



Volume 5, Issue 2

Eye on Farmworker Health

Current Developments in Research and Policy

*This issue of Eye on Farmworker Health focuses on **migrant children**. Read below for recent research on three health risks facing the children of migrant farmworkers, and suggestions for how migrant clinicians can help children and their parents stay healthy!*

Farmworker Children at High Risk for Food Insecurity, Inadequate Diet

Title: *Food Security and Dietary Intake in Midwest Migrant Farmworker Children*

Authors: JF Kilanowski, LC Moore

Source: *Journal of Pediatric Nursing, Vol. 25, pp. 360–366 (2010)*

Children of Latino migrant farmworkers are known to be at a high risk for health problems, including obesity and diabetes. Many studies have shown the close, albeit counter-intuitive, relationship between these diseases and hunger. This study aimed to examine the influencing factors of obesity, overweight, and diabetes in Latino farmworker children in Ohio, with a specific focus on household food security and food intake. The study found that the majority of migrant farmworker households studied reported low or very low food security, and their children's diet did not meet the USDA Food Guide Pyramid recommended daily servings. Farmworker children thus have higher rates of food insecurity and unhealthy eating than the general population, putting them at increased risk for a range of diseases and nutritional imbalances.

Researchers used the US Household Food Security Survey to categorize participants' level of household food security. Based on a number of questions regarding the extent and frequency that a household could not afford enough food or had to cut back on certain foods, respondents were classified in a range from "food secure" to "very low food secure." In total, 52% of respondents scored low or very low on the food security scale. This number is extremely high compared to the national average – 11% – and even higher than a previous study with WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) families in Iowa, where 43% of households were classified with some level of food insecurity. Of the farmworker households, only 30% of respondents scored high on the food security scale, and 8% of respondents were "very low food secure."

To test dietary intake, researchers used the Food Frequency Questionnaire, which included questions about the frequency with which children ate food from the various food groups in USDA's Food Guide Pyramid. Only 22% of children met the recommended daily minimum food group servings for their age and gender for every food group. Vegetables and fruit were eaten least frequently, followed by grains and dairy.

The survey was conducted among farmworker households in two different labor camps in Ohio – Farm A occupied 2,000 acres and specialized in potatoes, while Farm B occupied

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2,500 acres and grew 60 kinds of vegetables. Interestingly, families on the farm with more acreage, variety of crops, and employees were found to have lower food security and a lower percentage of children met the serving recommendations in the meat and beans group. Perhaps this was related to the fact that the smaller farm had a produce store on-site for locals and was closer to other merchants.

The researchers conclude that migrant farmworker households see a higher incidence of food insecurity and insufficient food intake that may lead to related diseases. Nutrition interventions are important, but will only be successful if they are culturally appropriate and aimed at helping families prepare meals more efficiently and effectively.

Farmworker Mothers' Mental Health A Factor in Children's Behavior

Title: *Maternal Predictors of Behavioral Problems Among Mexican Migrant Farmworker Children*

Authors: ML Siantz, N Coronado, T Dovydaitis

Source: *Journal of Family Nursing*, Vol. 16, No. 3, pp. 322–343 (2010)

How does a Mexican migrant farmworker mother's mental health and parenting style impact the emotional and behavioral health of her children? This study aimed to answer this question, using Masten's Resilience Theory to frame the interplay between risk factors, protective factors, and behavioral problems among pre-school age farmworker children. The study found that incidence of poor child behavior, though low in this group compared to national statistics, was higher in children with mothers who were more stressed, rejecting or neglectful of their children, or depressed. The lives of migrant workers are often filled with stress for both parents and children. Researchers concluded that clinicians and migrant educators could support protective factors – such as screenings for maternal depression and family-based interventions – that may shield children from parental stressors and reduce risk of behavioral problems.

205 mothers with children in Migrant Head Start near the Texas–Mexico border participated in this study. Through interviews and surveys, the researchers scored mothers on scales of maternal stress, depression, and parenting style. They also assessed acculturation, measured by Hispanic ancestry, language use, and generation born in the US. Child behavioral problems were assessed using a questionnaire about the presence of 99 specific behaviors. Behavior representing both internalized emotional distress (depression, anxiety, and withdrawal) and externalized emotional distress (aggression and destruction) were included.

Interestingly, maternal years in the United States, birthplace, income, education, and language spoken at home were not associated with child behavioral problems. However, maternal stress, rejecting or neglectful parenting style, and depression were all associated with greater risk for child behavioral problems. Maternal stress and depression were especially significant factors in child internalizing behaviors, while parenting and maternal stress were significant factors in child externalizing behaviors. Girls and boys also responded differently to their mother's stress or depression, with girls more often exhibiting externalizing behaviors and boys at higher risk for internalizing behaviors.



WHO ARE WE?

Eye on Farmworker Health: Current Developments in Research and Policy is an electronic newsletter covering important recent developments in research and regulation on issues affecting the health and safety of migrant farmworkers.

It is a joint project of [Farmworker Justice](#) and [Migrant Clinicians Network](#), supported by the Health Resources and Services Administration's Bureau of Primary Health Care. Each issue includes summaries of recent articles and reports, as well as recommendations for using the information to help health professionals, outreach workers, promotores de salud, and advocates strengthen their efforts on behalf of farmworkers and their families.

The contents of this publication are solely the responsibility of Farmworker Justice and Migrant Clinicians Network and do not necessarily reflect the official views of the Bureau of Primary Health Care or the Health Resources and Services Administration.

STAY IN TOUCH

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The researchers concluded that maternal stress, depression, and parenting style does impact child behavior. Moreover, though this group of children seemed well adjusted overall, migrant families have high stress lives, with low-incomes, hard physical labor, and repeated relocation throughout the year. The researchers suggest that in order to mitigate these risks, clinicians can screen mothers for depression or anxiety during child-wellness visits, conduct routine assessments of maternal depression among migrant farmworkers, and engage in family-based interventions and home visits.

Migrant Farmworker Fathers Can Support Children's Oral Health

Title: Rural Latino Farmworker Fathers' Understanding of Children's Oral Health

Authors: MA Swan, JC Barker, KS Hoelt

Source: Pediatric Dentistry, Vol. 32, No. 5 pp. 400-406 (2010)

Farmworker children are known to suffer from a high incidence of oral health problems, resulting in part from barriers to dental care, poor parental understanding of oral disease prevention, low value given to children's primary teeth, and lack of oral hygiene teaching at home. As a result, early childhood caries are particularly prevalent among the children of Latino farmworkers. This study aimed to determine whether farmworker fathers were involved in or knowledgeable about their children's oral hygiene and health. Though Latino mothers have been found in previous studies to be the primary health instructors and caregivers in the home, there is some evidence that paternal involvement is on the rise in the Latino community, and interest in children's health on the part of fathers is high. The study found that, overall, rural Latino fathers place value on taking care of their children's teeth, and are aware of oral health education going on at home. However, mothers remained the primary parent in charge of their children's oral health. Interventions and education around this issue aimed at farmworker women will thus be most effective, and the information can be expected to filter down to the father and children.

Researchers conducted qualitative research with 20 Latino farmworker fathers in a small town in California's Central Valley. Interviews in Spanish were conducted in the father's home. The fathers were overwhelmingly low-income, with little formal education. Still, one-third of the fathers and the vast majority of their children had health insurance, mostly through the Medicaid program.

In general, fathers were less concerned about dental health than about their children's general health. They did not know basic oral hygiene concepts and struggled to define a "cavity." Most could not remember ever seeing a dentist themselves, and did not know about the risk of infection from a carious tooth spreading to the rest of the mouth. 18 of 19 fathers agreed that their wives were responsible for their children's oral health, although most also said they helped out on occasion. Fathers were especially involved in driving their children to the dentist and making decisions while in the dentist's office. They sometimes supervised or reminded their children about brushing their teeth, although many felt that the children should be able to do this on their own after age four. This is quite a bit earlier than the ADA recommendation that parents supervise their children's tooth-brushing until age six or seven.

Researchers concluded that though farmworker fathers seemed to care about their children's oral health, their direct involvement was limited. Often "assisting" with oral

hygiene consisted of a simple reminder rather than supervision. Additionally, fathers did not recognize the signs or causes of caries. Indeed, their explanatory models for how dental disease develops were significantly different from those of Latino women.

Clinicians should continue to engage fathers in discussions about their children's oral health. Their opinions are significant, and their involvement, if increased, could help improve their children's health outcomes. At the same time, farmworker mothers should be recognized as the parent with predominant control over their children's oral health, and interventions should be planned accordingly.

FARMWORKER HEALTH POLICY BRIEF

How Will Health Care Reform Impact Farmworkers and Migrant Clinicians?

On March 23, 2010, President Obama signed into law the Affordable Care Act of 2010 (ACA). The cornerstone of the President's health reform agenda, the ACA aimed to expand insurance coverage to millions of Americans by extending Medicaid eligibility, creating incentives for businesses to provide health benefits to employees, prohibiting insurance companies from denying coverage based on pre-existing conditions, and establishing low-cost insurance exchanges, among other initiatives. The non-partisan Congressional Budget Office (CBO) [estimates](#) that after all provisions take effect, the new law will extend health insurance coverage to 32 million Americans. However, even with the implementation of health reform, CBO estimates that approximately 23 million residents of the United States will remain uninsured.

Though the ACA will assist some farmworkers in obtaining insurance coverage through Medicaid or insurance exchanges, many will be ineligible for these programs because of their immigration status. However, farmworkers and migrant clinicians may benefit from the law in other ways, including increased funding for community health centers. [Click here](#) to read about the provisions of the law that will most directly impact farmworkers and their families.

PESTICIDE POLICY UPDATE

Upcoming Revisions to Pesticide Safety Laws

The Worker Protection Standard (WPS) is a federal regulation that affords farmworkers basic protection from occupational pesticide exposure. The WPS is administered by the US Environmental Protection Agency (EPA) and its designated state regulatory agencies. The WPS requires that all workers receive basic pesticide safety training by their sixth day of working in pesticide-treated areas, that decontamination water be available, that minimum restricted entry intervals and personal protective equipment requirements be observed (based on the product's immediate toxicity), and that medical assistance be provided in case of emergency. The WPS also includes requirements for the certification and training of pesticide applicators.

The EPA is planning to announce revisions to the WPS in late 2011, and give the public an opportunity to comment on the changes. Major reforms of the WPS are necessary to reduce the exposure of farmworkers and their families to pesticides. The EPA has outlined some of

its planned changes to both the worker protection and the pesticide applicator certification regulations, and made these available on the EPA website.

MCN and Farmworker Justice are working together to monitor the progress of WPS reforms. In the coming months, we will provide an update and suggestions for ways in which migrant clinicians can provide important input and advocate on behalf of their patients in order to help them prevent illness and injury from pesticide exposure.

Click for outlines of planned changes to [worker protections](#) and [application certification](#) regulations.

MORE ARTICLES

Examining Risk Factors for HIV and STDs Among Latino Male Farmworkers

Title: HIV and Sexually Transmitted Disease Risk Among Male Hispanic/Latino Migrant Farmworkers in the Southeast: Findings from a Pilot CPBR Study

Authors: SD Rhodes, WE Bischoff, JM Burnell, LE Whalley, MP Walkup, QM Vallejos, SA Quandt, JG Grzywacz, H Chen, TA Arcury

Source: American Journal of Industrial Medicine, Vol. 53, pp. 976–983 (2010)

Migrant farmworkers in the United States are disproportionately affected by the HIV and Sexually Transmitted Disease (STD) epidemics. Studies have shown farmworkers to be infected with HIV at a rate between 4 and 20 times the general population. But few studies have examined the risk factors that have led to this heightened infection rate. Recognizing this gap in the research record, a community-based participatory research (CBPR) project in North Carolina attempted a pilot study to describe risk factors for HIV and STD infection in Latino male farmworkers. Researchers found that heightened alcohol and drug use, inconsistent condom use, and low levels of knowledge about HIV and STDs may make the participants in the study more likely to be at risk of contracting infections.

In order to overcome low literacy rates among potential respondents, researchers conducted interviews that assessed basic personal characteristics, alcohol and drug use, knowledge about HIV and STDs, sexual behavior, and experience exchanging sex for tangible goods or services. A blood sample was also taken from all participants to test the prevalence of HIV and other STDs among the sample group.

Results from the questionnaire upended some of the preconceived notions about Latinos and farmworkers. Contrary to the assumption that alcohol use among Latino immigrants is considered high, only 10% of the sample reported drinking every day or nearly every day. However, nearly a third of the sample group reported binge drinking at least twice a month over the past year. And many participants reported sex under the influence of alcohol, which may increase risk behavior like initiating sex with multiple partners.

Condom use was high, with about two-thirds of the sample reporting using condoms consistently during sex within the past three months. However, the study did not examine whether condoms were used correctly. Additionally, a large portion of those who reported having had sex during the past 3 months also reported having paid a woman to have sex. None of the men reported sex with other men.

Finally, knowledge about HIV and STD transmission and prevention was low among the sample group. This is perhaps one of the most important areas for coordinated interventions. Education about the dangers of sexually transmitted diseases could help prevent exposure to and infection by the disease.

Researchers called for further work on this topic, with a larger sample size and more coordinated effort, in order to promote greater understanding of the risk factors for HIV and STDs among farmworkers. Such efforts could also help direct health care clinicians and advocates toward the best methods for intervention and prevention among this at-risk population.

Pesticide Safety Relies on Employers

Title: *The Role of Employers and Supervisors in Promoting Pesticide Safety Behavior Among Florida Farmworkers*

Authors: B Mayer, J Flocks, P Monaghan

Source: *American Journal of Industrial Medicine*, Vol. 53, pp. 814–824 (2010)

Handwashing is one of a number of safety practices that has been shown to help reduce the likelihood of pesticide exposure among farmworkers. But contrary to the conventional wisdom which places the onus for handwashing on individual workers, this study finds that employers and supervisors have a role to play in encouraging workers to wash their hands. Indeed, the frequency of handwashing depends in large part on workplace characteristics. Importantly, the authors find that when Florida floricultural workers perceived their employer to care about handwashing, they were more likely to wash. This suggests that stronger employer encouragement of safety precautions could significantly reduce the dangers of pesticide exposure.

This Community-Based Participatory Research (CBPR) project was undertaken between 1997 and 2003 among farmworkers in the nursery and fernery industries in Florida. Researchers worked alongside community-based organizations, social marketing professionals, and farmworkers to develop a survey instrument that would gauge the relationship between farmworker beliefs about pesticide safety and behavior. The survey revealed the high incidence of pesticide exposure among farmworkers and the low incidence of handwashing, especially before using the bathroom and before leaving the field to go home. Based on the results of the survey, researchers and participants collaboratively devised and implemented an intervention aimed at increasing handwashing at worksites.

The survey results showed the extent to which environmental factors contributed to the preventative behaviors taken by farmworkers. For example, there was a stark contrast between the behavior of nursery and fernery workers. Fernery workers, who tend to be younger and overwhelmingly male, were more likely than nursery workers to report health problems as a result of pesticide exposure. However, they were also more likely to report never having received warnings after pesticides were applied. They were less likely to believe that their employer believed handwashing was important. Correspondingly, they were much less likely to wash their hands frequently. By contrast, nursery workers, who are more heavily female, were more likely to report perceiving that their supervisor thought handwashing was important and correspondingly more likely to wash their hands

frequently.

Researchers noted that farmworkers were more likely to wash their hands if they perceive their supervisor to place importance on handwashing as a means of pesticide safety. They were also more likely to wash their hands if they had received oral and written notice of pesticide use and training in pesticide safety. Thus, the researchers conclude that “the burden of handwashing is spread across workplace parties and does not only fall solely on the farmworker” (Mayer, Flocks, and Monaghan 2010: 822).

The study aimed to show the importance of collaboration between employers and farmworkers in promoting pesticide safety. Employers should make workplaces structurally conducive to handwashing, including providing clean water, notices of pesticide application, and health and safety training. Farmworkers, for their part, must educate each other about the importance of handwashing. In this spirit, the project team developed an intervention with farmworker and employer input. An educational campaign accompanied the placement of new portable handwashing tanks. An evaluation in two nurseries and three ferneries found that the intervention had been successful – the frequency of handwashing among farmworkers increased in each location with a new tank. This collaborative work may form a model for future interventions.

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