

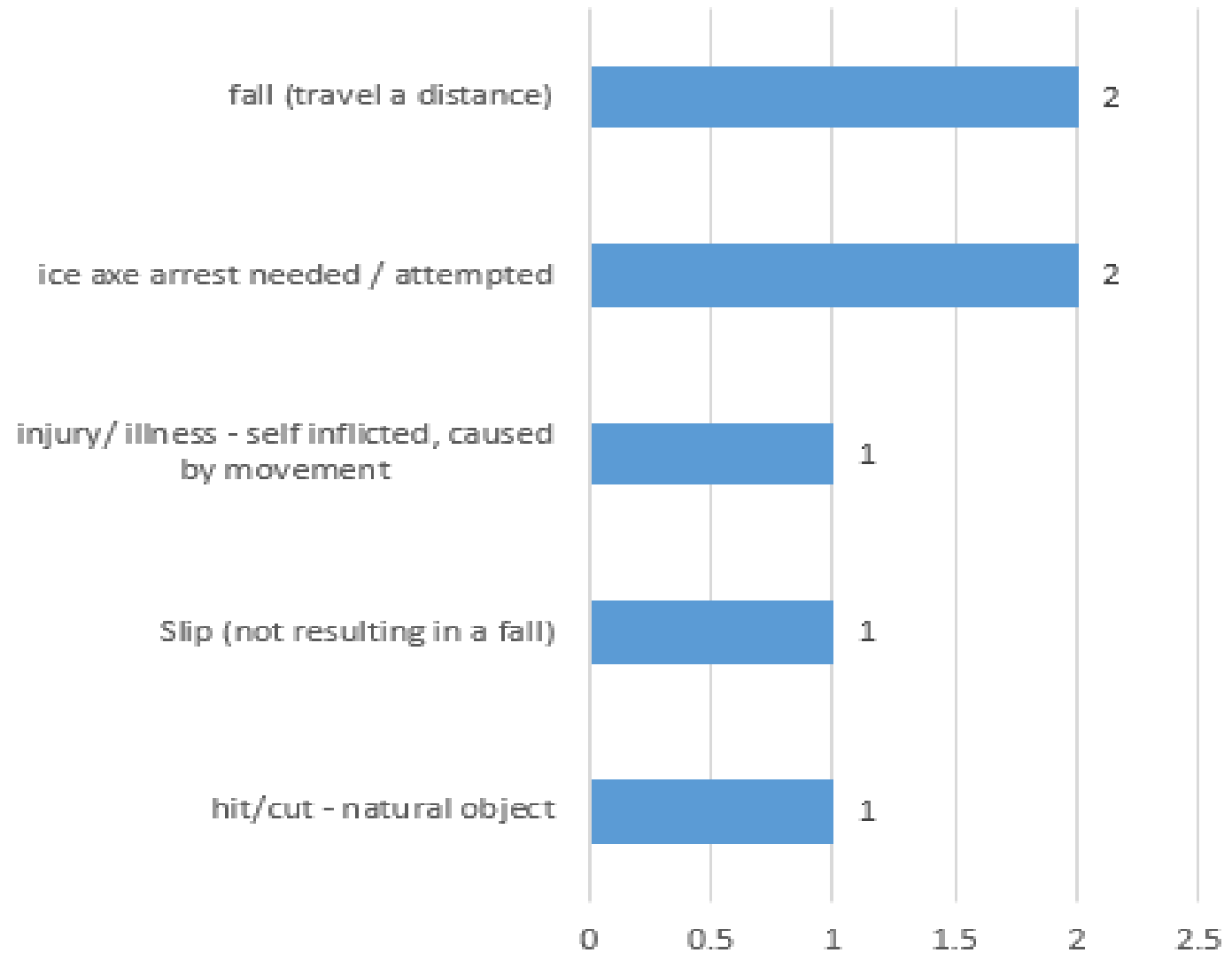
# 2017 Annual Safety Report

Highlights and Lessons Learned

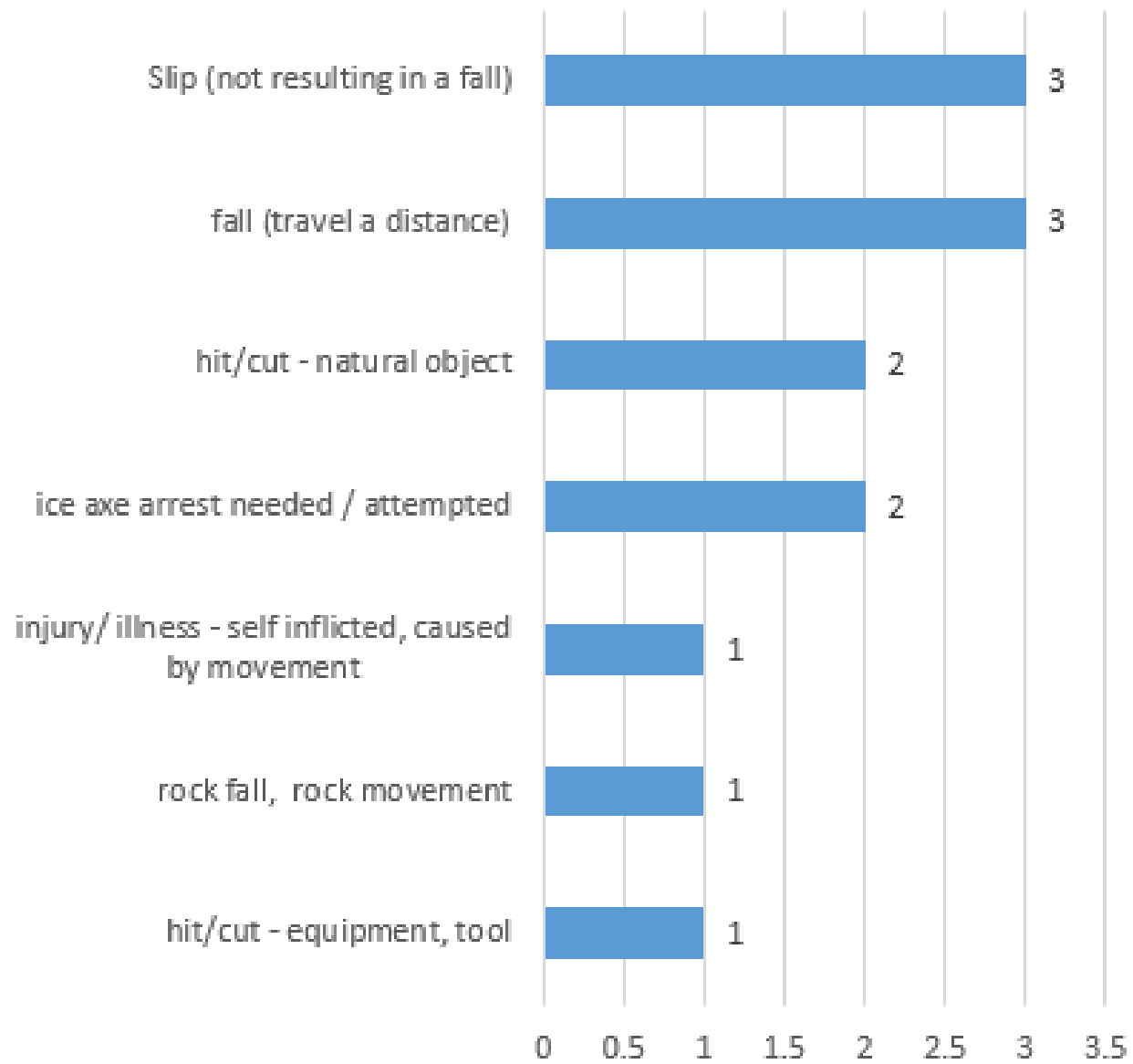
# 2017 Annual Safety Report Highlights

- ▶ 145 incidents reported - an increase of 30 over 2016
- ▶ 1 was a CRITICAL fatality incident
- ▶ 7 were MAJOR incidents
- ▶ 13 were SIGNIFICANT incidents
- ▶ 78 were MINOR incidents
- ▶ 4 reports indicate party assists - Keep this up!
- ▶ 37 reports described NEAR MISSES - Keep this up!

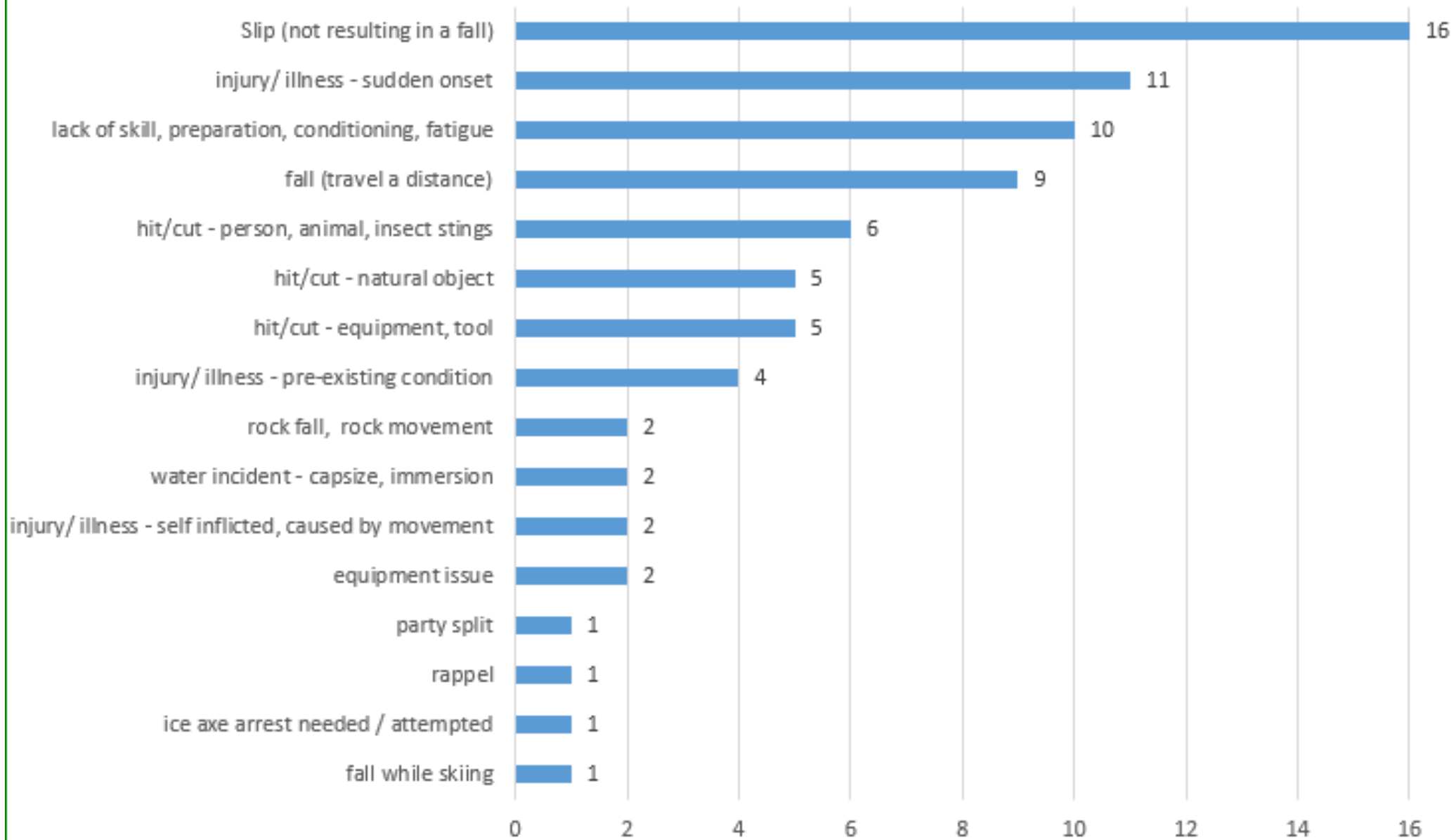
## # of Major Incidents in 2017



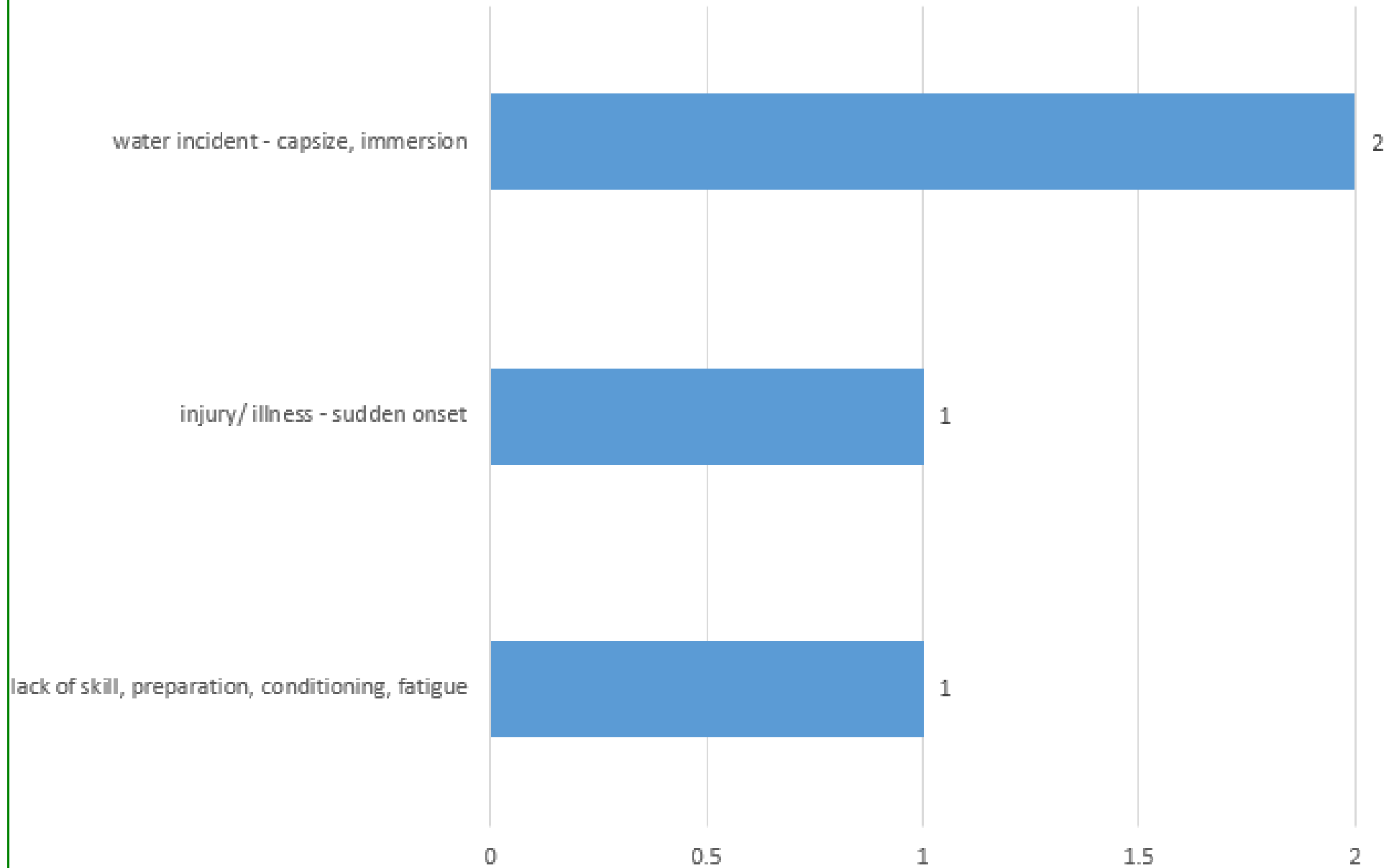
## # of Significant Incidents in 2017



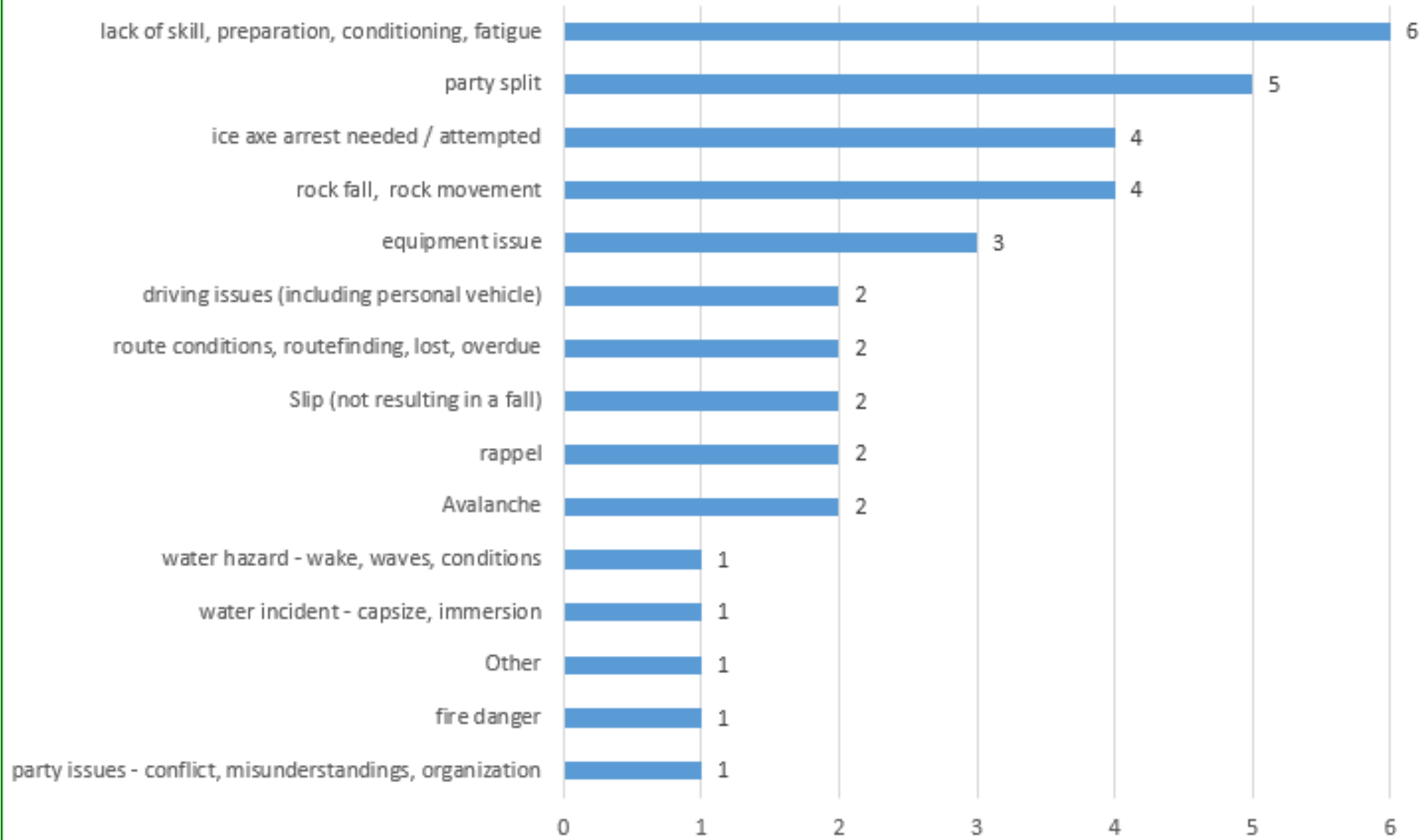
## # of Minor Incidents in 2017



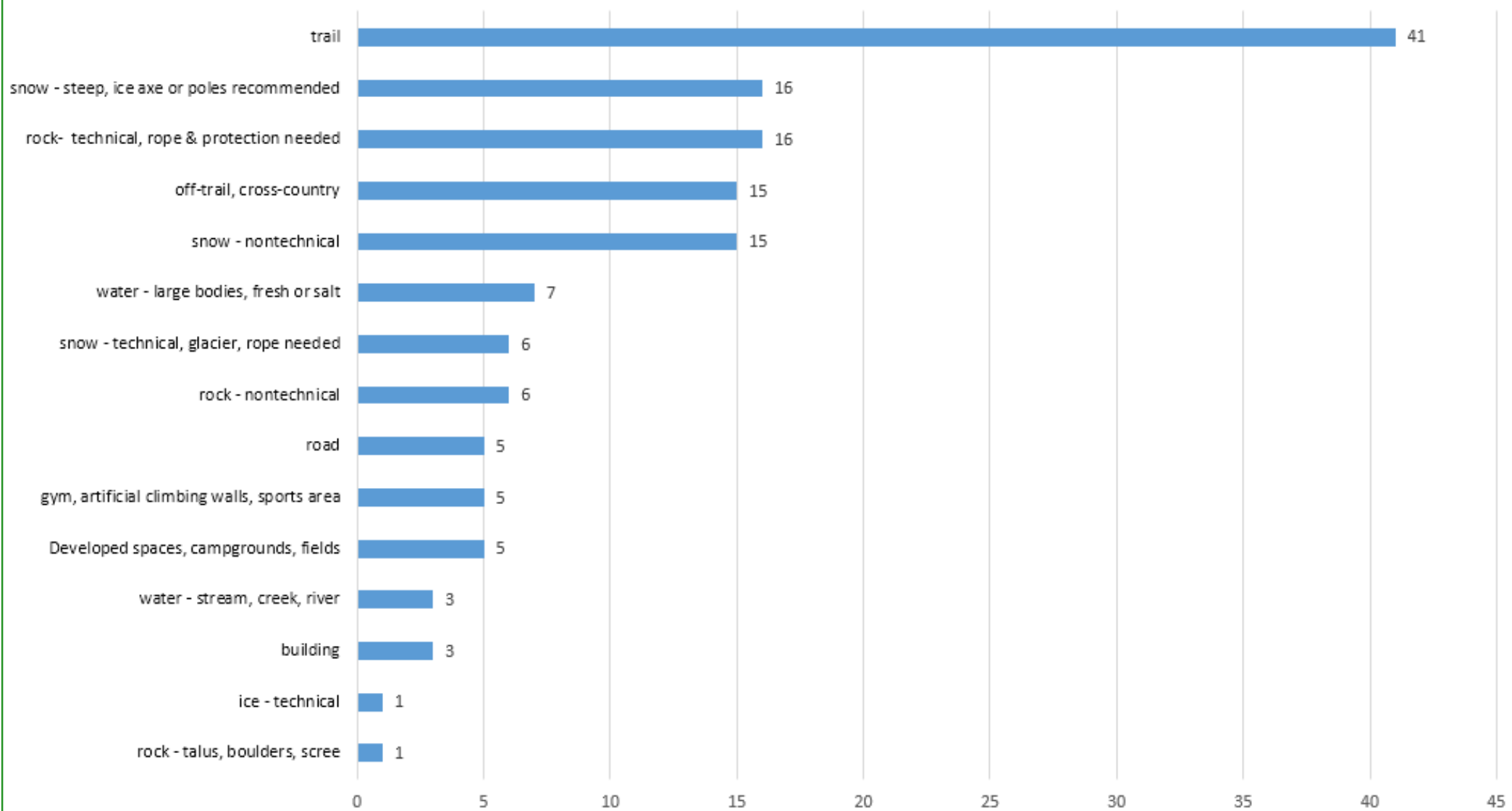
## # of Times Assistance was Provided to Others by Mountaineers Parties in 2017



## # of Near Misses in 2017

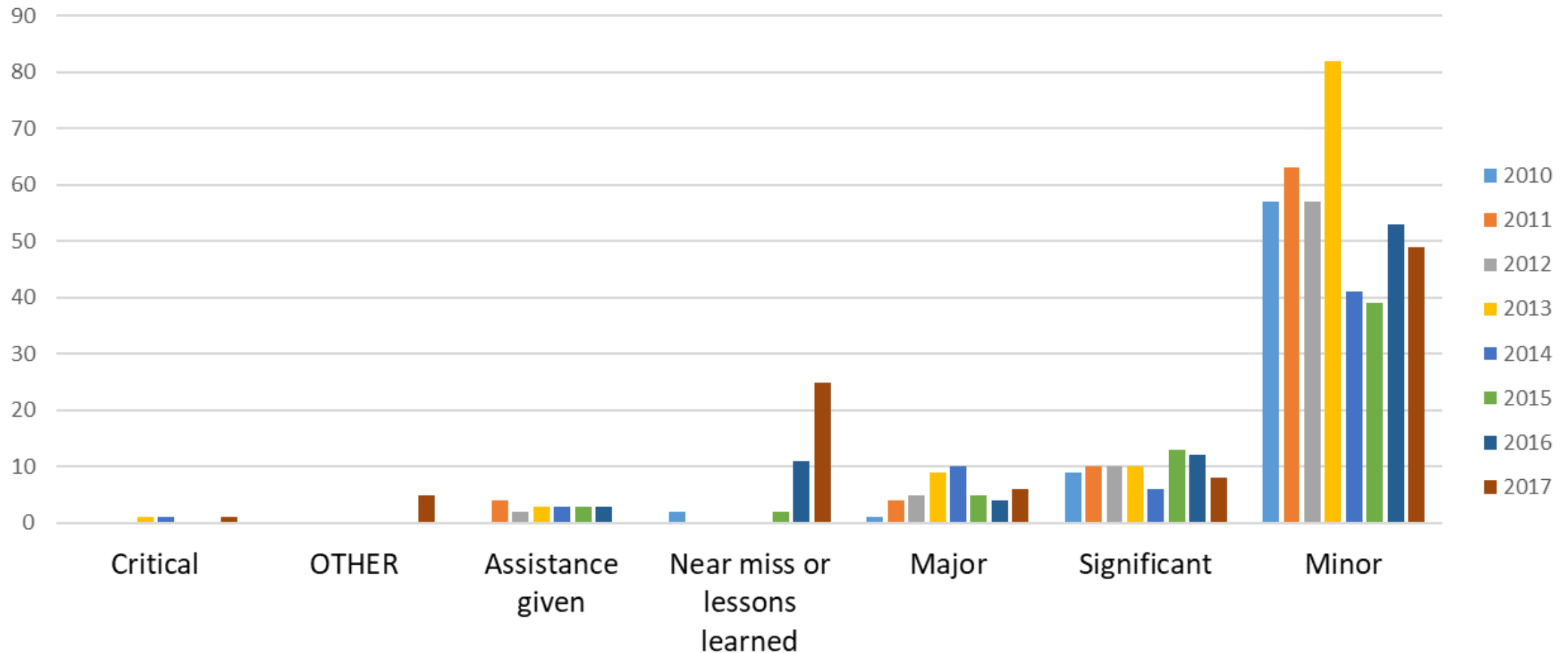


### # of Incidents by Terrain in 2017





**2010-2017 Trips**  
**Comparing # of Incidents Over Time**  
**2010 (left) to 2017 (right) within each incident cluster**



\* Deliberate effort to encourage near miss reporting is apparent. Keep driving this!

# Excerpts and Key Takeaways

Lessons Learned

# Rockfall happens

- ▶ Wear Helmets!
- ▶ Travel wisely - Travel in immediate tight formation or spread out staying clear of fall lines above, and tread carefully when above others
- ▶ Falling rock can ricochet unpredictably
- ▶ Number of close calls due to rockfall is undetermined.
- ▶ Call to action - Report near misses

# Fatigue often underlies accidents

- ▶ Be wary of how fatigue can impact performance. Watch for this among your team. Take proactive steps to mitigate. Be prepared to help others
- ▶ When on technical slopes be mindful and focus on your steps, Be deliberate with ice axe and self belay, Be prepared to catch yourself before you fall
- ▶ It is better not to fall than to assume you can arrest. There is no guarantee of the latter
- ▶ Be honest with yourself, your abilities and your fitness for aggressive trips.
- ▶ Be deliberate with the composition of your team, their conditioning and capabilities affect group safety

# Avalanche

- ▶ Spring avalanche conditions are characterized by solar exposure, higher angle sun, successive above freezing temps
- ▶ Loose Wet Avalanche and Wet Slab Avalanche are the typical problems
  - ▶ Mitigation includes timing, terrain choice, and avoiding peak sun exposure
  - ▶ Good article on this <http://offpistemag.com/spring-avalanche-hazard/>
  - ▶ One minute video <https://youtu.be/HUjH3-HNGR4>
- ▶ Travel within gulley's and other terrain traps should be avoided or minimized when avalanche conditions are suspect
- ▶ The surest indicators of avalanche risk are recent avalanches at similar aspect and elevation
- ▶ Other red flags include - Rain, rollerballs, snow dropping off trees, any rapid warming

# Excerpt from Sloan Peak

## Slip in snowfield, broken ankle, helo evac

- ▶ even relatively minor slips or incidences could result in injuries severe enough to cause a group on a day trip to spend a cold bivouac in deteriorating weather conditions before rescue can occur. Despite the desire to go light", there should always be enough gear and extra food to keep you warm in the worst weather you might encounter. In this case they spent a night on an exposed ridge, in winds during a snow storm, in mid June.
- ▶ the emergency beacon summoned a sheriff's helicopter in only a few hours, though the weather conditions at the bivouac site did not allow for an evacuation. It would have been useful to have a way of communicating with the helicopter or other rescue personnel, for they had no way of knowing the extent of the injuries nor the level of assistance needed.