneration, but regenerating a poor area takes a generation, not seven weeks
 - local and regional government, health providers, sports bodies and private business need to work in partnership for community benefit
 - try to capture the learning as you go along

Sharing the Lessons

HEALTH IMPROVEMENT ACHIEVEMENTS AND NEXT STEPS

- Leveraging the Games to drive health improvement:
 - collaboration with corporate sponsors and diverse range of partners
 - community engagement
 - health leadership to improve outcomes and address inequalities
- Centralise where necessary but localise where possible to enable communities to respond to the challenge of a health legacy in a way that meets their local needs
- Take the opportunity to innovate with corporate sponsors that share your ideals and values
- Encourage your own staff to get involved
- Create a coalition of leadership from all key stakeholders in the health community to harness and embed the potential health legacy and realise the benefits for local communities

WRITING UP OUR LEARNING

- Plan all monitoring, reporting and evaluation well in advance - with workplans, timelines and a budget - people get too busy in the middle of the Games to do this and they will leave for other jobs and duties almost immediately afterwards
- Keep good records
- Very few people will stay throughout the entire process and much of the historical knowledge will be held by very few individuals
- Keeping a good record will help with briefing of new staff, reporting, any external scrutiny or audits, public calls for information under Freedom of Information legislation and also it will help with reporting
- Organisations may be transient you need to archive data somewhere afterwards
- It is complex – lots of different Games-time groups to consider
- Allocate resources, time and people to it

EVALUATING THE 2012 PROGRAMME

- To conduct first external evaluation of the national health services’ role in the Olympic host city in the following areas during the Games time:
 - maintaining business as usual and emergency health services
 - provision of health services to participants and visitors
 - emergency planning arrangements
 - public health protection

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- health promotion
 - health legacy initiatives
- The report will provide recommendations for the planning and delivery of health care and public health interventions at future Olympic and Paralympic Games as well as mass gatherings
- The final report will be available for sharing in May 2013

Themes from Day Three

- Use existing tried and tested systems, and enhance as required
- Start planning early, including engagement of stakeholders
- Test and exercise
- Build some flexibility into planning
- Start legacy planning early – it cannot be done in retrospect
- Ensure staff are connected to the event
- Document as you go along, and factor this in your planning – allocate time

Thursday 6 September 2012

Day Four had two elements – visit to the London Ambulance Service and the Health Legacy Event.

LONDON AMBULANCE SERVICE

The London Ambulance Service provided presentations and tours as outlined below.

The Games Time so Far

- LAS has been able to meet need and deliver on planning so far, and been flexible enough to deal with issues as they have arisen
- Paid as much attention to the general public of London as to the Games athletes and families – there has been no detrimental affect on business as usual
- Remember that planning goes far beyond simply the weeks of the Games
- LAS had paramedics in Games venues; and also extra staff in call taking facilities, such as LAS HQ and the Olympic Event Control Room
- Adopted an approach of using staff from around the country – used 220 staff from ambulance services outside of London for the Olympics, and 106 staff from outside London for the Paralympics
- All Games staff were trained and oriented together, irrespective of which service they came from
- Took part in LOCOG exercising, and there was the opportunity for the ‘Games staff’ to work together during the Queen’s Jubilee celebrations
- Consider special arrangements required for ambulances to use dedicated ‘Games Road Lanes’
- 66 additional ambulances purchased in the run up to the Games. These will replace older vehicles after the Games, scheduled to be decommissioned
- Establishment of Olympic Deployment Centre and Event Control Room
- Limited international assistance, unless an international athlete/ Games family member was unwell

Tour of Olympic Deployment Centre

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- Every ambulance paramedic deployed to a Games venue was deployed from this centre
- Strict processes were in place – using Asset Management System - to ensure the paramedic was on time (neither too early or too late), appropriately dressed, had the right equipment, had a food voucher etc
- Ensure the Asset Management System has redundancies
- At peak, 156 paramedics deployed on one shift
- Lessons:
 - give high consideration to the site of the deployment centre – is it big enough, is there transport for staff, is there parking
 - capacity – how many staff will it need to process at peak
 - new versus old – new centre can be tailor made, but will be more expensive and there will be a longer lead in
 - de-commissioning post Games
 - accept that your planning will not cover everything, so exercise, test and build in flexibility
 - accreditation of staff from LOCOG might not happen till immediately before the Games
 - establish reliable tracking systems
 - look after your staff

Tour of Event Control Room

- Built with the Games in mind and for planned events, such as the Games, Notting Hill carnival, the London Marathon, royal events such as weddings and Jubilee celebrations
- Also hosts St John Ambulance in big events
- Has access to CCTV and traffic cameras across London
- Telephone operators taking emergency ambulance calls
- During Games, additional questions were asked of callers, e.g. which venue, which sporting event
- Mapping system developed which added every Olympic venue (including all nicknames/ aliases), every sporting event (therefore if people did not know where they were, but knew what sport they were watching, the information could be processed)
- Redundancy and back up facilities established
- Specific Games call signs established
- This Event Control Room will not be decommissioned – after the Games, half of the emergency ambulance calls will be processed at LAS HQ, half from this Control Room

Special Assets and Emergency Preparedness

- Tour of Hazardous Area Response Team (HART) facility, including response to CBRN incidents, public order incidents etc
- During the Games, the London Fire Brigade and Metropolitan Police had teams co-located with the HART to provide additional CBRN and major incident response

Themes from Day Four

- Accept that your planning will not cover everything, so exercise, test and build in flexibility
- Plan early

- Collaborative working
- Train and exercise staff as a collective, especially when bringing in staff from services around the country

HEALTH LEGACY EVENT

Hosted by HPA, WHO and University of Washington

- In addition to the health legacy for the UK, as discussed by many agencies this week, this Programme is about a legacy in terms of passing on information to countries who will be hosting events in the future
- Olympic Games tend to be organised in their own bubble, specifically as a relationship between the IOC and the host country
- In any Olympic Games, however, there will be two constants – the IOC will be involved, and someone will get sick
- In planning for any planned mass gathering, the level of complexities and baselines for service relative to the host country need to be considered
- The Observer Programme and the WHO Collaborating Centres provide an excellent mechanism for information sharing regarding mass gatherings

PART TWO - Programme Participant Learnings and Key Issues

Throughout the Programme, and again at the Health Legacy Event, participants were asked what particular learnings they had gained, and what key messages they would be taking home. These are outlined below, as collective learnings and also specific messages from individual countries. The opinions expressed are made in a personal capacity by Programme participants, and do not necessarily reflect the opinion/comment of the national governments from which the participants were sent.

Collective Learnings

What are the most important elements of planning for the health aspects of mass gatherings?

- Level of preparation and planning for the MG
- Communication and team work
- Maintain and develop normal practices
- Learning from legacy and experience
- Testing and exercising and simulation
- Use of modern technology
- Sharing information
- Enhance existing surveillance systems
- Early engagement of existing stakeholders
- Identify points of contact
- National risk assessment and gap analysis
- Develop standard operating procedures and guidelines; define roles/responsibilities
- Establish risk communication plan, including rumour control
- Budgeting; operational plan; and human resource capacity
- Plan legacy from the beginning
- Crisis management centres
- Command and control
- Redundancy, resiliency and flexibility in plans

What are the most important elements of health/public health planning *for your own events*?

- Manage the capacity to deal with more patients
- Assess current capacity and capacity to respond
- Improve quality of EMS and hospital capacity where needed
- Improve training and testing capacities
- Improve collaborations; concern with too much focus on infectious disease and CBRN
- Assess relevance of security concerns in setting that hasn't had terrorist attacks
- Adapt to 'LOCOG' providing health care to Olympic family
- Vector-borne illnesses, especially risk of dengue
- Learn from regeneration efforts in East London
- Responsibilities and role of private sector
- Lead in time for the event – how many years does it take
- Where is the starting point?

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- Need for a good needs analysis and baseline for planning
- Health promotion
- Emergency preparedness and specifics, e.g., SOP, guidelines, legislation
- National blood capacities
- Need for clarity for planning process for temporary measures and those that are sustainable
- Additional budget and cost implications and what money is available
- Back-up plans and capacity strengthening
- Clear understanding of commitments that have been made. e.g. obligations from organising committees
- Communication (public and internal) an important theme across all areas
- Legacy has to be planned

Specific Messages for Individual Countries

Qatar

- Need to develop SOPs and coordination between the various health agencies
- Lots to do in terms of infrastructure planning and risk assessment
- Need to develop a mass gathering plan
- Need to include legacy planning
- Need to invest in ambulance system

Morocco

- Need to work with WHO and CDC on strategies for surveillance

Myanmar

- Need to plan legacy
- Need to do risk assessments
- Concerned about the lack of ambulance service in Myanmar

Iraq

- Need to plan better in terms of exclusion zones around large events – within 10km there is no access for cars, ambulances etc
- Grateful for the WHO's support to this area

Taiwan

- Particularly interested in public health planning
- Have good national health and surveillance systems
- Do not have such good integration between the Health Bureau, Health Protection and Acute Care
- Recognise the need for strong processes and systems

Japan

- Concerned about the extra resources required
- Have good experience from natural disasters, in terms of mass casualties
- Have not done legacy planning to date

Brazil

- Three main areas for their Games planning will be assistance, surveillance with respect to entry points, and surveillance with respect to epidemiology

- Concerned that they have a large number of MG events in a relatively short timeframe – World Youth Day (2-4 mill) 2013, World Cup 2014, Olympics 2016
- Although there are a large number of events, and some of the planning will be transferable, each event has its own context

PART THREE - Brief Analysis of the Observer Programme and Moving Forward

The Programme

The UK Health/ WHO International Mass Gatherings Observer Programme for the London Olympic and Paralympic Games 2012 was the third Observer Programme to be organised by the WHO. The first Programme was held in Vancouver, following the Winter Olympics in 2010; and the second Programme was held in South Africa, following the 2010 FIFA World Cup. This is the largest Programme to date, in terms of presentations and participants.

The aim of the WHO's International Mass Gathering Observer Programme is to facilitate the sharing of knowledge and experience gained in planning for mass gathering events. Organisers of future events will not have to re-invent the wheel each time the planning process is started, and can apply the lessons learned by their counterparts and predecessors to the process of preparing for future mass gathering events.

In addition to learning from the host of the particular Observer Programme, participants are encouraged to share experiences from their own countries, to enhance relations and to build a network of mass gathering planning colleagues.

For the first time, the 2012 Programme also had an external evaluator. Victoria Cornell (Flinders University, Adelaide) attended the four days of the Programme, chronicling the Programme itself (as outlined in Parts One and Two) and analysing the Programme's content, facilitation and organisation; and considering options for future Programmes.

Participant Evaluation

Observer Programme organisation and management takes time. Evaluating the Programme and taking stock, therefore, is an invaluable process. Feedback from both the participants and presenters was sought throughout the Programme. In addition, participants were invited to complete an Evaluation Form, which contained both qualitative and quantitative questions. Fourteen replies were received. The responses to the quantitative questions are shown in the table below; while the qualitative responses have been incorporated in the lists that follow the table.

Question	Response		
Was the length of the Programme...	Too short	About right	Too long
	1	12	1
Were the right agencies represented?	Yes	No	
	13	1	
Was the quantity of information...	Too much	About right	Not enough
	4	9	1

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I will apply the Programme learnings to my responsibilities	Strongly agree	Agree	Strongly disagree
	7	6	1
I will recommend future involvement in the Observer Programme	Strongly agree	Agree	Strongly disagree
	10	3	1

The Programme Agenda - General Participant Feedback

- The professionalism, organisation and hospitality of the Programme was good
- Learning about the planning, including for legacy, was of great interest
- Some of the days the agenda was very full with presentations and there was little time for discussion
- Breaking up the agenda with site visits, such as Day Four, was highly regarded
- Delivery of presentations in plain English and not too fast
- Message sticks with the presentations, and especially the supporting documentation that was talked about, was well received
- More information on doping control, hospitals and the polyclinic
- Discussion of mortality surveillance, as well as disease notification surveillance

External Evaluation

Feedback from the participants of each of the previous Observer Programmes, and indeed of this London 2012 Programme, has been positive. The participants have greatly appreciated the opportunity to hear from others and meet with colleagues from around the world; and are grateful of the support provided by the WHO.

The view from the organisers was also that the Observer Programme had great value, and that it should continue to be offered, where resources allow. Outlined below are some specific comments that relate to the overall running of the Programme and also considerations for future Programmes.

Overall Running of the Programme

- Pre-Programme

Documentation that was developed and distributed to participants, prior to their arrival in London.

It might have been useful to ask participants of specific areas of interest or concern to them. While these concerns could be very wide ranging, and in some instances country specific, it might be worth canvassing the views of potential participants prior to finalising the Programme, to ensure that it meets as many needs as possible.

- The Four Day Programme

It was felt that four days was a suitable length of time for the Programme. Participants had the opportunity to hear from a range of agencies, during that period; and that period of time away from their usual work is probably a feasible request.

However, some of the days were very packed full of information – especially considering English was not the first language of most of the participants. There might have been a benefit of perhaps extending the Programme to a full week, but interspersing the daily agendas with more field visits. While the logistics may be hard, there would have been value – given the fact that the Paralympic Games were underway – to attend one or two ‘real-time’ meetings.

- Context Sensitivity

All of the agencies that presented information were keen to stress that the Olympics are not an emergency; there is a defined start date and end date. The agencies therefore advised that the planning is largely about ensuring ‘your business as usual is working well’, with the ability to escalate. In terms of reassurance, I fully understand the rationale for these statements.

It would be wise for future presenters on Observer Programmes to emphasise further that the learnings they are providing are very context specific; the messages may not be as relevant to the participants. England has well-developed public health arrangements, with effective systems and services. Other countries may be starting from much lower levels, for example, with no ambulance service. In this scenario, business as usual planning will simply not be enough for a major mass gathering event; and therefore a greater emphasis may be required on certain planning activities.

Consideration for Future Programmes

- Assess participants’ special interests in advance and accommodate these during the Programme
- Planning for a successful mass gathering requires collaboration and coordination between departments/ agencies outside of the health sector – something that was mentioned, but not explored during the London Programme. Detailed information on the multidisciplinary nature of the planning would therefore be helpful. For example, in London, the London Ambulance Service had to work closely with the Transport department to develop an arrangement to use ‘Games lanes’ – road lanes dedicated for use by athletes, games families and officials
- Consider the possibility of dividing the group so individuals can spend more time focusing on their area of interest, with the added benefit of reducing impact on the hosts
- Strike a balance between the pre-planning information and also what has actually happened - introduce case studies into the programme, providing practical examples of issues experienced
- More site visits, including mass gathering venues if possible
- More time for group discussions
- More informal social events, to encourage networking and relationship building
- Plan the evaluation sessions well in advance, building them in to the Programme. A brief session at the end of Days Two and Three and an Evaluation Form at the end of Day Four was probably not sufficient to really gain an insight into participants’ thoughts

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- Provision, prior to the Programme, of the host country's governance structures, commonly used acronyms etc
- Presentations from participating countries, not just the host country
- Need to bear in mind that the host country may have very different systems and processes to many of the participating countries
- Provision of more of the host country plans, templates etc, and operating procedures for emergency centres and control rooms
- Possible input from LOCOG?

Topics for Future Programmes

- Communications and media. This was a key area of interest during the Programme and was a theme that ran through many of the presentations, in terms of rumour control, education, opportunity etc
- Interdependencies – almost all the presenters talked of daily teleconferences, email SITREPs etc. What if those systems are unavailable? Some more information of building capacity and back-ups would be useful

Issues for the WHO to Take Forward

- WHO to discuss with the IOC a strategy for the approved (sponsored or unsponsored) supply of health promotion products, such as sunscreen, water, hats etc
- WHO to work with IOC to change the culture of the Games to facilitate information sharing
- To work closely with Brazil, given their high number of upcoming events, to understand how a country can move from one event to another. Is there a transferability of planning (given different contexts), what are the differences, recovery from one event/ leading in to planning for the next, and sustainability

Collaborating Centres and Research

The WHO is in the process of establishing a number of Collaborating Centres (CC) around the world, to develop and disseminate guidance on planning, management, monitoring and evaluation of mass gatherings. This is in line with a WHO Executive Board mandate to advance thinking on mass gatherings and mass gathering research.

The HPA in London is the first official CC for the WHO, with four others currently being finalised – Flinders University (Australia), Institute of Public Health of Vojvodina Novi Sad (Serbia), The Office of the Deputy Minister for Preventive Medicine (Saudi Arabia) and the University of Washington (United States).

Identified during the Programme, were areas of possible research on mass gatherings. These areas of research could be channelled through the WHO Collaborating Centres and are outlined below:

- Focus on vulnerable populations – both resident in areas where mass gatherings are scheduled, and also attending/ participating in mass gatherings
- Reduction of mass gathering 'response' workload, through mitigation
- Research lexicon/ vocabulary to facilitate comparison
- Non traditional and unplanned mass gatherings

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- Assessing workload, flow and outcomes
- How to build more resilient mass gathering events (especially those events that happen year after year)
- Treatment of causation – what kind of mitigation/ health promotion can actually be done, and what is effective?
- How the health system status is challenged during mass gatherings – immediately outside the event (if fenced), and more broadly
- Access and egress from events – both planned, and in evacuation situations. Also considering ‘the last mile’ i.e. the distance between the fence of a mass gathering and the public transport hub, where people may become crushed

List of Acronyms

A&E	Accident and Emergency
CBRN	Chemical, Biological, Radiological, Nuclear
CCMC	Crisis and Consequence Management
CDC	Centers for Disease Control and Prevention
COBR	Cabinet Office Briefing Rooms
DH	UK Department of Health
HPA	Health Protection Agency
IHR	International Health Regulations
IOC	International Olympic Committee
LAS	London Ambulance Service
LOCOG	London Organising Committee of the Olympic and Paralympic Games
MG	Mass Gathering
MS	Microbiology Services
NHS	National Health Service
PCR	Polymerase Chain Reaction
SHA	Strategic Health Authority
SITREP	Situation Report
SOP	Standard Operating Procedure
WHO	World Health Organization