INTRODUCTION

- Natural hazard events caused worldwide 68’000 deaths/year over the last 10 years [2]
- Switzerland is prone to natural hazards which regularly cause fatalities
- No complete Swiss database

METHODS

- Creation of a new database with all natural hazard processes causing fatalities for 1946-2015 in Switzerland
- Using two existing databases and newspaper search

Source and used years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Swiss destructive avalanche database</th>
<th>Swiss flood and landslide damage database</th>
<th>Newspaper search</th>
</tr>
</thead>
<tbody>
<tr>
<td>1946</td>
<td></td>
<td></td>
<td>&quot;Neue Zürcher Zeitung&quot;</td>
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<td>1972</td>
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<tr>
<td>2002</td>
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<td>2015</td>
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- Selection of keywords and validation with the years 1986-1995
- Our aim: Creation of a data basis for analysis (i) to help authorities to better identify higher risk demographic groups and regions and (ii) to reduce the number of victims
- Not included: victims which exposed themselves to an important danger on purpose (e.g. high risk sports) or leisure time activities, which take place in potential dangerous environment (e.g. canyoning, mountaineering, Alpine touring etc.)

RESULTS

- 635 natural hazard events causing 1023 fatalities
- Avalanches 37%, lightning 16%, flood 12%, windstorm 10%, rockfall 8%, landslide 7%, other processes (ice avalanche, etc.) 9%
- Distinct decrease of natural hazard fatalities over the last 70 years
- Annual mean: 14.6 fatalities, median: 9 fatalities

Figure: Annual frequency of fatalities. Grey lines: 10-year running mean

- Homogeneous distribution
- More fatalities in the Alps compared to the flat Swiss Plateau (northern part of Switzerland)
- More multi-fatality events in the Alps

Figure: Spatial distribution of fatalities

- Highest natural hazard mortality rate in the high alpine parts

CONCLUSIONS

- Significant decrease in yearly natural hazard fatalities
- Mortality rate in Switzerland lower compared to abroad
- Traffic accidents in Switzerland cause 60 times more fatalities than natural hazards