



POLICY BRIEF

Safety and Injury Characteristics of Youth Farmworkers Working in North Carolina Agriculture

Summary

Youth farmworkers in North Carolina suffer high rates of injury, they are often paid a piece rate, and frequently report not being paid what they earned, according to a new study from Wake Forest School of Medicine and East Carolina University. Youth as young as 10 years old may be hired to do farm labor, working in one of the nation's most dangerous industries. Dangers on the job include pesticides, nicotine, machinery, working at heights, extreme heat, and large animals. This pilot study is one of the largest community-based studies of youth farmworkers conducted in the US. The study describes who these youth workers are, their safety behaviors, types of injury, and differences in safety behavior between boys and girls.

What did the researchers do?

During the summer of 2013, the researchers interviewed 87 youth, ages 10-17, who were working on farms in NC. Over one-third (38%) of the youth were girls. Most lived with one or both of their parents. However, 13% of the youth are considered "unaccompanied minors," traveling on their own or with some other relative to find work. Although 90% of the youth reported that they were Latino or Hispanic, the majority (78%) were born in the United States. The study participants worked in tobacco, sweet potatoes, and berries, as well as other crops. They performed tasks such as harvesting, topping tobacco, loading, and weeding. Most of the youth reported that they worked in order to earn money for basic needs, such as clothes and school supplies, or to help support their families.

What did the researchers find?

Injuries are common among youth farmworkers in NC. Most reported a serious injury in the last year from doing farm work:

- 54% reported an injury affecting muscles or bones, such as shoulder and wrist pain;
- 61% reported a wound, such as cuts and burns; and
- 70% reported a skin injury such as sunburn or rash.

Although three-quarters of the youth wore a hat and 63% wore gloves while working, they followed few other safety behaviors, increasing their exposure to pesticides and other hazards on the job. For example, only 29% wore a rain suit and 6% wore a plastic bag to protect against nicotine exposure. Many took risks that could increase their exposure to pesticides and nicotine; most worked in wet shoes (54%) or wet clothes (52%), with many working in a short or sleeveless shirt (41%), working in shorts (18%), working barefoot or in sandals (12%), and re-wearing work clothes without washing them (15%). One-fifth (22%) of the youth had worked within view of chemicals being applied in nearby fields. Only seven (8%) had ever received pesticide training. Employers are required to provide this training for every farmworker within 6 days of beginning work.



Youth farmworkers harvesting sweet potatoes in North Carolina
(Photo by Yesenia Cuello; used with permission)

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Farmworker youth in NC are not treated fairly. Only about half (54%) of youth workers reported earning an hourly wage; 75% of the girls and 44% of the boys reported being paid by the amount of crop harvested (piece rate). Paying workers by the piece creates an incentive to work faster and skip safety measures, increasing the likelihood of injury. One-fifth (22%) of the youth workers reported a problem getting paid the amount they had earned. Many had food (28%), transportation (20%), housing (4%), and equipment (2%) costs deducted from their pay checks.

Why does it matter?

Most people do not realize that the US child labor laws designed to protect youth on the job do not apply in agriculture. Youth who work on farm labor crews do not enjoy the same protections that they would in other jobs. By and large these youth are US citizens who come from low-income, minority families. They live in rural areas with limited economic and educational opportunities. Meanwhile, they are exposed to more hazards than youth in other industries. They also experience higher rates of injury and death than adults do on farms. Some of these injuries may be due to the differences observed in youth safety behaviors.

Several agencies can act to improve the conditions for youth who work on farms. State and federal lawmakers, the NC Department of Labor and the US Department of Labor, the NC Department of Agriculture and Consumer Services and US Department of Agriculture, and the US Environmental Protection Agency can take steps to reduce on-the-job hazards and afford protections to youth who work in agriculture.

Recommendations

Youth working in agriculture have high rates of injury and enjoy few safety protections. Several policy changes can reduce youth's exposure to hazards in agriculture.

- Congress and state legislatures should act to increase the age at which youth can be hired to work on farms (other than their own) to 16 and above.
- The federal and state Departments of Labor and US EPA should prohibit high-risk work for youth under 18, such as working in tobacco or handling pesticides.
- The federal and state Departments of Labor should require that youth workers be paid an hourly rate. Piece rate should be prohibited for youth farmworkers.
- The federal and state Departments of Labor should require safety training for all youth working in agriculture. An adult supervisor with safety training should be present when youth farmworkers are employed.

Further Reading

- Peoples JD, Bishop J, Barrera B, Lamas O, Dunlap JL, Gonzalez PA, Horwitz SM, Chamberlain LJ. Health, occupational and environmental risks of emancipated migrant farmworker youth. *Journal of Health Care for the Poor and Underserved* 2010 Nov;21(4):1215-26.
- Shipp EM, Cooper SP, del Junco DJ, Cooper CJ, Whitworth RE. Acute occupational injury among adolescent farmworkers from South Texas. *Injury Prevention* 2013 Aug;19(4):264-70.
- Spears CR, Kraemer Diaz AE, Bailey M, King K, Arcury TA. Empowering Latino youth farmworkers as youth health educators for occupational heat-related illness safety education in Eastern North Carolina. *Practicing Anthropology* 2013 Jul;35(3):38-43
- Zaloshnja E, Miller TR, Lawrence B. Incidence and cost of injury among youth in agricultural settings, United States, 2001-2006. *Pediatrics* 2012 Apr;129(4):728-34.

Definition of Terms

Community-Based Study – A study design in which the researchers work with community members to recruit participants and collect information in the places participants live and work.

Exposure – Contact with a substance by swallowing, breathing, or touching the skin or eyes.

Nicotine – A natural component of tobacco that can be absorbed through the skin. Nicotine is a naturally occurring alkaloid; large amounts are nicotine is toxic and result in nicotine poisoning (green tobacco sickness).

Pesticide – A chemical or mix of chemicals that is meant to prevent, kill, repel or reduce any pest. Pests can be insects, mice and other animals, unwanted plants (weeds), fungi, or germs like bacteria and viruses.

Piece rate – The worker is paid a fixed amount for each piece or unit produced, such as a bucket of berries or cucumbers.

Pilot Study – An initial study conducted to provide information needed in the design of a large research study.

Unaccompanied Minors – Youth under age 18 who live in locations without their parents or other adults who have legal-parent status.