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RISK MANAGEMENT IN MAJOR SPORTING EVENTS: A PARTICIPATING NATIONAL OLYMPIC TEAM'S PERSPECTIVE

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This article explores the process of risk management in a major sporting event from the perspective of a participating team. More specifically, the article examines how Norway's national team before and during the 2010 Olympic Winter Games (OWG) in Vancouver (i) identified the risk management issues, and (ii) handled risk strategies. The qualitative case study reported here draws upon documents and interviews with key actors in the Norwegian Top Sports Program (Olympiatoppen) and other important stakeholders for the preparation and implementation of the Vancouver project based on the experiences from 2006 OWG in Turin, Italy. The article utilizes previous research on risk management and strategic management in order to analyze a participating team's preparation and implementation. A framework for dealing with risk management issues experienced by participating teams at sporting events is provided.

Key words: Risk management; Risk issues; Risk strategy; Sporting event; Olympic Games

Introduction

Participating and competing in the Olympic Games is an experience for the very few and may happen just once in a life time. Athletes and coaches work diligently on physical, technical, and mental factors that can add an extra edge to the performance level during these games. However, in any sporting events, from the local competition to mega-events such as the Olympic Games, risk is pervasive, both in the preparation and performance during the event. In the event literature the objective of risk management is to control the impact of unforeseen issues or accidents that take place within a project. Risk management is thus a proactive process (Getz, 2005; Wideman, 1992). It involves, "assessing all possible risks to the events and its stakeholders by strategically anticipating, preventing, minimizing, and planning responses to mitigate those identified risks" (Leopkey & Parent, 2009a, p. 199). This article draws on the work of Leopkey and Parent, but while their work focuses on risk management from the host's perspective, the object of this article is to identify the risk management issues in a large-scale sporting event from the perspective of

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a participating national Olympic team, and analyze how the team handled risk strategies before and during the 2010 OWG.

Risk in sporting events has generally been analyzed from a host's perspective. A key to success is how event managers and others deal with the various risks. Chappelet (2001) stated that "due to its duration, cost and complexity, a major project [or sporting event] is inevitably subject to unforeseen events, to setbacks, and to numerous, major areas of uncertainty that are inevitable because of so many risks that exist" (p. 7). Topics that have been covered on risks include the effects of terrorism (Atkinson & Young, 2002; Giulianotti & Klauser, 2010; Taylor & Toohey, 2006, 2007; Toohey, 2008; Toohey, Taylor, & Choong-Ki Lee, 2003), security (Giulianotti & Klauser, 2010), crowd control (Appenzeller, 2005), security for sporting facilities (Ammon, Southall, & Blair, 2004; Preuss, 2004; Walker & Stotlar, 1997), actual losses associated with the event (Chang & Singh, 1990), incidents (Fuller & Myerscough, 2001), injuries (Fuller & Drawer, 2004), and an overall impact on stakeholders, including risk management issues (Leopkey & Parent, 2009a) and strategies (Leopkey & Parent, 2009b). Even though delegations/participants have been treated as stakeholders in some of these studies (e.g., Fuller & Drawer, 2004; Leopkey & Parent 2009a, 2009b), little research has been carried out on how the participating teams manage risks in events.

The present study represents a down–up perspective on major events, following the preparation and participation of the Norwegian national team in the OWG. Thus, this article adds something to the literature on project management and risk management but it also fills a gap in the literature on elite sport organizations. While there is growing knowledge on how elite sport is organized (Andersen, 2009; Bergsgard, Houlihan, Mangseth, Nødland, & Rommetvedt, 2007; De Bosscher, Bingham, Shibli, van Bottenburg, & de Knop, 2008; De Bosscher, de Knop, van Bottenburg, Shibli, & Bingham, 2009; Green, 2004; Green & Houlihan, 2005; Hong, Wu, & Xiong, 2005; Houlihan, 2009), hardly anything has been written on how these organizations handle their main objective: to succeed in events such as world championships and the Olympic Games.

This study is related to the literature on risk management in sporting events. The point of departure is the recent work of Leopkey and Parent, who have identified the risk management issues (Leopkey & Parent, 2009a) and strategies in a major sporting event (Leopkey & Parent, 2009b). Their concept of strategic management will be used in the analysis. The major contributions of this article are to apply a different perspective to examine risk management in sporting events in which many stakeholders have different views and different concerns (cf. Parent, 2008), and to analyze similarities and differences between participating teams and organizing committees in regard to risk management. In order to do so, risk management needs to be introduced as a backcloth to the present study.

Risk Management and Its Strategies

Risk management was developed as a concept from the 1950s and was initiated in connection with space programs, finances, and nuclear power (Eriksson-Zetterquist, 2010). Another early development of risk management was within the insurance industry, and it was later applied to other disciplines, such as project, clinical/medical, energy, and operational risk management (Hopkin, 2010). Risk management has also been included within sporting events and is today a crucial part of the overall sport program which includes budgeting, scheduling, insurance coverage, eligibility, equipment and facility management, contract, and other duties (Appenzeller, 2005). Risk management is defined by the British Standards Institution (2002) as the, "systematic application of management policies, procedures and practices to the tasks of establishing the context, identifying, analyzing, evaluating, monitoring and communicating risk" (p. 7). A working definition of event risk "is any future incident that will negatively influence the event" (Bowdin, Allen, O'Toole, Harris, & McDonnell, 2006, p. 318). In the event literature the objective of risk management is to control the impact of unforeseen issues or accidents that take place within a project. Leopkey and Parent (2009a) summarized earlier research and identified a number of risk categories in major international sports events and how they involved and affected different stakeholders. They had a host perspective and

stakeholders were actors involved in realizing different aspects of the host role. They identified 15 risk issue categories: environment, financial, human resources, infrastructure, interdependence, legacy, media, operations, organizing, participation, political, relationships, sport, threats, and visibility.

Risk Management Strategies

Strategies have been defined as, "the determination of basic long-term goals and objectives of an enterprise and the adoption of courses of action and the allocation of resources necessary for carrying out these goals" (Chandler, 1962, p. 13). Strategic management is increasingly understood as the main task of top management (Clegg, Kornberger, & Pitsis, 2005). The keys to a good strategy are that it should be identifiable and clear, unique, consistent with the organization's ability and available resources, have manageable levels of risk, and be appropriate (Andrews, 1987). There are two main steps in the building of a strategy: formulation and implementation. "The principal sub-activities of strategy formulation as a logical activity include identifying opportunities and threats in the company's environment and attaching some estimate of risk to the discernible alternatives" (Andrews, 1987, p. 18). Leopkey and Parent (2009b) stated that it is necessary to create strategies or tactics to deal with risk management issues. Based on reviews of previous research (Appenzeller, 2005; Berlonghi, 1990; Getz, 2005; Peterson & Hronek, 2003; Toohey et al., 2003) and their own study of two international sporting events in Canada they presented the various risk strategy categories and their specific subcomponents (Table 1).

Participating Teams in Sporting Events and Risk Management

In order to understand the risk issues and strategies for participating teams it is important to understand something about major sporting events seen from the perspective of a participating team. Many issues may disrupt the preparation and implementation. It may end participation for an athlete and, in the worst case, result in serious injury or even the death of an athlete.

There may be great variations with respect to specific challenges related to locality, climate, infrastructure, culture, etc. For some leaders and coaches, and particularly athletes, it is a new experience. The management of Olympic participation focuses on prevention and handling of negative events but also on opportunities. The challenge is that almost any negative factor may undermine participants' capacity for optimal performance. There are often very small margins between the best athletes. This means that preparation must have a broad perspective and pay attention to small details that in many other settings would be considered insignificant.

Some risk factors may be greatly reduced through good preparations. Practical problems related to logistics and living conditions may be largely controlled. Another kind of risk, illness, can be reduced, but cannot be completely eliminated. If illness occurs, it may not be so easy to manage. Isolation and heightened awareness about such risks can have negative psychological effects. This means that corrective measures may introduce new risks (Hanstad & Engebretsen, 2007). To summarize: an Olympic participation project faces a complex risk situation. Small negative events, and the way they are handled, may greatly impact results. Both preparations and implementation require high quality, among both athletes and leaders. It seems likely that an organization's ability to manage such projects depends on the quality of both everyday development work and the specific preparations for the Olympics.

Hence, the purpose of this article is (i) to identify the risk management issues in a large-scale sporting event from the perspective of a participating national Olympic team (Norway), and (ii) analyze how the team handled risk strategies before and during the event, which was the 2010 Olympic Winter Games (OWG) in Vancouver, Canada. The experiences from the 2006 OWG in Turin, Italy became a focal point for learning and improvement in the preparation phase, and serve as a backcloth for the present investigation.

Method

Setting

The 2010 Olympic winter Games (OWG) were held February 12–28, 2010 in Vancouver, Canada. More than 2,600 athletes representing 82 countries

Table 1
Description of Risk Strategy Categories in Events by Organizing Committee Members and Other Stakeholders

Risk Strategy Categories	Specific Subcomponents
Reduction	Planning, clear organizational goals, training, staffing, controlling, test events, communication, education, facility management, previous experience, accreditation
Avoidance	Research and evaluation, individual event assessments, risk assessment
Reallocation	Transferring risk or responsibility for risk to somebody else
Diffusion	Spreading out of risk, creation of back-ups
Prevention	Rules and regulations, replacement, bans
Legal	Insurance, laws, contracts/agreements
Relationships	Negotiation, cooperation, meeting stakeholder needs, stakeholder engagement, partnerships

Source: Leopkey and Parent (2009b).

participated. The Games were covered by 10,000 media representatives and three billion television viewers worldwide followed the event. In addition to competitions in the host city of Vancouver, other venues were in Richmond and Whistler. The Games were a success. The President of the International Olympic Committee (IOC), Jacques Rogge, said at the closing ceremony that "this extraordinary embrace by the entire city is something unique and has given a great atmosphere for these Games" (British Broadcasting Corporation, 2010). The US had the highest number of medals (37) while the host Canada succeeded with the program "Own the Podium" and won the most gold medals (14) (Barnes, 2010). Norway was number four in the same ranking (9 gold medals and 23 medals in total).

The Norwegian team for the 2010 Vancouver OWG included 99 athletes (25 female, 74 male), participating in 11 sports; 26 of the athletes (9 female, 17 male) competed in the 2006 Turin OWG. One hundred and one officials were accredited by the IOC, a group which included support personnel in the different teams, such as head coaches, trainers, and ski-waxers (67 people), the leader group (3), press attachés (5), coaches (4), administration/transport (2), and the health team (20). In the Norwegian team there were also unaccredited personnel, including members of the health team (6) and chefs (2). Ice-hockey (23 athletes) and cross-country skiing (19 athletes) had the biggest squads. A majority of the athletes and their support personnel stayed in the two Olympic Villages in Whistler Mountains and Vancouver but two teams (alpine skiing and biathlon) were located in private houses rented by the Olympic Top Sports Program (hereafter Olympiatoppen).

Olympiatoppen is the central organization for elite sports within the Norwegian Olympic and Paralympic Committee and Confederation of Sports (NIF), with an overall responsibility for Norwegian elite sports. It is unusual that a national sports organization like Olympiatoppen takes on an overall responsibility for all sport in preparing and implementing Olympic participation. While Olympiatoppen has the responsibility for the Olympic participation project, it involves representatives from many different sports associations as well as the athletes themselves.

Data Collection

The starting point was formal documents for the Norwegian Olympic team from the Turin OWG (Olympiatoppen, 2006) and plans for the same team for the Vancouver OWG, including overall plans (Olympiatoppen, 2008, 2010) and detailed procedures for the health issues (Rønsen, 2010a, 2010b). The main data source was semistructured in-depth interviews with all major stakeholders involved in the planning and implementation of the Norwegian Vancouver project. A stakeholder is "any group or individuals who can affect or is affected by the achievement of the organization's objectives" (Freeman, 1984, p. 46). This is a broad definition that is useful when analyzing which stakeholders may influence a national Olympic team before and during the Games. For example, Leopkey and Parent (2009b) identified these stakeholders: the sport organizations, organizing

committee members, government representatives (municipal, provincial, and federal), security representatives (federal government and organizing committee), media (television and print), delegation representatives, and community members (sponsors and residents). In the current study it was more relevant to look closely at those stakeholders on whom the Olympiatoppen was most dependent in the preparation and implementation of the Vancouver project. This is a narrow view of stakeholders (Mitchell, Agle, & Wood, 1997).

The sampling in this study was followed by the author's knowledge of the people to be seen as key actors in the Olympiatoppen and two national sport federation. In the weeks leading up to the Vancouver Olympics interviews with 16 informants were conducted, covering all major areas of responsibility. These included the head of Olympiatoppen, who was Chef de Mission in the OWG, the heads of Norwegian contingents in different camp sites, head of logistics, press services, medical support, nutrition, psychological support, and coaches responsible for overall coordination, support in different localities, and the athletes. The purpose of these interviews was to identify key opportunities and concerns, measures taken, and related outcomes during the OWG. The duration of the interviews was about 1 hour. This allowed for in-depth discussions about preparations over the preceding 1–2 years, before expectations were colored by what actually happened. Studies of organizational learning show that interpretation of the past is greatly influenced by what happens later, just as learning is shaped by expectations. This is so both in everyday learning and in relation to critical and dramatic events (Weick & Sutcliffe, 2001). After the Olympics two meetings with two groups were organized. Ten of the key informants were present. We discussed how and to what extent the Vancouver projects had succeeded in realizing optimal conditions for performance, and what lessons could be drawn from the project. In addition five individual follow-up interviews were conducted to elaborate on specific situations that occurred during the OWG and how they were handled.

Eleven interviewees had knowledge from the Turin OWG in 2006, which were seen as a failure on the part of Norway. Because the author had a thorough knowledge about Norway's preparation and implementation of the Turin project (Hanstad, 2006) it was possible to have detailed conversations.

The data are representative in the sense that they provide a cognitive map of key elements in the organization's approaches to Norwegian Olympic projects. Almost all informants held key positions in both the Olympiatoppen and in the Vancouver project, and they all had central leadership roles during the Olympics. Cross-country skiing and biathlon are two important sports in Norway and of special interest in this study because they experienced particular problems in the Turin Winter Olympics. Therefore, the heads of sport in these disciplines were included. The interview guide provided a common structure for interviews. Most of them were interviewed about their preparations over the last 1–2 years. The interviews focused on five main topics: their role in the project, preparations and planning, the relation between Olympic participation project and ongoing training and development, critical risk factors in the Olympic competition, and the role of experiences from the Turin Olympics.

Data Analysis

Data were analyzed in a two-step procedure. As data were collected they were systematized through *open coding,* covering different priorities, typical argument, major risks, influence of earlier experience, knowledge sharing, relationships between experiences, and new project team members etc. The next step was *theoretical coding*, linking emerging patterns to conceptual dimensions of learning and risk management, sometimes called axial coding. Theoretical saturation was achieved as new interviews did not introduce new elements that could refine or challenge emerging interpretations and their implications (Charmaz, 2006; Silverman, 2005).

Discussion of the Findings

First of all**,** a short overview of the five generic focus areas for risk reduction found in the data will be presented. This will next be discussed in relation to previous research. Third, health issues will be elaborated upon as one example of how the risk reduction strategies were planned in order to keep the athletes as healthy as possible in order to

optimize performance. Finally, risk managing will be discussed in relation to opportunity.

Risk Issues in the Norwegian Olympic Team

Turin was an important input in planning for the Vancouver OWG, and an overall impression was that the 2006 Turin OWG was a disappointment. Some argued that it was just bad luck and that this is something that is bound to happen from time to time. However, it was also suggested that something in the planning and preparations had failed to meet the strict quality standards required. One of the people in a central position said about the Turin experience:

> Almost everything that could go wrong went wrong. Results did not materialize, illness developed partly because living conditions were not good enough, we had negative press coverage, members of the ski preparation team were involved in fist fights and some athletes were partying. In one sport, there were cooperation problems. However, all negative experiences have been used to improve preparations and relationships between the Olympic Top Sports program and the sport teams. (Research interview, January 8, 2010)

As a result, five generic focus areas for risk reduction for the Vancouver OWG were identified:

- Practical aspects, including living conditions and transport
- Health, including illness, injuries, nutrition, and accidents
- Mental factors, including goal setting process and high expectations
- Coaching and leadership, including collective sentiments and relationships in the whole team
- Media, including access to athletes and media coverage

Some of the elements mentioned above would not ordinarily be considered as part of risk management in sporting events seen from a host's perspective. Nevertheless, the concept may be useful when the perspective is from a participating team. For example, mental factors, such as too optimistic goal setting, were seen as a potential failure that had to be avoided before the Vancouver OWG. Experiences from the Turin OWG had been a focal point for learning and improvement, but such lessons were interpreted in the wider context of experiences from other important competitions and the ongoing development work in between the two Winter Olympics.

The result was a relatively smooth implementation, with some tensions and problems, but not more than can be expected. In terms of medals, the Norwegian team was back on the trend from the early 1990s. From a learning perspective it is important to notice, however, that some of the improvements were already implemented during the Beijing Summer Games in 2008. Below we will discuss how challenges were perceived and dealt with.

Practical Aspects, Including Living Conditions and Transport. In *Turin*, the team was spread over several different locations outside the Olympic Village. However, in the wake of several negative events, including illness among some athletes, the special accommodation came to be viewed as negative factors adding to the misery. In *Vancouver*, risks related to living conditions, food, and hygiene were reduced by simply taking advantage of the facilities in the Olympic Villages. In addition to the usual inspection visits, the Olympiatoppen also had a representative living in the area for 1 year and he later became the Assistant Chef de Mission and head of the Norwegian Olympic Village in Whistler (2007−2008). "This provided a unique opportunity to follow preparations closely. I also served as a liaison for all visiting groups from Norway, including sports directors and coaches" (research interview, January 12, 2010). Good facilities and Olympiatoppen's preparations paid off. According to our informants, there were no negative factors that influenced results.

Health, Including Illness, Injuries, Nutrition, and Accidents. In *Turin* some of the best athletes became ill. In the wake of this, too much focus on illness during the games had negative psychological effects for the whole team (Hanstad & Engebretsen, 2007). There were also problems related to food and nutrition for those located outside the Olympic Village. "In *Vancouver* routines were improved, but the main difference was how they were implemented in the teams. Better access

to teams during general training and preparations and increased attention to athletes with special needs created a different situation. We could also build on positive experiences from the Beijing Olympics in 2008" (research interview, January 6, 2010). Incidents of illness and injuries were at a record low. Routines for handling contingencies were in place (Hanstad, Røsen, Andersen, Steffen, & Engebretsen, 2011). Athletes with signs of illness were isolated. Experts on nutrition had been embedded in team preparations.

Mental Factors, Including Goal Setting Process and High Expectations. In *Turin* overly ambitious public goals were not realized. Failure to reach such goals contributed to uncertainty and pessimism. Before Vancouver there was a conscious policy of preventing leaders, coaches, and athletes from creating high expectations that could add to the pressure that everyone feel in such situations. In each sport processes were implemented to ensure that objectives were realistic. The capacity for support and mental training had been expanded and embedded in the team. The team was prepared for a bad start, to reduce negative psychological effects. "I have been involved in several Olympics to provide mental support. It is clear that disappointing performances from team mates during the first days can have a strong influence on others" (research interview, February 2, 2010). Despite some disappointments during the first days, reports indicate that this did not undermine the team's confidence. "I was sure that the medals would materialize and this was communicated to everyone in the team" (research interview, Chef de Mission, April 22, 2010).

Coaching and Leadership, Collective Sentiments and Relationships in the Team. The role of leaders and coaches in the project organization is to coordinate and support team coaches and athletes. In *Turin* the experience was that roles were not sufficiently clear, practices and communications differed. "One of the coaches from the Olympiatoppen I had never met before we were in Turin. We did not know each other well enough and this complicated cooperation in situations of vital importance" (research interview, January 8, 2010). There was a lack of strong team spirit across sports. Some conflicts did arise. Before *Vancouver*, the development of competences and roles of coaches had been a priority, also as part of the preparation for the 2008 Summer Olympics in Beijing. During the Games this represented new capacities. "Positive personal relationships among coaches and leaders in different sports created a sense of security" (research interview, April 29, 2010). The fact that more athletes were placed in the same location added to the overall team feeling.

Media, Including Access to Athletes and Media Coverage. The relationship between the Norwegian team and the media was subject to an agreement set down in a detailed set of rules. Despite this, in *Turin*, the media were experienced as a serious stress factor. Failure to realize high ambitions appealed to the media format. Illness in the team became a key issue. "Negative news coverage was the first thing that met team members when they opened Norwegian newspapers" (research interview, February 2, 2010). Medical personnel got too much media space. Already in the years preceding *Vancouver*, new routines had been developed for coordinated contacts between media and team representatives and athletes. In addition, athletes were trained to handle the media. During the Games, both journalists (Hanstad & Skille, 2010) and the press attachés (group interview, April 22, 2010) found the collaboration was smoother than expected. However, the athletes still felt the media as a stress factor because of the tendency to exaggerate different events (Kristiansen & Hanstad, 2012; Kristiansen, Hanstad, & Roberts, 2011).

To sum up, compared to the risk issue categories identified by the various stakeholder groups (including delegations/participating teams) in Leopkey and Parent's (2009a) study there are some overlapping categories: infrastructure, media, relationships, human resources ("coaching" in this study), interdependence, and of course sport because this study is about the participating team. The other nine (environment, financial, legacy, operations, organizing, participation, political, relationships, threats, and visibility) are either not relevant or are part of a broader view of planning such a project, according to how the stakeholders are defined in this study (narrow).

Risk Strategies Before and During the Event

As seen from previous studies scholars have used different risk strategy categories. Of special

interest in this study is the recent work by Leopkey and Parent (2009b). Among Leopkey and Parent's group of seven risk strategy categories three were seen as less relevant for the planning process and implementation of the Norwegian Vancouver project. In an Olympic team it is not meaningful to transfer risk or responsibility for risk to somebody else (reallocation) because the team itself has to handle the possible fears. Prevention, seen as the complete elimination of risk (Berlonghi, 1990) is also problematic. In an Olympic team, it is impossible to eliminate all risks if the athletes are to perform at their highest level. You have to travel and live with other people even though there is a risk of infection; in many sports athletes have precamps at altitude even though the risk of illness is higher than preparing at sea level; and as an athlete you have to meet the media even though it is seen as a problematic experience. Regarding legal issues it does not make sense to think of risk management in terms of compensation for an athlete. A skier may sue the organizers of an event after an injury, food poisoning, or a traffic delay but this is poor compensation after 4 years of preparation for what can be a once in a lifetime experience. Therefore, the risk strategy categories that emerged in this study were reduction, avoidance, diffusion and relationships. Table 2 presents the various risk strategy categories and their specific subcomponents.

The interviews and document analysis in this study confirmed the ideas in the work of Leopkey and Parent (2009b) that specific types of strategies are indeed used to deal with specific risk issues. For example, in the Olympic team relationships were a risk category relevant for all risk issues (practical aspects, health, mental factors, coaching/leadership, and media). It was also found that the strategy categories (reduction, avoidance, diffusion, and relationship) were used to deal with different risk issues but none were relevant for all the four issues. For a full breakdown of the relationship between risk issues and risk strategies refer to Table 3.

As noted above the different risk issues were not rated. However, before the Games all 16 interviewees named illness as the biggest risk for the Norwegian Olympic Team. Therefore, in the following analysis of risk management strategy, health, or more precisely illness, will be used as the prime example.

How to Deal With Illness?

It is of paramount importance for the athletes to avoid illnesses and injuries during these critical weeks around the Games. Illnesses and health-related factors were considered to be a major reason for the underperformance of the Norwegian team in Turin (Hanstad, 2006; Hanstad & Engebretsen, 2007). Because of this experience in Turin, the Olympiatoppen had a strategy of reducing illnesses among the athletes in the period leading up to and through the OWG in Vancouver 2010 (Rønsen, 2010a).

Reduction. Olympiatoppen had a clear organizational goal for health in the Vancouver project: Norwegian athletes should have access to the best expertise in sports medicine, sports nutrition, and sports psychology. As a consequence a medical team with the highest level of competence and an optimal composition, including expertise in sports medicine, nutrition, and psychology was selected (staffing). Greater focus on a strategy to reduce illness also reflected the fact that the leader of the healthcare team was a specialist in preventive medicine, while the head of the Turin project was an orthopedic surgeon. The Chief Medical Officer

Table 2
Description of Risk Strategy Categories in the Norwegian Olympic Team

Risk Strategy Categories	Specific Subcomponents
Reduction	Planning, clear organizational goals, training, staffing, controlling, test events, communication, education, previous experience
Avoidance	Research and evaluation, individual event assessments, risk assessment
Diffusion	Spreading out of risk, creation of back-ups
Relationships	Negotiation, cooperation, meeting stakeholder needs, stakeholder engagement, partnerships

Table 3
Relationship Between Risk Issues and Risk Strategies in the Norwegian Olympic Team

	Practical Aspects	Health	Mental Factors	Coaching/ Leadership	Media
Reduction	X	X		X	X
Avoidance		X	X	X	X
Diffusion	X		X		
Relationships	X	X	X	X	X

implemented guidelines through education of the medical team members and carried out information campaigns with all the sport specific teams (Rønsen, 2010b). Based on previous experience of the Turin failure, special considerations relating to living conditions, single room occupancy, and general hygiene, including food safety, were implemented at the precamps and during the Games. In the Olympic Village in Whistler there was a need to clarify some rules and there were some issues related to roles and expectations regarding avoidance of illness but the post-Games interviews confirmed the effective implementation of the routines. One of the staff in the health team said:

> Instant intake of drinks and food right after competitions and training were a success factor. This was good recovery and prevented illness for athletes. The support personnel also provided dry clothes immediately after training and competitions because the immune system is vulnerable at that moment.

In addition, vaccination (e.g., H1N1 and seasonal flu shots) was available for all the athletes. During the autumn of 2009 there was an intense focus on avoiding swine influenza, in Norwegian society and within the Olympic team, which made athletes extra careful. This also included widespread use of anti-infecting hand gels and wipes, and information on illness-preventive measures in the teams. All candidates for the Vancouver Olympic team were screened and athletes with airway problems were followed up (controlling). A system was established for immediate isolation upon early signs and symptoms of infection in a team member (including coaches and support staff). During the games this was put into practice. Both coaches and athletes were moved out of the Olympic village when they became ill or showed signs of illness.

Avoidance. Olympiatoppen provided high-quality expertise on assessment and treatment of illness/injuries, as well as nutritional and psychological issues related to performance. Based on research and evaluation, measures were implemented during the preparation for the Vancouver OWG as well as during the Olympic period to avoid illness, such as screening for asthma and allergies with follow-up of athletes with respiratory problems and use of single room occupancy for illness prone athletes. Individual event assessments consisted of identifying individual needs for the prevention of specific illnesses and injuries—and implementing practical measures to achieve optimal health and performance in each athlete. These procedures continued during the event.

Relationships. The medical personnel worked together with medical teams in each federation (national team) specifically to minimize the occurrence of illness and injury (embedded cooperation). Trust and well-functioning relationships between the health team and sports teams were established. This seems to be a core element in successful preparation and prevention. Before Turin, health staff from the Olympiatoppen included in some of the teams were seen as newcomers or "strangers." They failed to develop the necessary relationships with athletes and trainers. Preparations for Vancouver emphasized better relations between the health team and the performance groups. Doctors, nutritionists, and sports psychologists were to a greater extent included in teams over a minimum period of 16 months. The team most affected by illness in Turin was the cross-country skiing team. Here, Olympiatoppen decided to use the CWO as the chief doctor.

Through closer and more enduring relations to the cross-country skiing team, as well as other

teams, the Olympiatoppen health team could ensure that measures were actually implemented. A new strategy regarding communication relating to illness was also implemented in Vancouver. In Turin, illness in the team was exacerbated by the fact that some of the health personnel were very visible in the media. In meetings with the media, doctors in some sports presented "today's medical bulletin." Before the Vancouver OWG the visibility of health staff was discussed in both the health and press team of the Olympiatoppen. Openness was important, but should be balanced by the need to avoid too much attention on such issues.

Summing up, first risks related to living conditions, food, and hygiene were reduced by simply taking advantage of the facilities in the Olympic Villages. Rather than choosing special and independent locations, this now became the rule rather than the exception. When locations outside the Olympic Village were chosen (biathlon, alpine skiing) the system was quality assured by Olympiatoppen. The illness rate for the Norwegian Olympic Team in Vancouver was 5.1% (5 of 99 athletes) compared with 17.3% (13 out of 75 athletes) in Turin. The average illness rate for all nations in the Vancouver OWG was 7.2% (Hanstad et al., 2011).

Avoiding illness is a crucial strategy in an Olympic team but health is not only seen as an area of risk but also as an area of opportunities. Through interviews and careful reading of documents, both on health issues and other areas, it was clear that preparing for the OWG was about avoiding risk but also a search for winning advantages in relation to other participating nations.

Risk Management Revisited

No activity is risk free and the process of risk management is not intended to reduce levels of risk to zero (Fuller, 2007). Planning for an Olympic participation is actually not only about avoiding risk but incorporating opportunity that is in line with previous research; for example, Olsson (2007), who incorporated risk as being a positive or a negative outcome of uncertainty. Risk management may uncover opportunities (Bowdin et al., 2006). In this study it was found that the people involved in the planning did not use the word "risk." Even though the staff handled what they called fears or threats they were not familiar with the phrase "risk" or "risk management." During a group interview one of the leaders in the Olympiatoppen stated that he found the use of risk management strange:

> We never use the word risk in our work. Risk is something defensive and it gives a wrong impression to what we are doing at Olympiatoppen. In my view our approach is on opportunities to gain advantages over others. Before the Winter Games in Vancouver I never thought about risks. This was about opportunities, opportunities and opportunities. (Research interview, May 11, 2010)

Others in the leader group modified the statement but they supported the idea than Olympiatoppen's planning and preparation was about opportunities. This is in line with Giddens (1999), who related risk to innovation; it is the entrepreneurial risk-taking that has been the driving force behind the globalized economy. In an Olympic team you can avoid risk if, for example, you cut out the high altitude training before the Games because it increases the risk of illness. But at the same time you will lose the ability to increase the number of red blood cells that are considered important in, for example, cross-country. And the athletes cannot be vaccinated against insecurity or eliminate all risks (Eriksson-Zetterquist, 2010). In other words, minimizing risk can miss out on the opportunities associated with risk taking (Besley & Maitreesh, 2005). This is important for a team preparing for an event such as the Olympic Games.

In elite sport competitions there are small margins, and small advantages may be the key to big success. As a result, reliable knowledge is essential to exploit opportunities and manage risks in an Olympic competition. Opportunities and risks can be regarded as positive and negative outcomes of uncertainties. The project literature has paid considerable attention to risks, but less to how opportunities can be exploited (Olsson, 2007). Hopkin (2010) stated that organizations should continue to look for opportunities and, from time to time, acknowledge "that there is a good opportunity that looks very risky" (p. 331). In other words, for an Olympic team that is looking to gain an advantage over other nations, opportunity is as central a theme as risk for the leaders. Details that in many other

settings would be considered insignificant can have a major impact on results.

Conclusion

The purpose of this article was to examine how Norway's national team before and during the 2010 Olympic Winter Games in Vancouver identified the risk management issues and handled risk strategies. The experiences from the 2006 Turin OWG became a focal point for learning and improvement. Risks were identified and measures were taken to prevent negative events.

In this article risk areas were identified. Furthermore, risk strategy categories in a participating national team were reduction, avoidance, diffusion, and relationships seen as fruitful tools to analyze how risk management was handled before and during the OWG. A key factor for effective risk management in all the defined risk issues was good relations. An Olympic team consists of many people, groups, and sport specific teams that are under pressure during such an event.

While Norway did much better in Vancouver than in Turin it was not only due to risk management. Seventy-three athletes (including 23 players in an ice hockey team) out of 99 were newcomers. Nevertheless, some of the most-winning in Vancouver did not succeed in Turin due to failures in the preparation and implementation. As a result, risk management may be considered a contribution to the successful Vancouver OWG.

This study on risk management from the perspective of a participating team could be replicated in other sport event settings, and in different types of sport organizations, to determine the effectiveness of the strategies found in this study. Undoubtedly, Leopkey and Parent's (2009b) framework on risk management strategies can be transmitted to analysis of participating teams but the categories of prevention, legal, and reallocation are categories of less relevance. Contrary to the literature on risk management in sporting events seen from a host or organizing committee's view, the Norwegian national team emphasized the *opportunities* in their preparation even though the management was about how to avoid different risks. The idea that the team saw risks more as a positive (opportunities) than only as negative factor could have some implications for how we study and see risk. It would be of interest if future research on risk management in sporting events from a host perspective could empirically test if opportunity management can give fruitful analysis.

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