

streamline

Integrating Community Health Workers into the Clinical Team

By MHP Salud

Over the past five years there has been a strong push to include Community Health Workers (CHW) in clinical teams. This movement is backed by the large body of evidence demonstrating the capacity of CHWs to prevent diseases and manage care for a variety of health conditions, such as asthma, hypertension, diabetes, cancer, immunizations, maternal and child health, nutrition, tuberculosis, and HIV/AIDS.¹ In addition, the Affordable Care Act's (ACA) recognition of CHWs as contributing and valuable health professionals and how they can relate patient-centered care has brought more attention to

the field of Community Health Work.²⁻³

A guiding framework for CHW integration into mainstream health systems is known as the "Triple Aim." The framework was developed by the Institute for Healthcare Improvement and describes an approach to optimizing health system performance that centers around three dimensions:

- Improving the patient experience of care;
- Improving the health of populations;
- Reducing the per capita cost of health care.⁴

This framework has been translated into the development of Patient Centered Medical

Homes (PCMH), a health care model that naturally aligns with the core concepts of the field of Community Health Work in regards to providing patient-centered care. Guided by the triple aim goals and the recent push towards patient-centered care, the use of CHWs in clinical roles has slowly emerged as an effective and recognized practice in mainstream health care.

Key Findings

Although key thought leaders and institutions in the health care field, including the Institute of Medicine, have recognized the potential for CHWs to provide cost-effective and higher-quality health care interventions, the adoption of this practice has been slow.⁵ However, there have been several studies that have contributed information on how we can understand this role.

Methods for Integration

According to the Centers for Disease Control and Prevention (CDC), as part of a clinical team, CHWs can:

- Provide outreach in a community setting;
- Measure and monitor blood pressure;
- Provide health education;
- Assist a patient with adherence to medication regimens;
- Help find ways to comply with treatments;
- Navigate the health care systems;
- Provide social support to patients and family members;
- Assess how a self-management plan is helping patients meet their goals;
- Assist patients in obtaining home health devices to support self-management; and,
- Support individualized goal setting.⁶

Another common finding was that a CHW has the ability to act as a cultural bridge between communities and health care providers.⁷



Photo by Alan Pogue

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A Lifetime of Migrant Farmworker Experience: Profile of Wilson Augustave

By Claire Hutkins Seda, Writer, Migrant Clinicians Network, Managing Editor, *Streamline*



Photo by Debbie Patrick

[Editor's Note: To accompany MHP Salud's article on community health workers, we present the profile of Wilson Augustave, one of our 30 Clinicians Making a Difference. To celebrate MCN's 30th anniversary in 2015, we launched 30 Clinicians Making a Difference, in which we chronicled the work of 30 individuals who have dedicated their lives to migrant health. View all 30 profiles at www.migrantclinician.org/30-clinicians-making-a-difference.]

In the middle of the interview for this profile, Wilson Augustave, the Senior HIV Case Manager at Finger Lakes Community Health in New York, received a call from Haiti. After a minute of silence, Augustave apologetically returned to the line, saying that the call had been from a nephew, asking for financial support. "In Haiti, there are no jobs, and they call whenever there's a need," he explained. "It's really tough for them. They really count on people who are in the states to wire money." He noted that hospital patients typically have to pay up-front for medical procedures and hospital care, before being admitted into the hospital: "Apparently, if you don't have any money and you need to go to the hospital, they won't see you." Augustave, due to his childhood experiences and his continued relationship with family in Haiti, has a deep and heartfelt understanding of what drives families to immigrate to the US, and he has an equally nuanced grasp of the unique struggles that farmworkers and their families encounter when they arrive here.

Early Years as a Migrant

Augustave's parents left Haiti before he was born, searching for a better life in the Bahamas, where he was born. When he was six, his family moved to Abaco, an island in the Bahamas where his parents found work in cucumber, pumpkin, and sugar cane fields. Augustave attended an English-language school, while living in the Haitian migrant farmworker community, where the primary language was Haitian Creole. He spoke Haitian Creole at home. "That kind of kept [me] fluent in both languages," he said.

His parents lacked authorization to work in the Bahamas. "During those times, because of the issue of documentation, immigration would make these raids," he explained. "I remember as a kid, [my parents] picking me up out of the house and running into the woods in the middle of the night, and everyone being quiet and just waiting." When the immigration agents left, the adults would go right back to work: "The need was there for the workers, but the politics was a different story."

The reality was confusing to young Augustave. "Those kind of things, you don't forget them. You look at your parents, and see [what] hard workers they are, and [that all] they're just trying to do is take care of your family in the Bahamas and back home in Haiti, and ...you wonder why they have to go through all of that."

When Augustave was 11, the family moved to Miami, in search of better opportunity. They eventually found work in central Florida, picking oranges. They began to

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find work in other parts of the country as the seasons progressed: they went to Georgia for peaches, to Missouri for watermelons, then back to Florida, then to upstate New York to pick apples, until the winter returned and they would travel back to Florida for oranges. "It was a very migratory life. It was tough with schooling... but it was the norm," explained Augustave.

Settling Down

In the early 90s, Augustave decided to stay in New York year-round, where he found work in the apple fields. Eventually, he caught the attention of Pat Rios and Mary Zelazny, the senior management of Finger Lakes Community Health, who were interested in having a case manager who is bilingual in English and Haitian Creole: "Basically, they came out into the field where I was picking apples and they interviewed me – while I was picking apples!" In his free time, Augustave had already been assisting Haitian migrant farmworkers who needed interpretation services, like in the court system, in the emergency room, or at doctor's appointments. He began work as a case manager to more formally assist Haitian Creole-speaking farmworkers in Finger Lakes Community Health's sprawling service area across almost half of New York. Now, Augustave has been working as a case manager for over two decades. Augustave has participated in a wide range of councils and boards for both government agencies and nonprofits, working "to advocate for farmworker rights," he said. "I guess you have to realize that, over the years, [your work] accumulates, and that [recognition] could happen to you."

First HIV Patient

In the mid-90s, Augustave was assigned Finger Lake Community Health's first migrant farmworker with HIV, an African American apple picker. "It was intimidating, and I didn't know what to think or expect," admitted Augustave, but he connected quickly with the patient. "From brother to brother, I just loved this guy. I knew how hard it was on him, and he was still working, putting his heart and soul into working, travelling 1,300 miles each year. He was soft-spoken, [but] he was grateful to the organization and to me. It helped to solidify why I was doing what I was doing, and that lasts for a long time." Eventually, the patient was too sick to continue his migratory work, and Augustave lost track of him. "His spirit... I see in all the other farmworkers," Augustave said, adding, "I feel privileged to work with that population. It has been a personal and professional journey in doing this line of work."

As HIV cases among farmworkers increased, Augustave found that patients



Photo by Debbie Patrick

were being referred his way, on account of his early experiences with HIV patients. Now he is the Senior HIV Case Manager, where he works to better connect migrant workers with HIV to the extensive and expensive care they need, both in New York State and as they migrate. "Some of these medications cost two or three thousand dollars, and some of these folks are making \$200 a week," he noted. "Plus, they have to... send money back home, and they have children and families." His goal is to help patients "get into care, and be able to manage it." If they travel on, or return home, Augustave works to make sure "they're linked up with people who can assist them so they can

maintain some form of continuity of care." He refers them to other case managers in their next location "for linkage to care," he says. Augustave has even travelled on his own time to other states: "Sometimes I actually go down to those states and try to find ways to improve health outcomes... Whatever it takes."

Idealist Dreamer

Even as Augustave watches sick migrant farmworkers continuously encountering barriers to continued care, he remains optimistic. "I'm an idealistic dreamer," he said, noting that improvements have occurred in the overall system of care, and he anticipates that with continued improvements in technology and infrastructure, that farmworkers will become better integrated into the overall health system, which will permit them to more easily seek out care. He also stresses the import of factors beyond health: "Health is important—but you also need good housing, protection from environmental factors like pesticides, a fair wage, and fair labor practices." Collaboration has to happen, he says, "not just between health providers, but with all these service agencies that can help...The overall health [of farmworkers] is definitely affected."

He also recognizes that his work is only possible with the support of the overall organization, including Finger Lakes Community Health's senior management. "It takes planning, it takes compassion, it takes caring, and it takes people who enjoy working with this population," he said. Farmworkers are thankful for the program "because they say that, in all the places they go, they get the best care – with people who really care about them – from our organization," he said. "They thank me, but it takes the whole organization that works to cater towards them." ■



Photo by Debbie Patrick

Understanding Health Center Reimbursements

By Claire Hutkins Seda, Writer, Migrant Clinicians Network, Managing Editor, *Streamline*

In the health center world, great ideas aren't always easy to finance. Cash-strapped CFOs find it hard to approve even the best ideas, if they pull clinicians away from seeing patients, or if they require the health center to hire more staff. But how do clinicians push for transformative measures in a poorly capitalized health center? Robert Moore, MD, MPH, Chief Medical Officer of the Health Services Department for the Partnership HealthPlan of California and a member of Migrant Clinicians Network's Board of Directors, encourages clinicians to learn how their health center receives its funding, so new ideas can fit in with the prevailing reimbursement structure. "Understanding the reimbursement methods is the key to talk the language of your CEOs and CFOs," Dr. Moore noted in his recent MCN webinar, "Enhancing Clinical Services in Health Centers: Leveraging an Understanding of Health Center Reimbursement Methods." Here, we review the predominant ways a health center covers costs, and methods for clinicians to pursue to get leadership on board with transformations.

How does your health center cover costs?

Dr. Moore reviewed the most common ways a health center pays the bills, and provided the easiest avenues to build capital for transformations.

Low Medicaid population

If a health center serves mostly uninsured patients — either because the health center's state did not accept Medicaid expansion with the Affordable Care Act, or because of a large patient population of people without authorization to live in the US, thereby ineligible for coverage — then the clinic is likely funded through grants and/or affiliations with larger, more financially stable nonprofits or other organizations like a religious group. "Financial margins are low" for such health centers, noted Dr. Moore, making it "hard to do any kind of practice transformation," but certain strategies work best for this type of health center:

1. **Cost-effective staffing:** In some ways, grant-funded health centers have more freedom to rearrange patient visits to better meet their needs, because the patients do not need to see a billable provider in order for the health center to get paid. "Outreach workers could be cost effective over a clinician approach, when a clinician is not necessarily needed," Dr. Moore offered. Examples include using community health workers to do prevention

activities in the community, which would lower costs over time, or training Medical Assistants to perform basic counseling activities, freeing up the time of the clinician for new initiatives.

2. **Increase outside revenue sources:** Some health centers may be eligible for the 340B drug discount program. Health centers may also seek additional grants and funding from the local community or from nationwide organizations focused on the transformative steps the health center is wishing to implement.

Prospective Payment System in a High Medicaid Population

Health centers with a large Medicaid population is likely reimbursed through the Prospective Payment System (PPS). Under PPS, qualifying community health centers that see Medicaid or Medicare patients are reimbursed

based on a per-visit rate, no matter how long or short the visit, if seen by an eligible clinician for a medically-necessary visit to a PPS-eligible provider. (See our sidebar for more on the history of PPS and how it works.) Under the PPS, health centers are paid a set per visit rate, linked to the site, often called the "PPS rate." Many health centers have incentive payments outside of PPS as well, such as payments related to creating a Patient Centered Medical Home (PCMH). Finally, these health centers may also receive grants or other funding from the community or from specific initiatives the health center pursues.

Health centers may have trouble adopting innovative care models that are key to becoming a PCMH under the PPS, Dr. Moore believes, because PPS incentivizes face-to-face visits with eligible providers and disincentivizes visits to non-eligible providers. PPS makes it challenging to integrate new services

Prospective Payment System

Where?

Health centers currently paid through a Prospective Payment System include Federally Qualified Health Centers (FQHCs), FQHC look-alikes, rural health centers, some county-affiliated health systems, and Indian Health Center clinics.

Who?

Health plans will pay for Medicaid or Medicare patient visits to a PPS-eligible provider. The list of eligible providers varies by state, but in California the list includes physicians, podiatrists, optometrists, doctors of chiropractic, nurse practitioners, physician assistants, midwives, dentists, dental hygienists, licensed clinical social workers, and psychologists. The National Association of Community Health Centers issued a report in December 2014 that summarizes the major differences between PPS-eligible providers by state.* That leaves out a wide range of professionals often incorporated into a patient's core care team (again, depending on the state); dietitians, medical assistants, health educators, physical therapists, acupuncturists, marriage and family therapists, community health workers, and many others may not be eligible for PPS rate payments.

How?

How does the government determine the PPS rate for a health center? For a community health center already in operation, the PPS rate will be based off the "rate-setting year," documentation from the previous year's full cost of providing care for Medicaid patients at the clinic. This includes base costs like salaries, benefits, and some administrative costs, as well as enhanced services like transportation, education, community outreach, and costs associated with the use of electronic health records. The costs of non-PPS-eligible providers, like a dietician working at the health center, are generally allowed in this PPS cost report. Services not listed on the scope of a FQHC (like a non-FQHC free clinic overseen by a FQHC) and administrative expenses related to those services are not to be included in the cost report. For brand-new organizations, the rate is determined by the average rate of three similar nearby health centers. This initial rate stands for three years, after which it is reevaluated.

* 2014 Update on Implementation of the FQHC Prospective Payment System (PPS) in the States, Policy Report #52. National Association of Community Health Centers. <http://www.nachc.com/client/2014%20pps%20report%20LE%20Edits%20%2020%2015.pdf>. Accessed 16 November 2015.

like telemedicine, email or telephone care, or other modes of contact with patients, because the health center will not be reimbursed.

Dr. Moore also notes that PPS “creates structural inequality,” with some health centers receiving a higher PPS rate than others, meaning patients going to health centers with a higher PPS rate will have more resources. Health centers with a low PPS rate may find it challenging to adjust their PPS rate. While some health plans in a PPS setting pay a “global payment” to provide consistent funding despite patient visits, Dr. Moore notes that these changes are only cash-flow Band-Aids, as health centers will usually need to reconcile based on their actual visits, at the end of the defined period.

Dr. Moore has several suggestions to integrate new measures in a health center under a PPS rate:

1. Apply for a change of scope, to cover additional services. If you need a pharmacist, says Dr. Moore, integrate the position into the scope of services, incorporate it into the cost structure, and apply for an increase in the per-visit rate to cover the new position costs.
2. Alternatively, hire the needed position, have the patient see an eligible clinician for an abbreviated (but still medically meaningful) visit followed by a warm handoff for a longer visit with the non-PPS billable provider. The health center will still be paid for the clinician visit, and the patient will receive the enhanced services he or she needs.
3. Seek quality improvement incentives like PCMH and invest the payments into enhanced services.
4. Seek new grants and other funding in the community or related to the specific improvement the health center wishes to take on.

Alternative Payment Methodology in a High Medicaid Population

In some states like Oregon, health centers that previously worked under a PPS rate are now piloting an Alternative Payment Methodology. The federal government established PPS and its method of determining each health center's unique PPS rate in 2000, with the passage of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act (BIPA). The BIPA also provided an alternative: If health centers and their state agree, together they can establish a different payment system, as long as the state's reimbursement to the health centers are not less than what they would have received under the federal PPS. This is called the Alternative Payment Methodology (APM). Because each state negotiates its own APM, how it exactly works will vary state to state, but the APM must be structured to pay at least as much as the PPS rate did. Therefore, the health center receives

a monthly payment per member, but the payment is no longer tied to those face-to-face visits with an eligible provider. By piloting an APM, health centers have the opportunity to increase care coordination and other transformative practices. (See our sidebar on APM for more on how it works.)

Dr. Moore recommends that health centers prepare a strategy to launch transformations before the APM arrives at their health center, and concurrently with the APM implementation, to best take advantage of the payment structure changes. Dr. Moore suggests identi-

fying a team and building the internal commitment to transformation — including, critically, clinical leadership buy-in. Next, start doing some transformation activities before the APM is implemented: “Maybe it's going to be on a small scale... because you can't afford to do them across the board with the current payment system, but get some experience so you can take advantage of the new payment system when it comes to your area, and start doing that transformation,” Dr. Moore recommended. “It takes a while to build up the knowledge base and the experience base.” ■

APM in practice

In March of 2014, three Federally Qualified Health Centers (FQHCs) piloted an Alternative Payment Methodology (APM) in Oregon, which was developed collaboratively by the Oregon Primary Care Association, health centers, and the Oregon Health Authority. At the heart of Oregon's APM is a “wrap cap,” wherein the FQHCs receive capitated payments for Medicaid patients — that is, providers are paid a set amount for each patient on their panel, per predetermined time period, whether or not that person seeks care.

The health center looks at how often the patient came in previous years, and the resulting payment to the health center, averages that payment, and then spreads it out over the course of the year.

The hope is that Oregon's APM will eliminate some concerns of health centers under the PPS rate. Most obviously, the APM will end PPS's standard payment per visit, wherein a provider may be incentivized to have a face-to-face visit in order to generate revenue. Indeed, in the first year, face-to-face visits dropped.

Another goal of Oregon's APM was to encourage greater integration of a patient's care team. Under PPS, a wide range of professionals often incorporated into a patient's core care team are ineligible for payment, including dietitians, health educators, physical therapists, and community health workers.

In California, a voluntary APM is expected to be rolled out in 2017. Similarly, California's APM aims to decouple patient visits from clinic payments. APMs are at various stages of development in other states across the country as well.

Social Determinants of Health

Dr. Moore believes that decoupling of patient visits from clinic payments “frees you up to address the social determinants of health, because the health status of your patient, of the Medicaid population, is very largely determined by a number of social determinants. That's a key part of being successful in this model.”

Social determinants of health are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life, according to the World Health Organization. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems. Examples include a patient's access to fulfill basic needs like safe housing, sufficient healthy food, education, and work opportunities. These underlying factors affect a patient's health.

To illustrate how a health center under an APM can address social determinants of health, Dr. Moore offered the example of a patient with a back ache. Instead of a simple prescription and perhaps some physical therapy, a health center can assess for gaps in social needs. Does the patient lack sufficient housing; is he up all night worrying about rodents? Is he sleeping in a car? Is he working all night? Is he not sleeping well for other reasons? After identifying the social need, the clinician under an APM may have the resources to refer the patient, or may have the resources the patient needs in the health center. The social determinants of health can also be addressed through community-wide collaboration, says Dr. Moore. If hypertension is identified as a concern in the community, the health center can respond: a patient with hypertension may attend team visits with a health educator and a counselor. A nurse may provide follow-up, through emails or phone calls. Community health workers can set out to address the social contributors to hypertension, like food deserts or housing issues. In this way, a health center under an APM may strongly address underlying issues to create a healthier community.



Promising Practices: Dental Health at Choptank Community Health System

Last summer, migrant workers attending a mobile health clinic at their camps in Maryland received something new: an oral health kit, with a toothbrush, toothpaste, and floss. The kit, and the verbal and written information on oral health that accompany it, are part of Choptank Community Health System's new dental service expansion into the migrant camps along the Eastern Shore of Maryland. Choptank, a Federally Qualified Health Center, has provided medical services at the camps for years — but the integration of dental services into the scope of services offered is new.

"One of our hygienists will go out to the camp with the medical crew and do an exam to identify levels of decay as 'priority one, two, and three,' to see if there's any active decay or infections," in the mouths of the migrants who come to see a medical practitioner, says Shelley Andrews, Director of Community Based Programs and Marketing at Choptank. If needed, the practitioner providing medical care at the camp that day can prescribe antibiotics or other medications related to the screening on the spot, which are later brought to the camp. Based on the screening, the team can coordinate a daytime appointment at the dental office immediately if the need is high, or at an evening migrant clinic if it can wait.

This expansion is in line with Choptank's longtime focus on the integration of medical and dental care, which has led Choptank to expand from just one dental site in the early 2000s to dental services at four sites across three counties, at 30 schools through nine school-based centers, in addition to outreach and screening outside the dental offices. The health center is considering a dental services expansion using a full-service dental van that can provide basic dental services at the camps for migrant and seasonal workers.

Choptank turned to dental services provision for a simple reason: because their patients needed it. "For us, it was really based on the

data," explained Sandra Garbely-Kerkovich, DMD, Senior Vice President and Chief Dental Officer at Choptank. Statewide surveys found that children living on the Eastern Shore had a higher rate of dental disease than children in Baltimore City, an area often perceived as impoverished, which surprised the health center administration. Dr. Garbely attributes the discrepancy to a shortage of providers accepting medical assistance for dental care until recently, coupled with a lack of education on

oral health within the pockets of extreme poverty on the Eastern Shore. "We wanted to think about how we can reach out and do these early interventions [and] identify the general disease," before it required an emergency room visit or surgery, Dr. Garbely said.

Choptank responded with a comprehensive dental care program for children, starting with those who are still teething, on up until they

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No-Show Rates

Choptank's year-end goal of just 17 percent of dental patients missing an appointment is well below the no-show national average of 30 percent, noted Sandra Garbely-Kerkovich, DMD, Senior Vice President and Chief Dental Officer at Choptank. In 2015, they almost met their goal, bringing the no-show rate down to 19 percent. A key factor in reducing the no-show rate may be their data tracking and analysis; Choptank tracks its no-show rate by discipline, hygienist, and dentist separately, then by dental site. As with their other quality improvement measures, Choptank provides pay incentives to all providers who are meeting the targeted goals.

Choptank staff confirms patient appointments 48 hours in advance by phone, followed by a texted reminder 24 hours before the appointment, said Dental Program Director Lorraine Loera, who also noted that Choptank will soon utilize an automated system to confirm appointments by phone, text, and email. Patients who do not keep their appointments receive a series of letters after each missed visit, "to let them know that we care about their overall health and well-being and to please reschedule their missed visit," said Loera. Additionally, a Dental Case Manager is available to assist in finding resources to overcome barriers patients may encounter that prevent them from making their appointments.

Dr. Garbely notes that unfilled dental appointments are easily filled with emergency and acute care appointments; the issue of unfilled appointments is primarily with hygiene. To address this, Choptank recently implemented a new scheduling process, wherein automatic appointments are no longer scheduled several months out. Instead, they send a postcard about one month prior to their appointment due date and request them to call and schedule an appointment. "If [there's] no response, we then call the patient to make the appointment, closer to their appointment due date," Dr. Garbely explained. As this is a newer approach, Dr. Garbely does not have firm data to demonstrate that the approach is bringing down their no-show rate, "but it allows contact with [the patients] closer to their appointment due date and therefore patients do not make appointments so far out, and...[may be] less likely to forget [their] appointment," she said.

"I would also like to think the caring staff in each of our offices is a factor [in our low no-show rate], particularly the dentists, who keep patients educated and informed on the importance of completing their dental treatment for overall optimal health," Loera said. "It is a... team effort within the dental department."

reach adulthood. For the youngest children, they have partnered with their local Head Start to provide preventative services and conduct federally-mandated screening. They also provide fluoride treatments for children under five years old in three Women, Infants, and Children (WIC) offices, an important preventative measure for migrant children who may miss out on fluoridated water if they rely on well water in worker housing in agricultural settings. Dental Program Director Lorraine Loera noted that children have excellent dental coverage up to the age of 21 through Healthy Smiles Maryland, the statewide program for children, which covers a vast array of care including dental surgery if the dental team provides preauthorization.

Migrants of all ages also have good access to services. Andrews noted that Choptank is particularly fortunate in that continuity of care is less of a concern with Eastern Shore migrants as it is in other parts of the country. "In our service area, very few families come in as migrants," she noted, as most are H2A or H2B visa holders, arriving solo to work as crab pickers or in local nurseries. But the migrants who do come "have been coming here for 25 or more years. They're very established, and it's easier to take care of their health issues because we've seen them for many years." She noted that many receive care in their home countries as well, and enjoy ongoing relationships with their practitioners when they return to Maryland. She also pointed to the strong relationships that Choptank has built with many of the employers of the migrant workers, which allow them to coordinate on issues of night clinics and transportation. "We're very lucky with the relationship that we have with our seasonal workers that come through and the people who employ them. That allows us to provide better services to them. Familiarity really does help a lot."

Choptank further fills out its oral health program with multiple university partnerships. "We have an active affiliation with the University of Maryland School of Dentistry in which we have dental students rotate on externship and also Dental Hygiene students rotate through our program," Dr. Garbely explained. "We also have a partnership with the Arizona School of Dentistry and Oral Health (ASDOH) in which each of our dentists has been credentialed and approved as external faculty and oversee the rotation of students on a five-week externship program."

They also have a one- to two-year residency program through the New York University's Lutheran Medical Center, plus a partnership with the local Chesapeake Community College for dental assisting students. The load

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Strategies for Dental Health Integration

How well integrated are dental services into medical services, in Federally Qualified Health Centers (FQHCs)? "It depends on how you interpret the data," noted Irene V. Hilton, DDS, MPH, FAGD, a dental consultant for the National Network for Oral Health Access (NNOHA). Almost three-quarters of FQHCs have some dental component, a noteworthy accomplishment. Yet, a small dental program in a large health center may result in many patients being unable to access dental services; consequently, only about one-quarter of FQHC patients have dental services through their health center.

NNOHA seeks to change that. Their technical assistance and education on promising practices assist health centers seeking to expand or further integrate their dental programs. Of course, capital investment is an ongoing issue for health centers, particularly since dental infrastructure is relatively expensive. "It takes a lot more initial capital costs to set up a dental clinic than it does in, say, primary care," Dr. Hilton pointed out, due to the costs associated with dental equipment, and required infrastructure like plumbing and electrical. The Affordable Care Act did provide capital investment funding opportunities for health centers, said Dr. Hilton. Beyond advocating for increased capital funding for traditional dental program expansion, NNOHA provides health centers with tools and resources that explore innovative practices in dental. Below, we highlight a few of these practices and the resources that NNOHA provides on each topic.

1. Integrate oral health into primary care practice. Train your primary care practitioners to do oral screenings and provide preventive oral care such as applying fluoride varnish. "A User's Guide for Implementation of Interprofessional Oral Health Core Clinical Competencies: Results of a Pilot Project" reviews the Health Resources and Services Administration's oral health competencies and describes the results from a pilot project that NNOHA conducted in three health centers to increase oral health access, which included the training of medical practitioners to incorporate oral health into their primary care visits. <http://goo.gl/k1ow3F>.
2. Provide dental services in school-based health centers. Choptank was featured in NNOHA's 2014 publication "Survey of School-Based Oral Health Programs Operated by Health Centers: Descriptive Findings", which describes best practices of high-performing health center school-based programs. <http://goo.gl/8nM86z>.
3. Consider contracting with a private dental practice or dental school, says Dr. Hilton. The presentation from a NNOHA webinar on the topic is available at: <http://goo.gl/mVJBWi>.
4. Create an academic partnership, with dental students or residents, dental hygiene students, and others to expand access to dental care. NNOHA offers a workbook called "Partnering with Academic Institutions and Residency Programs to Develop Service Learning Programs: Strategies for Health Centers" that health centers can utilize to assess if an academic partnership is right for their organization. <http://goo.gl/Y3tzNg>.

Access more resources from NNOHA at www.nnoha.org.



Photo by Alan Pogue

Rethinking the Role of the Medical Assistant at Community Health Center, Inc.

by Claire Hutkins Seda, Writer, Migrant Clinicians Network, Managing Editor, *Streamline*

In the last decade, health centers have been recalibrating their approach to primary care. In response to increased patient loads and in order to establish Patient Centered Medical Home (PCMH) and other quality improvement initiatives, many health centers are moving strongly toward a team-based approach, which is well-documented to serve patients effectively and efficiently. But how a health center builds the team and how the team is prepared to work together vary across the country. Which practices are the most effective, the most essential for a team-based approach to work? According to the executive staff of Community Health Center, Inc. (CHC), the largest Federally Qualified Health Center (FQHC) in Connecticut, one key is the role of the Medical Assistant (MA).

Three years ago, a project called LEAP, Learning from Effective Ambulatory Practices, sought to guide health centers toward high-quality team-based care by gleaning best practices from across the country that are applicable in different scopes of service and diverse environments, from rural to urban health centers, from

large clinics to small ones. With support from the Robert Wood Johnson Foundation, they honed in on 31 exemplary practices that they studied on-site and in-depth with a small team composed of a clinician, a researcher, and a patient engagement representative.

"When we found well-developed teams, we could identify that there was a core 'teamlet,'" explained Margaret Flinter, APRN, PhD, Senior Vice President and Clinical Director at CHC and National Co-Director of LEAP. The 'teamlet' consistently featured a primary care practitioner (PCP) and an MA. "That primary care practitioner might be a Nurse Practitioner, a physician, or a physician's assistant (PA), but there was always a primary care practitioner and always — 100 percent of the time — a medical assistant," she emphasized. Often, the core teamlet also featured a registered nurse (RN) or a licensed practical nurse, and occasionally the core team also featured a behaviorist. If those clinicians were not in the core teamlet, Dr. Flinter noted, "they'd be in the immedi-

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Clinical Workforce Development: CHC's New National Cooperative Agreement

By Tram Bui, Project Assistant, National Cooperative Agreement Program, Community Health Center, Inc.

Community Health Center, Inc.'s National Cooperative Agreement program is specifically in workforce development. We will be hosting national webinars for health centers around the country to implement team-based care, post-graduate residencies for nurse practitioners and clinical psychologists, and students of health professions. The webinars will begin in January 2016 and are open to all interested participants. They will be created and presented by key experts in the field. In September 2016, we will host learning collaboratives for 30 health centers in the areas of implementing team-based care and post-graduate residencies at their centers.

Learn more and see a schedule of webinars at www.chc1.com/NCA or on Twitter at [www.twitter.com/CHCworkforceNCA](https://twitter.com/CHCworkforceNCA).

What's in a name?

Medical assisting is a popular health care career. According to the Bureau of Labor Statistics, more than 160,000 new jobs are expected to become available to MAs in the US between 2012 and 2022. As this article demonstrates, the tasks of the MA can vary tremendously. MAs are generally categorized into one of three types: clinical medical assistants, administrative medical assistants, and specialized medical assistants.

Clinical Medical Assistant: A clinical medical assistant's primary focus is on patient care, conducting assessments, and performing other clinical tasks. This may include preparing patients for medical examinations, documenting vitals and medical histories, instructing patients on home care, performing minor treatments, and assisting the physician during examinations. While the job duties of a clinical medical assistant are broad, the main focus will be on the clinical aspects of the practice.

Administrative Medical Assistant: Administrative medical assistants mostly perform administrative tasks such as managing patient

records, making appointments, answering phones, maintaining the front desk and reception areas, and performing general accounting and billing. Administrative medical assistants play a pivotal role in physicians' offices. They ensure that the business side of the practice operates smoothly to ensure minimal interruption to the physician's core function of providing patient care. To be effective in this position, job candidates should have superb written and oral communication skills, proper phone etiquette, above average computer skills, and a basic understanding of medical terminology.

Specialized Medical Assistant: Specialized medical assistants perform specialized clinical tasks, since their specialized training allows them to work closely with physicians and serve patients more directly. Depending upon the size of the medical practice, specialized medical assistants may report directly to the physician, or to an administrative manager. The specific tasks that specialized medical assistants perform will depend largely on their area of specialization, size of the practice, and the number of assistants on staff.

■ Rethinking the Role of the Medical Assistant continued from page 8

ate team surrounding the teamlet, and then there was another group often around them of people like pharmacists and additional behavioral health or specialized case managers," concentric rings of care expanding out from the core teamlet. But at the heart, always the PCP and MA.

In Connecticut, CHC has expanded the role of the MA to be more than a support staff member; the MA is integral in supporting a patient panel and the multiple practitioners associated with that panel. CHC assures the MA is well-integrated into the teamlet beginning with their workspace, which they call the "interprofessional pod," in which their teamlets are co-located. "It has a lot of people working together — the provider, the behaviorist, the MA, the RN — all co-located in one place, sitting together, allowing them to easily collaborate on the patient in the same space," explained Veena Channamsetty, MD, the Chief Medical Officer at CHC. One pod at CHC contains two PCPs, 2 MAs, one RN, and a behaviorist. Dr. Flinter noted that this set-up works well in small settings — one pod per clinic, for example — and large settings, where seven or eight pods may be housed under one building.

Another key to their approach is a reliance on data. Team members are given "actionable data," explained Mary Blankson, APRN, Chief Nursing Officer at CHC. The team meets at the start of the day to review the extracted data on their "planned care dashboard" for each patient. "It gives [the MA] a task list, [she or he] can work on behalf of the patient to accomplish as many things as possible... before the PCP even enters the room," which empowers MAs to proactively and independently identify and address needs a patient may have. MAs have stand-

ing orders to perform a number of key tasks, including uncomplicated UTI screening, pupil dilation, pregnancy testing, STD screening, emergency contraception education, as well as performing comprehensive diabetes visits and comprehensive asthma visits. MAs can also access CHC's population dashboards, to view her or his patient panel as a whole or a subset of the patient panel. An MA can "look at the diabetic panel and say, where am I in my retinal screening? How can I go from 50 percent to 60 percent?" noted Blankson. (Dr. Channamsetty emphasized that an MA is not supporting a PCP but supporting a panel, typically an 18-month active patient panel ranging in size from 1100 to 1500 patients.) CHC relies on the daily data to give all members of the team a full understanding of the day's work ahead. All the data is uploaded nightly from the electronic health records so that the

morning's dashboards are up-to-date.

In Connecticut, MAs are not permitted to provide medication to a patient, limiting the scope of their work compared to MAs in other states. Nonetheless, CHC asks a lot of its MAs; it provides a lot as well, in terms of ongoing training and support and team incentives. In addition to completing more traditional tasks such as document handling and processing, MAs are retinal camera operators, quality improvement leaders and microsystem participants, and screeners for drug and alcohol abuse. MAs are eligible for the same tuition reimbursement programs provided to all other staff members. Team-based incentives provide financial compensation to all members of the team, not just the PCP, for productivity and quality improvements.

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Other Major Findings of LEAP

While this article centers on the role of MAs, LEAP discovered several other related findings across the exemplary practices that it studied. Here are few more common traits among the successful sites that LEAP studied:

Inclusion of non-health care providers: Non-health care professionals, and non-certified or non-licensed people helped direct the care. They assured that "both the patients and providers had the kind of timely help and support that they needed," Dr. Flinter observed. "The data people and the IT people are part of that critical lay person staff that has really emerged."

High-functioning and collaborative team with diverse tasks: In most cases, "nurses were not chained to their phone doing triage and refills all day long," Dr. Flinter said. "Providers were not making their own referrals and managing all of their own paperwork. These things were delegated to other people so that everybody practiced at the top of their license."

Satisfaction and perceived innovation: The majority of staff enjoyed their work and found their workplace joyful. But most importantly, stated Dr. Flinter, over 90 percent agreed with the statement, "People in our practice actively seek new ways to improve." "That may be at the end of the day the most important thing: that here is always a sense of movement and energy and direction about making things better," she explained.

By acting as an intermediary, a CHW is able to provide context to a medical team about patients' attitudes, behavior, and environment that can inform the development of an effective care plan.⁸ One doctor even commented that the insight the CHWs were able to provide made her a better doctor.⁹

Although CHWs working in a clinical setting are based out of a hospital or health center, they are generally still active in the community. In many cases, the CHWs accompanied doctors or nurses when working with patients in the hospital or health center, but the CHWs were also responsible for conducting a certain number of home visits in a certain time period.¹⁰

A critical step in integrating CHWs into a care team to fill these roles is to clearly communicate what the CHW's role on the team will be and what services they can provide. As a member of the care team, a CHW should be treated as a peer, should provide input on a care or intervention plan, and should be kept informed of any development or changes regarding a case.¹¹ To reinforce that CHWs are peers on a clinical team, a program in Massachusetts recommends only hiring full-time CHWs.¹² Although CHWs will contribute to a care plan and provide supportive services as peers, it is also important to delineate the role of the CHWs as complementary and supportive. As they do not have a clinical background, CHWs should not be treated as nurses or social workers, but rather as experts in the community.¹³

Frequent team meetings were also cited as a critical activity to building a cohesive care team with the inclusion of a CHW. Team meetings are a time for the clinical care team to collectively provide input and feedback regarding an assigned care plan for a patient. This is the optimal time for the CHWs to provide context and input to the care plan as it is developed.¹⁴

To ensure that CHWs are seamlessly integrated into the clinical setting, regular supervision is essential.¹⁵ In recent clinical interventions, CHWs were most commonly supervised by Nurse Practitioners (NP)¹⁶, however CHWs can also be supervised by a social worker, case manager, or physician.¹⁷ In NP/CHW teams, the NP will typically collaborate with the CHW to develop an intervention plan, but will manage other clinical aspects of care, such as consulting with a physician and making lifestyle recommendations. The CHW will reinforce the treatment plan and recommendations outlined by the NP.¹⁸

Recruitment and Training Needs

Naturally, successful integration of a CHW into a clinical setting is highly dependent on



Photo by Alan Pogue

recruiting the right candidate and providing the appropriate training. Many of the same interpersonal and behavioral qualities that have been recommended for CHWs in the past applied to the primary care setting, including:

- Communication skills,
- Compassion,
- Self-motivation,
- Capacity to learn,
- Ability to work in a team,
- Integrity,
- English and Spanish proficiency,
- Ability to establish trust,
- Multicultural competency.¹⁹

No degree requirements were cited, other than a high school diploma. However, in many circumstances specialized training or a certification was required.²⁰ If the ideal candidate did not have the required certifications or trainings, the organizations typically provided it for them.²¹

Experience in the field in a different role and a deep understanding of the community were also main considerations for recruitment in some programs.²²

Training in the clinical field is critical, especially if the CHW is brought on without the required certifications and trainings. Trainings that are offered within the organization can be based off of national guidelines and should include topics such as confidentiality, technology, and data collection.²³

One Federally Qualified Health Center that integrated CHWs into its clinical team cited the Minnesota curriculum and the textbook "Foundations for Community Health Workers" as resources used during training.²⁴ It is also important to note that training should not be limited to just CHWs. Training CHW supervisors on strategies and techniques for supporting CHWs is equally as important.²⁵

Finally, like most other programs, ongoing training will help CHWs fill gaps in their knowledge or skillset. Realistic costs for the training should be estimated and budgeted for, prior to hiring the CHW.²⁶

Challenges and Successes in State Approaches

One of the most common challenges in integrating CHWs into the mainstream health care system is the lack of sustainable funding.²⁷ CHWs are often funded by organizations through grants to provide education and outreach services only.²⁸ Funding acquisition for CHWs in clinical settings was a challenge prior to the ACA because health care providers were charged per service rendered. New legislative initiatives initiated by the ACA have encouraged the inclusion of CHWs on medical teams by incentivizing quality of care over quantity of care in payment structures and by expanding opportunities for states to reimburse CHWs through Medicaid.²⁹

Even before the ACA, the state of Minnesota was able to develop an exemplary system of funding that allowed CHWs to easily be included in the mainstream health system. Under this system, a CHW's hourly wage can be directly reimbursed by Medicaid.³⁰ This system is largely viewed as the prototype for developing sustainable funding systems.³¹

Although there have been some successes in states like Minnesota, health care providers have been slow to integrate CHWs into their workforce.³² In instances in which CHWs have been successfully integrated, illustrating the return on investment to high level leadership or policy makers was key.³³ By helping patients navigate the health care system, assisting with medication and treatment adherence, and connecting patients to the appropriate resources, CHWs can significantly divert unnecessary medical spending. A CHW program implemented in Arkansas saved the Arkansas Medicaid Program over two million dollars over the course of three years.³⁴

Illustrating this kind of return on investment has caught the attention of policy makers and health care leaders more effectively than other evidence of success.

Another issue is the lack of understanding of the CHW position.³⁵ This is largely a result of an overall lack of workforce development and a lack of occupational regulation. Some states, such as Massachusetts and Minnesota, counteracted misconceptions by developing training curricula and certification programs to standardize and define the field of community health work. This standardization has helped to clarify what is the role of CHWs and where they fit in primary care.³⁶

Clinical Performance Measures

Most clinical performance measures have fallen into one of the three dimensions outlined in the triple aim strategy: clinical outcomes, improvement of a population's overall health, and cost-effectiveness of the medical intervention. Some examples include changes in blood pressure or the number of inappropriate visits to an emergency depart-

ment a patient makes.³⁷ However, thus far, clinical performance measures have generally been in controlled research situations. The majority of these performance measures were designed to have a control group and an intervention group, which for most health care providers will not be a realistic situation. Defining generalizable and accurate clinical performance measures has remained a challenge in the field.

Future Implications

Overall, with the reforms to the health care system affecting health care delivery and payment structures put in place by the ACA, the number of CHWs working in the primary care setting is anticipated to increase. Strategies to prepare for this change should include statewide campaigns to disseminate key findings on CHW programs; implementing a statewide infrastructure for CHW education, training, and certification;³⁸ establishing a sustainable funding system;³⁹ and developing standardized measures for success.⁴⁰

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MAs at CHC must complete an annual competency test to assure that they are able to perform assigned tasks, such as:

- Assisting a patient in waiving tests;
- Checking vital signs;
- EKG lead placement;
- Setting up for emergency equipment like a nebulizer;
- Setting up specialist appointments or well woman appointments;
- Infection control standards;
- Smoking assessment;
- Asthma control testing;
- Screening, Brief Intervention and Referral to Treatment (SBIRT);
- Developmental screening;
- Depression screening; and,
- Reviewing policies.

Nationwide, Blankson noted that MAs are performing a variety of tasks that vary state to state and from health center to health center. MAs in some areas act as health coaches, promotoras, scribes, or trained doulas. But, first and foremost, MAs from around the country identify themselves as patient advocates, provider supports, and team builders. The team is a key component. "For the MA to really, truly function at the top of their training, all other team members have to function at this level as well. It creates a high performance culture,

Why team-based approach?

Margaret Flinter, APRN, PhD, outlined the top reasons to utilize a team approach in primary care:

1. Better outcomes: Dr. Flinter points to meta-studies that confirm that the team approach results in better clinical outcomes.
2. Increased capacity: "We have more demand [from] patients coming in, and there's more we need to do for those patients," Dr. Flinter noted. "We are not going to be able to [increase] capacity unless people other than the primary care provider can do more for the patients without throwing that work back on the primary care provider."
3. Patients with complex issues are better served: "Everybody has to be in harmony on the team and be able to do as much as they can and practice at the top of their scope," she noted.
4. Less burnout: Working collaboratively, says Dr. Flinter, reduces burnout not just for the practitioner but for the entire team.

and from that, every member understands not only their own role, but the role of every other team member," Blankson explained. Blankson hopes this concept of the cohesive, high functioning team is evident to CHC patients as well, who better understand who is caring for them and how — and receive more attentive and comprehensive care.

RESOURCES

Learn more about CHC, LEAP, and MAs in MCN's 2015 webinar, "Rethinking the Role of the Medical Assistant on the Primary Care Team," which is available for viewing on MCN's website at <http://www.migrantclinician.org/toolsource/resource/webinar-rethinking-role-medical-assistants-primary-care-team.html>.

Access LEAP's tools, videos, assessments, and more based off their surveys of exemplary practices around the country at www.improvingprimarycare.org.

CHC's National Cooperative Agreement, Clinical Workforce Development, will feature webinars throughout 2016: <http://www.weitzmaninstitute.org/nca>.

Visit CHC's website at <http://www.chc1.com/>.

An example of a core competency for clinical Medical Assistants form: <http://www.migrantclinician.org/toolsource/tool-box/core-competency-clinic-medical-assistant-certified-areas-are-bold.html>.

Another example of a competency assessment form, from Peninsula Community Health Services: <http://www.migrantclinician.org/toolsource/tool-box/competency-assessment-form-medical-assistants-including-ma-lpns-rns.html>.



of extra personnel rotating in and out can be a challenge for scheduling, but Dr. Garbely believes the students bring new ideas and provide recruitment opportunities.

At Choptank, integration goes both ways. Dentists can access each patient's complete electronic health record (EHR). If a patient has hypertension, "medical comes over and takes a blood pressure [reading]. If they're diabetic, we ask them about it on this side," at the dental office, said Dr. Garbely. Barriers like transportation may make multiple office visits difficult, so coupling appointments to get a patient all the services needed on one day is a priority, and a huge advantage for a patient like a migrant worker who may not have a flexible schedule, said Andrews.

Choptank's dental services are tracked through quality and productivity measures, broken down by site and provider. Choptank offers performance incentives related to their productivity measures. They track their no-show rate closely (see sidebar). Choptank tracks dental-related quality measures including chart audits for accurate documentation and sealed chart notes, which are completed within 72 hours of patient care. They are also succeeding on what Dr. Garbely calls their Dental Pillar goals. In 2015, they reached their Dental Pillar goals of 75 percent of overall treatment plans completed and 50 percent of children ages six to nine who are recommended for preventative sealants receive those sealants.

But their robust dental program isn't just a response to the need in their community; it's an outcome resulting from a fully dedicated staff, at all levels. "There's a passion here, and we go by our principles: we find the need, and we all collaborate. Everybody talks to each other," Dr. Garbely explained, including the executive team. "You can't do it without your Senior Management team and Board knowing what's going on and being passionate about what you're doing. Our Senior Management team meets weekly and talks about all of our departments including dental. Everybody's got to be on board." ■

Excerpt From:

Immigrant Dairy Workers' Perceptions of Health and Safety on the Farm in America's Heartland

Amy K. Liebman, MA, MPA, Migrant Clinicians Network;
 Patricia Margarita Juarez-Carrillo, PhD, MPH, Center for Inter-American & Border Studies, University of Texas-El Paso;
 Iris Anne Cruz Reyes, MPH, National Farm Medicine Center; and
 Matthew C. Keifer, MD, MPH, National Farm Medicine Center

[Editor's Note: The following has been excerpted with permission from the American Journal of Industrial Medicine, where MCN's Amy Liebman and her fellow co-authors published an important piece describing the perceptions of dairy workers in the Midwest. One key finding was that the interviewed dairy workers believed that their documentation status affected their health and safety, indicating that documentation status is an occupational hazard.]

Citation: Liebman AK, Juarez-Carrillo PM, Reyes IA, Keifer MC. Immigrant dairy workers' perceptions of health and safety on the farm in America's Heartland. *Am J Ind Med*. 2015; DOI: 10.1002/ajim.22538.

Introduction

Large animal agriculture, among the most dangerous activities in one of the most hazardous industries in the United States, puts workers in close and frequent contact with large farm animals often weighing many times the weight of a human. Injuries caused from milking and handling cows have been shown to be common in several studies, and often these injuries are serious, resulting in work restrictions for the injured worker. [Pratt et al., 1992; Hard et al., 2002; Skjolass et al., 2005; Erkal et al., 2008; Douphrate et al., 2009a,b]. Machinery of various sorts, a ubiquitous presence in the modern agricultural system, presents another important hazard that adds significantly to the high injury and death rate in agricultural and dairy work [Gerberich et al., 1998]. Finally, illness caused by exposure to organic and inorganic dusts, chemicals, and zoonotic pathogens represents another important category of health issues for workers in agriculture, one which is very understudied in dairy [Emanuel et al., 1964; May et al., 1986; Linaker and Smedley, 2002; Greskevitch et al., 2007].

National data on dairy injuries are not readily available, but data based on worker compensation claims in Colorado have shown that dairy workers have the second

highest rates of injury-related worker compensation claims among agricultural professions covered (8.6/200,000 work hours, second only to cattle dealers [Douphrate et al., 2006]. Translated to full time equivalent (FTE), these equate to approximately 8.6 injuries per 100 FTEs. Unlike Colorado, where all employees are covered, in Wisconsin, not all agricultural workers benefit from worker compensation due to an existing exception for small agricultural settings, employing fewer than six workers [Bureau of Insurance Programs, 2003]. However, for those who are covered, data suggest that work-related health events sustained by workers are serious, as they generate among the top 10 highest costs per claim in the state [Wisconsin State Laboratory of Hygiene, 2008].

The Wisconsin dairy industry is changing. While the number of dairy farms in Wisconsin has steadily declined since the 1950s, milk production has continued to increase [National Agricultural Statistics Service, 2015]. The average herd size per farm has more than doubled from 51 cows in 1990 to 111 cows in 2012 [National Agricultural Statistics Service, 2013]. In addition, milk production per cow increased by 53% during the same time period from less than 14,000 pounds to over 21,000 pounds per cow [National Agricultural Statistics Service, 2015]. The number of large-sized operations (herd sizes of over 1,000 cows) has also tripled within the last decade [National Agricultural Statistics Service, 2015]. This industrialization of the dairy trade has resulted in an increased demand for hired workers on the farm.

Immigrant workers, largely from Mexico, make up of half of the US dairy workforce. A survey of US dairy farms showed that approximately 62% the milk in the United States is produced via immigrant labor [Rosson et al., 2009]. Like the US economy in general, Hispanic immigrant workers now play an important role in Wisconsin's dairy industry. Harrison et al. conservatively esti-

mate that Hispanic workers constitute over 40% of all hired dairy employees, approximately 5,316 individuals in Wisconsin. Their 2008 study suggests the vast majority of the immigrant dairy workers (88.5%) are from Mexico [Harrison et al., 2009a]. An estimated 50% of Mexican immigrants are not legally authorized to work in the United States [Passel et al., 2014; Zong and Batalova, 2014]. Wisconsin dairy workers are largely young males with limited formal education, do not speak English, and receive limited job training [Dyk 2007; Harrison et al., 2009c].

Wisconsin's immigrant dairy workers spend an average of 57 hr per week on the job and make approximately \$10 per hour [Harrison et al., 2009b]. Over 60% of immigrant dairy workers reported they are milkers (workers who milk the cows) or pushers (workers who help corral the cows into the milking parlor). In contrast, only 16% of native US workers report this as their primary task. Milkers and pushers are relatively routine jobs, with less decision-making than other farm tasks. There are also important differences in the shifts that immigrant workers cover, as they comprise 80% or more of workers covering second, third, and split/rotating shifts [Harrison et al., 2009b].

As part of a formative research process to inform three projects supported within the Upper Midwest Agricultural Health Center, investigators facilitated five focus groups that sought to qualitatively describe the knowledge, attitudes, and practices of immigrant dairy workers related to occupational health and safety in dairies. The three projects include: (1) development of a computer application aimed at facilitating return of injured workers to safe light duty on the farm; (2) application of a recurring questionnaire for surveillance of injuries in dairy; and (3) testing the efficacy of a culturally appropriate popular education methodology for a dairy health and safety intervention. During

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The material presented in this portion of *Streamline* is supported by a grant from the Environmental Protection Agency, Office of Pesticide Programs, Grant # x8-83487601.

■ Immigrant Dairy Workers' Perceptions of Health continued from page 13

these sessions, data were also collected on the feasibility of using an electronic audience response system (ARS). Three groups of questions were used for the ARS analysis, which is the subject of another publication [Keifer et al., 2014]. This paper focuses on qualitative analysis to support the popular education intervention. The themes examined include worker injury experiences (including how these injuries were managed), workers' compensation, worker per-

ception of hazards, and hazard abatement. Other themes, including prevention and health and safety training, will be discussed in another manuscript.

METHODS

We collected data from immigrant Hispanic dairy workers in Wisconsin through five focus groups. A focus group interview guide was developed based on questions addressing information needs of each of the three

projects. The questions were designed to elicit responses and discussion regarding worker understanding, perceptions, and practices related to hazards and ways to control hazards; farm policies and procedures related to worker safety; and organization of work and workers compensation. Questions also addressed worker experiences regarding injuries and illnesses, safety training practices on farms and training preferences.

RESULTS

Demographics

A total of 23 men and 14 women participated in the five focus groups. All participants but one were from Mexico. The highest percentage of participants reported Veracruz as their home state (40.5%). The remainder was from various other states in Mexico such as Guanajuato and Zacatecas. A majority (54.1%) reported no farm/agricultural employment experience before arrival in the United States, although almost two-thirds (62.2%) reported previous experience of working with large animals. For their current jobs in dairy, most participants reported being milkers (64.9%), whereas 16.2% reported being pushers, and 10.8% reported being feeders.

Number of years in the United States and number years working in dairy ranged between 1 and 25 years. Women had fewer years in the United States and working in dairy. Education levels ranged from none to about 12 years.

Injury Experience

Participants were asked to describe their personal experience with dairy-related injuries or the experience of someone they knew or heard about. Consistent with what is known about the high injury rate in dairy, virtually every participant had themselves suffered an injury or reported either knowing or hearing about someone who had suffered an injury on the farm. Injuries described included overuse syndromes, fractures and compound fractures, amputations, crush injuries, lacerations, contusions, sprains, eye injuries, dental injuries, and head injuries. Physical consequences of injury varied from death reportedly due to animal crush injuries, equipment-related crush injuries, and two manure lagoon drownings to monocular blindness, chronic pain, and temporary, long-term as well as permanent disabilities. The social consequences of injury



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varied from dismissal as reported in several cases (a consequence not unknown to many industries), loss of income, loss of housing, to having to return to their native countries.

Injury Management and Workers' Compensation

Workers were asked several questions regarding how injuries were handled. Several workers reported receiving what appeared to be workers' compensation benefits; however, they did not clearly understand it as such, and ascribed the payments for care and time loss as being provided by the farmers. For instance, one worker said, "On the farm where we work, there they have it, but unfortunately only when we have an accident." Others reported having worker compensation, but mentioned they were told not to indicate the injury occurred at work, so as to avoid initiating a worker compensation claim. One participant stated, "They tell us you can't say it occurred at work. And careful if you say it happened at work because you'll lose your job. It's blackmail."

Another participant said, "This happened last week on my farm. Wednesday, the young man was driving the skid steer and the big bales of hay. He was stacking up by fours. He was putting the last one up, and it fell back on the skid steer, and broke the glass and busted all the windows and glass got in his face and in his eye. And the doctor said you have to go to the owner. He [the owner] was good, but they took him ...to an eye specialist and when they arrived they told the worker to say it happened at home. 'You're not going to say it happened at work. We will pay the medical costs but don't say that it happened at work.' The bad thing here is that if there are consequences for his eye, and now he can't do anything because he said it happened at home."

Multiple participants paid their own medical bills when injured at work. One participant said, "I suffered a fall, I slipped on the farm. I went and told the owner, and they gave me two days, waiting for MRI results. I had a compressed vertebra, so they gave me a month and a half...they [the farm] gave me two days and then I had to return to work, otherwise they would fire me. They didn't pay me, and the MRI was \$9,500. This is the sad reality, we are afraid to speak, but it is true that this is what's happening to us." Another stated, "They gave me therapy, but I needed more tests, and they [the farm] didn't want to pay, they didn't have insurance to pay those studies that were expensive."

Some reported that the farmers were in fact more generous than workers' compen-

sation insurance, in which partial payment of wages usually begins on the fourth day of missed work. "On my first farm, [I had] great bosses...Let's say if you hurt yourself, they'd say take two or three days off and you'll get half your pay." One worker described suffering from a severed finger while at work. The farm owner transported her to the hospital and covered wages and medical costs for 45 days while she recovered.

Several participants reported less than beneficent treatment in the case of injuries on the farm. One participant said, "I was on farm, the cow kicked me. Now I have this little bone break. The boss didn't want to pay me even a day." When asked if she told the boss, she said yes. While she pointed to the multiple places her hand had been injured, she continued, "I even went to the doctor and everything. They gave me 6 weeks off work to get better. They gave me a splint to put here and here. And that is where it is broken..." She went on to say, "The boss didn't pay me ...I had to go back to work early because I needed to work. Because that's the person [boss] who rented me a house and also I had bills. So if one leaves the job, they take the house from you and so I went back to work before time. And yes, the boss didn't want to pay me any of the days that I was not working." Another related, "There are times when the bosses don't pay you the days [missed]...Maybe they give us one or two days off to rest. But if it is more they will fire you."

Worker Understanding of Workers' Compensation

A distinct insurance system that functions like workers' compensation does not exist in Mexico. Instead, general and work-related medical care, time loss, and disability are covered under the Mexican Social Security system, which provides health care to all formally employed workers and their families and work-related issues to workers [Gomez Dantes et al., 2011]. Workers' compensation insurance in the United States is important, as it is potentially the only assistance offered for workers to access health care for injuries that occur at work.

We found two primary issues regarding workers' compensation. First, respondents knew little or nothing about workers' compensation. Only a few participants understood workers' compensation, and a couple participants understood very thoroughly. Most did not know what it was, and many did not even know it existed. When asked specifically to define "worker compensation," several participants said it was a

bonus, overtime, or some kind of payment or compensation. One participant said, "The bonus they give us or what?" Another participant said "I understand it as compensation or a bonus for the good work that one does." This interpretation is understandable, given that the literal translation of "workers' compensation" in Spanish does mean pay: *Compensacion para trabajadores* (payment to workers).

Secondly, there was confusion between health insurance and workers' compensation. One participant said, "We really don't know. We don't have it. On the farm where we work, there they have it, but unfortunately, only when we have an accident." Some of the participants reported receiving health insurance through their farms.

Injury Reporting

In Wisconsin, a worker compensation claim can only be initiated by an employer. When participants were asked if they reported injuries to their employers, we found only a minority of workers reported doing so. A substantial majority of participants expressed a fear of job loss as a reason for not reporting an injury to their supervisors. One participant stated that if she reports "...that boss is going to fire me, and I need the work."

Another participant stated, "Reporting it [injury] causes other problems. Sometimes one thinks, I might lose my job. Or if there is an accident one doesn't report it because of the same fear." Another reported, "Because they can fire you from your job just for reporting it." Another stated, "the boss will be upset and send us packing, and he might be bothered with a few choice words."

Others mentioned fear of deportation if they reported an injury. One worker stated, "Sometimes the boss, when there are many accidents, so as to not pay them, what he does because you are an illegal is they threaten you with calling immigration." Another said, "We do not [report] because they will threaten you with immigration...It's not that he threatens; it's that we have seen it done. Honestly, we are scared. That's why many illegals like us would rather keep quiet and figure it out however we can."

Among those who may have been motivated to report injuries due to wanting a hazard abated, many expressed a feeling of futility because hazards were not addressed in many cases after an injury occurred. One respondent talked about frustration with not being believed. "You go and tell your boss that you had an accident. And by the time

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your boss comes and pays attention and says 'let's go to the hospital,' you choose instead to just go on your own, and figure it out on your own. By the time the boss finally pays attention, you're dying. Because you have to show where it happened...Listen brother, if I told you that I'm bleeding out, when am I going to find the time to show you that?" Another worker pointed out that when he reported to his employer about a co-worker who hit his head on an exposed nail, the employer just "laughed."

Worker Perceived Hazards and Risks

Participants were asked to describe hazards they perceived to exist on the farms. Many reported that animals in general were potentially hazardous. One participant said, "because the first time it was the cow that landed on me. There was snow and the snow served as a cushion, so it didn't do anything to me. But this time, it was inside the pen and my ribs were pressed against a tube...I fell down. It was painful; I had to go to the hospital..."

A great deal of focus was placed on the risks posed by "fresh cows" and "new cows" (i.e., cows that have recently given birth and cows that have given birth for the first time, respectively). The workers identified these animals as particularly unpredictable and hazardous. Participants reported numerous injuries attributable to new or fresh cows. One participant stated, "sometimes there are heifers that are new, one has to fight with

them to get them in, and these same cows can hit you or run over you or push you." Another reported, "well, in my case, sometimes come fresh cows, they are recently calved, their udders hurt and all that, and at the moment where you want to put the milkers on them, the cow kicked, and that is when she got me on the finger." The heifers are the worst (primiparous cows, having given birth for the first time). They are hard to milk, and difficult to get into the parlor. "They are the most aggressive even though they are new and smaller, they kick when you put the milkers on. They kick you all over."

Bulls also are especially recognized as potential hazards. One participant said, "They [the cows] are little animals, but they have a way of sometimes of turning on you and getting mad, and even more when the cows have the bull around. The bull is really bad, very ugly for the person who pushes cows. He [the bull] gets jealous. I say this from my own experience."

Participants in every focus group mentioned pressure to work fast as a factor increasing the risk of injuries on the farm. One participant said, "They [owner/supervisor] pressure you. That is when accidents happen." Another stated, "Sometimes it is from going too fast, you do something carelessly. For example, on the steps because you have to go fast, because they [the owner/supervisor] only give you so many hours [in a shift] you aren't getting the work

done, they are yelling at you, you have to run more when you are milking."

Participants noted in several instances that weather interacted with hazards on the farm to increase the risks for injury. For example, gates used to control the movement of animals were singled out by several workers as presenting a hazard particularly during freezing weather. "In winter...the gate freezes and the floor freezes and one goes up there and falls on top of the cows and then gets up."

Hazard Abatement

Participants were asked about their workplace response to the injuries on the farm. Some participants reported they were told to be "more careful" at tasks and personal protective equipment being issued only after a chemical exposure had happened.

Responses by employers to worker reported hazards or hazards identified by actual injuries were variable. Some participants reported abatement of identified hazards. One worker stated, "There are improvements made on the farm so that it doesn't happen again." When asked how often these improvements are made, the participant said, "It's not always done."

However, a majority of participants reported slow or no response to identified hazards. One participant stated, "we have to report it once, twice, three times for them [farm owner/supervisor] to do something because

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sometimes they just don't do it." In this particular case the participant also noted that it was important to talk to the farmer as a group to bring about abatement. Several participants agreed with a statement made by one participant about a snag hazard on the farm. "All of us had to speak up so that they would remove it, because if not they were not going to remove it." When asked whether there were changes to avoid future injuries, another respondent said, "no, everything stays the same."

DISCUSSION

The focus groups findings provide first-hand insight into some of the health and safety concerns for Hispanic immigrant workers employed in the Wisconsin dairy industry. In general, the injuries described confirm the findings in the literature. However, the experience of immigrant dairy workers surrounding reporting and management of these injuries is not well documented elsewhere. The coded statements were grouped into themes and concepts to describe the prevalent workers' perceptions about injuries and hazard management on dairy farms [Bradley et al., 2007]. The main themes examined in this study were injuries, hazards and risks, and hazard abatement. The workers in our focus groups described various scenarios when injured. First, there seemed to be a great confusion about workers' compensation. Workers did not necessarily understand whether they had access to workers' compensation, or they were confused about the differences between workers' compensation and health care insurance. We noted that the term and how it is translated is likely to add to the confusion surrounding workers' compensation. Second, workers discussed how in many circumstances they were specifically told not to inform health care providers that the injury incident happened at work. Third, workers expressed fears about reporting injuries to their supervisors or to health care providers, because they worried about losing their job and feared being deported. These frontline immigrant workers highlight important considerations for health and safety regarding immigration status. While not directly solicited, immigration status and lack of work authorization emerged as a consistent theme impacting worker health and safety. It is not known how many immigrant dairy workers are legally authorized to work in the United States. However, data regarding all Mexican immigrants in the United States suggests that an estimated 50% are unauthorized to work [Passel et al., 2014; Zong and Batalova,

2014]. Data regarding immigrants in crop agriculture conservatively suggest that approximately half of foreign born workers are not legally authorized to work

in agriculture [Carroll et al., 2005]. Given that immigrant workers in dairy are ineligible for temporary agricultural visas (H2-A) [United States Department of Labor, 1952], it is likely the percent of unauthorized workers in dairy is greater than 50%. Focus group participants talked about immigration status as a reason not to report injuries. They stated fears that immigration authorities would be contacted if they reported injuries, and they would be deported. These findings reflect results from a recent study of immigrant workers showing that a lack of authorization to work is an occupational hazard as it impacts workers' reporting of injuries and hazards [Flynn et al., 2015]. Lastly, in some cases, workers described benevolence on the part of their employers who paid them for time lost and took care of their medical expenses.

All together, the description of injury experiences among the workers in our focus groups underscores a critical breakdown in potential sources of surveillance data to help us understand the broader extent and nature of injuries among immigrant workers in dairy. Our findings suggest that workers' compensation claims and OSHA 300 logs, in which employers must document certain injuries, offer only a limited picture of the situation. This lost information is a missed opportunity, as it reduces our ability to understand health and safety concerns in dairy, offer hazard remediation strategies, and improve safety. Worker compensation insurance carriers, who have great potential to help producers improve safety practices, are limited in their ability to influence safety if claims are not filed when workers are injured.

More importantly, while some workers suggest their employers do indeed cover their medical expenses related to injury, other workers noted that the burden of injury falls on the worker. Even when employers cover workers immediate care for injury management, workers are not likely to have long-term coverage should they need future medical care. The consequences for the worker and his or her family are potentially grave. Further exploration is needed to understand what happens to the injured worker in long term.

It is critical to highlight that workers clearly believed their immigration status made them more vulnerable, putting them at further risk in the workplace. Immigration status is often noted when discussing occupa-

tional health and safety, but it is rarely classified as an occupational hazard. We did not set out to specifically investigate immigration status as a hazard; in fact, we avoided specifically asking about documentation status. However, workers from focus groups conducted off the farm brought this issue to the health and safety discussion. It underscores the need for broader immigration reform as an important factor in addressing health and safety in dairy.

In addition to barriers regarding reporting, some workers discussed the need to go back to work before their injury healed, because they feared losing their jobs or felt they could not survive without the income. This, too, has significant health and safety consequences for the worker.

Regarding hazard perception, the focus group findings highlight important considerations. First, the immigrant workers in dairy have limited formal employment in agricultural and are unfamiliar with large industrialized agricultural settings. This, along with their injury experiences, reinforces the need for health and safety training to ensure that workers, particularly newly hired workers, are immediately trained. Second, workers in our focus group highlighted key safety concerns in working with large animals. The workers noted with frequency the challenges associated with new cows (those who have just given birth for the first time) or fresh cows (any cow that recently gave birth), often referring to them as angry or mad cows. On many dairies, fresh and new cows are clearly marked to alert workers. However, many of the workers in our focus groups pointed out that this practice was not necessarily the norm. The workers also pointed out that they were given few strategies regarding the management of large animals. Lastly, workers discussed the pressure to work fast as a hazard.

Our focus groups findings suggest that reporting of injuries or hazards can result in improved safety practices on the farm. However, in many cases, workers felt bringing injuries or hazards to the attention of supervisors or managers would result in negative consequences ranging from nothing happening to being fired to being deported.

The workers suggested that training and strategies to improve communication between employers and workers would be important to addressing health and safety concerns in dairy. A more in depth discussion of these results will be described in another manuscript.

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Victory for agricultural workers, but still more to be done: EPA moves to ban Chlorpyrifos on food crops

In October, the Environmental Protection Agency (EPA) moved to ban the use of chlorpyrifos in agriculture. This neurotoxic, broad-spectrum, chlorinated organophosphate insecticide has already been banned for most household uses for 15 years. The EPA is now proposing to revoke all food residue tolerances for chlorpyrifos, because the agency was unable to determine its safety as required under the Federal Food, Drug, and Cosmetic Act (FFDCA). By revoking food residue tolerances, the agency is proposing to ban chlorpyrifos from agricultural use, although use in other industries will continue. Several studies in diverse populations, including farmworkers, underscore the risks of exposure to chlorpyrifos, particularly in children. Prenatal chlorpyrifos exposure correlates to reduced birth weights, delayed mental and motor development in preschoolers, and reduced IQ and delays in working memory in elementary school children.

"For far too long, farmworkers, their children, and rural communities have continued to be exposed to a chemical that has been banned for use in homes," said Amy Liebman, MPA, Director of Environmental and Occupational Health at Migrant Clinicians Network. "The ban of this organophosphate in agriculture is an environmental justice victory that will have an important impact on farmworker health."

The EPA's human health risk assessment, revised in December, 2014, confirms that the pesticide affects the neurodevelopment of children, resulting in the reduction of IQ and working memory, and poses a risk of pesticide poisoning for bystanders and farmworkers.

The agency also concluded that the pesticide can accumulate in groundwater and affect farmworkers and other rural residents who drink well water. The EPA "has determined that safe levels of chlorpyrifos may be exceeded in parts of the United States for people whose drinking water is derived from some small vulnerable watersheds where chlorpyrifos is heavily used," reads the EPA's press release.

The EPA first moved to evaluate the use of the pesticide in agriculture "to address previously identified drinking water concerns and in response to a petition from the Natural Resources Defense Council (NRDC) and Pesticide Action Network North America (PANNA)," says the EPA's press release. Earthjustice, a nonprofit law firm representing the two nonprofit advocacy groups, sued the EPA, citing unnecessary delay in issuing a decision in response to the 2007 legal petition from PANNA and NRDC which called on the EPA to ban the pesticide. In August, the Ninth Circuit Court rejected the EPA's timeline and required the EPA to make a decision by October 31, 2015, prompting the EPA's October announcement.

While the EPA's move to ban chlorpyrifos in agricultural settings is an important action to protect the health of agricultural workers, chlorpyrifos will still pose a serious threat to workers in other industries where chlorpyrifos will continue to be used. "Non-agricultural uses of chlorpyrifos, including golf courses, turf, greenhouses, and on non-structural wood treatments such as utility poles and fence posts, are not affected by this proposed rule," notes the EPA, despite the wealth of evidence indicating that the pesticide produces neurotoxic results for workers and members of nearby communities who may be exposed.

"This is an important move in the right direction and we look forward to a full ban to best protect the health of workers and rural communities," Liebman said. ■

RESOURCES

MCN's Pesticide Reporting Map provides state-by-state pesticide reporting requirements and reporting contact information: <http://goo.gl/qeU8VY>

EPA's press release on the proposal to revoke chlorpyrifos: <http://goo.gl/zholgw>

EPA's page on the chlorpyrifos proposal, with links to chlorpyrifos fact sheets and other data: <http://goo.gl/8XwFXi>

EPA's Human Health Risk Assessment for Chlorpyrifos, revised December, 2014: <http://goo.gl/ZCoRra>

Research Links Pesticides to Increased Risk of Diabetes

A new review and analysis of 21 studies determined that pesticide exposure is associated with an increased risk of developing diabetes. The findings were presented at the 51st European Association for the Study of Diabetes annual meeting by researchers from the University of Ioannina, Greece, and Imperial College, London.

The 21 reviewed studies covered 66,714 individual cases. The research showed that exposure to any pesticide was associated with a 61 percent increase in risk of any form of diabetes. Twelve of the studies ana-

lyzed Type II diabetes specifically, and indicated a 64 percent increase in risk. While the researchers analyzed the overall effect of pesticides, they also found an increased risk associated with exposure to the specific pesticides chlordane, DDE dieldrin, DDT, HCB, heptachlor, oxydichlordane, and trans-nonachlor. The data indicate that environmental factors play an undervalued role in the pathogenesis of diabetes.

“Subgroup analyses did not reveal any differences in the risk estimates based on the type of studies or the measurement of the

exposure,” the researchers noted. “Analyzing each pesticide separate suggests that some pesticides are more likely to contribute to the development of diabetes than others.” The researchers intend to publish their full findings. ■

RESOURCES

Analysis of 21 studies shows exposure to pesticides is associated with increased risk of developing diabetes: <http://goo.gl/L5q9AI>

Abstracts of 51st EASD Annual Meeting: <http://goo.gl/nD6rzE>

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CONCLUSION

Immigrant dairy workers are employed in a dangerous industry. Most workers participating in our focus group entered this industry with limited experience working in large agricultural settings, and most had not received training to safely work in these settings. Importantly, the risk created by this knowledge deficit was amplified by the either self-imposed or employer-imposed silence regarding occupational hazards made salient by their legal status. Undocumented status appears itself to be an occupational hazard, as based on our information that it reduces a worker's ability to report both hazards and injuries. As we strive to improve health and safety in dairy, immigration reform is a critical policy change central to worker health and safety. Our findings suggest major potential weaknesses in the even now limited available surveillance data derived from major sources such as workers' compensation claims and OSHA 300 logs. ■

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calendar

April 11-13 **7th Annual National Tribal Public Health Summit**

Hilton – Atlanta, GA
<http://minorityhealth.hhs.gov/omh/Content.aspx?ID=10139&lvl=2&lvlid=21&eventid=509>

April 16-17 **GHIC 2016: Global Health & Innovation Conference**

Yale University, New Haven, CT
<http://www.uniteforsight.org/conference/>

April 21-24, 2016 **20th Annual Joint Conference National Hispanic Medical Association & Hispanic Dental Association**

Advancing Hispanic Health: The Next 20 Years – NHMA and HAD Leading the Way
Renaissance Hotel - Washington DC
https://netforum.avectra.com/eWeb/DynamicPage.aspx?Site=NHMA&WebCode=EventDetail&evt_key=50844b8b-fa02-483f-8512-b3cd79322dca

April 28-30 **2016 LGBT Health Workforce Conference: New Frontiers and Interprofessional Collaboration in LGBT Health**

New York, NY
<http://bngap.org/lgbthwconf/>

May 10 **NRHA's Health Equity Conference**

Minneapolis, MN
<http://www.ruralhealthweb.org/go/left/programs-and-events/nrha-conferences/rural-minority-and-multicultural-health-conference>

May 16-19 **Pathfinder International – Sexual and Reproductive Health without Fear or Boundary**

Women Deliver 2016 Conference
Copenhagen, Denmark
<http://www.pathfinder.org/events/women-deliver-2016.html>

May 23-25 **2016 Conference for Agricultural Worker Health**

Portland Marriott Downtown Waterfront – Portland, OR
<http://meetings.nachc.com/farmworker-registration-form/>

June 14-17 **11th Summer Institute on Migration and Global Health**

The California Endowment Oakland Center
Oakland, CA
<https://www.regonline.com/builder/site/tab2.aspx?EventID=1794181>