

Safety analysis of sport in Switzerland

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Background and Objective

Every year, around 400 000 Swiss residents are injured in sports accidents so severely that they need medical treatment. 170 people suffer fatal sports accidents in Switzerland. The bfu – Swiss Council for Accident Prevention – is legally mandated to prevent sport injury and to coordinate prevention measures of all players. The bfu presents a safety analysis of sport in Switzerland. The scientific approach is intended to ensure that decision-makers in the sports sector have a basis available for accident prevention planning.

Material and Method

The bfu's business model, in other words a description of how the bfu addresses its remit, is shown in the prevention cycle for accident prevention. (Fig. 1)



Fig. 1 Prevention cycle for accident prevention

Accident research represents the first stage in the prevention cycle. The method used covers the three stages in accident research (Fig 2):

- (1) In the **accident analysis**, the extent of accidents (frequency, severity) is documented and focal points are detected.
- (2) The **risk analysis** weights the accident causes relating to the focal points that are of relevance for accidents in Switzerland.
- (3) The **intervention analysis** evaluates prevention possibilities in terms of their effectiveness, economic feasibility and the degree to which they can be implemented to meet Swiss conditions.

The result of this analysis is a list of prevention recommendations.

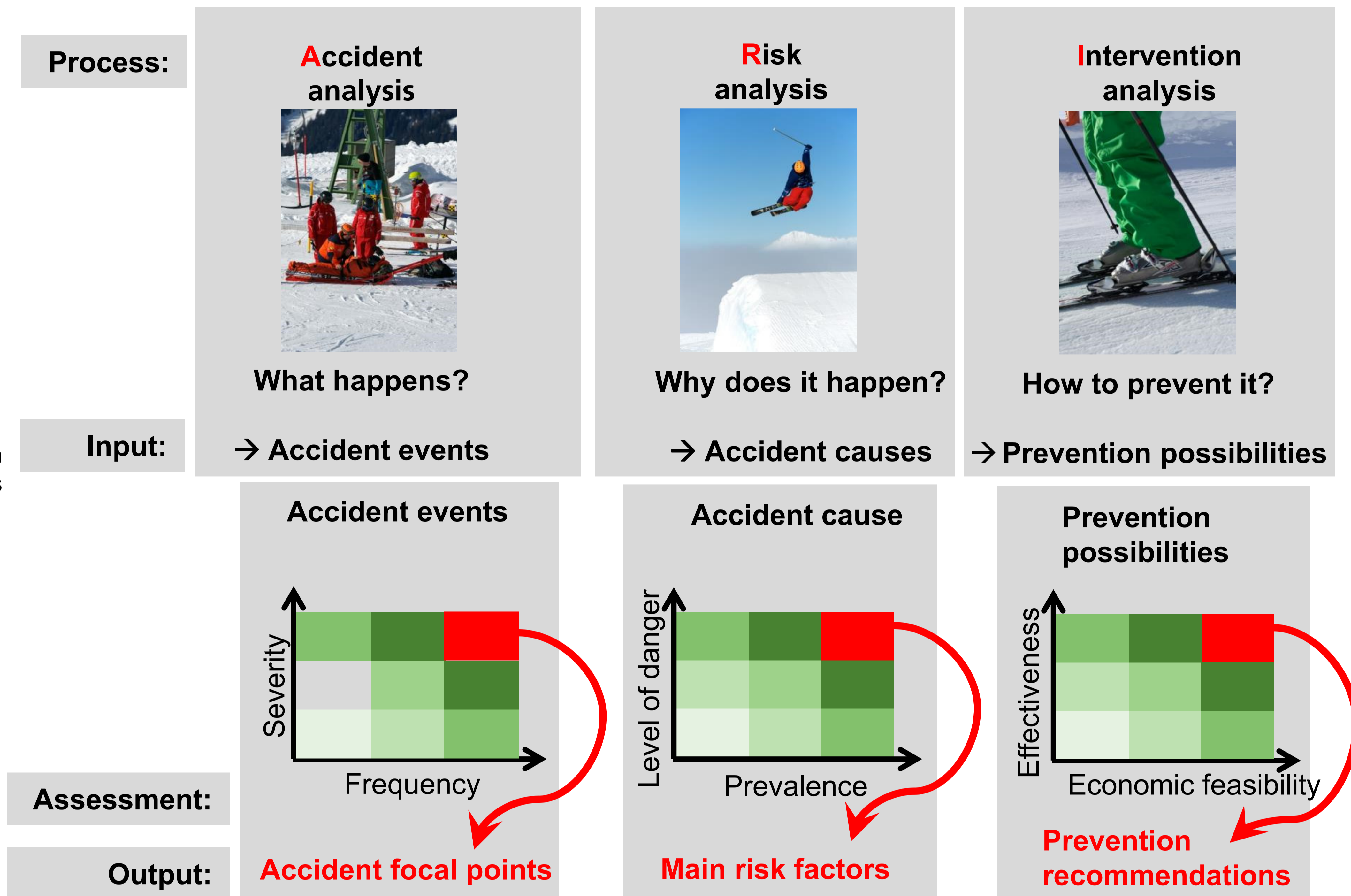


Fig. 2 Accident research comprises 3 part-steps

Results

The analysis of the frequency and severity of injuries in sports shows the **focal points for accidents** in snow sports (skiing, snowboarding and tobogganing), off-road biking, mountain sports (particularly hiking, mountaineering, ski-touring), water sports (drowning in general) and football. These types of sport (groups) form the main areas of activity in sports accident prevention.

The **risk factors** identified in the risk analysis are largely specific to each type of sport. They can be allocated to the individual person (particularly risk competence, physical and physiological preconditions) or the setting and the activity respectively (including sports infrastructure, equipment, natural surroundings, official rules).

The **potential interventions** for reducing the risk of accidents is a conclusive list of prevention recommendations which are also specific in nature to the type of sport. For all accident topics, the prevention recommendations are sub-divided into the five main areas of research, training, advice, communication and cooperation (Fig. 3 Example snow sports).



Fig. 3 Prevention recommendations: Examples for Skiing and Snowboarding

Conclusion

The result of this safety analysis will be the basis for an agenda setting for Switzerland that might enhance sport safety. Evidence-based recommendations for measures are not always possible given the major gaps in research. It was frequently necessary to refer to assessments by bodies of experts.

Reference: Brügger O, et al. (2012). [Safety Dossier «Accident Research – Sport»: Accident, Risk and interventions analysis] (in German with extensive Summary in English, French, Italian). Bern: bfu – Swiss Council for Accident Prevention. online: <http://www.bfu.ch/en/order/everything?k=2.106>

