

Hot & Thirsty!

Preparing for the Midwest Marathon

A Case Study in Policy Development
Mid-America Regional Public Health Leadership Institute Year 16
Fellows



Margarita's LIMEs (Leaders In Motion Everyday) Team

Margarita Reina, MPH, Mentor – Epidemiologist, Chicago Department of Public Health
Angie Bailey, MSED, CHES – Director of Health Education, Jackson County Health Department
Laurie Call, BA – Coordinator, Center for Community Capacity Development, Illinois Public Health Institute
Shirley Hicks, BS – Executive Director of Administrative Services, Vermillion County Health Department
Laurie Jahn, MPA, LEHP – CQI Specialist, Lake County Health Department
Molly Jo Lamb, MPH, MPA, CHES – Emergency Response Coordinator, Logan County Health Department
Jeri Laureano, MSW - CQI Coordinator, Lake County Health Department
Carrie Storrs, RN, BSN, MPH – TB Nurse Consultant, Illinois Department of Public Health

Abstract

The ultimate triumph for elite athletes and everyday runners alike, the Midwest Marathon has evolved as one of the world's greatest marathons. The Midwest Marathon was a success in its first race and that success continues today. Although excellence best describes this 30 year event, extreme weather conditions and other factors have resulted in difficulty and consequences for runners, sponsors, volunteers, and race officials in some years. This case study will examine the 2007 Midwest Marathon and explore the emerging issues of communication, preparedness, and community partnerships in the context of policy development. Its primary purpose is to consider the potential role(s) of public health in a major event such as a marathon.

Introduction

On October 9, 2007, the Midwest Marathon participants faced various challenges in addition to the 26.2 mile race itself. First, runners experienced a record heat and humidity index of 95 degrees, which was unusual for this time of year. Secondly, although the water and Gatorade supply had been increased to roughly 1.8 million fluid servings, many runners were still left "hot and thirsty." And finally, for participants who had not reached the marathon's halfway point by noon the event was terminated and runners were directed to walk an alternate course without crossing the finish line. As a result of these challenges, over 300 participants were taken by ambulance from the course; more than 50 were hospitalized for heat-related illnesses, and one runner died from medical complications.

This case study will illustrate the importance of various elements of planning the Midwest Marathon including risk communication, contingency plans, establishing community partnerships, and corrective action plans as they relate to policy development.

Background

Inaugurated in September 1977, the Midwest Marathon has grown from a modest beginning with 5,000 participants to a global athletic event attracting 45,000 entrants from 120 countries. The popularity of this race results from its scenic, flat course allowing participants to achieve many personal best and other records. Demonstrating its growth as a destination race, more than 60

percent of the registration comes from outside the state, and the event contributes a whopping \$100 million to the Midwest City economy.

Race registration typically reaches its capacity four months before the actual race day. An increasing number of local, national, and global charities and humanitarian organizations encourage and sponsor participation in the event as a means for fundraising, generating over \$9.5 million on race day. Due to corporate sponsorship, prize money has increased steadily over the years to a level that attracts the most elite runners from all over the world. World class runners compete for a part of the \$750,000 in prize money. Only runners who finish in 6.5 hours or less are given an official time.

Event Planning

The Midwest Marathon is a private event, with no sponsorship by city, county or state government. Planning begins well before each race, with race dates set two years or more in advance. The race planning committee includes the main corporate sponsor, representatives of three large local running clubs, a representative from the chamber of commerce, and coordinators of the following service areas: logistics, timing and results, registration, volunteers, permits and approvals, medical services, spectators, and vendors. Honorary planning committee members include representatives from the mayor's office and the city council.

Historically the Midwest City Department of Public Health (MCDPH) has not had a role in planning the Midwest Marathon. Public entities such as police, public works, and city officials are involved to the extent that approval must be obtained to close streets along the race route and provisions must be made for traffic and crowd control. Cooperation and support from aldermen and councilmen whose jurisdictions include a portion of the course are essential to the success of the race.

Primary responsibility for the event falls to the race director, race planner and race medical director. The race director leads the planning team in all aspects of the race including race logistics; marketing; recruiting sponsors; involvement of charity organizations; fundraising; marketing; volunteer recruitment, training and coordination; and provision of ancillary services such as police, fire and emergency medical services. The current race director has over ten years experience in this role and is highly valued and respected in the running world and in the city.

Under the leadership of the race director, the race planner handles many of the logistics of the Midwest Marathon. Her role includes securing the necessary permits and approvals for the event, the course and the set-up of the aid stations; sponsor and vendor tents; spectator areas; the registration and timing facilities; and contracts with medical services for the aid stations, ambulance services, and vendors providing race supplies. The volunteer coordinator, registration team, timing crew and others submit their plans to the marathon planner, who provides general oversight of their planning activities.

The medical director has an extensive background in emergency medicine and sports medicine. She has performed consulting duties with an international sporting team as well as local universities and high schools. She served as a consulting physician for the Midwest Marathon for six years prior to becoming the medical director in 2007.

The Midwest Marathon, along with others in the World Marathon Majors has a long standing policy of no refunds. Information provided to all entrants upon receipt of their entry included the following:

“Medical staff will be ready to assist you at any time. Mobile intensive care vehicles, water and sports drinks, toilet facilities and communications personnel will be positioned at every Aid Station along the course. The Medical Staff will have the right to withdraw any runners from the Race who appear in distress or at risk should they continue running. In the Finish Area, there will be a fully equipped medical facility staffed by a team of professionals. You MUST provide medical and emergency contact information on the back of your Bib number.”

All entrants must sign a waiver of liability which states 1) the runner assumes the risk of harm, including risk related to weather conditions, and cannot sue the race organization, sponsors, or the city for negligence and 2) the runner warrants that s/he is trained and able to race/walk the course.

Race Day

In anticipation of the record heat, race officials sent a “heat advisory” email to runners the day before the race warning them to stay hydrated, wear sun block, and adjust their pace as necessary. Due in part to the heat advisory approximately 8,720 entrants elected not to run the race. Records indicate that 36,280 runners started the race, 25,534 people finished, and 10,746 runners dropped out voluntarily or were diverted when the race was terminated.

Fifteen rather than the usual five cooling buses were planned at the finish line for runners; the number of drink servings at aid stations was increased to 1.8 million servings; misting areas were added; and extra ice and water-soaked sponges were provided. The number of medical personnel available at the race was increased to 700 and included physicians, podiatrists, nurses, physical therapists, athletic trainers, massage therapists, and emergency medical personnel.

On race day, the heat index reached 95 degrees by 10:00 a.m. Witnesses reported large numbers of runners in heat-related distress with one man reportedly collapsing and dying. In addition to drinking, runners were pouring cups of water over their heads for cooling. The aid station at mile three ran out of liquids and volunteers waved runners on to the next aid station three miles away; runners had to wait in line at other aid stations while volunteers struggled to fill cups to meet the demand. Additional aid stations in the first 14 miles of the course subsequently ran out of fluids.

Each aid station consisted of 13 eight-foot long tables with 10,000 cups of Gatorade and water, a medical area, and portable toilet facilities. Workers were instructed that once their stations were empty, they were to close and tear them down, sweep up the debris, and ready the street to be re-opened to traffic. However, on this day only a fraction of the runners had passed when the aid stations on the first part of the course ran out of drinks. Workers were not aware of any mechanism in place to request or receive additional fluids. Due to the huge number of runners and spectators filling streets and sidewalks, transporting additional drink servings to stations in need during the race was not feasible.

Race and city officials collaborated with the race’s medical director and the decision was made to activate the contingency plan for race termination. At approximately 11:30 a.m., runners who had not yet reached the halfway point were told by police on the ground and in helicopters that

the race had been terminated and were directed to walk an alternate route to the finish line; additional streets were closed to traffic to provide the alternate route. Participants who crossed the halfway point prior to the shut down were advised that the race had been terminated but that they would be allowed to complete the course if they chose. Those runners were encouraged to walk rather than run, but continued to be fully supported along the standard course to the finish line.

At 11:50 a.m. race officials contacted the assistant commissioner for emergency preparedness at the MCDPH and requested assistance. Race officials were seeking additional nurses and other medical personnel to care for persons with heat-related problems. Despite the fact that few MCDPH staff has expertise in assessing and treating heat related illness, the MCDPH made an effort to respond to the request. However, they were unable to locate sufficient appropriate personnel on this holiday weekend and make arrangements for them to be transported to the appropriate locations in time to provide an effective response.

Elite and competitive runners packed extra power gels for nutrition and hydration during the run, and their support teams had plenty of water and sports drinks for hydration and cooling. Most maintained their target pace and finished the race near their goal time and before the race was terminated.

The majority of race entrants were physically fit, experienced runners seeking to accomplish personal goals rather than compete with other runners. In an effort to avoid the crowds, some elected to forgo taking fluids at the early aid stations. As the heat index increased, many felt the effects of heat stress and dehydration and were forced to slow their pace or stop. Congestion from other runners slowing down, and the usual debris that accumulates near aid stations also slowed many runners. Most of the runners in this group were past the halfway point when the race was terminated; they were advised by race workers and police to walk rather than run to the finish line. While many continued to run, their sense of accomplishment in finishing the course was diminished by not receiving an official time, as were the feelings of dissatisfaction and disappointment of both the runners and volunteers at the day's events.

A significant percentage of runners were first time marathoners, some of whom were not well prepared to run in extreme heat. These runners found the race to be far more challenging than they had anticipated; water and aid stations appeared chaotic and crowded, and encountering stations that had run out of fluids was not only shocking but dangerous. The medical staff was overwhelmed by the large numbers of runners experiencing cramps and other heat-related problems, and runners waited up to 30 minutes for medical attention. Additional ambulance services from surrounding areas were called in to meet the increased demand; some drivers did not have maps showing streets closed for the race or the location of nearby hospitals, resulting in delays in ambulances reaching emergency rooms.

Due to the diversion of race participants that had not reached the half-way point when the race was terminated, walkers and runners were approaching the finish line from opposite directions at the same time. Race participants were required to return the identification chips they wore on their ankles, but had difficulty locating and reaching the area to do so. The finish area was not large enough to accommodate all participants and their supporters at the same time, resulting in overcrowding, confusion, and frustration. Despite the fact that there were many tables filled with

water and Gatorade at the finish line, many people fainted or collapsed in that area because they could not see the tables or were unable to reach them.

Spectators were also affected by the extreme heat and humidity. Despite heat advisories broadcast on all local television and radio stations, many spectators were unprepared and required medical attention for heat related illness. Some spectators gave their own bottles of water and other drinks to runners when it became apparent that aid stations had run out. Property owners along the course brought out water and ice from their homes, as well as many offered water from their garden hoses.

In general, medical and emergency services arranged by the race planning committee were available only to race participants and volunteers. While city officials were aware far in advance of the event, there was not a plan in place for providing services to spectators. The ability of emergency responders to reach afflicted spectators was impaired or delayed due to street closures, confusion about the exact location of victims, and difficulty in transporting medical equipment through the crowds. In addition, emergency medical responders were unaware that additional streets had been closed in order to provide an alternate route for participants that were diverted when the race was terminated.

Media coverage of the race and bloggers on running web sites immediately reported the lack of water and other fluids at early aid stations and the general confusion and crowded conditions at the finish line. Race officials were blamed for the conditions and widely criticized for their handling of the situation. In response, the race director granted interviews with the media and maintained that adequate and appropriate planning and response to the extreme weather conditions had occurred, and that there had never been a shortage of fluids.

Policy Implications

Policy development for the Midwest Marathon includes 1) recognition of the importance of establishing and maintaining partnerships with both public and private entities, 2) communication plans, 3) contingency plans covering a variety of potential scenarios, and 4) evaluating the event.

The race director has excelled at increasing the number of partnerships each year with businesses, sponsors, charitable organizations, and government officials. Involvement with the race as a planner, participant, volunteer, vendor, fundraiser, or sponsor is viewed as a prestigious activity.

The race uses the latest technology in communications equipment. Captains at all aid stations have the ability to send and receive communications with the volunteer, medical services, emergency, and logistics coordinators. A state-of-the-art public address system is set up for use during the race for general announcements, starting information, results, and emergency communications.

A contingency plan is in place, and was used to terminate a race for the first time in 2007. The plan includes waivers of responsibility, refund policies, and general conditions under which the race may be cancelled or terminated.

Early planning activities for each year's race include soliciting and reviewing feedback from all coordinators and planning committee members. Analysis of race logistics and finances are the main focuses of this review. A formal, written evaluation and corrective action plan has not been completed in the past.

The director of the Midwest City Department of Public Health (MCDPH) advises the Local Emergency Planning Committee (LEPC) on public health issues and public health emergency preparedness. The membership of the LEPC includes all emergency response agencies in the Midwest City metro area, and is led by the Emergency Management Agency. A 10-year runner of the Midwest Marathon, the MCDPH director proposes that the MCDPH could and should make an important contribution to both pre- and post-race planning, as well as augmenting emergency and medical communication and services during the race. She maintains that the broad knowledge base and the Incident Command structure utilized by MCDPH and LEPC could benefit planning and response for any large event in the metro area.

Closing

The extreme weather conditions resulting in the early termination of the 2007 Midwest Marathon brought to light emerging issues related to policy, communication, corrective action planning, and emergency preparedness. Communication begins in pre-event planning; response to changing conditions and emergencies is dependent on relationships made prior to an event. Public health officials and public health agencies have the ability to provide valuable resources in planning and response for major events such as the Midwest Marathon.

References

- 2007 Key Facts. 2007 LaSalle Bank Chicago Marathon. Retrieved October 23, 2007 from www.chicagomarathon.com
- 2007 Race Notes. Quick Notes. 2007 LaSalle Bank Chicago Marathon. Retrieved October 23, 2007 from www.chicagomarathon.com
- Associated Press (2007, October 24). Medical examiner: No evidence of dehydration in marathon runner who died. Retrieved October 25, 2007 from www.chicagotribune.com/news/local/illinois/chi-ap-il-chicagomarathon-d,0,1707839.story
- Associated Press. (2007, October 24). Officials: Ambulance transporting Chicago marathon runner got lost. *Chicago Tribune*. Retrieved October 25, 2007 from www.chicagotribune.com/news/local/illinois/chi-ap-il-chicagomarathon-a,0,1511228.story
- Chevron Houston Marathon Race Day Cancellation/ Alteration Policy. Nationwide Bath Half Marathon. Retrieved December 20, 2007 from www.runninghigh.co.uk/site.aspx?i=pg148,
- Ferstle, J. (2007, Oct. 7). Runner dies in Chicago. The Chicago Marathon was shut down on Sunday due to heat, but not before one man collapsed and died. Retrieved October 24, 2007 from <http://www.runnersworld.com/article/0,7120,s6-239-365-404-12174-0,00.html>
- Ferstle, J. (2007, Oct. 7). The Challenges of being a race director: Carey Pinkowski talks about the challenges faced by this year's Chicago Marathon and what lies ahead for the future of the race. Retrieved November 8, 2007 from

<http://www.runnersworld.com/article/0,7120,s6-239-365--12167-0,00.html>

History of the Chicago Marathon.. 2007 LaSalle Bank Chicago Marathon. Retrieved

October 22, 2007 from

www.chicagomarathon.com/2002/tier2/info/history.html

Marathon Media Services. 2007 LaSalle Bank Chicago Marathon. Retrieved

October 23, 2007 from www.chicagomarathon.com

Monti, D. (2006, Oct. 20). Chicago Marathon grows in size and stature with LaSalle

Bank onboard. Runners travel far and wide to run through the windy city. Retrieved

November 8, 2007 from <http://www.runnersworld.com/article/0,7120,s6-239-365-->

[10618-0,00.html](http://www.runnersworld.com/article/0,7120,s6-239-365--10618-0,00.html)

Patrick, D. (2007, Oct. 8). Chicago Marathon director defends decision. USA

Today. Retrieved October 23, 2007 from

http://www.usatoday.com/sports/olympics/2007-10-08-chicago-marathon_N.htm?csp=34

Pinkowshi, C. (2007). Message from the Race Director. 2007 LaSalle Bank

Chicago Marathon. Retrieved October 20, 2007 from

www.chicagomarathon.com

Real Buzz. [Main forum list](#), [The Bank Of America Chicago Marathon](#), Class Action

Lawsuit. Retrieved October 20, 2007 from <http://www.realbuzz.com/en->

[us/forum/index?topic=59865&pageID=1996&page=5](http://www.realbuzz.com/en-us/forum/index?topic=59865&pageID=1996&page=5)

Tarm, M. (2007, October 14). Chaotic Chicago marathon raises questions about

whether events are too big, too greedy. *Chicago Tribune*. Retrieved

October 25, 2007 from www.chicagotribune.com

The Chicago Marathon Prepares for Hot Temps: Due to unseasonably warm

temperatures expected for the LaSalle Bank Chicago Marathon on Sunday, race organizers are offering additional resources to runners. Retrieved October 6, 2007, from <http://www.runnersworld.com/article/0,7120,s6-239-365--12159-0,00.html>

Thigpen, D. E. (2008, February). Meltdown: What really happened in Chicago.

Runner's World, 43 (2), 68-74, 106.

Volunteer information. 2007 LaSalle Bank Chicago Marathon. (2007). Retrieved

October 23, 2007 from www.chicagomarathon.com

Trainer's Guide: Still Hot & Thirsty!

1. In the event there is severe or inclement weather, what needs to be done to communicate necessary precautions to runners and spectators? What measures need to be taken prior to or during the race?
2. In future, what is the role of public health in the planning of race events?
3. A public health essential service is to inform, educate, and empower people about health issues. What public information is necessary to most effectively achieve and assure runners, volunteers, and spectators are appropriately informed of the race parameters? How and when should this be communicated?
4. An element of public health emergency preparedness is Crisis Emergency Risk Communication (CERC). How may CERC be integrated into the contingency plan and how might volunteers and race officials be trained on CERC principles?
5. Statewide, the local health departments in Illinois participate in the Illinois Public Health Mutual Aid System (IPHMAS). This is one avenue local health departments may share resources in the event resources, human and material, were exhausted in a particular community. Locally, most communities are aware of emergency partners' resources and have the resources integrated into the Emergency Operations Plan (EOP). As a private event and without public agency involvement, how might the race director plan to mobilize resources in the event of inclement weather resulting in cancellation of the race? Besides public agency involvement, what is necessary to ensure medical supplies and response resources?
6. Nationwide and after 9/11, the proper institutionalization of volunteers is only after they have been identified, credentialed, and trained in order to eliminate spontaneous volunteers. Although the race is planned as a fun but competitive event, the premise of the contingency plan is for utilization and activation in the event of inclement weather, terrorist attack, or mass casualty event. What training is necessary for the volunteer staff of the Midwest Marathon, or other race event to be adequately prepared in emergency situations?
7. Considering local political pressure and its impact on planning and decision-making, what do race planners need to put aside in order to most accurately prepare a successful race? How can race planners foster collaborative leadership in planning a race event?
8. As costs associated with activation of the contingency plan influence policy development, how do jurisdictions plan to recoup the outlays for response agencies in the aftermath of inclement weather, or other causation, that would result in injuries and deaths and thus an influx of hospital visits, ambulance transports, and on-site medical treatment?
9. In what ways could the public health official proactively demonstrated leadership prior to the race to ensure protection and service to the public?