Background Injuries from all-terrain vehicles (ATV) often result in head injuries with substantial risk of death and disability. Despite these risks, helmet use is less than 50%.

Objective To identify barriers to helmet use in ATV users.

Methods Moderator guides were framed using the health belief model of behaviour change. Focus groups were conducted with adolescent and adult ATV users to discuss ATV use. Transcript-based analysis was used, and data was managed using HyperRESEARCH(2.8.3). The transcribed data was coded to identify important themes.

Results 11 focus groups were conducted with 58 participants, who discussed use patterns, current safety practices, and barriers to using helmets. Preliminary themes were a lack of perceived risk of ATV injury and underestimation of likely injury severity. Less frequently, barriers included helmet discomfort, cost, and inconvenience. Suggested solutions were helmet laws for riders <18 years old, helmet redesign, and development of visual aids/crash simulations to convey dangers of ATV use.

Conclusions Our study identifies risk misperception among ATV riders. Injury prevention should focus on education regarding risks of unsafe ATV behaviours and the danger of the vehicles themselves. Once risks are better understood by users, other interventions including helmet redesign and distribution may be more effective.