Carolyn Davis, Family Nurse Practitioner, was awarded the Steve Shore Community Catalyst Award at the 2010 East Coast Migrant Stream Forum that took place in Charleston, SC, in October of this year. I first met Carolyn in 1997, when a group of us at MCN embarked on an epic journey in a rented RV from Austin, Texas to Asheville, North Carolina for another East Coast Migrant Stream Forum. I was five months pregnant with my first child, my husband was the volunteer driver, and along with three other women from the staff we set off for a two-week tour of health centers in seven southeastern states.

Our adventures were nearly halted in Eutaw, Alabama, when we realized that the shoestring operation we’d used to rent the RV didn’t actually have insurance that covered us. But our intrepid leader, Karen Mountain, figured out some way around that hurdle from her post in Austin and we continued eastward.

Every stop along the way was unique and we were awed by the creativity and dedication we witnessed at each subsequent health center. On day six we rolled into Beaufort, South Carolina, a bit road weary and overwhelmed by all we had seen. We parked our monstrous RV in the parking lot of Beaufort Jasper Hampton Comprehensive Health Services, Inc. and were met in the waiting room by the Migrant Health Coordinator, Carolyn Davis, the most gracious and enthusiastic person we had yet encountered in a trip full of wonderful people. Carolyn took one look at us and declared us in dire need of the best local fare.

We followed her out through the beautiful flat coastal lowlands to a hole-in-the-wall on the dock called The Shrimp Shack. The “Shack” specializes in shrimp burgers made from the fresh catch hauled onto the dock daily. Unfortunately they will not reveal their recipe, but to this day that is one of the best meals I have ever had.

Beaufort Jasper Hampton Comprehensive Health Services, Inc. is located in the midst of the “low country” of South Carolina. This is a beautiful part of the United States; a land of spreading moss-covered oak trees, palmettos and thousands of acres of stately southern pine. The marshy coastal region is made up of many small islands, including exclusive resort islands such as Hilton Head. From her home on a nearby island, Carolyn can hear the guns from the Marine training grounds on the neighboring Parris Island.

This region is also known for its agriculture, particularly for tomatoes and watermelon in the summer with winter vegetable crops such as winter squash, collard greens and sweet potatoes. Unlike some other regions of the country, the crops in this area of South Carolina are still largely worked by migrant farmworkers, many of whom travel up from Florida, others of whom come from Mexico, Central America, or Texas. Most of the migrants in this region are Hispanic families and young single people; however there is still a contingent of Haitian workers who primarily work in the packing sheds. Once the picking season is over in the Beaufort Jasper area, many of the same farmworkers travel further north to the Delmarva Peninsula where the season begins a couple of months later.

While agricultural employment has remained stable in this region, in recent years many migrants have also found work in the booming construction industry, particularly in the upscale resorts of the barrier islands. The increase in luxury housing on the barriers islands has moved more of the agricultural production inland. As Carolyn says, the islands now “grow more condos then veggies”.

Carolyn Davis did not start her career with the intention of working with migrant farm-workers, but she has found a calling in it and has dedicated her career to caring for these workers and their families. She has been a leader in the field and has been recognized for her work with multiple awards, including the Steve Shore Community Catalyst Award.

“When for any reason, she gets discouraged, she looks for a tree. Looking at a tree reminds her of one of the many individuals she has served.”

Carolyn Davis, FNP, 2010

continued on page 2
workers. The daughter of a career Navy man, she moved regularly as a child, graduating from high school in Guantanamo Bay, Cuba. She received an associate degree in nursing from Florida Junior College, eventually graduating from the University of South Carolina with a BA and a Masters in Nursing. At that point she went to work for the local county hospital where she was the Director of Nursing.

In the early 1980’s, for a variety of reasons, Carolyn was looking for a change. She decided to explore the world of community health and left her job with the hospital to work for Beaufort Jasper Hampton Comprehensive Health Services, Inc. At the time she was unaware that there were even migrants in the area. The only thing she knew was that during the summer months hospital emergency room staff saw a jump in the number of people coming in.

It took her only eight weeks to fall in love with the work and she has worked as the director of the migrant health program since that time. In addition to being the Migrant Health Coordinator, Carolyn was also appointed the Director of Nursing for the health center. In the mid-90’s Carolyn went back to school and received her family nurse practitioner degree from the Medical University of South Carolina.

The migrant health program at Beaufort Jasper has grown tremendously and now serves farmworkers from three counties and a large number of migrant camps. The program runs year-round, but the biggest push comes during the 6-8 weeks of harvest time when there is a large influx of migrant workers. During this time, Carolyn brings in many different professionals from the community and the clinic to provide a wide array of services to the migrant patients. Most of these services are provided during the night clinic where they have seen as many as 87 people in one night. Carolyn says that the night clinic is “controlled chaos that somehow works”. She typically has people lining up to work in the migrant program long before the season begins.

In addition to the clinic time, Carolyn runs a number of outreach efforts in the migrant camps throughout the region. Outreach in the camps includes health education, screenings and mini physicals. When doing outreach, Carolyn often serves a number of different roles including advocacy, screening and referrals for further care.

One night a health center outreach worker called Carolyn in a panic to say that some of the farmworkers had been attacked by several members of the community. Carolyn drove out to the camp to investigate the situation and determined that everyone was safe and not badly injured. While there the farmworkers gave her a dog that had been traveling with them since Florida. She named the dog Dempsi, after the camp where the farmworkers had been living. Since that time she has rescued several other dogs from the camps.

Carolyn says that over the course of her career some things have improved for the migrant population while others have worsened. She believes that some of the prevention messages have made a real impact, especially in decreasing rates of sexually transmitted diseases and acute pesticide poisonings. At the same time, the migrants she sees continue to suffer from a number of musculoskeletal problems, dehydration and fatigue. Additionally, she sees more and more chronic disease, mirroring what is happening throughout the rest of the country, except that the patients she treats are often sicker and harder to manage. Finding specialty care is particularly difficult and Carolyn has to employ a number of different strategies to get people into care that they need.

A positive development has been the health center’s increasing use of MCN’s Health Network to help manage and track mobile patients. Carolyn says that Health Network “is a must for all of our diabetic patients, people with tuberculosis, our prenatal patients and anyone we screen for cancer.” In the past Carolyn says that she would have put off doing a mammogram for a woman she knew would be traveling soon, but since the advent of Health Network she knows that she will be able to find the woman and get her in care if necessary.

Rosa Navarro, from the North Carolina Community Health Center Association (NCCHCA) tells the following story about Carolyn.

“When for any reason, she gets discouraged, she looks for a tree. Looking at a tree reminds her of one of the many individuals she has served. In 1986 during an evening

Carolyn Davis in the early years of her migrant health career.
Study Finds that Dental Literacy is Not the Problem

Heide Castañeda, PhD, MPH

Heide Castañeda, PhD, MPH, is an Assistant Professor in the Department of Anthropology at the University of South Florida. A medical anthropologist, her primary research interests include immigrant and refugee health, social inequality and medicine, and health policy.

In the United States, tooth decay is a silent epidemic among poor and minority children, especially those in migrant farmworker families. Mexican-origin children have poorer levels of oral health than children from any other racial/ethnic group and persistently lower dental care utilization rates, even after adjusting for age, income, education, and dental insurance coverage. According to a recent Pew Center report, two-thirds of US states do not have adequate mechanisms to ensure that disadvantaged children receive the dental care they need, even though this is a primary issue facing the public health system. The Pew study graded each state on a series of eight key dental policy approaches that have been shown to positively impact dental health. The states were graded on an A to F scale. In the Pew study six states were awarded an A grade. Florida was one of the lowest ranked states and received a grade of F. Like all states, Florida is under a federal mandate to provide dental public health insurance to low-income children, including children in migrant farmworker families. As US citizens, most are eligible for Medicaid and are thus covered for basic dental services and preventive care. This means that the outright cost of services is not a barrier. However, serious disparities have been linked to the lack of access through the public insurance system, with less than one out of every five children enrolled in Medicaid using preventive services.

In 2009, a team of medical anthropologists conducted research at dental clinics and a Migrant Head Start Center in Central Florida and collected interviews with 19 dental health providers and 48 migrant farmworker parents. We found that because of the emphasis on individual beliefs and behaviors, many existing efforts to improve migrant children’s health strive to increase dental health literacy (or “dental IQ,” as many providers called it) through education. However, in the parent interviews there was little evidence of low dental health literacy, especially in regards to daily care such as brushing. This suggests a disconnect between parents’ responses and providers’ view of farmworker parents as uniquely unaware of good dental hygiene and preventive practices. We did find supporting evidence that adult farmworkers do not seek dental care regularly. Because Medicaid covers dental services during pregnancy, about a third of all women interviewed had last seen a dentist as part of their prenatal care. Afterwards, there were few low-cost services available to them. Parents cited the cost of dental services as their greatest barrier, followed by a highly mobile lifestyle and restrictive work schedules. Seasonality presented a significant problem, since issues identified in one dental visit are not always treated before families travel to a new location and results in lack of continuity of care. Most parents cited wait times between one to three months at the local Federally Qualified Health Center (FQHC) that provides dental care on a sliding fee scale.

In contrast to their parents, children often qualify for Medicaid benefits, which include basic dental services. However, there is a clear lack of providers, especially pediatric dentists, to serve them. For example, in the county in which we conducted research there were 11 pediatric dentists enrolled as Medicaid providers, but only five were listed as active and, in reality, only one was accepting new patients. This effectively meant that only one pediatric dentist was serving an area of over one million people, with more than 140,000 children in the county on Medicaid. The primary concern for the dentists we spoke with was Medicaid reimbursement rates, by which they receive only about 30% of their usual customary fee. While the situation is similar to many other states, Florida’s reimbursement rates are the lowest. As a result, many private-practice dentists must devise strategies to deal with the issue, such as capping the number of Medicaid patients they accept. In 2009, the Florida Academy of Pediatric Dentists, the Florida Dental Association, and the Florida Pediatric Society initiated a lawsuit against the state of Florida over Medicaid reimbursement issues, complaining also about the insufficient number of dental and medical providers. The lawsuit has not yet been resolved.

At the same time, many dentists expressed that they were highly motivated to work with underserved populations. As a result of the ongoing issues related to Medicaid, a trend towards charity care has emerged, with some dentists and hygienists volunteering their time with various organizations and free clinics. The irony of these programs, however, is that they do not permit treatment of those deemed to “already have insurance” – including those enrolled in Medicaid – because practitioners would otherwise not be covered by state sovereign immunity laws during their volunteer efforts. Thus, dentists are led to provide pro bono care to those ineligible for Medicaid instead of accepting Medicaid. Furthermore, charity care does not allow families to establish ties to a “dental home” for future care. These temporary stop-gap measures do not address the systems-level barriers faced by farmworkers.

As the title of our published study suggests, our findings characterize the situation for families in Florida as one of “false hope” because of the promise of services to children with Medicaid with neither adequate resources nor the will to provide them. The situation is certainly similar in other states across the US. Voices from the field of dental public health have increasingly called for a more flexible and adaptable multi-layered dental workforce in order to meet increasing demand for services. This study supports proposals for solutions including the increase in reimbursement rates as an incentive for dentists to treat low-income children,

continued on page 6

References:

Pesticide Handler Health Risks, Practical Solutions and a Safety Climate – Lessons from Washington State

Marcy Harrington, MPA

Editor’s Note: This is one in a series of articles based on research presented at a poster session sponsored by the Pacific Northwest Agricultural Safety and Health (PNASH) Center at the 2010 Western Migrant Stream Forum. For more information visit http://deps.washington.edu/pnash.

The Portuguese proverb, “Give a hint to the man of sense, and consider the thing done” offers motivating words for safety and health educators. Whether to a friend, employee or patient, communicating pesticide risks and solutions is complex, especially with the rapidly growing body of knowledge around pesticides. Yet, it is worth doing. Research is yielding results on pesticides’ long-term health impacts; identifying linkages to cancers, reproductive impairment, neurological deficits and disease.  

In Washington State, handlers of pesticides want to receive information on their exposures, even when the health risks are uncertain. In addition, farmers and pesticide handlers are developing their own solutions to reduce their exposures. These are some of the simple, but compelling lessons learned from a series of pesticide projects at Pacific Northwest Agricultural Safety and Health (PNASH) Center.

Washington is a model for how multiple players contribute to improving pesticide safety. There is a strong network of farmworker and community clinics and exceptional pesticide education programs, including hands-on training for pesticide handlers and supervisors. Additionally, an unpublished 2010 study by Fenske and Galvin showed that Washington workers and employers view a workplace safety climate as part of a solution to reducing applicators’ overexposure to pesticides. This fits well with PNASH’s guiding principle to reduce exposures at the source and develop workplace-based solutions.

Data from the state-wide cholinesterase monitoring program shows a marked decline in pesticide applicator exposures since the program began in 2004. The program’s early cases mobilized multiple agencies, nonprofits and the industry to
address exposures. Now the low rate of cases is likely evidence for the success of education efforts, a reduction in the use of azinphosmethyl (due to EPA phase out of this pesticide), and employers’ limiting handler exposures (e.g., through employee rotation).

**Work Practices Influencing Exposures**

Building on the state’s monitoring program, in 2010 Keifer and Hofmann conducted a study of pesticide applicator work practices and their exposure levels. Results show statistically significant higher exposures during the mixing and loading of pesticides as well as when cleaning spray equipment. Most importantly, the risk of pesticide exposure significantly decreased with the applicator’s use of full-faced respirators and chemical resistant boots. These practices may not only be important safety considerations in themselves, but may also be indicative of workplaces with a general high standard of safety.

As this investigation continues, new trends and results are emerging, such as a decline over the period of 2006-2010 in the use of full-faced respirators. This is a trend that will hopefully reverse with release of study results the winter of 2011.

**Farm-based Practical Solutions**

The Washington-based study by Fenske and Galvin identified practical solutions to reduce applicator exposure. The study found a number of inventive and practical safety measures developed on the farm by pesticide managers and applicators. These included:

- **Thermo-wind meter**: To prevent pesticide drift, and improve coverage, pesticide handlers can monitor temperature and wind direction and speed.
- **Mixing Bucket with Gallon Markings**: To limit risky measurement and pouring, handlers use one 5-gallon bucket with gallon markings.
- **Portable Toilet, Sink and Emergency Shower & Eyewash Station**: Provides required facilities on a trailer that can be moved to where pesticide handlers are working.
- **Eyewash stored in Ammo Box**: Keep emergency eyewash clean, within reach and easy to open with an ammunition box attached to the tractor.

**Creating a Safety Climate**

An unexpected outcome of Fenske and Galvin’s study was the importance of a positive safety climate to study participants. Thirty-five of the managers, educators, and pesticide applicators interviewed as a part of the study said that they think safety practices needed to be “consistent,” and “careful.” The following illustrate some of the more common issues raised about the overall safety climate.

- Managers need to “constantly remind” workers of necessary measures to prevent exposure.
- Both handlers and managers stressed the need for each worker to “be responsible,”
- “be aware,” or “be careful.”
- A concern was described as, “(when) something is in place a lot, so you no longer pay attention to it.” On the same vein, “you get busy in the work it just seems to kind of slide, slide, slide until…. Maybe something more drastic happens.”
- Many participants spoke of the need to be careful and protect the safety of others inside the workplace and also in the surrounding community.
- One participant indicated that workplace safety is the “work of changing minds. And it is not overnight.”

**The Healthcare Provider’s Role**

We know from previous research that the health care provider is a trusted information source regarding pesticides, for both employers and workers, and the front line in national surveillance. In addition, the health care provider can play a role in reinforcing the need for safe practices including minimizing exposures to pesticides and fostering a safety climate of respect and support.

In the coming year, PNASH looks forward to sharing more on our pesticide study results, including risk factors for exposure, genetic contributors to individual susceptibility, and practical pesticide safety solutions for the farm. Refer to our pesticides and health webpage for further information: http://depts.washington.edu/pnash/pesticides.php.

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ENVIROMENTAL / OCCUPATIONAL HEALTH SECTION

Childhood Agricultural Injury Rates Continue to Decline
National Children’s Center for Rural and Agricultural Health and Safety

The rate of childhood injury on farms and ranches has declined by nearly 60 percent since 1998, an encouraging sign that research and public awareness efforts are making an impact in one of the nation’s most hazardous industries.

“This marked decline is a testament to the dedicated efforts of many individuals, organizations and agribusiness sponsors, along with federal agency leadership,” said Barbara Lee, Ph.D., director of the National Children’s Center for Rural and Agricultural Health and Safety, Marshfield, WI. “Injuries and deaths affecting children on farms are no longer viewed as unavoidable accidents, but rather as predictable and preventable events.”

The rate of injuries fell 59 percent, from 16.6 to 6.8 per 1,000 farms (includes all children who live on, visit, or are hired to work on farms), during the period 1998-2009. Injury rates calculated for just youth who live on farms also showed a significant decline, from 18.8 to 9.9 per 1,000 farms, or 47.3 percent, according to a scientific survey conducted by the USDA National Agricultural Statistics Service for the National Institute for Occupational Safety and Health (NIOSH).

Total number of injuries to youth ages 19 and under dropped from 37,774 to 15,011, while the number of youth living on farms dropped from 1.46 million to 1.03 million.

Rate of injury is the most meaningful method for judging progress, Dr. Lee said, because it takes into account the reduced number of farms and the fewer number of children who live on, visit or are hired to work on farms. The data was released September 9th, 2010. Dr. Lee attributes the work on farms. The data was released to the higher injury rates seen in farm children who live on, visit or are hired to work on farms, during the period 1998-2009.

Beneath the overall declining non-fatal injury rates, however, challenges remain, such as higher relative injury rates for all-terrain-vehicles (ATVs) and horses. An in-depth analysis of 2006 data revealed a mixture of work and non-work exposures, including ATVs and horses that likely contribute to the higher injury rates seen in farm household children ages 10-15 relative to other age groups. For youth younger than 10, the majority of injuries were nonworking injuries.

“Although this injury information helps us maintain momentum and target future interventions, we do not have timely data regarding fatalities, thus it is not clear whether deaths to children on farms are decreasing,” Dr. Lee said.

The data are based on a telephone survey of 50,000 randomly selected farms. Farm operators were asked questions about injuries to youth less than 20 years of age that occurred on their farm during the survey year. An injury was defined as any condition that required medical attention or caused temporary or permanent disability. The data is available on the NIOSH website, www.cdc.gov/niosh/childag.

Celebrating a Career Devoted to Caring for Migrant Farmworkers continued from page 2

clinic, a week before a group of farmworkers were scheduled to leave South Carolina, the physician noticed that a young man was having difficulty seeing. A visual test and health history revealed that he was almost blind and had been that way since childhood. He was able to work because he learned to use his other senses and because he had help from his co-workers. She remembered securing immediate, free consultation with an ophthalmologist by working with a local church to pay for glasses. When the young man used his eyeglasses, for the first time he noted the large object outside the window and exclaimed ‘tree!’ This was the first time he had actually seen one in its entirety. Because he had never seen clearly in his life, he even had difficulty walking. Carolyn held his hand as he took his first unsteady steps. The sense of accomplishment has never abandoned Carolyn, because she believes that if she can help one person to see a tree for the first time, she can certainly line up the stars again to increase access and continuity of care for other farmworkers.”

Study Finds that Dental Literacy is Not the Problem continued from page 3

creative models to address the severe distribution shortage of dentists within some communities, as well as programs for sealants. Some solutions are uniquely effective for migrant children, such as the use of sealants, since their mobile lifestyle often impedes continuity of care. Programmatic efforts targeting new mothers who are covered during their pregnancies is critical for their own well-being as well as learning about available services for their children. Finally, it must be remembered that dental caries is ultimately a contagious infection in which bacterial overload in the mouths of parents lacking access to oral health care can easily be transmitted to their children. This factor points to the serious limitations and effects of public health care policies that separate “citizens” from “noncitizens.” However, while each of these is necessary, they are insufficient on their own. The oral health epidemic in poor and marginalized communities calls for serious and innovative solutions.
The Migrant Clinicians Network, the nation’s oldest and largest clinical network dedicated to the mobile underserved, established the Annual Unsung Hero Award in 1990 as a way to honor unrecognized clinicians in the field of migrant health.

MCN is very pleased to announce that this year’s winner is Eugene (Gene) Majka from Homestead, Florida.

Majka joined the nursing faculty at Barry University’s College of Health Sciences eight years ago and immediately set forth to support the migrant community. He has collaborated with community organizations such as We Care, Redlands Christian Migrant Association (RCMA), American Lung Association, and Area Health Education Centers (AHEC) in order to address the most pressing healthcare needs of migrant families served at all six RCMA centers.

Gene supervises Registered Nurses (RNs) who are returning for their baccalaureate degree during their Community Health clinical practicum. Under his direction and supervision these RNs have completed health care assessments on over 600 children, making sure their immunizations, weights and medications are accurately documented. These assessments continue as needed at local day care centers. Adults are also served through health screenings offered several times throughout the year.

During the flu outbreak in Fall 2009, Gene worked with the Florida Department of Health to provide over 600 H1N1 immunizations to migrant farmworkers and their families.

His students have provided over 100 health education topics in English, Spanish and Creole to staff members of community agencies, as well as parents. Students create and provide the center staff with educational materials, allowing the staff to continue educating parents on key topics.

Mr. Majka is committed to providing comprehensive care and making sure the healthcare providers in the Homestead community have the knowledge and resources they need to join the effort.

He and his students discovered rashes on the faces of the children in one of their child health screenings and determined they were being hugged by their parents who were wearing their field clothes. Tainted with pesticides, these clothes were producing skin rashes and triggering asthma attacks. Mr. Majka used his contacts with the American Lung Association to screen the children for asthma and provide peak flow meters for the children.

“Project Wash” was instituted to raise funds so that parents could afford laundry detergent to wash their children’s clothes separately from their own field clothes.

Majka identified resources for selected dental services for migrant children and arranged for Walgreen’s to provide pharmacy interns to educate community staff on the use of Epipens so they can respond to allergic reactions when RNs are not in the community.

In her nomination letter, Pegge L. Bell, PhD, RN, APN said, “Mr. Majka could have chosen any community in South Florida and he chose the most disenfranchised — the migrant community in Homestead. He is tireless in his efforts to improve their lives and make sure they have what they need now as well as in the future.”
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calendar

ASHCA
Agricultural Safety & Health Council of America
January 6-7, 2011
Atlanta, Georgia
http://www.ashca.com/

Alcohol, Cigarettes, and Tuberculosis
A National, Web-based Seminar
January 12, 2011, 11:00am-12:30pm, Pacific Time
http://www.nationaltbcenter.ucsf.edu/training/nationalwebseminar.cfm

20th Annual Western Migrant Stream Forum
February 16-18, 2011
Oakland, CA
http://www.nwrpca.org/conferences/western-migrant-stream-forum.htm

National Farmworker Health Conference
May 11-13, 2011
Delray Beach, FL
http://www.nachc.com

American College of Nurse Midwives Annual Meeting
May 24-28, 2011
San Antonio, TX
http://am.midwife.org/