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**TESTIMONY OF MARY AITKEN, MD, MPH, FAAP  
ON BEHALF OF THE AMERICAN ACADEMY OF PEDIATRICS**

**COMMERCE, SCIENCE AND TRANSPORTATION  
SUBCOMMITTEE ON CONSUMER PROTECTION, PRODUCT  
SAFETY, AND INSURANCE  
HEARING ON ALL-TERRAIN VEHICLES**

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I appreciate this opportunity to testify today before the Senate Commerce Subcommittee on Consumer Protection, Product Safety, and Insurance regarding all-terrain vehicles (ATVs). My name is Dr. Mary Aitken, and I represent the American Academy of Pediatrics, a non-profit professional organization of 60,000 primary care pediatricians, pediatric medical sub-specialists, and pediatric surgical specialists dedicated to the health, safety, and wellbeing of infants, children, adolescents, and young adults.

The AAP commends the Subcommittee and you, Chairman Allen, for holding this hearing on the safety and regulatory issues involved with all-terrain vehicles (ATVs). For over 20 years, the AAP has been calling attention to the grave risks of ATV riding for children and urging the federal government to take more aggressive action to curb the deaths and injuries associated with ATV crashes.

ATVs pose unique dangers to children who ride or operate them.<sup>1</sup> In fact, from the perspective of injury prevention, children riding ATVs often represent the perfect recipe for tragedy due to the confluence of multiple high risk factors:

- Person Factors: Children lack the physical and developmental maturity to operate an off-road vehicle safely, especially in terms of judgement.
- Environment Factors: Areas where ATVs are used are often difficult to access for rescue crews due to distance and challenging terrain.
- “Agent” Factors: ATVs allow high rates of speed and completely expose the driver. ATVs have a well-known tendency to roll if not used properly.

### **ALL-TERRAIN VEHICLES**

Allow me to share with you the statistics regarding children and ATVs:

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<sup>1</sup> Committee on Injury and Poison Prevention. All-Terrain Vehicle Injury Prevention: Two-, Three-, and Four-Wheeled Unlicensed Motor Vehicles. *Pediatrics*, 2000;105 (6):1352-1354.

- Between 1982 and 2004, over 2,000 children were killed in ATV crashes. In 2004 alone, 130 children perished due to injuries sustained when riding an ATV.<sup>2</sup>
- An estimated 44,700 children were treated in emergency departments for ATV-related injuries in 2004 -- the equivalent of 900 schoolbuses full of children. A line of 900 schoolbuses would stretch from the White House to Silver Spring, Maryland. These injuries have increased every year since 1995 and now exceed the near-record injury rates of 1985, when unstable three-wheeled ATVs were still in major production.<sup>3</sup>
- Injuries sustained by children riding an adult-sized ATV are often very serious, including severe brain, spinal, abdominal, and complicated orthopedic injuries. ATV riding involves almost twice the risk of injury serious enough to require hospitalization than any other activity studied. This is true even for activities generally considered to be high risk, including football (62% higher risk for ATV riding), snowboarding (110% higher risk for ATV riding) and paintball (320% higher risk for ATV riding).<sup>4</sup>
- Children lack the strength, coordination, and judgement to operate ATVs safely. In a Consumer Product Safety Commission (CPSC) study, the primary causes of children's deaths on an ATV were overturning, collision with a stationary object, and other collisions.<sup>5</sup> Each of these implies the inability to control the vehicle properly.

I can also speak to the dangers of ATVs from my personal clinical experience. I practice at the only tertiary care pediatric hospital in a rural state where ATV use is very common. Just this

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<sup>2</sup> Consumer Product Safety Commission, *2004 Annual Report of ATV Deaths and Injuries*, September 2005, Table 3.

<sup>3</sup> Consumer Product Safety Commission, *2004 Annual Report of ATV Deaths and Injuries*, September 2005, Table 5.

<sup>4</sup> Consumer Product Safety Commission, Briefing Package on Petition No. CP-02-4/HP-02-1, "Request to Ban All-Terrain Vehicles Sold for Use by Children under 16 Years Old," February 2005, p.158.

week, an 11-year-old child from California, visiting family in Arkansas, died of severe brain injuries after he failed to negotiate a hill and the ATV he was riding flipped. The child, who had no ATV experience, was riding alone and without a helmet when injured, according to news reports. Currently, Arkansas Children's Hospital admits more than 60 children each year – an average of at least one per week -- due to significant ATV injuries, and our emergency department treats many more. Traumatic brain injuries and severe orthopaedic injuries are the most frequent injuries we see, in children ranging from only a few months old riding as ATV passengers to preteen and teenage drivers. We recently published a case series describing 7 patients with severe face and neck lacerations due to driving ATVs through barbed wire fences, including one youth who narrowly survived a near decapitation who will likely experience lifelong disability as a result of his injuries. ATV injuries also tend to be extremely dirty, in some cases necessitating multiple surgeries to clean and repair the damage. Some patients must essentially be treated as burn victims and receive skin grafts. I know from my experience as a clinician and an injury prevention researcher that the impact on the children and their families is profound and long-lasting.

Mr. Chairman, if an infectious disease caused this level of death and disability, the federal government would spend millions of dollars toward studying, curing and ultimately preventing it. In the case of ATVs, however, the government has done virtually nothing over the past twenty years.

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<sup>5</sup> Consumer Product Safety Commission, Briefing Package on Petition No. CP-02-4/HP-02-1, "Request to Ban All-Terrain Vehicles Sold for Use by Children under 16 Years Old," February 2005, p.110.

The primary federal regulatory power regarding off-road vehicles is vested in the CPSC. Over the past two decades, the CPSC has engaged in an uneven and sometimes inconsistent pattern of regulation of ATVs. ATVs first began to be widely adopted as both utility and recreational vehicles around 1980. Accordingly, ATV deaths rose from 29 in 1982 to 299 in 1986 – an increase of 930% in just four years. After pressure from the American Academy of Pediatrics and other concerned groups, the CPSC initiated negotiations with ATV manufacturers that resulted in a consent decree in 1987. The consent decree included a number of very modest measures:

- An end to the sale of unstable three-wheeled ATVs (which manufacturers were already phasing out);
- Age recommendations related to engine size in ATV marketing, which dealers would convey to consumers;
- Labels to warn purchasers that children under 16 should not ride adult-sized ATVs; and
- Free driver training and public awareness campaigns by ATV sellers.

These measures fell far short of a ban on ATV use by children, which the American Academy of Pediatrics and its partners had urged. As ATVs grew in popularity in the following years, death and injury rates also continued to rise unabated.

The Academy and its partners engaged in repeated efforts throughout the 1990s to educate the nation about the hazards of ATVs for children and to urge the courts and the CPSC to adopt stricter guidelines. Despite these initiatives, the consent decree expired without further action in

1998. The ATV manufacturers agreed to continue abiding by consent decree provisions under Voluntary Action Plans, which were unenforceable and carried no penalties for noncompliance.

In Arkansas, we have been successful in engaging ATV manufacturers and dealers in our safety efforts, and I am convinced that collaboration among the industry, the public health community, and other groups is vitally important to solving the problem of ATV injury. My experience indicates that ATV dealers and other industry representatives are sincerely concerned about this problem and want to see ATVs used as recommended. The Voluntary Action Plans require dealers to obtain a signed acknowledgement from purchasers that they understand the age recommendations for ATV use. However, CPSC's own undercover inspections have revealed variable compliance with this requirement. The 2005 staff briefing package acknowledged, moreover, that compliance with this requirement appears to have declined since 1998: "in 1998, compliance was 85 percent, and in the years 2002 and 2003, 60 percent. However, for 2004, the compliance rate was 70 percent."<sup>6</sup> This indicates that over those three years, approximately one-third of dealers were failing to comply with the requirements. These figures represent an unacceptable failure rate and indicate the ineffectiveness of the Voluntary Action Plans in this regard.

Over the past five years (2000-2004), an average of 500 people have died each year of ATV-related injuries. An average of over 115,000 per year people have been injured during that same time. Of these, an average of 131 deaths and over 37,000 injuries each year have been among

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<sup>6</sup>Consumer Product Safety Commission, Briefing Package on Petition No. CP-02-4/HP-02-1, "Request to Ban All-Terrain Vehicles Sold for Use by Children under 16 Years Old," February 2005, p.9.

children under the age of 16. Thirty-one percent of all ATV deaths now occur among children under the age of 16.<sup>7</sup>

Despite the alarming increases in ATV deaths and injuries, government regulation continues to be all but absent. For the past several years, regulation has consisted almost exclusively of voluntary, unenforceable measures. Recently, the Academy's Committee on Injury and Poison Prevention reviewed the evidence regarding children and ATVs and reaffirmed its long-standing recommendation that no child under the age of 16 should operate or ride an ATV.<sup>8</sup>

Due to this lack of activity at the appropriate regulatory agencies, in 2003 the American Academy of Pediatrics joined a number of other groups, including the American College of Emergency Physicians and Consumer Federation of America, to petition the CPSC once again to ban the use of ATVs by children under the age of 16. This petition underwent two years of review at the agency. In February 2005, the CPSC issued a briefing package recommending that the petition be denied. This recommendation was based primarily on two lines of reasoning: first, that a sales ban would not necessarily influence riding behavior; and second, that major distributors of ATVs already ban the sale of full-sized ATVs for use by children. The American Academy of Pediatrics considers both of these reasons to be specious. The sale of numerous products to children is banned, regardless of how or whether children may obtain or use those products otherwise (fireworks, lighters, and cigarettes are among the most obvious examples). Furthermore, the ban on the sale of ATVs for use by children is voluntary, and the CPSC's own

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<sup>7</sup> Consumer Product Safety Commission, *2004 Annual Report of ATV Deaths and Injuries*, September 2005, Tables 3 and 5.

<sup>8</sup> Committee on Injury and Poison Prevention. All-Terrain Vehicle Injury Prevention: Two-, Three-, and Four-Wheeled Unlicensed Motor Vehicles. *Pediatrics*, 2000;105 (6):1352-1354.

surveys show that dealer compliance is inconsistent.<sup>9</sup> In March 2005, I testified before the CPSC to urge the commissioners to approve this ban. The American Academy of Pediatrics continues to support this ban fully and works toward its adoption.

The CPSC commissioners have not yet voted upon the petition to ban the sale of adult-sized ATVs for use by children under the age of 16. Instead, this petition was rolled into a broad review of ATV issues directed to be undertaken by the CPSC Chairman. The staff briefing package on this issue was released on May 31.

Like the CPSC, the Senate Commerce Committee has the power to reduce ATV-related deaths and injuries among our nation's children. If the federal government adopted limitations on ATV use by children, this would serve as both a powerful message and a model for states and localities. The attention and publicity generated would educate parents, who are often unaware of the safety risks of these vehicles. Last year, my colleague, Dr. Denise Dowd of Kansas City, Missouri, testified before the House Resources Subcommittees on National Parks and Forests and Forest Health to urge that restrictions be placed on ATV usage by children on public lands.

## **POLICY RECOMMENDATIONS**

The American Academy of Pediatrics has issued specific recommendations for all policymakers regarding children and off-road motorized vehicles:

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<sup>9</sup> Consumer Product Safety Commission, Briefing Package on Petition No. CP-02-4/HP-02-1, "Request to Ban All-Terrain Vehicles Sold for Use by Children under 16 Years Old," February 2005, p 15.

***Children under 16 should not operate ATVs.*** An ATV can weigh in excess of 500 pounds and travel at speeds of over 60 miles per hour. Children do not possess the physical strength, coordination, or judgment necessary to pilot these vehicles safely.<sup>10</sup> When a child crashes on one of these large machines, it often rolls over them or traps them beneath it. The result is devastating injuries, including crushed internal organs and multiple broken bones.

***A driver's license should be required to operate an ATV.*** No state or local government allows children to drive cars. Yet an unlicensed child is permitted to drive an ATV at high speeds, without a helmet, on unpaved surfaces in virtually any area. This situation defies all logic. The safe use of ATVs requires the same or greater skill, judgement, and experience as needed to operate an automobile. A driver's license should be required to operate any motorized vehicle.

***Alcohol use by operators of ATVs should be prohibited, with zero tolerance among 16- to 20-year-old operators.*** Just as alcohol- or drug-impaired operation of automobiles threatens the lives of drivers, passengers, and bystanders and is prohibited, operation of any motorized vehicle under the influence of alcohol or drugs should be forbidden. Young drivers under the influence of alcohol or drugs are particularly dangerous because of their relative inexperience and poorer judgement. Alcohol use by those under the age of 21 is already banned by federal and state laws, and zero tolerance policies for underage ATV operators would strengthen the prohibition and send a strong message to parents and adolescents.

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<sup>10</sup> Consumer Product Safety Commission, Briefing Package on Petition No. CP-02-4/HP-02-1, "Request to Ban All-Terrain Vehicles Sold for Use by Children under 16 Years Old," February 2005, p.17.

***ATV use should be banned on paved roads.*** All-terrain vehicles lack the features necessary to operate safely on roads and highways. Most have few or no lights, mirrors, signals or safety features. A significant number of crashes occur on paved roads where cars or trucks cannot see the ATV, or where ATV operators make unexpected maneuvers. In the CPSC survey on ATV crashes mentioned earlier, the highest number of fatalities occurred on paved surfaces.<sup>11</sup> Use of ATVs should be allowed only on designated, well-maintained trails.

***Appropriate protective gear should be required to operate an ATV.*** Research regarding motorcycles and bicycles tells us that helmets save lives and that helmet laws result in greater helmet use.<sup>12,13,14</sup> The federal government should take a leadership role and require operators of ATVs to wear a helmet.

***Carrying passengers on an ATV should be prohibited.*** The vast majority of ATVs are not designed to carry passengers. An ATV's large seat is meant to allow a rider to shift his or her weight and maneuver adequately. Children can easily be thrown from these vehicles at high speeds. The Academy is even aware of cases where parents drive ATVs with children strapped onto the rear in a car seat, in the tragically mistaken perception that this is somehow safe. In a recent CPSC analysis of 184 child deaths involving ATVs, the agency concluded that, "CPSC has long recommended against the carrying of passengers on ATVs, and yet 24 percent of the deceased children were riding as passengers, and 45 percent of the fatalities occurred in multiple

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<sup>11</sup> Consumer Product Safety Commission, Briefing Package on Petition No. CP-02-4/HP-02-1, "Request to Ban All-Terrain Vehicles Sold for Use by Children under 16 Years Old," February 2005, p.108.

<sup>12</sup> Kraus JF, Peek C, McArthur DL, Williams A. The effect of the 1992 California motorcycle helmet use law on motorcycle crash fatalities and injuries. *JAMA*. 1994;272:1506-1511.

<sup>13</sup> Watson GS, Zador PH, Wilks A. Helmet use, helmet laws, and motorcyclist fatalities. *Am J Public Health*. 1981;71:297-300.

<sup>14</sup> Committee on Injury and Poison Prevention. Bike Helmets. *Pediatrics*, 2001;108(4) 1030-32.

rider situations. Certainly, if CPSC's recommendations had been followed, the deaths of at least 45 child passengers would not have occurred."<sup>15</sup>

***ATVs should not be operated before sunrise or after sunset.*** ATVs are challenging to operate safely even under ideal conditions. Darkness adds an unacceptable degree of additional risk, due to both unseen hazards and the difficulty of being seen by other vehicles. The use of ATVs in low light or darkness should be prohibited.

***Manufacturers should redesign ATVs to improve safety.*** Some of the hazards arising from ATVs can be attributed the design of the products themselves. Seat belts should be standard, and ATVs should have a roll bar to prevent the driver from being crushed by the weight of the vehicle in the event of a rollover. Headlights that automatically turn on when the engine is started should be installed on all ATVs to improve visibility by other vehicles. Speed governors (devices that limit maximum speed) should be installed on ATVs used by inexperienced operators (such as teenagers or renters). Efforts should be made to design ATVs so that they cannot carry passengers.

## **CONCLUSION**

In conclusion, the American Academy of Pediatrics urges you to support meaningful restrictions on children riding or operating ATVs. Clearly, ATVs pose a significant hazard to children who ride them. This fact is indisputable. The cost to society is also high, not only in regard to loss of life and health but in actual dollars. In March 2005, the journal *Pediatrics* published a study in which my colleagues and I estimated that total hospital charges for children's ATV injuries over

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<sup>15</sup> Consumer Product Safety Commission, Briefing Package on Petition No. CP-02-4/HP-02-1, "Request to Ban All-

a two-year period exceeded \$74 million.<sup>16</sup> If no further action occurs this year, we can expect over 100 children to die and over 40,000 to be treated in emergency rooms again next year due to ATV-related incidents alone.

The present state of affairs has been entirely ineffective in keeping children safe. I hope this committee will take a leadership role on this issue and ensure the safety of children by supporting the common-sense measures recommended by the American Academy of Pediatrics. Again, I thank you for the opportunity to testify about the dangers of all-terrain vehicles for children, and the AAP looks forward to working with you on ATV safety issues.

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Terrain Vehicles Sold for Use by Children under 16 Years Old,” February 2005, p.110.

<sup>16</sup> Killingsworth, Jeffrey et.al., “National Hospitalization Impact of Pediatric All-Terrain Vehicle Injuries,” *Pediatrics*, 2005;115(3):e316-e321.