

Avalanche Rescue in New Zealand



Per capita, as many people die in New Zealand as in France from avalanches.

Your challenge is to be ICAR competent to save more lives. NZ specific perspective of avalanche patient rescue

Dr. Malin Zachau, 2019

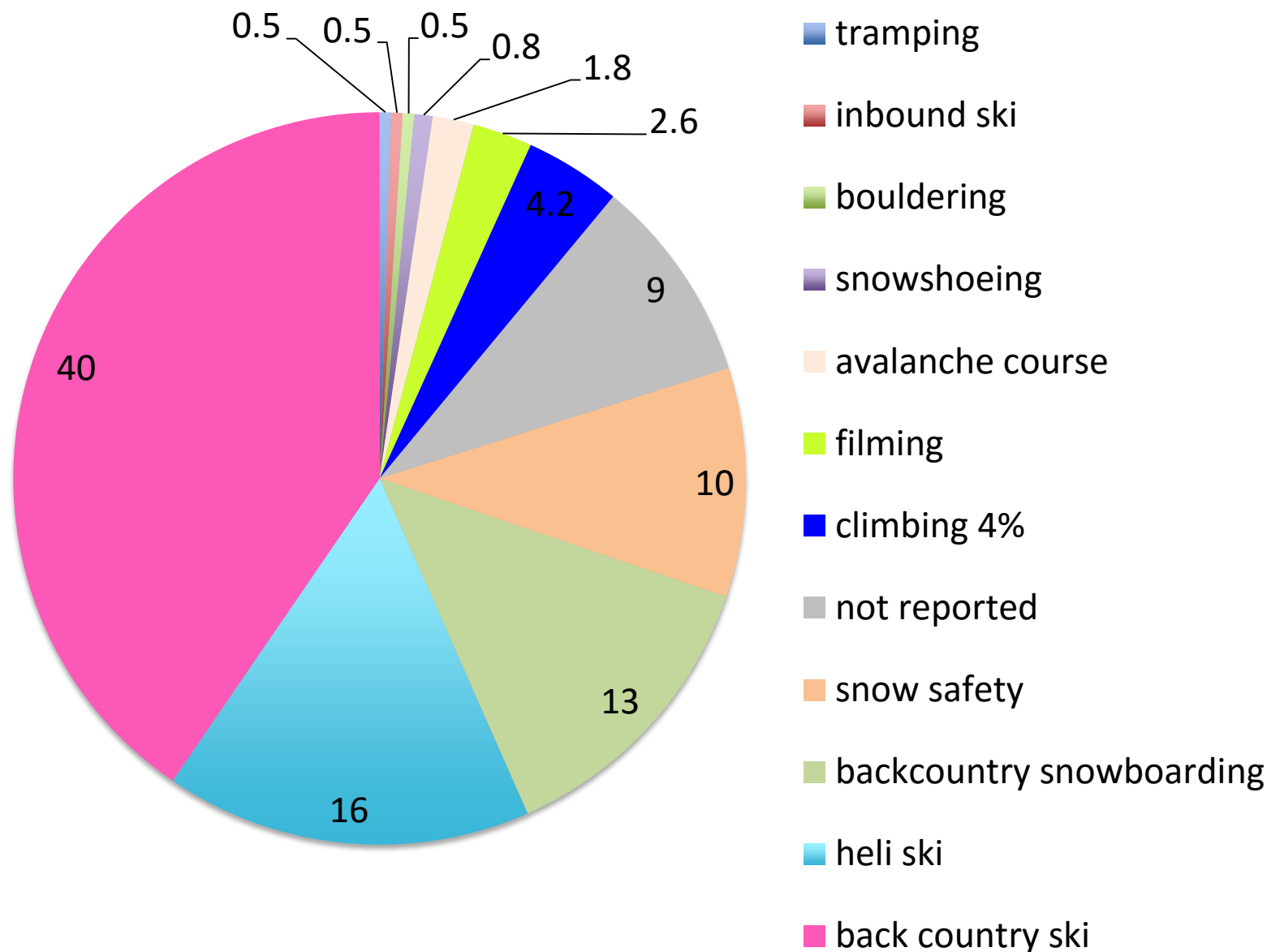


Avalanche fatalities per capita

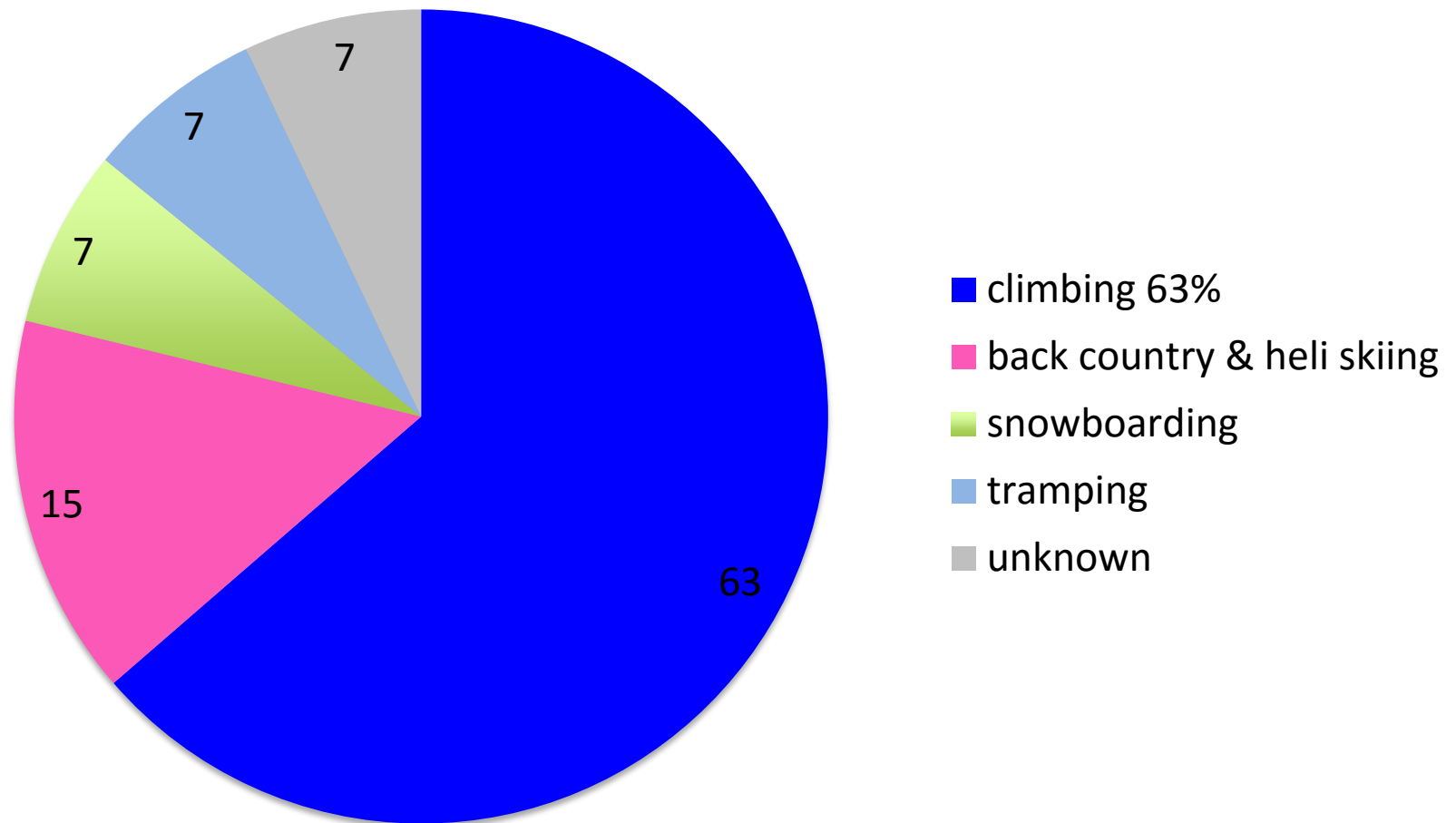
Country	Population (million)	Average annual avalanche fatalities	Rate per capita
New Zealand	4.8	1.5	0.32
France	65	29	0.44
Canada	35	10	0.28
Austria	2.4	8.7	0.27



New Zealand 2004-2017: 377 persons reported involvement in avalanches by activity at the time (%)



New Zealand 2000-2018: 27 avalanche fatalities by activity (%)

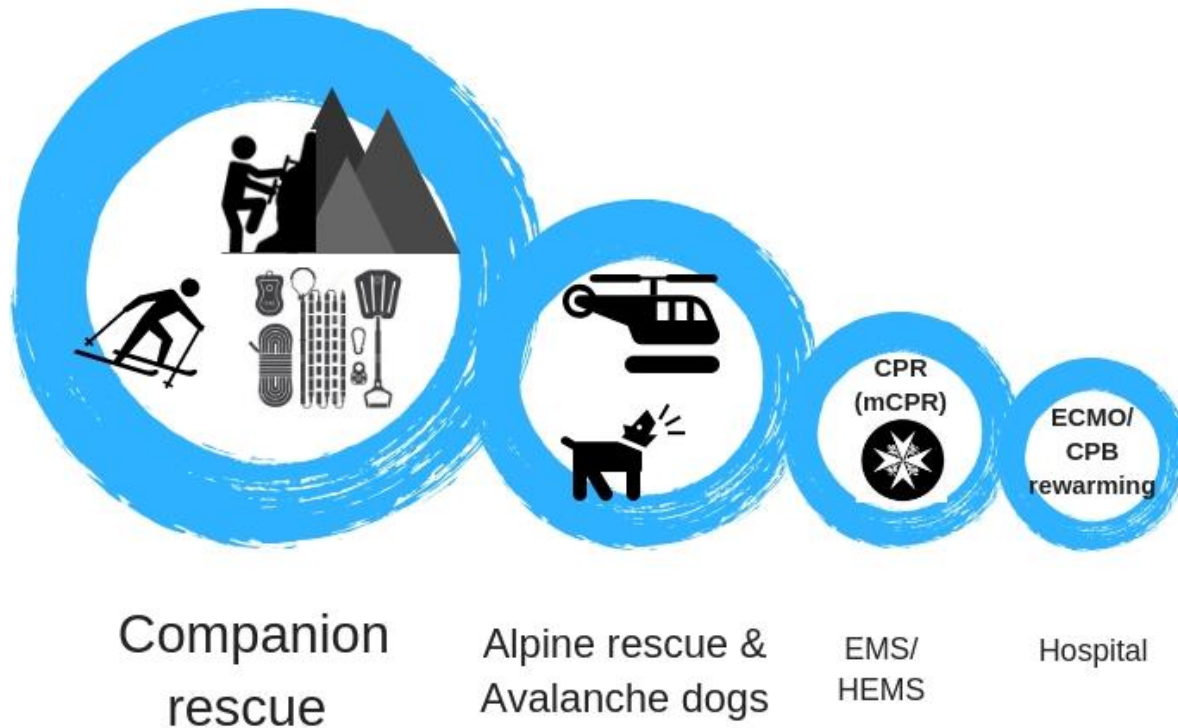


New Zealand 2000-2015: 23 avalanche fatalities by cause of death and activity

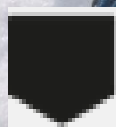
Trauma (39%)	Trauma & asphyxia (22 %)	Asphyxia (26%)	Hypothermia (4%)	Undetermined/ unknown 9(%)
8 climbers	4 climbers	1 climber		2 unknown activity
1 backcountry snowboarder	1 backcountry snowboarder	2 trampers		
		3 heli skiers	1 backcountry skier	



Not all the links are equal in avalanche hypothermic cardiac arrest





 **BlackHawk**

ICAR Patient ID

Time of avalanche % % %

Face exposure % % %

≤ 60 min (≥ 30°C)

☐

Burial Time

≤ 60 min

☐

> 60 min (< 30°C)

☐

If unknown

☐

Use core temp

☐

YES

☐

Vital Signs

☐

NO

☐

FIRST AID

CPR

YES

☐

Vital Signs

☐

NO

☐

FIRST AID

YES or unknown

☐

Airway Patent

☐

NO

☐

Airway Patent

BLS(Provider(

report

Air Pocket

on reverse side

ALS(Provider(

YES

☐

Obvious lethal Trauma or body totally frozen

☐

NO

☐

STOP

ALS

YES

☐

ECG Asystole

☐

NO or unknown

☐

ALS

NO

☐

Airways Patent

☐

YES or unknown

☐

STOP

ALS

< 30°C or unknown

☐

Core Temp at extrication

☐

≥ 30°C

☐

ALS

NO

☐

Long transport or multiple casualties

☐

YES

☐

ALS

Follow standard ALS guidelines

☐

STOP for appropriate medical facility

≤ 8 mmolL⁻¹

☐

Serum potassium

☐

> 8 mmolL⁻¹

☐

ALS

STOP

ECLS FACILITY

Follow standard ALS guidelines

☐

STOP for appropriate medical facility

ALS(Provider(Name:(

Resuscitation 129 (2018) e10–e11



Contents lists available at [ScienceDirect](#)

Resuscitation

journal homepage: www.elsevier.com/locate/resuscitation

Letter to the Editor

Normothermic and hypothermic cardiac arrest—Beware of Jekyll and Hyde



urg-admin.ch/hope/



END

- Climate change (permafrost gone)& increased participation
- High potential for MCI (many groups involved)
- Mountain doesn't care, (trauma)
- avalanche doesn't care,(asphyxia)
- now is your chance to deliver best possible ICAR care!
- CARE 2018 SARex findings to be presented at SHAC 219
- ICAR links in chain: brief overview what to expect
- 1 every 150 years- maybe this year?
- First time ever likely to get patients in hypothermic cardiac arrest in view of St John CPG changes –if they have started, continue!
- 12% (hypothermic) avalanche cardiac arrest (Brugger video) as good as OHCA in London
- Trauma & trauma induced hypothermia