The Hidden Lives of Non-Migrant Migrant Workers

by Eric Macaluso

Abstract: Research has shown that Spanish-speaking communities in Western New York, specifically dairy workers, and Puerto Rican workers, suffer from health disparities when compared to other US residents. Using a community-based participatory research (CBPR) design, I collaborated with local organizations and interviewed migrant workers, volunteers, and healthcare workers to learn about the health of this population in the Livingston County area. I then compared the lives and health of dairy migrant workers to those who perform more transient work on fruit and vegetable farms as described by Seth M. Holmes, PhD, MD, in his book, *Fresh Fruit, Broken Bodies: Migrant Farmworkers* in the United States. Results showed that there are health differences between transient workers and those who performed year-round dairy work and that health disparities are occurring within the local community.

Background

The purpose of this project was twofold: to determine if local dairy migrant workers and Puerto Rican workers were suffering from health disparities, and to compare the health of migrants who worked on dairy farms to those who worked on fruit and vegetable farms.

There are many similarities between the transient farmworkers that Dr. Seth Holmes describes in his book, *Fresh Fruit, Broken Bodies: Migrant Farmworkers* in the United States, and those who do dairy work in NY. He explains that the economy is the main factor driving migrant workers to the US. There is a lack of jobs and opportunities to make enough money to properly care for their families in their home countries so they must seek employment elsewhere. Imperialization, racism, unfair trade deals, and sanctions have resulted in poor economies and job markets in parts of Mexico and other Latin American countries (Holmes, 2013).

The journey into the US can be traumatic both physically and psychologically if a migrant worker cannot acquire proper paperwork for legal entry. Seasonal workers can avoid this brutal border crossing by obtaining an H-2A, which is a temporary visa for seasonal agricultural work. Dairy workers have largely not been able to obtain an H-2A because these visas are restricted for seasonal agricultural labor only. This may force some dairy migrant workers to take the treacherous journey across the southern border to find work and then stay for extended periods of time out of fear of not being able to reenter the US if they leave. The damage from being separated from one's family for long periods of time combined with the trauma of physically crossing the border can have lasting health effects on migrant workers and their families (Holmes, 2013).

Once migrant workers get to the farms, whether by legal or illegal means, the injustices continue. Holmes described that there is a hierarchy on fruit and vegetable farms. Typically, the structure is a white farm owner on top, followed by white teenagers who often are the crew bosses, then Mexican Americans, followed next by Mestizo Mexican workers who have a history of working on the farm, and finally the newer indigenous workers such as the Triqui people.

Dairy farms have similar hierarchies, with migrant workers being at the bottom and getting the worst and most dangerous jobs. In 2017, the Workers' Center of Central New York and the Worker Justice Center of New York conducted a study called "MILKED." They interviewed dairy workers from 53 dairy farmers in NY and found that 62% of participants thought that American workers were treated better than Latino immigrant workers. Latino migrant workers thought that American workers received easier work and better pay, and 88% of the migrant workers believed that their employers cared more about the cows than them (Fox et al., 2017).

Holmes described the living conditions of transient farmworkers, focusing on farms in Skagit Valley, Washington. He likened the cabins farmworkers lived in to "chicken coops" (Holmes, 2013). Often purposely kept hidden from the public, these cabins were poorly constructed and lacked any form of cooling/heating and insulation. The MILKED report found that 97% of farmworkers lived in housing provided by their employers and that housing conditions were poor.

Dairy workers in Livingston County faced similar issues with housing. Since dairy workers are on the job year-round, they are not considered "migrant and seasonal" by the US government. Lacking this status means they are excluded from provisions for housing standards and inspection of migrant labor camps under the Federal Migrant and Seasonal Agricultural Worker Protection Act (Fox et al., 2017). This lack of oversight leads to many issues, as highlighted by Fox et al.'s (2017) report, which notes that 62% of workers reported no inspection had ever been conducted at the farm they worked at.

The farmers who provide housing and employment for migrant workers often are demonized, sometimes justifiably so. Holmes explained that some farmers genuinely did try to help the workers. These efforts included offering better housing and other services to farmworkers. Other farmers expressed their desire to improve conditions but could not because international agricultural free markets have continued to squeeze their profits (Fox et al., 2017).

Housing is not the only issue that farmworkers suffer from. There were similarities and differences in injuries and health conditions caused by working on fruit and vegetable farms compared to dairy farms. According to Holmes (2013), berry pickers generally suffered from heart disease, musculoskeletal disease, and cancers from the pesticides that are used on the farm.

The most common injuries on dairy farms are due to the cows not pesticides. These include cows kicking workers in the head or crushing their limbs against gates. Other injuries are due to machinery, which is often old and given to workers without proper training. Chemical exposure is also possible, which can lead to eye injuries, cancer, nervous system damage, as well as skin and lung irritation and inflammation (Fox et al., 2017). These injuries can be exacerbated by fear and lack of oversight. Fear of getting fired or being docked pay leads to 17% of workers not reporting their injuries to their bosses (Fox et al., 2017).

Farmers are often not held responsible for safety violations that can lead to injuries in the first place because only 18% of NY dairy farmworkers are employed on farms eligible for OSHA (Occupational Safety and Health Administration) inspections and enforcement activities (Fox et al., 2017). Without proper oversight or enforcement, safety standards fall. The MILKED report stated that 23% of dairy workers felt that safety equipment was inadequate at their job and that 25% are illegally required to pay for safety equipment out of pocket. In addition to poor safety measures, there is a lack of training, with 33% of dairy workers reporting they received no training on the job (Fox et al., 2017).

Substandard safety measures, lack of training, and working with large animals makes dairy work the most dangerous form of agriculture work. The MILKED report states that 66% of dairy workers had been injured on the job at least once, and 61% said the damage was serious enough to require medical treatment. A *Times Union* news report found that more than three dozen farmworkers have died on NY dairy farms from 2007-2014. During this same period, OSHA only investigated and fined seven farms (Downen, 2017). The MILKED report states that "69 farmworker fatalities have been reported in the decade between 2006 and 2016, according to the New York State Department of Health" (Fox et al., 2017). Statewide studies of dairy work in other major dairy producing states, such as Michigan, have shown similar statistics. In Michigan, from 2015 to 2016 dairy injuries accounted for 39.6% of all reported agricultural injuries, with cows being the predominant cause of injury (Kica et al., 2020).

Since agriculture in general is dangerous work, it would make sense for workers to have health coverage, but, according to Holmes, this is often not the case. He stated that the Federal Migrant Health Program only serves 13% of the intended migrant worker population, and that despite living well below the poverty line, fewer than 1/3 of migrant women qualified for Medicaid, primarily because they are undocumented or living an interstate existence. Researchers also estimate that less than 30% of migrant workers have health insurance, in contrast to

the estimated 84% of US residents who do (Holmes, 2013). A 2014 report by the American Public Health Association stated that only 22% of farmworkers reported having health insurance (APHA, 2017).

In addition to not qualifying for insurance, migrant workers are no longer considered "migrants" after living and working in NY for three years. This means that these workers are no longer eligible to receive care from specific government health programs, according to local healthcare workers and volunteers. Without access to these programs, many migrants rely on cash payments or emergency health insurance to get medical treatment. Dairy workers are more likely to fall into this category than traveling transient workers because dairy work is year-round.

The poor preventive care many migrant workers receive is also contributing to the health disparities among this population. Some farmers do not take the time to teach proper animal handling and equipment use, which can lead to preventable injuries. Many migrant workers are unable to consistently meet with healthcare providers because they are unable to get off from work, contributing to the development of potentially preventable diseases such as type 2 diabetes or hypertension.

There are also many barriers when trying to get care. According to Holmes, receiving care at a doctor's office can be challenging for both the physician and the migrant worker. Firstly, some physicians do not want to meet with laborers (farmworkers) because L&I (labor and industries) patients can mean extra paperwork and potential legal issues if the worker was hurt on the job. The language barrier can also be a large issue in doctor's offices. It can be expensive to have a translator on staff, and if there is not one available, it takes time and money to get a translator for that patient (Holmes, 2013).

Another issue is patient records. Seasonal workers frequently move for work, which means their medical records need to move with them. Due to language barriers, medical records can be missing vital information which makes it difficult for the next physician to treat the worker properly (Holmes, 2013). Vaccination records and other health records are often missing for dairy migrant workers as well, making visits complicated and repetitive for the patient. This language barrier is often amplified in Western and Upstate NY, where Livingston County is located, since there are not many Spanish-speaking physicians.

There is a substantial but unknown amount of migrant dairy workers in Livingston County. In NY, over 75% of dairy workers are migrants from Mexico and Guatemala (APHA, 2017). With more than 4,000 dairy farms, NY is the fourth largest producer of milk in the nation and is the largest producer of yogurt, cottage cheese and sour cream (DiNapoli, 2019). In Livingston country, dairy is the dominant farm sector. It directly and indirectly accounts for nearly 75% of agricultural output (ACDS, 2006). This makes it one of the top ten counties in NY for farming and farming sales (DiNapoli, 2019).

In addition to migrant dairy workers, there was focus on the health of Puerto Rican workers to gauge the treatment of another Spanish-speaking population in the area. After Hurricane Maria, the Puerto Rican population in Livingston County has continued to grow at a faster pace according to local volunteers and health professionals. The food-processing companies in Livingston-Wyoming County used to bring temporary workers from Puerto Rico. Over time, some of these workers began to settle in the area. With the hurricane, many families who lived on the affected islands began joining their established family members in the area.

Migrant workers are a vulnerable research group. Refugees, asylum seekers, and workers with undocumented or displaced legal statuses are at heightened risk of being apprehended by law enforcement. Migrant workers also have increased dependence on institutions and agencies that help them integrate into their new community or residence. Therefore, there may be misconceptions that individuals must participate in the study in exchange for help. Lastly, many migrants have reduced knowledge or ability to use the new legal system they are now living under. Not understanding this system, and everyday terms of contract and expectations which are necessary for informed consent, may also put them at risk (McLaughlin et al., 2015).

Methods

To protect the vulnerable status of the migrant workers, this research was conducted in a manner that was safe for all individuals involved and employed a community-based participatory research (CBPR) approach. A participatory study involves assembling a team of research partners to work in genuine collaboration within the community (Minker et

al., 2003). The team of people assembled included SUNY Geneseo faculty, local volunteers, and local healthcare professionals, all who had experience working with migrant workers and their families.

CBPR also focuses on educating and empowering the community of interest and the larger community they interact with (Minker et al., 2003). To ensure that migrant workers had an active part in the study's design, a workshop was established with the TOGETHER Program, a college organization which works on teaching English to migrant workers and their families. This allowed for collaboration with a group of about 20 to 30 people, which included tutors, migrant workers, and migrant worker families. During this workshop, the project's objectives, points of interest, and potential questions for future interviews were discussed. The migrant workers were able to give feedback on questions and areas of interest. They did so by vetting questions that were previously formulated and assisted in formulating new questions for future interviews.

Another important consideration when working with a vulnerable population is ensuring protection of their personal information. A statement of oral consent (to avoid physical signatures) in both Spanish and English was created, which communicated the goals of the project, their role in the project, and how their identities would be kept safe. Participants' identities were kept confidential by recording personal information such as names or addresses, and by keeping all the transcribed data on a password locked personal device. Before conducting interviews, the project was approved by SUNY Geneseo's Institutional Review Board for the Protection of Human Participants.

When interviewing migrant workers, four main areas were focused on: health services, preventive medicine, health insurance, and psychological health and well-being. Questions were limited due to the short time the participants were available to be interviewed and communication difficulties. The interviews were done with the help of the TOGETHER program, which provided the space and time during their English lessons and helped coordinate which participants were interviewed. The sample size was small, n=5, and included dairy farmers (2), their spouses (2), and one younger au pair. Analysis was done by myself and reviewed by my project advisor. One volunteer and one healthcare worker were interviewed for about thirty minutes. All interviews were done with participants over 18 years of age. No Puerto Rican workers were interviewed.

Results:

The following table shows the demographics and responses of the five participants interviewed for the study. The specific questions can be found with their accompanied abbreviations below the chart.

Migrant workers

Participant	Age, Sex	Occupation	HS1	HS2	HS3	PM1	PM2	PM3	IN1	IN2	PH1	PH2	PH3
1	54, M	Dairy Farmer	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	No
2	50, F	Spouse, job not specified	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No
3	48, M	Dairy Farmer	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	No
4	46, F	Spouse, job not specified	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No
5	21, F	Au pair	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No

Abbreviations:

- HS = Health Services
- PM = Preventive Medicine
- IN = Insurance
- PH = Psychological Health

Questions:

- **HS1:** are there any medical services you want more access to?
- **HS2**: could there be improvements to the services you already utilize?
- **HS3**: do you trust your doctors?
- **PM1**: do you think your job (or your husband's job) could be made safer?
- **PM2**: have you ever delayed going to a healthcare provider?
- **PM3**: do you use any homemade remedies or medications when you are sick?
- **IN1**: do you have health insurance?
- **IN2**: do you find it challenging navigating the US health insurance industry?
- **PH1**: do you have any anxiety/stress about your work?
- **PH2**: do you feel you job (or your husband's job) is safe?
- **PH3**: if you needed to seek out professional mental health, would you know where to go?

The following two tables show the questions and responses from a community volunteer and public healthcare worker that were interviewed.

Community Volunteer: 65 years old, male

What issues have you seen that affect this community?
- The recent closure of the Migrant Center in Geneseo has been a significant issue. But they said there has been recent work with the Finger Lakes Community Health Center to pick up and continue with similar programs that had been lost.
- Translation: they saw a "lack of medical forms in Spanish at doctor offices and that they witnessed issues with phone translational services during appointments."
What medical issues have you seen over the years with dairy workers?
- Hypertension, diabetes, back injuries, and other chronic issues such as pain from accidents or overuse of joints.
What improvements would you want to see for the migrant workers and their families?
- Better housing, better transportation services, more community education, and more direct access to healthcare in the form of traveling doctors and clinics to farms. - One area that they were hopeful would improve soon was transportation services.
How do the farmers you work with treat the migrant workers?
- "They genuinely cared about the workers."

Healthcare worker: 30 years old, female

What groups have you worked with?
- Dairy migrant workers and their families and Puerto Rican workers.
What are some of the biggest challenges you face when trying to help them?
- Money, "government funding for immigrant healthcare was insufficient at times." - Communication, it was "more difficult to form connections and communicate with new migrant workers compared to the more established Puerto Rican communities."
What have you seen regarding pregnant mothers and their baby's health?
- That health issues for pregnant mothers and babies were not delayed until they became emergencies but were addressed sooner than other community members health issues. - All children under 18 were insured in NY regardless of immigration status.
What improvements would you want to see in local healthcare?
- More education and communication within the dairy migrant community about health programs offered locally, including their own organization. - That insurance would be easier to obtain and retain for migrant workers, specifically the adults. They explained that most expectant mothers get health insurance while they are pregnant but discontinue it 2-3 months after delivery. - Increased support for mental health and domestic violence, although they added that these issues "should not be used to stereotype migrant workers." - Improvements in translational services, whether it be in person at hospitals, or telephone interpretation services because they had seen this as an issue for the Puerto Rican community.
Do you think COVID-19 will affect these communities more than the general population?
Yes

Discussion

During the interviews, participants were given the opportunity to elaborate beyond yes or no responses. For health services, 100% of participants said there were medical serves they wanted more access to. These included women's health screenings, dental care, and eye care. All participants felt there were improvements that could be made to the healthcare they received. One participant felt that their physician was unable to solve one specific health problem and was not handling it properly because of a "language barrier which made it hard to convey the severity of their issue to the doctor." This is not a unique incident. In previous research, language barriers were a leading cause of medical accidents or care disparities. Some of the migrant workers brought their children with them to medical appointments to help translate. This can be

problematic though, for example, when trying to explain sensitive topics, or when details get lost in translation. Some participants expressed difficulty finding medical services and programs to help them, as well as "difficulty finding material online in Spanish about eating a healthy diet." Lastly, results showed that 100% of participants did trust their physicians, but that the women wanted more female physicians, and that all participants wanted more Spanish-speaking physicians. Previous studies have found that there may be some mistrust or fear of the medical system within the migrant community (Arcury et al., 2007).

Regarding preventive medicine, 100% said at some point they had delayed going to their healthcare provider either for a specific issue or for a yearly checkup. Reasons for this included transportation difficulties and being unable to get time off work. This supports findings from previous research which found that 75% of migrant and seasonal farmworkers do not receive any healthcare (Emmi et al., 2010). Part of preventive medicine is avoiding getting injured or sick in the first place. When asking workers if their jobs could be made safer, 80% said yes. The au pair care believed their job to be safe. One worker said that they did not need their job to change, but that they "needed Americans to change their perception of migrant workers." When asking about the use of natural remedies and medicines, 40% (2/5) said they used some form, mostly for small ailments such as "coughs," and one participant said they made their own dandelion tea. Previous research has shown that some migrants use traditional herb remedies for their illnesses (Arcury et al. 2007). This is important information for physicians because some natural supplements or remedies have been known to interact with pharmaceuticals.

Insurance coverage varied within the group of migrant workers, as 80% said they had little to none, and 20% said they had insurance through work. For the 80% who had little to none, the insurance they had was for emergencies only. 100% of participants said navigating US health insurance was challenging, and that in the past they relied on the Migrant Center in Geneseo to help them apply for insurance. Others said they learned how to navigate the system by talking to others. This confirms previous research showing that most migrant workers did not have insurance (Emmi, 2010). This lack of insurance is significant because it has been shown that farmworkers who have access to Medicaid or other forms of insurance are more likely to visit their physician (Chi, 1985).

The last area of questioning focused on psychological health and well-being. Results showed that 80% of the participants thought their job or their husband's job was dangerous and stressful. One dairy worker acknowledged the dangers and stress of their job and expressed that they had been injured on the job by a cow. Previous studies have also found that migrant workers were stressed from their jobs as well as other outside factors such as discrimination, separation from family, and fear of unemployment (Arcury et al., 2007).

This physical and psychological stress can increase risk for mental illnesses and substance abuse (Arcury et al., 2007). The MILKED report found that 57% of dairy workers feel they do not belong to the community, 62% feel isolated, and 80% have felt depressed (Fox et al., 2017). In this study, participants reported that if they had psychological problems, they would rely on friends and family or just deal with it themselves. 100% of the participants said that they did not know of any counselors or places to utilize if they needed help, but most clarified they had never looked for this kind of help because mental health had not been an issue for them.

When interviewing the community volunteer, they discussed the medical issues that they have seen affect dairy workers, which included hypertension, diabetes, back injuries, and other chronic issues such as pain from accidents or overuse of joints. Other studies have stated that diabetes, hypertension, infections, muscular-skeletal problems, and respiratory diseases are the five most prevalent diseases that dairy workers are afflicted by (Emmi et al., 2010). One area of improvements the volunteer wanted to see was in transportation. They were hopeful this would improve soon due to the passing of the "Green Light Law," which allows undocumented workers to get a driver's license in NY (DMV, 2020). According to other local volunteers, the program has been successful so far, and members of local migrant organizations have been able to get their licenses. Driving allows for access to many essential businesses and appointments, such as going to the grocery store or to the doctor's office. Migrant workers already feel isolated from the community and not being able to drive increases these feelings

of isolation. Transportation issues were identified as a major cause of restricted health visits in previous research (Arcury et al., 2007).

Local volunteers and healthcare professionals were asked about the farmers who employed the migrant works. They said that the farmers they interacted with "genuinely cared about the workers." However, bias may exist because these were the farmers that allowed volunteers to visit the farms and their workers to utilize local programs. Migrant workers were not asked about their relationships with the farmers to avoid potential conflict, but some did say that "larger farm lodging would be better for them and their families."

No Puerto Rican workers were interviewed in this study because of COVID-19, but information provided by the healthcare workers and others shed some light on this community. The Puerto Rican community has been part of the Livingston County community for quite some time, and members of this community generally worked in industries such as fruit processing plants and steel mills. As natural disasters continue to affect Puerto Rico, more people have become displaced and relocated to Livingston County, often drawn by family and friends who have settled here. According to a community healthcare worker, there tends to be better communication within this community, as compared to migrant dairy workers, because Puerto Ricans have a more established community, less fear of law enforcement based on citizenship, and more knowledge of local services. However, Puerto Ricans still suffer from disparities compared to other US citizens in a variety of sectors such as education and health.

A health study from 2000-2010 in the US found that Puerto Ricans had the highest cancer rates among Hispanic subgroups, that they were diagnosed with diabetes at almost twice the rate of whites in 2010, and that asthma attacks and asthma-related hospitalizations were much higher for Puerto Ricans as compared to Whites, Blacks, and other Hispanic groups. Increased rates of asthma and asthma-related hospitalizations were attributed to multiple factors such as access to healthcare resources, poverty, environment, and genetics. Infant mortality was second highest to Blacks in the US based on data for 2008 (Rosofsky et al., 2012). As of 2010, that rate of insurance among Puerto Ricans and Whites in the US was the same at 86.3%, but the insurance coverage varied drastically. More than 35% of Puerto Ricans were on Medicaid as compared to only 11% of Whites (Rosofsky et al., 2012).

Conversations with volunteers and healthcare workers as well as public health experts in the media revealed that migrant communities are at increased risk for contracting COVID-19. Reasons for this include being unable to socially distance in their living quarters, lack of access to cleaning supplies, and being ineligible for the new unemployment benefits related to COVID-19 offered by the US government. This meant that those at high risk had to make the decision between personal safety or providing for their families.

In addition to changes to unemployment, there were also new changes regarding sick pay. A recent article in the *New York Times* included an interview with Alma Patty Tzalain, the leader of Alianza Agrícola, a grass-roots organization that advocates for immigrant farmworkers in Western New York (Tzalian, 2020). Tzalian stated that migrant workers need to know that NY has passed legislation requiring employers with more than 10 employees to provide paid sick leave to workers who must stay home because of Coronavirus concerns. This is important, because in the past, farmers would not offer paid sick leave, so farm workers would continue to work sick or injured. In addition, some migrant workers may be more susceptible to contracting the disease because of prior exposure to aerosolized chemicals which may have injured their lungs. All of this puts migrant workers at increased risk compared to the general population (Tzalian, 2020).

Conclusion

Findings from this study show that local dairy migrant workers and their families suffered from health disparities. In addition to long work hours, which can prevent individuals from attending health appointments, dairy migrant workers also suffered from low wages and the financial burden of supporting families here and abroad, which make it difficult to afford healthcare and health insurance. Additional challenges affecting this community include the lack of proper transportation and the increased risk of contracting communicable diseases like COVID-19. All findings from this study agreed with previous data except on the issue of physician trust. All the participants in this study trusted their

physicians, but with such a small sample size, this finding's significance is limited.

Limitations to this study included sample size. Due to COVID-19, most of the interviews lined up had to be cancelled. This small sample, n = 5, is not large enough to draw any significant statistics or conclusions. Additional studies on this population could utilize this project as the base work. Findings and information collected during this study were shared with the organizations that helped along the way and were presented at SUNY Geneseo's GREAT Day Undergraduate Research Symposium; this research will hopefully be used to help improve the healthcare of the migrant workers in the local community.

Acknowledgments

I would like to thank the migrant workers and their families for allowing me to come into their lives and interview them about personal information. I would like to thank Dr. Restivo for providing guidance throughout the project, specifically on the IRB proposal and developing a community-based participatory research (CBPR) approach. In addition, Professor Rocio Vallejo-Alegre played an integral role in connecting me with migrant workers, volunteers, and organizations that work with this community, as well as offering in-depth knowledge on the treatment and health of migrant workers. I would also like to thank Dr. Castillo-Rodriguez and her translations class, the TOGETHER Program, the Student Coalition for Migrant Workers, the Livingston County Health Department, Finger Lakes Community Health, and other volunteers and healthcare workers that I interviewed. Lastly, I would like to thank Dr. Lisa Meyer, the Edgar Fellows Program, and SUNY Geneseo for providing the opportunity and support to complete this research.

Bibliography

1. Agriculture and Community Development Services (ACDS). (2006, July). *Technical report: Livingston County agricultural and farmland protection plan.* http://depot.livingstoncounty.us/pdfs/planning/Farmland-Protection-Plan-2006.pdf

2. American Public Health Association (APHA). (2017, November 07). *Improving working conditions for U.S. farmworkers and food production workers.* https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2018/01/18/improving-working-conditions

3. Arcury, T. A., & Quandt, S. A. (2007). Delivery of health services to migrant and seasonal farmworkers. *Annual Review of Public Health, 28,* 345-363.

4. Chi P. S. (1985). Medical utilization patterns of migrant farm workers in Wayne County, New York. *Public Health Reports, 100*(5), 480–490.

5. DiNapoli, T. P. (2019). *A profile of agriculture in New York State.* https://www.osc.state.ny.us/reports/economic/agriculture-report-2019.pdf

6. Downen, R. (2017, July 10). Two-thirds of dairy workers have been injured at least once, report finds. *The Times Union*. https://www.timesunion.com/business/article/Nine-out-of-10-state-dairy-workers-fell-less-11278016.php

7. Emmi, K.E., Jurkowski, J.M., Codru, N., Bell, E.M., Kacica, M.A., & Carter, T.P. (2010). Assessing the health of migrant and seasonal farmworkers in New York State: Statewide data 2003-2005. *Journal of Health Care for the Poor and Underserved, 21*(2), 448-463.

8. Fox, C., Fuentes. R., Valdez F.O, Purser G., & Sexsmith K. (2017). *Milked: Immigrant dairy farmworkers in New York State.* Workers' Center of Central New York and the Worker Justice Center of New York. https://milkedny.files.wordpress.com/2017/05/milked_053017.pdf

9. Holmes, S. M. (2013). *Fresh fruit, broken bodies: Migrant farmworkers in the United States.* Berkeley, CA: University of California Press.

10. Kica, J., & Rosenman, K. D. (2020). Multisource surveillance for non-fatal work-related agricultural injuries. *Journal of Agromedicine, 25*(1), 86–95.

11. McLaughlin, R.H., & Velcamp T. A. (2015). The vulnerability of immigrants in research: Enhancing protocol development and ethics review. *Journal of Academic Ethics, 13*, 27–43.

12. Minkler, M., & Wallerstein N. (2003). *Community-based participatory research for health.* San Francisco, CA: Jossey-Bass, A Wiley Imprint.

13. New York Department of Motor Vehicles. (2020). Driver licenses and the Green Light Law. https://dmv.ny.gov/driver-license/driver-licenses-and-green-light-law

14. Office of Citywide Health Insurance Access (OCHIA). (2020). *Immigrants*. City of New York. https://www1.nyc.gov/site/ochia/find-what-fits/immigrants.page

15. Rosofsky, A., & Aponte J. (2012, November). *Health of Puerto Ricans in the United States, 2000-2010.* Center for Puerto Rican Studies, Hunter College, CUNY. https://centropr.hunter.cuny.edu/sites/default/files/data_briefs/Centro_RB2012-02_PR_Health_in_US.pdf

16. Tzalian, A. P. (2020, April 15). I harvest your food. Why isn't my health "essential"? *The New York Times.* https://www.nytimes.com/2020/04/15/opinion/covid-farmworkers-paid-leave.html