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## A Case Study of Socioeconomic Inequalities of Young Agricultural Migrant Workers in District Kewra, Haryana

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### ***Abstract***

*Rural-to-urban migration is an ongoing process under the current circumstances. 54% of the world's population lives in urban areas and has access to per capita employment resources. India and Nigeria have the highest growth rates, according to a United Nations report. This study is being conducted with the aim of analyzing the access to health care of the migrant population in Kewra Village, Haryana. Interstate immigrants are coming to Haryana and other metropolitan areas of India in hopes of a better quality of life, higher incomes, better education and better health facilities. But the harsh reality is that these development indicators are not readily available to the majority of the immigration-dependent Indian population. In Haryana, migrant workers are generally absorbed into the agricultural sector. These migrant workers are forced to work on the land of other farmers and landlords. They only contribute to the production of agricultural products and do not own any land within the state for their own consumption or farming. Some of these migrant workers tend to work in the same fields for long periods of time, earning a daily wage as a reward for their loyalty, but some are also promoted to share in the harvest. These*

*migrant workers are an important source of capital and contribute significantly to the production of landlords and farmers.*

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## **Introduction**

Migration is a time to look for new areas to improve economic conditions and improve the sustainable structure of human life. Rural-to-urban migration is an ongoing process under the current circumstances. 54% of the world's population lives in urban areas and has access to per capita employment resources. Urbanization is expected to add another 2.5 billion people to the urban population by 2050, with 90% of this increase concentrated in Asia and Africa. Cities in China, India and Nigeria have the highest growth rates, according to a United Nations report. These three countries accounted for 37% of global urban population growth from 2014 to 2050. By 2050, youth migration has been and continues to be a problem. The United Nations DESA reports that in 2015 global youth migration increased by 21%, with Asia topping the list with the highest number of youth migrations (i.e. 3.2 million).

India has seen a steady increase in youth migration. According to the 2008-2009 National Survey of Immigration, age groups 20 to 29 make up an estimated 11 million in-state immigrants. This youth migration is due to unemployment, low-quality jobs, gender inequality and lack of school-to-work transition (Wickramsekara, 2013). Growing economic and social inequalities in rural areas are forcing young people to move from the countryside to the cities. In recent years, internal migration has accelerated due to job growth and industrial geographic inequality. Migration is also closely related to factors such as rural marginalization, relative poverty, inequality and demographic pressure (Haan, 2010). Young people choose to migrate not only for economic benefits such as higher wages and improved living standards (Ren et al., 2021; Wickramsekara, 2013). It is also due to social pressure from family, friends and relatives.

In recent decades, the rural economy of India's leading agricultural nation has undergone structural changes. The state of Haryana in North India ranks fifth in India in terms of total food cereal share, being the state with a total food cereal share of 6.22% across India in 2016-2017 (Directorate of Economics and Statistics, 2017). Haryana is the agricultural backbone of India. (Directorate for Economics and Statistics, 2017) Using Tendulkar's methodology, it clearly shows that Haryana put his 11.64% of the rural population below the poverty line in 2011-2012. It is home to millions of migrant workers employed in the primary, secondary and tertiary

sectors. The conditions in which these migrant workers survive are largely overlooked from afar. Their basic developmental and social needs are far from being addressed on paper.

This study is being conducted with the aim of analyzing the access to health care of the migrant population in Kewra Village, Haryana. Interstate immigrants are coming to Haryana and other metropolitan areas of India in hopes of a better quality of life, higher incomes, better education and better health facilities. But the harsh reality is that these development indicators are not readily available to the majority of the immigration-dependent Indian population. In Haryana, migrant workers are generally absorbed into the agricultural sector. These migrant workers are forced to work on the land of other farmers and landlords. They only contribute to the production of agricultural products and do not own any land within the state for their own consumption or farming. Some of these migrant workers tend to work in the same fields for long periods of time, earning a daily wage as a reward for their loyalty, but some are also promoted to share in the harvest. These migrant workers are an important source of capital and contribute significantly to the production of landlords and farmers.

## **Literature Review**

The world has seen a dramatic increase in the global labor movement in recent decades and today the world has more international migrants than ever before, 214 million according to UN DESA. is approaching (1). Current demographic indicators and economic interdependence suggest that as the populations of developed countries age, immigration will rise to even higher levels in the near future, increasing the number of immigrants working in these countries, especially in low-skilled occupations. It suggests that there is a high demand for workers. According to the United Nations (2), the countries or regions that receive the most immigrants are those with low birth rates, such as the United States, Canada, Western Europe, the Middle East, Australia, and Russia. Conversely, most immigrants leave countries with high birth rates such as Mexico, China, India, Pakistan and the Philippines. The United States, Canada, New Zealand and Australia are established immigration destinations, hosting vast numbers of migrant workers compared to other destination countries. A recent report by the International Organization for Migration shows that middle-income countries, including Argentina, Costa Rica, Malaysia, South Africa and Thailand, are seeing large influxes of low-skilled or semi-skilled migrant

workers (3). There is also a significant migration flow from countries in South and Southeast Asia to oil-producing Gulf Cooperation Council (GCC) countries such as the United Arab Emirates, Saudi Arabia and Kuwait (4). The International Labor Organization (ILO) estimates that 1.3 billion of her workers are employed in the agricultural sector worldwide (5). In some parts of the United States, such as California, the share of migrant workers in agriculture is close to 90% (47). In this context, the occupational and health risks associated with these immigration trends in developed countries have been highlighted in both academic and political circles. Because they are not citizens of the country in which they work, migrant agricultural workers are less protected than national workers from the arbitrary or unjustified use of power by the state or from the whims of their employers. Migrant agricultural workers often have inadequate legal protection in the workplace, are unfamiliar with the prevailing culture and language, have no formal education, live in poverty and often are excluded from statutory benefits in agriculture and are rarely represented by unions. The number of migrant workers in agriculture has increased dramatically at the Reports of medical, occupational, and health conditions are rare and of limited geographic extent. Therefore, there is a growing need to collect up-to-date knowledge on the working conditions and health status of migrant workers in this sector. A look at immigration trends in different countries and regions provides a comprehensive overview of immigration as a global phenomenon. Although each country or region has its own unique characteristics, a review of the literature on global migration trends can shed light on commonalities that may exist among various immigration-host countries. , can guide further research and policymaking at the structural level. Armed with this understanding, our research will focus on migrant workers in agriculture by conducting a comprehensive literature review available from peer-reviewed articles, books, research reports, and other academic publications. It is intended to compile existing knowledge. An attempt is made to find out what is known and what has not been investigated. This study aims to analyze the access to health care of the migrant population in Kewra village, Haryana.

In this literature review, “migrant workers” means temporary, seasonal and non-national workers, but not permanent settlers of the population. Abella's (6) definition of temporary immigrant, “a person whose legal status is temporary, regardless of the actual length of time spent in the country”, is appropriate. This definition was chosen to identify the scope of our study. A systematic search on Lib Hub (Lund University's library tool for searching books, e-books, journals and dissertations) and Google

Scholar to find existing peer-reviewed publications and research papers on migration work in assembled agriculture and found a published article. Entering (OR) the keywords used related to migration into the search engine and adding (AND) a second list of words related to agriculture and medicine yielded a total of 390 articles. rice field. We entered the following keywords into the Lib Hub and Google Scholar databases to search for relevant literature. Immigration and Agriculture; Migrant Workers in Agriculture; Farm Workers; Farm Workers; Guest Workers; Seasonal Workers; migrant workers and pesticides; migrant farmers or farmers; migrant workers and health; human rights and migration; immigration; The literature was selected by the following steps. (2) Read the full text of the selected article. (3) Manually search for relevant citations for the selected article. (4) removing articles not focused on immigrant populations and core concerns (immigration, agricultural working conditions, health of migrant workers, legal aspects of immigration); (5) final set of articles; read and analyze. Our selection criteria were primarily thematic and did not use recording quality criteria. Rather, I tried to edit an existing report on the subject. We received the full texts of the most interesting studies (190) and tracked the references cited in the studies for a total of 360 full-text articles that seemed relevant to our research topic. After reading the entire document, 123 people were excluded. The number of studies included at the end of this process was 237.

It contributes to the endless burden of public welfare goods and services. Public hospitals overloaded by the federal state population are now also used by the immigrant population. Haryana's public health system is ill-equipped to meet the growing demand for part-time workers, especially in rural areas. This study was based on recognition of the lack of public health care. Research conducted using questionnaires and interviews in specific cases where migrant workers' stories are worth sharing in words to understand the devastating impact left by the lack of an efficient public health system. it was done. Several onsite interviews were conducted. The questionnaire designed for this purpose was based on two parts. Household demographics (including variables such as land ownership, employment status and income sources, education and spending, health care and spending, and credit history). and health consciousness.

After interviewing some migrants, it was found that most of them suffered from illnesses due to unfortunate incidents at work. His 55-year-old migrant who works in the fields, Naresh Mandal, had an accident in 2015 that broke his right arm. As he said, "I didn't know public hospitals could solve the problem. I thought they didn't

have enough machines to fix my arm. So I went to a private hospital and was charged 2500 rupees in 2017. Afraid of losing his job, Naresh did not tell his landlord about his arm and let his children work in the fields. His monthly income is Rs.9000 (Rs.300 daily) from which he transfers money to his hometown in Bihar for his family and to his children and his wife who live with him in the fields. There are very few left. There he was asked how he had financed the hospital bills, and Naresh financed them by taking out a loan from a moneylender by 2020 Naresh was able to repay only 48% of the principal (Rs.1200). Treatment by recruiters participating in medical services can lead to several other complications.

Take the case of Mahesh Ram, a 34-year-old man who injured his right leg in 2007. The cause of his disability was that he went to see a smuggler to cure a fever. I was given the wrong medicine for a quick recovery, causing severe iron deficiency. "I was shaking all the time. It didn't bother me at the time, but after a few months I noticed my legs were starting to shrink, and now, six years later, they're about two inches shorter than they used to be." Mahesh says. Currently, he takes medicine every day and visits the hospital once or twice a month. Monthly cost will be Rs.1,000. Mahesh had to take out loans for consumption purposes as well as for medical expenses, as at 10,000 rupees a month it would be difficult for him to provide 8 meals. However, Mahesh said he was generally satisfied with private health care in Haryana. He said it was better than private and public health facilities in his home state of Bihar. Ram Kant Paswan, a migrant worker of his ten years in Haryana, has a different concern, as does Mahesh. Paswan got a hip replacement in 2015. Sharing his story, Paswan said he used to visit public hospitals but was "ignored for two days" when he felt "severe pain". Get treatment early and don't complicate things. Because of this, Paswan decided to undergo a hip replacement at a private hospital. The surgery cost was Rs. 32,000 and other expenses including hospital bills, doctor's fees, medicines, travel, etc. were Rs. 1,60,000. He had to take out a loan of rupees. 2,00,000 for him to pay for those medical bills. The amount was taken at 5% monthly interest and he paid his Rs only. 3 million so far. Currently, Paswan spends an average of 400 rupees per month on medicines and doctor visits (if any). When suggested that he should go to a public hospital at least for now, he said: "They are all thieves, not doctors. The government pays them well, but they know we are poor and there are no private hospitals nearby, so they want to make money. nothing is free. At least a private doctor costs 200 rupees but not 600 like these thieves who don't even have time to treat me! For other migrant workers around here, there is a family doctor, so it



is not easy to go to the family doctor because it is about 20 kilometers away. The same questions were asked of locals to ensure that immigrants were free of prejudice and that locals received proper treatment in public hospitals. When the local people were surveyed, it was found that most of the local people had no disabilities or chronic diseases. Most of the villagers were engaged in agriculture. One of his local residents, his Vijender Antil, reported that his family had developed health problems. His mother is 72 years old and diabetic. His mother's average monthly cost of medicine is her 9,000 to 10,000 rupees. He also informed her that months before the investigation, she had been hospitalized for her four days and her treatment cost her Rs 20,000. Vijender said he had enough money to cover his own expenses. Field surveys in the area revealed that while migrant workers had low food intake, local people were healthy and fit (mainly). The natives of Khewra are the Jaats, genetically healthier and stronger built. They also shared their experiences with the growing number of migrant workers in their district. Large farmers were content with the abundance of cheap labor. They found it very convenient to have migrant workers on the farm. "He could look after the land 24/7, so he doesn't have to check it every day. The wage or share is pretty much fixed to the output it produces. Workers therefore also have an incentive to produce higher production so as to earn bonuses and not lose their jobs in the coming seasons," shared Monu Singh. Problems with growing migrant population When asked about the situation, local residents said sanitary conditions were deteriorating throughout their villages and districts. This can lead to several hygiene-related diseases over time. Several cases were found that clearly indicate that public hospitals exist within the district but are approximately 15 kilometers apart. Migrants were saddened by the lack of attention they received in public hospitals and had to choose private hospitals. Moreover, due to the lack of awareness about the proper use of fertilizers and pesticides, some migrant workers were found to be facing skin diseases, respiratory problems, etc. It was also noted that he had earned the trust to manage.

## **Findings**

### **Chemical Use and Health Effects of Migrants**

As our literature review suggests, there is a considerable body of literature that focuses on the effects of pesticides on the health of migrants. Studies have shown that farm workers are exposed to pesticides when mixing, loading, transporting, or

applying chemicals or when handling pesticide-treated materials. Additionally, exposure can occur through accidental spills, leaks, or equipment malfunctions. Exposure routes for unprotected farm workers are primarily through skin and inhalation, but also through ingestion and possibly eye contact. Children of migrant workers may also be exposed because their parents may wear work clothes and bring chemicals indoors. Pesticide handling is often mentioned as a major exposure category in the occupational medicine literature. Therefore, the scientific focus of the reviewed literature tends to be on the effects of pesticide exposure on the health of migrant agricultural workers, especially in relation to acute effects. In general, studies show that at least 3 million cases of pesticide poisoning occur each year, and worldwide he has more than 200,000 deaths. For example, in the United States, between 10,000 and 20,000 pesticide-related illnesses are reported each year. However, in the face of apparent misinformation and misdiagnosis, the United States Environmental Protection Agency (USEPA) estimates that over 300,000 pesticide poisonings occur each year (69). The results of our literature review reflect this global trend, and the impact on pesticide exposure and health problems among agricultural workers, including migrants, is perhaps the best studied in agricultural occupational medicine. areas of research. Literature from both high-income and low-income countries shows that agricultural practices can lead to long-term adverse health effects, particularly from exposure to pesticides, In Spain, exposure to pesticides is associated with depression, neurological disorders, and miscarriage in migrant agricultural workers (39). Some pesticides are carcinogenic, and the high incidence of cancer among migrant agricultural workers is associated with constant exposure to carcinogenic chemicals (66). Several studies have shown a high prevalence of breast cancer, brain tumors, non-Hodgkin's lymphoma, leukemia, and prostate cancer in these groups. Our literature review indicates that few studies have been conducted on the interaction of one pesticide with another or on the adhesives used in pesticide formulations.

### **Effects of working hours**

Our review found 10 studies that dealt with the effects of working hours on the health status of migrant workers in agriculture. The results of these studies show that injuries and illnesses among migrant agricultural workers increase with longer working weeks. Greenhouses are considered one of the most dangerous jobs in agriculture. Several studies have shown that working conditions in greenhouses pose significant health risks to migrant agricultural workers, mainly due to high humidity,



high temperature, and inadequate ventilation. Data from southern Spain show that greenhouse structures for crops typical of southern Spain do not guarantee worker comfort. Therefore, to make this activity healthier, we recommend reducing your work shift to a maximum of 4 hours. The remaining four hours of the work shift must be filled with other similar activities (92). Research shows that the work-related health and safety risks faced by all farm workers may be greater for migrant workers. This is because migrant workers often work long hours and do not report illnesses or injuries to avoid deportation or wage cuts (94, 95). On the other hand, data from North Carolina show that most injuries affecting immigrant agricultural workers are not directly attributable to their occupation but are associated with recreational activities for which alcohol is an important risk factor. shown (96). However, most studies tend to associate work-related injuries and illnesses with long working hours.

## **Housing**

We have identified fourteen studies that have discussed the housing conditions of migrant agricultural workers. These studies show that migrant farmworkers often live in substandard, overcrowded and unsafe housing that lacks adequate sanitation and protection from various infectious elements. In his study of housing conditions of migrant farmworkers in the United States, Larson found that housing problems range from broken windows, lack of working shower and laundry facilities and broken toilets, to serious structural deficiencies, such as sagging roofs, porches or house frames, and each may contribute to concerns about poor health and safety. In this regard, studies show that poor housing conditions are one of the major factors that affect migrant farmworkers' health, leading to the dissemination of various infectious skin diseases, respiratory diseases, infectious diseases and injuries.

## **Deficiencies in basic services, such as medical care**

Accessing basic social services, such as medical care, was a problem that echoed in some manner in most of the literature we have reviewed. Much of this literature shows that migrant agricultural workers often have limited access to health care and social services. The reason migrants' access to health care is limited may be economic. Social – Some workers do not take medication and may opt for home remedies or seek treatment from community healers. Legal – Undocumented workers may have strong incentives to avoid interacting with healthcare facilities. Data from Canada show that language and cultural differences are one of the key factors explaining migrants' limited access to social services. Studies have found that

language and cultural barriers often make it very difficult for Mexican migrant workers in Canada to access health care facilities and social security programs. A similar pattern was reported in the United States, where language and cultural differences limited clinicians' knowledge of the diagnosis and treatment of pesticide-related illnesses in migrant workers.

### **Discrimination and Precarious Working Conditions**

Our review identified 33 studies that examined discrimination and precarious working conditions for migrant workers in agriculture. These studies demonstrate that the working lives of migrant workers and the enforcement of regulations governing mistreatment of migrant workers are chronic problems. For example, Canadian data show that migrant agricultural workers are among the least protected groups in Canada under federal and provincial law, despite being exposed to potentially hazardous working conditions and health risks. It is shown to be one. A study conducted in the United States described a similar situation, in which migrant farmworkers often do not report occupational diseases because they do not have significant union support and fear losing their jobs. Studies therefore suggest a positive correlation between the legal status of migrant agricultural workers and occupational injuries and illnesses. Canada's Seasonal Agricultural Workers Program (SAWP) is internationally recognized as one of the best practices for managing migration, but studies have documented patterns of abuse, neglect and neglect of migrant agricultural workers. Labor migration. As Basok (131) explains, Mexican migrant workers in Ontario are affected by fear of being excluded from migrant worker programs, due to social exclusion from society, and most importantly language barriers, they do not exercise their legal rights. Under SAWP, it is described by Tomic et al. (178) Migrant agricultural workers claim that they are effectively denied the right to choose their residence, to leave the premises of their employer after work, and to move freely within those premises. Tomic et al. (178) argue that granting legal status to employers is problematic because it exposes migrant workers to greater risks. Research suggests that a lack of government regulation and oversight can result in employers not complying with the law and even lead to abuse and exploitation (158, 159, 160). Government responsibilities to workers must therefore be readjusted if they are to be treated better. Imposing harsh penalties on employers who abuse foreign migrant workers is proposed as an important step to remedy the situation. The seasonal migration of agricultural workers from the new member states of Central and Eastern Europe to

Southern Europe is of great scientific interest. A growing body of literature focuses on the social and working conditions of migrant workers in southern Europe. As Markova's (148) empirical study shows, migrant workers in southern Europe work in highly fragmented labor markets in temporary, low-wage, heavy or dangerous jobs. Especially in construction, heavy industry and agriculture, jobs that locals refuse to do. Ethnic stratification of the labor market is particularly pronounced in Spain. As Agudelo Suarez et al. (157) Spanish immigrant communities (Romanians, Moroccans, Ecuadorians, Colombians, and sub-Saharan Africans) are characterized by experiences of racism, abuse, and precarious working conditions compared to Spaniards. We often experience discrimination in our communities and work life. native population. The study also showed that immigrant communities face structural political and legal barriers related to social institutions. Experiences of discrimination can affect their mental health and are an important factor in access to health services. Empirical research by Geiger (168) shows that the social inclusion of Moroccan and Romanian immigrants into Spanish society remains an unfulfilled dream, reflected in their limited access to social services. is showing. Kasimis and Papadopoulos (170) describe a similar problem in Greece, where migrant agricultural workers face stigma and discrimination despite their significant contribution to the local economy.

### **Impact on the Working Environment in General Agriculture**

We identified 41 studies discussing the 'social dumping' effects of migrant labor in agriculture. As these studies show, the availability of rural migrant workers as cheap labor and their endurance in harsh working conditions adversely affect agriculture in host countries, where agriculture is the most dangerous and low-risk. It has become a sector of wages. Much of this literature argues that an increase in migrant workers isolates the agricultural sector from national labor markets, leading to a "social dumping" effect in the receiving countries. Agricultural work is less attractive to domestic workers who may not offer health insurance and are interested in welfare benefits. Migrants are flowing much more freely to their countries of origin, making agriculture a sector dedicated to migrants. The most extensive research on the impact of migrant 'social dumping' on agriculture has been conducted in the United States. Most of this research focuses on immigrant agricultural workers working in the United States who suffer from disastrous wages and pervasive poverty, forms of stigma and racism, workplace health and safety risks, illness, limited access to services, and Constant threats of deportation. As a result, these studies suggest that the status quo may adversely affect working conditions in this sector, making agriculture

the most dangerous and low-wage sector. Studies have reported similar structural, legal and social problems in Canada, with migrant workers mainly concentrated in the agricultural sector. Thus, the vulnerable position and poor working conditions of Mexican migrant farm workers in Canada have received considerable academic attention found that Canadian farmers preferred Spanish-speaking immigrants from Mexico to English-speaking immigrants from Caribbean countries such as Jamaica and Barbados, and thus the number of temporary agricultural migrant workers in Canada. He showed that Canadian farmers were very persistently divided along racial/ethnic lines. points out that vulnerable Mexican workers are vulnerable to exploitation. state and has demonstrated its availability as a pool of cheap labor. Remittances to citizens are not covered. After his EU enlargement in 2004, academic interest in European immigration issues revived. According to Jentsch (192), most migrant workers from new her EU member states often find work in rural areas, especially in agriculture. In view of recent migration trends from new EU Member States to Southern and Northern Europe, a growing body of literature discusses migrant farmworkers' underpayment and bad working conditions, and the implication of this new migration trend for rural communities. In their study of working conditions of Eastern European migrant farmworkers in Norwegian agriculture, Rye and Andrzejewska (128) have examined the 'social dumping' effects of these migrating workers from Eastern Europe, as they are considered prone to exploitation by farmers looking for cheap and docile labour, and subject to low wages and poor labour conditions. Their key argument is that, despite the implementation of labour regulations ('transitional rules') in Norway that set minimum wage levels and labour conditions, many in the westward-migrating labour force experience work conditions that are far poorer than prescribed by the labour regulations, as these are not implemented at farm level. Rye and Andrzejewska present two sets of factors explaining the poorer working conditions on the farms: (1) the structural disempowerment of migrant workers, which gives them weak negotiation positions vis-à-vis their employers (farmers); and (2) migrant workers' frame of reference for wage levels, in which poor payment levels by Norwegian standards are deemed reasonable or even better when judged by Eastern European wage levels.

### **Models for addressing the problem and their consequences**

Despite the existence of a significant body of literature on migrant health issues, studies highlight that there is a lack of accurate data on the health and safety situations of migrant farmworkers. In this regard, while most research on migrant worker health

issues has focused on the North American context (United States and Canada), there has been little research on occupational health issues among European migrant workers over the past decade. It is not migration. Migration Migration flows EU enlargement in 2005. The discovery of Schenker (47) and Ahonen et al. (7) indicates that few studies have critically assessed work-related health risks for migrant workers in agriculture. Ahonen et al. (7) Between 1990 and 2005, only 48 English or Spanish articles on workplace health among immigrants were found. This is consistent with Muniz et al. (36) They argue that rural migrant workers remain an understudied group because of methodological, language, and educational barriers. Nevertheless, published studies and various reports show consistent patterns of high occupational morbidity and mortality among migrant agricultural workers. A survey of the literature found that much of the research on models for addressing health and safety issues for migrant farm workers originated in the United States. In the United States, the Environmental Protection Agency (USEPA) and the Occupational Safety and Health Administration regulate pesticide production and use, and both agencies require farm workers to receive pesticide training and information (30). Per USEPA Worker Protection Standards, producers (employers) must provide farm workers with adequate and comprehensive training on the health risks of pesticide exposure and proper use of pesticides. Despite the existence of USEPA regulations and models that cover all aspects of protection and education, research shows that workers are either not receiving the necessary training or receiving ineffective training techniques, leading to increased exposure to pesticides. It argues that safety training laws are not properly enforced. Other studies from the United States show that immigrant agricultural workers are unable to control the conditions of their working environment and avoid the potential harmful effects of pesticides. It shows that you have little control over what you do (211, 213, 230). Larson (30) pointed out that even the extent to which pesticides cause health problems is unclear due to poor reporting and lack of clinician training. U.S. immigrant workers with pesticide safety claims are more likely to receive pesticide safety training. arcury et al. (210) argues that additional regulations are not sufficient to improve pesticide safety and hygiene for migrant farmworkers, and that the focus of intervention must be on the education of farmers and farmworkers. In this regard, one study suggests that agricultural workers' rights to a safe working environment are best protected by eliminating harmful pesticides and replacing them with safer, less toxic pesticides. (17). Access to migrant farmworker communities is often difficult for researchers and policy makers because migrant farmworkers are often illegally and temporarily employed. Labor migration in this

sector is another potential obstacle. Due to their illegal and precarious status, many migrant agricultural workers are not particularly interested in studying (221). In addition, the problem of underreporting means that very limited information is available to assess the extent of occupational injuries and illnesses affecting immigrant farmworkers in the United States (214). In the face of these potential obstacles, various methodologies have been developed, including camp sampling, participatory research, and community-based approach models. Despite their shortcomings, these models show improvements in estimating the health hazards migrant agricultural workers face in their day-to-day work. As our results show, participatory research models (community-based approaches) are the most commonly used by US researchers to assess and reduce pesticide exposure of migrant farmworkers and their families. models. The majority of these authors argue that community-based participatory research, involving the community at every stage of the research process, provides a model for mobilizing stakeholders and community members on the topic. One of the main advantages of this model is that it allows researchers to apply culturally appropriate research methods to immigrant farmworker communities. In Oregon, researchers from agencies advocating for immigrant farmworker communities and universities conducted a research program focused on reducing pesticide exposure in children of migrant farmworkers (225). The research process includes qualitative research methods with members of the migrant worker community and pesticide dust residues in migrant workers' homes, biomarkers of pesticide exposure, and quantitative studies to assess health effects. Both approaches were included. Research results showed that researchers and members of immigrant communities perceived the benefits of community participation and the health effects of pesticide exposure in different ways (225). In addition, the general health promoter or promotora de salud model is widely used by US advocacy groups and academic bodies to reduce pesticide exposure of migrant farm workers. For example, AmeriCorps volunteers are sent to community-based organizations focused on pesticide health and safety training for migrant farmworkers. Half of these volunteers were also placed in immigration health centers in the United States. Other pesticide safety education programs focus on trainer training techniques to teach community members how to educate others (231). Lay health workers are also used as educators in immigrant communities. The camp sampling model has been used primarily in North Carolina to assess pesticide exposure of farm workers. However, research suggests that this model does not provide accurate results if some sediments were not identified or sampled in the study (94). Meyer et al. (224) notes the important role of



employers and regulators in promoting safe behavior of migrant workers in agriculture. These authors suggest that the provision of written notice of recent pesticide use and the provision of convenient hand-washing facilities by employers/supervisors may improve workplace hygiene among migrant farm workers. Other studies have provided recommendations for employers, researchers, and funders to help integrate workers' perspectives into OSH in agriculture (223).

**Knowledge of Best Practices** Our findings suggest that there is no single model, program or policy that can comprehensively address the policy challenges posed by rising immigration. As already mentioned, major destination countries for immigration, such as the United States, Canada, Australia and EU member states, have not ratified the UN and her ILO Conventions on Migrant Workers. Most international debate calls for developed countries to open their borders to more immigrants. At the same time, there is growing debate about the need to protect the rights of migrant workers in host countries. In this regard, countries often face trade-offs between the number and rights of immigrants. The World Commission on International Migration (234) defines best practice as “carefully designed temporary migration programs as a means of meeting the economic needs of both countries of origin and destination”. When considered in light of this definition, it can be difficult to explain what constitutes good practice in managing immigration given the trade-offs between numbers and rights of immigrants. However, this section describes "best practices" based on existing literature on the subject. According to Castles (142), immigration policy often fails to achieve its stated goals or has unintended consequences. Castles cites three key factors in his immigration policy. (b) the effects of trends in globalization and transnationalism; (c) Hidden Political Issues. Castles therefore argues that immigration policies that view the immigration process as a long-term dynamic social process are sustainable in the long run and can therefore be viewed as "good practice." This argument reinforces Martin's definition (127, 236). H. Minimize stigma and dependence using economic mechanisms that reduce stigma and dependence.

A better system would include a surcharge or tax paid by your employer and fewer immigration rules. This allows employers to continue to consider alternatives to immigration because it saves them tax levies when they find an alternative to immigration. The second economic instrument concerns immigrants who are expected to return home. Immigrant Social Security tax may be reimbursed to facilitate repatriation. No country that has both employer contributions and

immigration rebates. A seasonal program that allows immigration for farm work might be the perfect place to test employer levies and immigration rebates (ibid.). Research suggests that “managed immigration” represents a new model of immigration policy. As Reed (237) defines, “controlled migration is the practice of regulating the conditions of cross-border movement, including when, where and how . It includes some form of documented movement that ensures that both the sending and receiving governments know whether or not they are working for the term of the alien employment contract. Within the managed immigration policy framework, governments determine the number and types of workers allowed to move, and the number and types of citizenship granted to workers. Both the sending and receiving countries of these workers are motivated by economic considerations and benefit from maintaining a permanent cycle of migration that brings workers back and forth between them. . Overall, the practice of managed migration has two direct effects and one indirect effect. The first direct impact is controlling cross-border traffic between countries. The second direct effect is to provide a clear set of rules and guidelines for policy implementation and program operation. An indirect effect is that there are different degrees of cooperation between sending and receiving governments. In other words, controlled immigration relies on intergovernmental cooperation and is most effective only when both the home and host governments adhere to the program's rules. Internationally recognized as one of the best immigration policy practices. Canada operates two major temporary alien work programs that represent controlled immigration. They are the Seasonal Farm Worker Program (SAWP) and the Livelihood Caregiver Program (LCP). Despite its shortcomings, SAWP has been considered a "best practice" in both academic and political debates. According to Preibisch and Binford (175), the SAWP is a notable example of an immigration policy that regulates the labor market of high-income countries and secures the position of the host country in the global political economy. Under the SAWP, Mexican authorities will select and qualify migrant workers, and Mexican consulates in Ontario, Quebec, etc. will protect the rights of temporary immigrants and establish a legal relationship between them and their Canadian employers. We are tasked with resolving disputes. Guarantees and bureaucratic oversight make the SAWP superior to the previous US Bracero program (1942-1964) or the current US H2A program. Notable in Canada's immigrant experience is the widespread opposition to excluding immigrant agricultural workers from human rights-based occupational safety and health protections (169). Engagement in various social justice struggles by state civil society actors operating at different levels,

including local, national, international and extraterritorial, expands access to social civil rights for Mexican migrant workers (233). While Canada's bilateral SAWP program is commonly described as "best practice," questions have also been raised about workers' ability to access citizenship and limited labor protections. Foreign workers offered under the SAWP provide employers with a flexible workforce, thereby increasing Canada's competitiveness in the global agri-food market. Under the SAWP, a migrant worker can stay and work in Canada for up to eight months, but their work permit is tied to her one employer. It is precisely this factor that makes migrant workers highly vulnerable workers. Migrant workers are tied to their employers and are unable to access more attractive jobs, limiting their bargaining power to seek better working and living conditions (95). Under the SAWP, migrant workers are stripped of their collective bargaining rights and subjected to long hours of hard work for wages unattractive to most domestic workers. Martin (127, 236) notes that the most common policy prescription is employment adjustment, where unlicensed and semi-permitted aliens who have passed residence, work, and/or integration tests are legal long-term residents and workers. It claims to be a system that allows But, as Martin argues, such policies encourage more illegal immigration by signaling to would-be immigrants that the best way to qualify for immigration is to go to another country. This should be considered a one-off and not an ongoing program. In this context, Spain's experience in managing labor immigration has been the subject of intense debate in academia, as Spain regularized illegal immigrants to become legal workers.

## **Conclusion**

The purpose of this study was to collate existing knowledge about migrant workers in agriculture. In doing so, we conducted an extensive literature search on topics available in peer-reviewed articles, books, research reports, and other scientific publications. We have sought to provide a global perspective of migrant labor in agriculture in a variety of geographic and contextual settings. A review of the literature on this topic proved to be a complex task, as the nature and scope of the included studies were highly variable. Despite the existence of international standards protecting the rights of migrant workers, migrant workers' working conditions and health conditions remain worse than those of domestic workers. Although the geographical focus, scope, units of analysis, and settings varied, most of the studies reviewed found that rural migrant workers worked in very poor working conditions and were exposed to occupational chemicals and human exposure. It highlights that

you are exposed to many health and safety risks, such as engineering exposures and various injuries, and sickness, and even death. This study has accumulated a rich data set on the health effects of exposure of migrant agricultural workers to various chemicals. Perhaps because of the extensive literature in the field, not all of these studies are of high quality. Lack of training, difficulty in accessing medical care, and compensation for injuries and illnesses have also been reported. The studies reviewed pointed to a number of factors that challenge migrant workers' rights improvement, ranging from ineffective laws, economic variables, to the social and cultural backgrounds of migrant workers. The study also highlighted a lack of research on working and wage conditions of migrant rural workers. In this regard, the accumulated results of the study indicate that the issues and problems migrant farmworkers face are multidimensional, and this requires multifaceted approaches to address migrant workers' problems in different geographical and situational contexts. Despite their geographical diversity, the studies tend to propose similar reasons to explain migrant farmworker situations in different countries, including the involvement of migrant farmworkers in the most dangerous jobs and the most dangerous tasks within these jobs, lack of safety training, discrimination and social exclusion, poor pay and long working hours, the exploitative nature of much of the work, fear of retaliation for demanding better work conditions or reporting an injury or illness, and language and cultural barriers that minimize the efficiency of safety training or hampers the delivery of adequate medical care. As we initially expected, most of the studies reviewed come from established countries of immigration, such as the United States and Canada which have a long immigration history, whereas in the European context, most of the studies are concerned with southern European countries, Spain in particular. However, it should be noted that migrant farmworkers largely suffer from poor working conditions even in countries with a long history of immigration (United States, Canada). Much of the reviewed literature highlights a great need for further research in this field, given the unrelenting increase in the number of migrants internationally. In this regard, our literature review indicates that despite the existence of considerable literature on the subject, this area has not yet been explored, especially in the immediate aftermath of EU enlargement, when migration became widespread. This is the case in Europe, where it has become a phenomenon. Several methodological issues were encountered in this review. One problem is that the study does not adequately define the 'migrant population' according to the context of the study. As a result, it was very difficult to determine whether the studies in question looked at migrant populations. , the line between the

temporary and permanent nature of foreign workers is blurring. Additionally, some studies often refer to “farm workers” when describing such as Mexican migrant workers working in Canada and the United States. Such questions became of particular importance in this literature review, as we were primarily interested in collecting data related to migrant workers working in agriculture. A preliminary literature review revealed the need to use other keywords and terms to collect the required data. Non-native workers were often referred to by buzzwords such as farm workers, rural workers, migrant workers, and seasonal workers. Some studies were not clear on whether the focus was on migrant workers or on local workers. That's why our search methods are flexible, and we continually updated our search strategy as we became more familiar with the terminology. Nonetheless, the methodology used in preliminary searches helped determine which data to search further, and research interest and focus informed changes in methodology. In addition, the term "migrant workers" has been emphasized over its meaning in the agricultural context. Furthermore, for the main reason for the review to focus primarily on agricultural migrant workers, we were primarily concerned with temporary and seasonal migrant workers, not permanent migrant workers. This study had some limitations. We used LibHub and Google Scholar as the main sources of literature identification, as the former was used extensively at Lund University and the latter was used to compensate for potential shortcomings of the former. That said, we recognize that our research is not without limitations and includes publication bias and related research in other areas that may not be included in search engines. However, both LibHub and Google Scholar can help us understand migrant labor in agriculture and areas where more knowledge is needed. Another possible limitation is the selection of English articles for review. 18 articles were excluded for linguistic reasons. 9 in Spanish, 4 in German, 4 in French and 1 in Italian. The failure to use quality criteria in selecting items for review could also be seen as a limitation of that review was to collect existing reports on migrant labor in agriculture. In summary, this literature review helps synthesize knowledge about migrant workers in agriculture that is available from journal articles, books, reports, policy papers, and other relevant academic publications. This overview also provides a global perspective of migrant labor in agriculture in a variety of geographic and contextual settings, allowing readers to focus on issues based on their interests, and to critique and apply those issues in their own context.

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