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**REMOVING MAN-MADE JUMPS FROM SNOW-PARKS
REDUCES THE RISK OF SEVERE SKI-PATROL REPORTED
INJURIES SUSTAINED BY SKIERS AND
SNOWBOARDERS**

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Background Evidence indicates that snow-park (SP) injuries are more severe than injuries on regular slopes. This prompted two major ski areas in the province of Québec, Canada, to remove all man-made jumps from their SPs before the 2007–2008 season.

Objective To determine if removing jumps from SPs reduced the prevalence of severe injuries for skiers and snowboarders.

Methods Subjects were skiers and snowboarders who reported to the ski patrol with a SP injury at two ski areas before (seasons 2000–2001 to 2006–2007) and after (seasons 2007–2008 to 2009–2010) SP jumps were removed, and for all the ski areas with no SP jump removal. Severe injuries were defined based on type of injury or ambulance evacuation. We compared the proportion of severe injuries before and after SP jump removal with trends at the other areas. Logistic regression analysis was used to adjust the pre- and post change comparison for age, sex, skill level, helmet use, and type of activity.

Results At the two hills that removed jumps, the proportion of severe injuries was 19.3% (600 severe SP injuries/3109 all SP injuries) before and 14.5% (63/434) after the change compared with 23.7% (2679/11 324) and 22.1% (921/4173) at other hills. After covariate adjustment, the odds of severe injuries declined at the two areas that removed jumps (adjusted OR (AOR): 0.72; 95% CI 0.54 to 0.97) with no change at other Québec ski areas (AOR 0.98; 95% CI 0.83 to 1.08).

Significance Results suggest that removing man-made jumps from SPs prevents severe injuries.