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National Children's Center
for Rural and Agricultural Health and Safety

June 2000

Dear Youth Safety Advocate:

The "Snowmobiles & Youth" resource packet contains materials that may be relevant to your youth snowmobile safety efforts. This packet contains several revised and new materials. Components are intended to provide professionals with relevant injury facts, snowmobile-related organization information, and approaches to assure safe youth participation in snowmobile recreation. Items included were developed with funding from the Matemal and Child Health Bureau of the Health Resources and Services Administration.

Any parts of this packet may be reproduced. However, in accordance with standard publishing practices, the Children's Safety Network (CSN) National Children's Center for Rural and Agricultural Health and Safety requests acknowledgment of any information reproduced. Resource packet materials are also available on the World Wide Web at http://research.marshfieldclinic.org/children/Resources/Snowmobile/snowmobile.htm.

Contact the CSN National Children's Center for Rural and Agricultural Health and Safety at 1-888-924-7233 if you would like to discuss the contents of this packet or other rural injury prevention efforts. We are interested in your comments about the resource packet and would appreciate your time in completing the enclosed response form.

Sincerely,

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Program Manager

Enclosures:
Fact Sheet: Snowmobile Injury
Selected Organizations Supporting Snowmobile Safety
Selected State Snowmobile Safety and Enforcement Organizations
Safe Snowmobiling: What You Can Do
Selected Safety Education Programs
Snowmobile Safety and Youth: Recommended Guidelines for Media
Snowmobile Safety and Youth: Model Press Release
Snowmobile Safety and Youth: What Adults Need To Know
Response Form

Fact Sheet

Snowmobile Injury

June 2000

Background

- **A** snowmobile is a motorized sled designed for traveling across snow-covered terrain. Some models can travel up to 110 miles per hour and weigh up to 600 pounds.
- Approximately 56% of the 1.6 million registered snowmobiles in the U.S. are in Michigan, Minnesota, New York, and Wisconsin.
- Over four million snowmobilers reside in North America. Seventy-five percent of snowmobile owners are married, most with children living at home.
- Snowmobiling generates an estimated $9.2 billion in revenue, including millions of winter tourism dollars that support local economies.

National Youth Injury Estimates (1990-1998)

- From 1990 to 1998, an estimated 24,000 snowmobile-related injuries were sustained by youth under 18 years of age. Youth experienced 21% of all snowmobile-related injuries.[1]
- 1990-1998 national injury data revealed upper extremities (28%), head/neck/face (28%), and lower extremities (20%) as the most commonly injured body parts.[2]
- The most common injuries included contusion/abrasion (31%), laceration/puncture (22%), and fracture (20%).[2]
- Non-fatal youth injuries most commonly occurred as a result of being thrown fi-om or flipping a snowmobile (26%) or hitting a stationary object (24%).[2]
- From 1990 to 1998, 75 youth were fatally injured in snowmobile incidents in the U.S. Two-thirds **of** the deaths were due to head and neck injuries.[2]
- Forty-three percent of fatal injuries resulted from hitting a stationary object.[2]
- No studies have determined youth snowmobile-related injury rates, since the number of miles or hours ridden by youth are not known.
- Research suggests that prolonged exposure to cold and snowmobile noise and vibrations can lead to hearing and vibration-related disabilities among adults.[3,4,5,6] No studies have focused on youth.
- From 1990 to 1998, the total estimated costs associated with youth snowmobile injuries were over one billion dollars, with $104 million going to provision of medical care.'

Risk Factors

- Risk factors specifically associated with youth snowmobile injury include:
  - Male gender[2,7,8]
  - Mismatch of body size and developmental ability to control the weight, speed, and power of a snowmobile[10,11,12]
  - Riding on private property[2]
  - Riding in **a** sled towed by **a** snowmobile[2,9]
  - Lack of driver experience or judgment[12,13]
  - Use of alcohol is generally **not** a factor in snowmobile-related injuries among youth[2,10]
- Other general risk factors include:
  - High speed[7,14,15]
  - Excessive adult alcohol consumption[14,16,17,18]
  - Suboptimal lighting[15,19,20]
  - Improper dress for climate conditions[21]

Prevention

- No studies evaluating youth-focused interventions were found in the literature.
- Snowmobile design advances (improved suspension, larger windshields, tether switch)

Continued

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may improve safety, however no studies evaluating their effectiveness were located.

- State age restrictions for youth driving snowmobiles and safety education requirements vary. Regulations do not apply to private property.
- The American Academy of Pediatrics recommends that operating snowmobiles is inappropriate for children younger than 16 years of age.[23]
- The Canadian Paediatric Society states that off-road vehicles should be banned for use by children under 14 years of age.[24]

This fact sheet can be downloaded from the Internet:
http://research.marshfieldclinicorg/children/Resources/Snowmobile/snowmobile.htm

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For more information:

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