Environmental Factors That Increase Health Risks For Immigrant Farmworkers

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Objective
To identify the medical problems health providers report as health challenges for immigrant farmworkers.
To identify from the literature the environmental factors that increase health risk for immigrant farmworkers.

Abstract
Immigrant Latino farmworkers face increased health risks due to pesticides, poor living conditions, lack of proper training on agricultural equipment, and environmental hazards. These factors increase their risks to illness. This research is an ethnographic study that consists of participant observations, interviews, and fieldnotes. It makes a nascent attempt to fill this knowledge gap by analyzing data that summarizes the structural barriers immigrant farmworkers face in Western New York. Our findings also support previous evidence that occupational exposure to environmental hazards increase health risks. We suggested future research be conducted by looking at genetic predispositions and how it affects health risks working in agriculture.

Introduction
The Latino migrant farmworkers in the United States constitute a quintessential case of structural vulnerability. Those in agricultural work have a higher rate of disease and have a hard time getting healthcare because of their status. There are structural obstacles for Latino immigrant farm workers access to healthcare, such as language barrier and immigration status through this research. In addition to understanding the environmental factors such as pesticides and poor living conditions that increase their health risk, published research shows the following topics: pesticide safety, human exposure to pesticides, inhuman living conditions effects on migrant farmworkers, environmental hazards such lack of proper training of agricultural equipment.

Here in western New York we have a large farmworker population, experience health disparities due to their occupation. Working on farms for long hours in a day, they became exposed to harmful chemicals such as benzene, arsenic, ammonia which are found in the pesticides they typically spray. There are health disparities among Latino farmworkers and other immigrant communities such as getting access to care. When these workers migrate to the US, some migrate through the border, H-2A visas and guest worker programs. They are predisposed to discrimination and face difficulties such as poor living conditions and health issues because of the nature of their work.

Literature Review
- Pesticides are generally used in agricultural production to avert pests, weeds and pathogenic plants. Although they increase plant production, long exposure may affect health overtime when mixing applying pesticides, working in the fields and from residues on food and in drinking water for the general population have been raised. These activities have caused a number of poisonings (Damalas 2011). Latino farmworkers face a greater risk of exposure due to poor knowledge of risk, safety guidelines, and incorrect application techniques.
- Understanding pesticide safety is important to know the effects of long exposure of pesticides to the human body. Exposure may occur in greenhouses, fields, inhalation or ingestion. Inrespective of the type of exposure, the presence of the chemicals in the environment constitutes potential occupational exposure (Damalas 2011). Farmworkers who mix, load and transport to fields are at high risk for pesticide poisoning. Migrant farmworkers experience many cardiovascular, nervous, lymphatic, neurological, and carcinogenic effects due to long exposure. Pesticides poisoning is so severe it causes DNA mutations which can increase cancer risks. Research indicates “that approximately one-third to one-half of agricultural worker report chronic symptoms associated with pesticide exposure” (Holmes, Pg. 101).
- Undocumented migrant farmworkers who live in poor conditions are at risk for illnesses. Some of them live in temporary houses with small spaces, little to no insulation or clean water. It is important to recognize the living condition farmworkers live and work because it contributes to their poor health. Migrant farmworker families live in different type of housing. Some live in sheds, shelters, trailers, motors, cars, tool sheds, barns and in the field. The instability of housing has a profound effect on migrant farmworkers however, there is insufficient research regarding this topic. According to Seth Holmes’s book Fresh fruit, broken bodies, “the sheds in this camp have a wood layer under the tin roof and insulation but no heating” (Pg., 49). This is no surprise; housing instability of migrant farmworkers can create additional stress that leads to anxiety and depression. Studies showed, “they experience discrimination and harassment. They often work long hours, with little diversion or entertainment. As a result, farmworkers have high rates of anxiety, depression, and other mental health problems” (Arcury 2011). The inability to live a comfortably despite the amount of work they put in can lead them living an unhealthy lifestyle which is harmful to their health. A statistical analysis conducted by the Housing Assistance Council found that “over half of farmworker housing was crowded; 22% of housing units lacked a toilet, bathtub, stove, or refrigerator; 22% had serious structural damage; 36% had broken windows or torn screens; 29% had evidence of water leakage; and 19% had signs of rodent or insect infestation.” (Arcury, 2012). The vast majority of undocumented migrant farm workers are suffering; they live in horrendous houses which puts them at risk for diseases. Over time, they are exposed to toxicants, lead, mold, mildew, crowded conditions, rodent dander and sutral hazards. Farmworkers are at increased risk for cancers, tuberculosis, asthma, hepatitis and gastrointestinal disease due to crowded living conditions. As a result, when farmworkers get ill, they have limited access to healthcare because of immigration status, transportation, and health insurance.

Methods
- We conducted an ethnographic study with a combination of participant observation and fieldnotes in order to shed light on the problems immigrant farmworkers experience in accessing healthcare. The study explored service provider perspectives and experiences with structural barriers to healthcare utilization in Western New York. This study took place across ten counties of Western and Central New York (Cayuga, Cortland, Genesee, Livingston, Madison, Monroe, Onondaga, Oswego, Wayne, and Wyoming). To complete the research objective, we built relationships with migrant allies such as Alianza Genesee, Madeline Farmworker Health Program. The first phase was conducted in Western New York where we interview healthcare workers. Phase two was conducting semi-structured interviews with healthcare providers who serve the immigrant farmworker community. We analyzed our data using Inquire, a software used to transcribe, and coded using Atlas.ti.

Results
- Knowledge regarding pesticide prevention is very limited and detrimental as it presents them from seeking care. Healthcare providers are seeing similar disease pattern among migrant farmworkers such as diabetes, high blood pressure and skin infections. In our study, a service provider from Genesee county stated, “but we do have a lot of regular patients who just are seen regularly for you know heart problems, diabetes [and, high blood pressure].” Out of the transcribed interviews, about half of the service provider noticed similar patterns in what patients come in for. Another prime example of the health disparity migrant farmworkers face that prevents access to care is seen during an interview in Cortland, the health provided stated, “Oh Yeah...there is dairy workers with diabetes that completely just stopped coming for medical care and in some cases taking insulin.”
- Review of the literature clarifies that the chemicals in pesticides are very harmful, direct or indirect contact on the skin can be hazards. Humans are diverse in their response to exogenous exposures due to limitation such as rate of metabolism, genetic disposition and DNA repair processes. Migrant farmworkers experience many cardiovascular, nervous, lymphatic, neurological, and carcinogenic effects due to long exposure. Exposure to pesticides, particularly organochlorines and metabolites, is suspected to impart a higher risk of developing type 2 diabetes and its comorbiditys (Ki-Hyun 2016).

Discussions
- Understanding the environmental factors that occur in agricultural setting will reduce health risks for Latino farmworkers. Despite the qualitative and quantitative research we conducted there was no direct correlation with the environmental factors that increase their health. We hope to further collect more data in correlation to our current findings. With such information and knowledge, we recommend more programs to provide more resources to increase better utilization of care. Despite seeing similar patterns in illness for immigrant farmworkers, there are limitations because we cannot directly show if they are sick due to environmental factors that has influenced their health or if it is a genetic disposition.

Summary
- Latino farmworkers experience health issues due to environmental factors such as pesticides, chemical spills, heat, and poor living conditions. Throughout this study, there were groundbreaking finding such as the statistics of living condition, the occupational exposure that increases the likelihood of getting ill on the job. To improve quality of life for migrant farmworkers, recommendations such as safety training, better regulations on housing could prevent illness.

References


Fresh Fruit, Broken Bodies Migrant Farmworkers in the United States Seth Holmes - Univ. Of California Press – 2014