FIS Survey on Injury and Illness Prevention Practices, Needs and Responsibilities

Findings from the Coach Perspective

1. Coach Characteristics

Coaches represent 25.1% of the total stakeholders surveyed and bring substantial expertise to the prevention conversation. With a mean of 31.1 years of experience in the sport, this is a group that has witnessed the evolution of snow sports safety first-hand. The coaching cohort was primarily male (83.6%), reflecting broader patterns in coaching demographics across winter sports.

2. What Athletes Target and Do

Injury Prevention Practices

Coaches prioritise prevention efforts for the most prevalent and high-impact injuries:

1. **Knee injuries (92.2%)** — the overwhelming priority, reflecting coaches' acute awareness of this career-threatening injury.
2. **Head injuries and concussions (63.8%)** — a critical focus given the long-term consequences of head trauma.
3. **Spinal injuries (46.6%)** — particularly relevant for coaches working with acrobatic disciplines.

Illness Prevention Practices

Respiratory illnesses (40.5%) and **cardiovascular illnesses (19.8%)** were the main illness prevention targets. However, a significant proportion of coaches (**40.5%**) also reported targeting no specific illness, indicating an area where systematic prevention may be lacking and where additional guidance could make a meaningful difference.

Main Prevention Areas Targeted

Coaches reported high engagement across several prevention domains:

1. **Physical aspects (93.1%)** – nearly universal engagement, underscoring conditioning as a coaching cornerstone.
2. **Mental aspects (78.4%)** – recognition of the psychological dimensions of athlete preparation.

3. **Skill, technical, and tactical aspects (78.4%) –** leveraging sport-specific expertise to reduce risk through better technique.
4. **Education and awareness (72.4%) –** coaches actively sharing knowledge with their athletes.
5. **Load management (62.1%) –** balancing training demands with recovery to prevent overuse and fatigue-related injuries.

Coaches are also highly involved in equipment-related practices, particularly **binding checks (66.4%)**, **ski/board preparation (71.6%)**, and **protectors and helmets (70.7%)**. This hands-on involvement across multiple domains reflects the multifaceted nature of the coaching role in snow sports.

Beliefs and Motivations for Prevention

Coaches overwhelmingly believe in the importance of prevention, with **93.9% reporting that they believe in snow sports prevention**. This conviction translates into action: **nearly half (49.6%) reported performing prevention strategies more than 5–6 days per week**. Notably, coaches' primary motivation is that prevention is their **professional duty**, a contrast with athletes, whose motivation centres on personal health and enjoyment. This distinction matters: coaches see prevention as integral to their professional identity, which can be leveraged when designing coach-focused education and accountability frameworks.

3. Needs for Additional Information and Knowledge

Coaches showed a **high need for additional knowledge (85.5%)**, notably higher than athletes (72.8%), suggesting that coaches recognise the complexity of their role and the evolving nature of prevention science.

Injury Prevention Knowledge Priorities

Knee injuries (65.5%) remained the top priority, followed by **head injuries and concussions (61.2%)** and **spinal injuries (42.2%)**, essential knowledge for coaches guiding athletes in high-risk manoeuvres.

Illness Prevention Knowledge Priorities

Coaches prioritised **respiratory illnesses (41.4%)**, **cardiovascular illnesses (30.2%)**, and **endocrinological illnesses (29.3%)**, reflecting the challenges of maintaining athlete health in demanding training environments and varying climatic conditions.

Broader Prevention Areas Priorities

Mental aspects (67.2%) led as the top priority, followed by **physical aspects and snow surface (both 64.7%)**, and **course design (62.9%)**, a distinctive coach priority reflecting their involvement in assessing and adapting to competition venues.

Coaches also specifically seek more information on the **Return-to-Sport (RTS) process** and **training methods**. This demand highlights their belief that prevention requires detailed, up-to-date, role-specific information, such as RTS guidelines tailored to common snow sport injuries and evidence-based approaches to training and load management.

4. Stakeholder Responsibilities

Coaches perceive themselves as pivotal figures accountable across all stages of prevention. **94.0% reported accountability for implementation**, the highest of any stakeholder group. But coaches also view themselves as key to the upstream phases: **65.5% believe they are responsible for development** of prevention strategies, and **67.2% see themselves as accountable for dissemination**.

This self-perception as "prevention leaders" across the entire cycle presents both an opportunity and a responsibility. Investing in coach education and providing robust, evidence-based resources could have a multiplier effect across the snow sports community.

5. Knowledge Dissemination Preferences

Coaches generally prefer traditional, structured, and interactive learning methods:

1. **Webinars (44.8%)** and **seminars (40.5%)** – direct, interactive content that allows for questions and discussion.
2. **Video podcasts (37.1%)** – visual formats for demonstrating techniques.
3. **E-books (33.6%) and newsletters (33.6%)** – written reference materials for deeper engagement.

The strong preference for seminars and webinars highlights the importance of providing coaches with **role-specific resources that facilitate direct learning and discussion**. This contrasts sharply with athletes, who favoured social media (39.8% vs. 11.2% for coaches). These differences reinforce the need for a **differentiated dissemination strategy**, one that meets coaches in professional learning environments while reaching athletes through their preferred digital channels.