Case study

The most difficult opponent: infectious disease and the Olympic Games

The New Zealand Olympic rowing team took extraordinary precautions to avoid illness while attending the summer Olympic Games in London. Members of the team received instruction in hygiene and were required to follow a set of rules designed to avoid contact with disease-causing organisms while competing in London. Team members met with a hygiene expert from Waikato Hospital before leaving for Europe and were instructed to avoid touching door handles and using hand dryers when possible, and were also provided with hand sanitiser. When not rowing, members of the team spent their time at a bed and breakfast arranged for them to cut down on travel between Olympic sites and their hotel, minimising their exposure to crowds. The team also instituted a quarantine where people newly arrived in England were not permitted access to the team for the first 48 hours after their arrival, in order to reduce the possibility of the Olympic athletes being exposed to illness from another part of the world (Hinton 2012; Alderson 2012).

These disease control practices were instituted based on the team’s experience at the Beijing Olympic Games in 2008. At that time Mahe Drysdale, a favourite to win gold, came down with a viral illness just before the single sculls final. While Drysdale did win the bronze medal despite suffering from vomiting and dehydration, many observers felt his illness could have been avoided if precautions had been taken to reduce contact with potential sources of infection (Casciato 2012). Drysdale’s illness in Beijing was widely covered in the media, attesting to the seriousness of even a minor illness in an Olympic athlete, but the team’s precautions to avoid something similar happening at the London Olympics have been viewed with amusement by the international media as overkill or even paranoia (see, for example, Gelf 2012; Douglas 2012).

The New Zealand rowers’ experience with illness in Beijing and their precautions in London reflect, on a small scale, larger concerns about infectious disease associated with major world sporting events. While serious illness associated with mass events is uncommon (Varon et al. 2003), and there have been no reports of major
outbreaks associated with recent Olympic Games and other events (Hanslik et al. 2001; Hadjichristodoulou et al. 2005), epidemiological surveillance and planning for possible outbreaks is an important aspect of any major world event. These issues are especially important in the context of modern sporting events, like the Olympics, because current technology allows more people than ever before to travel to these events from around the world, potentially spreading disease as they go (Chen & Wilson 2008).

Large groups of people coming together in one location is inherently risky in terms of disease transmission. It is known that the pattern of illness in different parts of the world differs according to climate, living conditions, the time of year, and the presence of a unique range of microorganisms. When people from different places come together, disease transmission may be more likely because individuals may come into contact with illnesses that are not found in the places where they live, and for which they therefore may lack immunity (Abubakar et al. 2012). This is a risk for newcomers to a certain location, such as the New Zealand rowers in London, but also to the residents who may be exposed to exotic illnesses by people visiting their home town (Lau et al. 2012). For this reason, the caution used by the New Zealand team in relation to members’ activities and contacts in London may not be misplaced, especially as they are not simply tourists but are expected to perform at a high physical level during their stay in London.

The risk of illness with the potential to adversely affect an athlete’s performance is well known (Daly & Gustafson 2011). For example, a study by Schwellnus et al. (2012) of players who participated in the 2010 Super 14 Rugby Tournament, which included teams from New Zealand, Australia, and South Africa who travelled between these locations for matches over a 16-week period, found that 72% suffered some kind of illness during the competition. Of these, about 88% were new conditions, while the remaining 12% or so were recurrences of prior illnesses. The most common problems reported were respiratory (colds or flu) followed by gastrointestinal, including diarrhoea and vomiting, similar to that experienced by Mahe Drysdale in Beijing. While the illnesses experienced by players were not serious, annoying or inconvenient symptoms have the potential to negatively affect an athlete’s performance and also interfere with sleeping, eating and enjoyment. Factors that contributed to the illnesses reported by rugby players included the length of the tournament (16 weeks, as compared to 2 to 4 weeks for most sporting events), high-intensity competition and training sessions, long flights and large time differences between game locations, different climatic and environmental conditions at game locales, and close contact between members of the same team for several hours each day, which may have served to facilitate the transmission of disease-causing organisms between individuals (Schwellnus et al. 2012).

While for most of us a minor illness such as a cold or upset stomach is an inconvenience but is generally manageable, an Olympic or other elite athlete who comes down with one of these ailments during a competition is unlikely to be able to perform at his or her best. The stakes for the individual, as well as for his or her team, are
very high, as athletes who perform at this level have generally devoted years to their training and preparation for the event and have had to compete intensively for a place on their country’s team. In addition, performance at the Olympic Games is an important source of national pride, and inability for the athletes to perform at their best may be a devastating psychological blow to everyone involved (see Gould & Maynard 2009). In addition, the economic impact of the modern Olympic Games is extremely significant for the host city and its nation, for National Olympic Committees in countries that participate, and also for athletes themselves as one of the main groups of stakeholders in the event. The 2012 London Olympic Games, for example, were projected to cost over US$19 billion, although the true cost may not be discernible for some time. However, income from tourist spending, ticket sales and indirect sources like advertising (some of which goes to the athletes) may be higher, and may depend to some extent on the presence and performance of the athletes involved (Zimbalist 2011).

Under these circumstances, the concern for hygiene shown by the New Zealand Olympic rowing team, especially after its disappointing experience with illness at the Beijing Olympics, is not surprising. The importance of the Olympics to any nation should not be underestimated, and the effort by numerous individuals that goes into preparing for and participating in the Olympic Games is enormous. For a small nation like New Zealand, the financial, social and psychological costs, as well as the benefit to national pride, are especially meaningful (see New Zealand Olympic Committee 2012). In this light, the hygiene measures and quarantine set up to protect the country’s rowers are a way of protecting a huge investment and its potential returns as well as the health of the individual athletes involved.

REFERENCES


Health as a Social Experience


