

Commentaries

Public Health at the 1984 Summer Olympics: The Los Angeles County Experience

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Abstract: During the 1984 Summer Olympic Games, the Los Angeles County Department of Health Services used its active disease surveillance system to monitor disease occurrence and other health concerns. Reports were collected by telephone three times a week from 198 participating facilities including hospitals, prepaid

health plans, private physicians, and Olympic sites. Background data were obtained two months preceding the Olympic events. Less illness was recorded during the Olympics than during the same period for the three preceding years. (*Am J Public Health* 1988; 78:686-688.)

Introduction

The 1984 Summer Olympic Games were held in Los Angeles, California. The Olympics, particularly the Summer Games, traditionally attract large crowds and constitute a major event for the selected locale. Despite potential health risks which are likely to impact local communities, little has been written in the literature regarding the role of public health departments during the Olympics.¹⁻⁶

In this paper we discuss the preparations, strategies, and the intensified surveillance system developed for the 1984 Games.

Background

Plans for the Los Angeles Summer Olympics were initiated immediately after the 1980 games in Moscow. The Los Angeles Olympic Organizing Committee (LAOOC), primarily composed of individuals from the private business community, agreed to provide emergency medical services at each venue for the public.

The majority of the events took place in Los Angeles County. Thus, the Los Angeles County Department of Health Services (LACDHS) assumed the primary responsibility for the public's health during the 1984 Summer Olympics.

Public health issues of concern to the LACDHS included disease surveillance and control, and the safety and sanitation of: food (processing and service), drinking water, housing, waste disposal (solid and liquid), swimming pools and other water-sports venues. Other issues considered and planned for, in cooperation with law enforcement agencies, included potential terrorist activity and the circulation of rumors known to accompany large crowd events receiving massive media attention.^{7,8} Terrorist activity considered included the potential poisoning of water supplies with such agents as botulinum toxin, typhoid bacillus, or LSD.⁹

Preparations

Environmental Management

One common area of concern for both environmental management and disease control involved illegal food oper-

ations, particularly those located close to the venues. Meetings with appropriate judicial and law enforcement agencies resulted in the adoption of a policy under which unlicensed food operations could be closed immediately without the usual two-week waiting period for a court order.

Acute Communicable Disease Control

Disease surveillance and control was the responsibility of a centrally located Acute Communicable Disease Control Unit, staffed by physicians, epidemiologists, and public health nurses. Three major activities were selected to provide the most sensitive method of identifying disease incidence during the Olympics: the development of a disease surveillance system (both active and passive), the establishment of a telephone "hotline", and the formation of public health emergency response teams.

Disease Surveillance

Fortunately, Los Angeles County has had an established active disease surveillance system in place since 1981, which has identified disease outbreaks, characterized disease patterns, and described unusual disease occurrence.*

Established active surveillance participants included hospitals, hospital emergency rooms, physicians, university student health centers, and schools. The system was expanded for the "Olympic Period" to include other hospitals. Additional physicians were recommended by Los Angeles consular offices, since it seemed likely that foreign visitors would seek physician referrals from their consulates. By the start of the intensified Olympic active disease surveillance, the total network included 46 hospitals, 90 physician offices, four university student health Centers, 31 preschools, three Olympic Village Polyclinics, and 24 Olympic first aid stations.

Additional staff members were hired to carry out the surveillance activities during the Olympics, and included seven student workers and one secretary. In addition, two permanent staff persons were reassigned to Olympic activities, full-time. Each of the 198 participating sites was contacted three times a week by telephone during the "Olympic period" (one week prior to the opening of the Games and the 16 days of the Games). The 27 LAOOC sites (for emergency medical services and clinics to care for the Olympic Family) reported by telephone through a central "medical command

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post." In an effort to establish baseline reporting patterns for the "new sites," reports were obtained weekly for four weeks prior to the start of the "Olympic period" of active surveillance. A simple uniform reporting form was used by each site (Appendix). Information on notifiable diseases was also taken by telephone and recorded on a Confidential Morbidity Reporting card. In addition, we asked for reports of any unusual disease occurrence.

Telephone Hotline

To facilitate immediate disease reporting, a 24-hours-a-day, 7-days-a-week, telephone "hotline" was installed, and the telephone number published, six weeks prior to the start of the Games, in the Health Department's newsletter for use by the medical community.

Emergency Public Health Response Teams

Emergency public health response teams were established, consisting of a physician, an epidemiologist, and appropriate support staff. Arrangements were made with local law enforcement agencies to facilitate transportation, if necessary, through the County during periods of heavy traffic. Vaccine supplies, including immunoglobulins, were closely monitored to ensure the availability of large quantities, if needed.

Linkage with Other Agencies

The State of California Department of Health Services coordinated efforts to establish a network of active disease surveillance among the four other California counties that had at least one Olympic venue. Fourteen medical epidemiologists from the Centers for Disease Control were assigned to the Olympics and were located at Olympic venues and local active surveillance hospitals.

Results

Data were collected prior to the opening of the Games and for the 16 days of Olympic events. A preliminary analysis of the collected data revealed less illness than expected in all categories. Therefore, data collection was halted at the conclusion of the Games. Fewer cases of respiratory or gastrointestinal illness occurred during the Olympics than during the same period in 1982 or 1983 when the active surveillance system primarily collected data on Los Angeles County residents. Seven to 10 cases of acute gastroenteritis were reported by each site during the 1984 summer Games. Reports of scarlet fever and other streptococcal infections were unchanged from the levels reported since January 1, 1984. Viral exanthems, primarily coxsackie and echovirus, as identified by our public health laboratory, were also reported at expected levels.

One of the most frequently reported health problems was heat-related illness. Five hundred sixteen (516) cases of heat-related illness were reported: 464 from Olympic reporting sites and 52 from other locations.

During the period from July 22 through August 12, approximately 24 per cent ($n = 1,373$) of all reported visits to Olympic polyclinics and first aid stations were for heat-related problems. The largest number of cases was reported from the Los Angeles Coliseum venue where 301 (36 per cent) of 825 reported visits were for heat-related illness. The equestrian event, which received the greatest media attention for heat-related complaints, reported that 46 per cent (total visits = 117) of their total visits were due to the heat.

Individual illness reports received from the Olympic Family were few. Although one case of measles was diagnosed in a visiting child from the Philippines, no secondary

spread appeared to have occurred. Onset of the rash occurred two days after the child's arrival in Los Angeles.

Few reports were received from the telephone "hotline". From July 2 through August 31, less than 10 telephone calls were recorded. Of these calls, three requested information regarding disease patterns in the Los Angeles area, and one caller reported an apparent illegal food stand.

Discussion

One possible explanation for the dearth of literature dealing with medical problems during previous Olympic Games is that few such problems have occurred.^{10,11} Recently, a report covering the 1982 World's Fair in Knoxville, Tennessee documented relatively low rates of medical complaints.¹² In Los Angeles County, disease patterns during the 1984 Summer Olympics also were lower than expected.

Heat-related illness is not usually reported to the active surveillance system, and no baseline data were available for comparison. However, this problem was easily identified. Recommendations to reduce the incidence of heat-related illness included frequent announcements over the loud speakers at the venues urging spectators to drink water and to avoid the sun as much as possible.

Underreporting of disease to both the active and passive reporting systems may have occurred. However, that seems unlikely in view of the active surveillance system's proven sensitivity to changes in illness patterns (outbreaks of measles, rubella, mycoplasma pneumonia, and rotovirus had previously been identified).^{13,14} In addition, reports from other agencies in Los Angeles County reflected fewer visitors to Los Angeles County than expected. Traffic was reported to be lighter than expected and traffic control was more than adequate to deal with the amount of traffic.** Los Angeles County residents had been urged to take their vacations and/or adjust their working hours during the Games to reduce rush hour traffic congestion. Based on traffic patterns and anecdotal reports (including reports from usual active surveillance participants), it is likely that there were fewer residents in Los Angeles during the Games than in past summers.

Our experience has provided some insight into planning for public health requirements for similar events in the future. Planning by the host committee should involve the Health Department at an early stage. Recommendations for ample drinking fountains and other preventive measures might prevent predictable problems for persons susceptible to summer heat in an urban area. Other suggestions for onsite needs include providing well marked first aid stations close to spectator areas at the venues, ease of access to medical care (particularly for handicapped individuals), and provision for inservice training for Olympic medical staff to inform them of public health concerns. In addition, planning should include some provision for monitoring the incidence and type of injuries experienced by the public during such an event. Future Olympic events also may provide an opportunity to document whether crime increases or decreases during such large crowd events.

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**Unpublished data. California Department of Transportation, 1984.

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APPENDIX

Active Disease Surveillance: Olympics

- I. Name of Site Contacted _____
 Type of Site _____ (PMD, Hospital, Kaiser, Olympic Venue)
 Reporting Period (Dates): _____

II.	Age			
	<18	18-55	55	Total Number
Gastrointestinal Illness				
Respiratory Illness				
Heat Related				
Rash Illnesses				
Other				

- III. Total Number of Visits During the Reporting Period _____

New Journal Launched: Animal & Human Health

A new quarterly scientific journal, entitled *Animal & Human Health*, was launched this year, targeted to health care specialists, food-production professionals, and related fields.

Animal & Human Health will address four primary topic areas: animal health, consumer protection, environmental safety, and prevention of zoonoses—diseases such as equine encephalitis that animals can pass to humans.

According to Wyman Guin, publisher of the new journal, the target audience includes the professionals who are ultimately responsible for the prevention, treatment and control of communicable diseases; these scientists are widely dispersed throughout industry, veterinary, husbandry, academic and government practice. The new journal is the first publication of its kind to target this audience on an international level, he said.

For further information, contact Wyman Guin, Publisher, *Animal & Human Health*, 15 W. 44th Street, New York, NY 10036. Tel: 212/921-4824.