

Health Conditions of Inter-State Migrants in Marine Fisheries: A Study of Kerala

Jenikrishna MU[†] and Neelmani Jaysawal^{‡*}

Abstract

The marine fisheries are one of the vital occupations in the southern parts of India. This industry is considered to be the foundation of revenue generation for these states. Kerala, being located at the southernmost part of India, is promoting this industry with support from inter-state migrant labourers. The inter-state migrants working in Kerala's maritime industry are from northern and southern India. As a result of higher salaries and improved working conditions in this unskilled sector, people from the North and Eastern parts of the country have started to migrate to Kerala. Indeed, the continual cash flow in this sector makes it lucrative and invites a large influx of migrant labour to this region. These inter-state migrant labourers work for more than eight hours and spend 10 to 15 days at sea while fishing. They have to stay with heavy pieces of equipment at sea away from shore. This heart-wrenching situation deteriorates their health. They come across various kinds of professional injuries while fishing. Some of these fishermen and fisherwomen encounter long-term effects from those injuries.

On the other hand, catering to their health needs seems challenging due to the lack of adequate medical facilities for migrant labourers. Following the increase in migratory flow, Kerala's health system has faced several institutional impediments. The lack of identification of migrant labourers cripples the entire process of providing access to a better healthcare system to them. As a result, inter-state migrant labourers in the marine industry are facing various health-related challenges due to the nature of this profession and the apathy of state machinery.

Therefore, this study seeks to explore the health issues affecting the inter-state migrant labourers in Kerala's marine sector through a mixed-method research design.

Keywords: Inter-state Migrants; Maritime Industry; Health Issues; Occupation; Heavy Equipments; Kerala; India

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Introduction

India's economy is primarily driven by the inter-state migrant labour force in almost all sectors. One-fourth of this labour force is settled across the nation (Rao et al., 2020). The inter-state migration is indeed more rampant than that of international migration. India has the largest number of internal migrants, with nearly 309 million comprising almost 30% of the country's population (Registrar General of India, 2011). The internal migration is driven by various factors like income security, diversifying livelihoods, and reduction of risk among the vast majority of people experiencing poverty (Harris & Todaro, 1970; de Haas, 2021). The conditions of migration have a significant impact on the health and well-being of migrants. Urban migrants in India frequently live and work in subpar conditions that lack essential amenities like clean water, sanitary facilities and fresh air. Their new city's social atmosphere might not be welcoming for them and may result in various prejudices for their livelihood stability. Such an unfavourable physical and social environment puts migrant's health at risk and increases their disease susceptibility (Hong et al., 2006; Shi et al., 2022). The most evident challenges to their access to healthcare are linguistic, cultural and financial constraints. Several people experience racism and discrimination within the healthcare system, which decreases their access to healthcare services (Bollini & Siem, 1995; Togioka et al., 2024).

Furthermore, administrative, social and governmental restrictions may make it more difficult for migrant labourers to get healthcare services. For low-income migrant labourers, health is not a priority compared to livelihood. They lack knowledge of the location of health facilities and feel estrangement from government health services (Borhade, 2011). The massive increase in the state's number of townships between 2001 and 2011, from 159 to 520, could be directly attributed to the enormous development in urban population (Zacharias & Vinil, 2018). Nonetheless, Kerala has recently seen a significant influx of migrant workers from the North and Eastern regions of

India. According to the Census 2001, Kerala has witnessed 4,12,849 migrant labourers from other states, nearly 1.3% of the state's total population (Sarkar & Sekar, 2020). The ever-increasing migrant labour force has put an enormous burden on existing government machinery to identify healthcare needs and supply adequate healthcare services to the genuine inter-state migrant labour force. This research is an attempt to delve into various structural challenges faced by inter-state migrant labourers in accessing uninterrupted healthcare services from both governmental and private institutions.

Despite solid healthcare infrastructure in the study area, various migrant labourers find it difficult to access affordable and quality health services. Lack of entitlement facilities, abrupt work culture in marine fisheries, and reduced social connectivity have added fuel to the fire. Therefore, this study may shed light on socio-economic impediments, occupational constraints related to the marine fisheries sector, and structural gaps between healthcare institutions and communities as significant factors behind the inaccessibility of healthcare services among inter-state migrant labourers. The study is based on a mixed-method research design aimed at drawing inferences related to structural and functional challenges faced by inter-state migrant labourers in the marine fisheries sector in Kerala. Case Study and Focus Group Discussion (FGD) excerpts have been codified under specific sub-themes to identify multi-dimensional constraints in the healthcare system.

The study begins with a review of the relevant literature. It then discusses the data and methods employed for this study. Following this, it critically discusses the findings.

Review of Literature

Evolution of Migration in Marine Fisheries and its Trend

The replacement migration in Kerala¹ has witnessed a tremendous increase in various unorganised sectors due to several factors. Some of these factors are the rapid demographic transition in Kerala due to the emigration of skilled youths, high remittances from gulf countries like UAE, Qatar the unwillingness of indigenous workers to physically demanding work and the inclination of youths towards skilled labour (Saikia, 2015). Initially, most migrant labourers in Kerala were seasonal and short-term from the nearby districts of Tamil Nadu and Karnataka (Rajan & James, 2007). However due to the lucrative nature of the marine industry, Kerala continues to witness a large influx of migrant workers from northern and eastern parts of India (Peter et al., 2020).

On the Kerala coast, traditional fishermen and fisherwomen from different Indian states have been seen partaking in marine fishing. The state's maritime economy has created large employment prospects in this area due to mechanisation, better wages and the emigration of Keralites from the marine fisheries sector. With a coastline spanning more than 590 kilometres and an exclusive economic zone (EEZ) covering 218536 square kilometres, Kerala has a sizable maritime fishing industry, which has historically been a vital source of employment and subsistence for the state's coastal population. The marine industry is expanded in various coastal districts of Kerala like Thiruvananthapuram, Kollam, Alappuzha, Ernakulam, Thrissur, Malappuram, Kozhikode, Kannur and Kasaragod. The State Department of Fisheries is implementing all development and management plans envisioned by the Government for the Fisheries sector (Directorate of Fisheries, Government of Kerala, 2015). The maritime fisheries industry has changed due to increased automation, better materials for gear,

the motorisation of country crafts, modifications to fishing gear, and expansion of fishing grounds and storage facilities. The increase in production was influenced by various elements like modern communication technologies, global positioning systems, and remote sensing-based fisheries zone predictions (Department of Fisheries, Government of India, 2016). In Kerala, fishing has been transformed from a communal activity into a commercial one. Innovative initiatives like the Technical Co-operation Mission Programme (TCMP) implemented in Kerala after 1947 transformed the entire marine industry. The goal was to supply insulated iceboxes, vans, nets and nylon threads, marine diesel engines, etc. Gillnet boat, one Danish Seiner, one Trawler and one large boat for dory fishing were all introduced as part of the TCMP. Moreover, two ice factories, one at Vizhinjam and the other at Kayamkulam, were built. The technical assistance programme was started in order to teach fishermen new fishing techniques, create practical crafts and equipment, build new fishing harbours, etc. In January 1953, the Indo-Norwegian Project (INP) was initiated to enhance the former State of Travancore-Cochin fishing community. These developments have brought a direct impact on labour and organisation. The economic climate for the fisheries sector has undergone considerable changes (Rajan, 2002). The fishing industry employs both traditional skilled fishermen and non-fishers. The portion of the catch serves as the basis for the payment system. The crew receives a single allowance, while the captain receives a double portion. The migrant labourers frequently live on boats throughout fishing excursions, typically lasting 10 to 15 days.

Challenges in General and Occupational Health of Inter-State Migrants

Sprains, strains, cuts, lacerations, bone fragments, amputations and burns are essential occupational health and safety issues in the marine industry. The primary ailments reported

¹ The composition of the ageing population in relation to the total population and large outmigration from the state of Kerala had led to the phenomenon of replacement migration. As a result of the demographic transition, a

reduction in the working-age population and/or insufficient skills to meet the required labour force along with an increasingly ageing population has triggered the process of replacement migration.

in the maritime fishing include musculoskeletal disorders, eyesight, hearing, gastrointestinal, urinary tract, respiratory and genital issues (Hayman et al., 2010). The study entitled *The Health of Fishermen in the Catching Sector of the Fishing Industry: A Gap Analysis* by Matheson et al. (2001), revealed that accidents in the marine sector involving people or vehicles account for 78.2 % of fatalities. Diseases and other causes account for 21.8% of deaths. Weather conditions, unseaworthy vessels and inadequate usage of personal survival gear are cited as causes of the trauma. In their article entitled *HIV and AIDS among Fisherfolk: A Threat to Responsible Fisheries*, Allison and Seeley (2004) brought attention to the fishing community's suffering from the epidemic of HIV/AIDS. The socio-economic dynamics of the fisheries sector, where instances like high mobility of fishermen and extended absence from home are visible, their vulnerability to HIV/AIDS is imminent. Due to the high mobility of labourers in the marine fisheries sector, they stay away from their homes for days, which sometimes renders them susceptible to unsafe sexual practices. They remain vulnerable towards Sexually Transmitted Infections (STI) and HIV/AIDS. In addition to this, they also remain anaemic due to low iron intake. In a study by Charles (2011) entitled *Health Status and Health Care System Among the Fisher People in Kerala*, 3.2% of the respondents had anaemia. The significant ailments as reported among the migrant labourers are fever (44.5%), headache (48.3%), stomach ache (48.3%), diarrhoea (51.5%), infection (57.2%), Asthma (59.4%), cancer (59.9%) and high blood pressure (77.3%). General, acute or chronic sickness affects 58% of the population. Overall, 73.3% of the population under study by Charles (2011) reported having poor health. There are various contributing factors to poor health status amongst the migrant fishermen: lack of knowledge about health services, doctors' preference for working in rural areas rather than coastal areas and the absence of basic necessities like clean water to drink and sanitary facilities. Scholars have investigated the occupational health requirements of the fishing industry (Grimsmo-Powney et al., 2011).

According to these scholars, 27% of the sample population visited the coastal area for medical emergencies at least once a year. Lacerations (36%), sprains and strains (22%), contusions (20%), and fractures (18%) are the most frequent health problems related to occupation as mentioned in this study (Grimsmo-Powney et al., 2011). They frequently suffer from infections and musculoskeletal conditions.

Initiatives of Kerala Government

The Kerala government has taken many actions to address the problems brought on by the influx of migrant labourers. The state is enforcing the Interstate Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 (Kumar, 2011). Kerala became the first state to announce the Interstate Migrants Welfare Scheme in 2010. And Kerala is India's first state to implement a social security programme for migrant labourers (Peter et al., 2020). In 2016, the Department of Labor and Skills, Government of Kerala (DOLS) unveiled the *Aawaz Health Insurance Programme*. Under this scheme, a migrant labourer can enrol for free and receive a general health insurance benefit of INR 15,000 and a benefit of INR 2 hundred thousand as part of an accidental insurance benefit. Inter-state migrant labourers between 18 and 60 years are eligible under this scheme. The District Collector, District Labour Officer, District Medical Officer, Panchayat Deputy Director and District Police Officer are authorised to monitor the coordination of the Aawaz health insurance programme (Labour and Skill Department, Government of Kerala, 2022). Through this scheme, the inter-state migrant labourers may get compensation benefits to the family upon the death of the labourer. By 2020, around four hundred thousand inter-state migrant labourers were registered under the scheme (Peter et al., 2020). The primary objectives of this study are as follows:

- To explore various health issues among inter-state migrants working in the marine fisheries sector of Kerala.
- To analyse the impact of socio-economic conditions of inter-state migrants on their health.

- To understand the role of healthcare institutions in promoting awareness among inter-state migrants.

Methodology

The study is based on a mixed-method research design. It has used both primary and secondary data to analyse the numerous health issues that have been reported by interstate migrants working in the marine fisheries sector of Kerala. The study's target population is inter-state migrant labourers working in the Alappuzha and Ernakulam districts of marine fishing in Kerala. The research study chose 60 respondents using a purposive sampling method. The majority of respondents were in the age group of 18-30 years. The respondents were both men and women. Most of these people have migrated to Kerala due to a lack of job opportunities in their native place. As far as their education is concerned, around 17% of them were illiterate. 31.7% had primary education. Nearly 50% had a secondary-level education, and around 2% studied up to secondary level. The lower educational background can be one of the push factors for migration, especially among youngsters. It has also led to the exclusion of migrant workers from various socio-economic benefits in the area. The criteria for selecting samples are: the respondents should work in the marine fisheries sector of Ernakulam and Alappuzha districts in Kerala, and they should reside in the marine fisheries sector of Ernakulam and Alappuzha districts for a minimum of five years. The duration of a minimum of five years of stay for respondents is taken based on their records with the Kerala State Planning Board. Empirical data were collected through triangulation, which included multiple data generation sources. In this research study, interview schedules, case studies, and focus group discussions were the primary methods used to gather data. The language used in the interview schedules, case study and FGD was bilingual, comprising Hindi and English. As most respondents belonged to Odisha, West Bengal, and Uttar Pradesh, Hindi was used to communicate with the participants. The FGD and case study transcripts were

translated into English, and responses were grouped under codes to segregate them under each sub-theme. The responses from the interview schedule were fed into SPSS, and descriptive statistics was used to interpret the data. Quantitative data is analysed using SPSS, and qualitative data was analysed through content analysis. The excerpts of field notes were codified through a focused coding tool. The secondary data was gathered from publications like journals, working papers, census reports, books and other internet sources. The researchers conducted independent reviews of the articles retrieved from each database to examine the procedure closely. To maintain confidentiality, the researcher used pseudonyms for the participants.

Kerala has a sizable marine fishing industry that has historically been a vital source of employment and subsistence for the state's coastal population. The fisheries sector is a critical component in Kerala's economy. It is an essential source of food and protein and a significant avenue for employment, and it has also become a primary export industry in recent years. Total marine fish landings in Kerala during 2017 were 5.85 hundred thousand tonnes, 10.4% higher than in 2016 (Central Marine Fisheries Research Institute, 2018). Kerala's coastline covers nine districts: Kollam, Thiruvananthapuram, Thrissur, Malappuram, Kozhikode, Kannur, Kasargod, Ernakulam and Alappuzha. Ernakulam district is known as the commercial capital of Kerala. The district was created in 1958 by separating portions of the districts, namely Thrissur and Kottayam. It is spread over 30.63 sq. km of an area having 46 km. of coastline. The characteristic physical feature of Ernakulam is the expanse of backwaters and low-lying wetlands. The backwaters of Ernakulam form part of the Vembanad water basin of Central Kerala (Department of Town and Country Planning, Government of Kerala, 2010). It has a total population of 42 thousand fishermen. This district houses 21 fishing villages and 9318 fishermen families. The 46.2 km of coastline of the Arabian Sea forms the district's western boundary. Within the district are 158 fish

markets comprising 24 wholesale markets and 134 retail markets. It has nearly 66 export units (Department of Animal Husbandry, Dairying & Fisheries, Government of India, 2010).

Similarly, Alappuzha district serves as a landmark for having 82 km of the area as a coastline zone. Alappuzha is a district of immense natural beauty with the Arabian Sea on the west and a vast network of backwaters, lagoons, and freshwater rivers crisscrossing the land. The district was formed on 17th August 1957. Nearly 13% of the district is made up of water bodies. It has a total population of 92 thousand fishermen. This district houses 30 fishing villages and 20,278 fishermen families. Alappuzha district has 158 fish markets comprising 61 wholesale markets and 97 retail markets (Department of Animal Husbandry, Dairying & Fisheries, Government of India, 2010). The market structure analysis of Alappuzha's major fish markets indicates a significant fish trade that caters to the demand for fish in nearby towns and cities. The analysis of the daily market turnover of the different Alappuzha markets indicated that the Dara market trades around 35 tonnes of fish valued at 62.41 hundred thousand rupees (Salim et al., 2015).

Results and Discussion

Health Issues of Inter-state Migrants in Marine Fisheries

The inter-state migrants working in the marine fisheries sector in Kerala have been suffering from various general and occupational diseases. These migrant workers, due to a lack of a healthy lifestyle and unhygienic working conditions, are vulnerable to several life-threatening diseases. Very few migrant workers have reported these diseases within one year of occurrence. According to Figure 1, diabetes and blood pressure are the most reported general diseases, pegged at 10%. Approximately 2% of migrants have suffered from cardiovascular disease in the area. In one case study, Mr Sarkar explained that he faced severe kidney issues while working in the marine fisheries sector. He stated:

Kidney issues started with stomach pain, pain in the lower back, and fever. Later,

it became severe. I could not go for catching. My friends were helping me at that time. They found that I had a severe kidney stone issue and needed an immediate operation.

There are various contributing factors to poor health status amongst the migrant fishermen and fisherwomen: lack of knowledge about health services, doctors' preference for working in rural areas rather than coastal areas and the absence of basic necessities like clean water to drink and sanitary facilities.

Besides, these migrants have reported suffering from several minor general diseases, which are presented in Table 1. Some reasons for these minor ailments are crowded working environments and filthy accommodations. General, acute or chronic sickness affects 58% of the population. 73.3% of the population under study by Charles (2011) reported poor health. Weather conditions, unseaworthy vessels and inadequate usage of personal survival gear are cited as causes of the trauma. One of the respondents, Radhika, revealed that she was also facing some health issues due to her schedule of work. She said:

Nowadays I am suffering from severe headaches. Maybe it is due to the shift changes. We have two shifts: morning and night shifts. It changes frequently. That may affect my sleep patterns. If it becomes severe, I take medicines from medical shops.

During an FDG at a village in Ernakulam district, the participants expressed suffering from several minor diseases among inter-state migrants working in this sector. One of the participants said:

Actually, we returned early to the shore this time because of a medical emergency. One of our co-workers was caught with a high fever, and he was a diabetic patient; his condition was becoming worse. We did not want to take risks. So, we returned and got only six days in the sea. We reached here two days before. There are no facilities for us to handle emergencies in the sea.

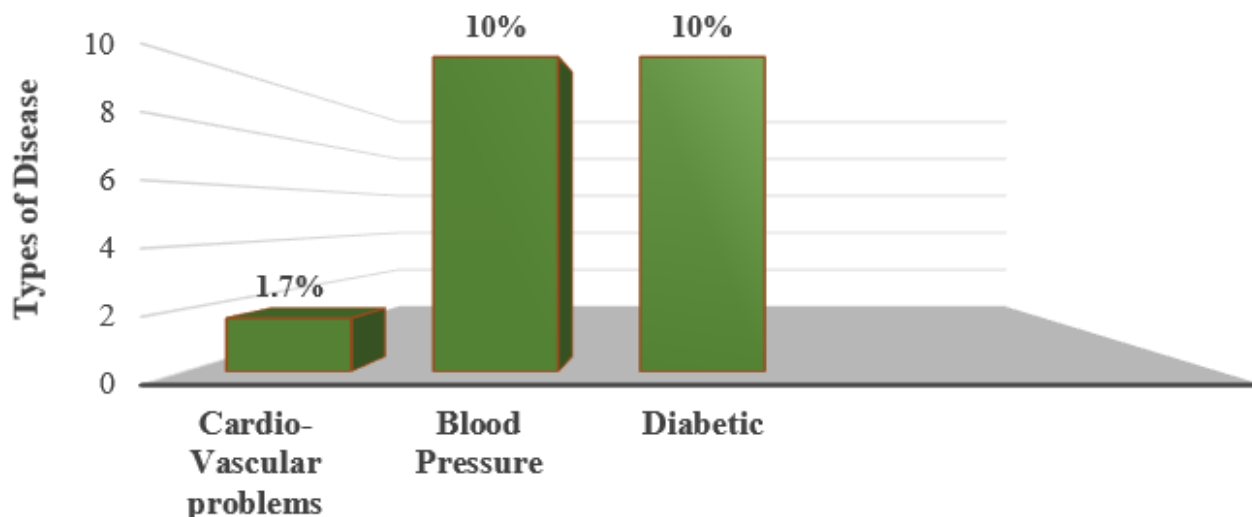


Figure 1: Major General Diseases Faced (Within One Year) by Inter-State Migrants Working in the Marine Sector

Source: Authors

Table 1: Minor General Diseases Faced by Inter-State Migrants in the Marine Fisheries Sector

Diseases	Percentage
Viral Fever	45
Common Seasonal Cold	3.3
Headache	8.3
Dysentery	6.2

Source: Authors

In addition to general diseases, these inter-state migrants have witnessed a surge in occupational diseases. These diseases are due to various working patterns and exposure to toxic environments at vessels. Table 2 shows the different diseases that these migrant labourers continue to suffer from—musculoskeletal diseases, gastrointestinal problems, urinary tract problems and skin infections. Musculoskeletal diseases are universal health diseases among

fishermen and fisherwomen caused by their nature of work, thus resulting in pain in musculoskeletal structures. Low-diet meals, lack of exercise, routine changes, and stress are leading factors. The infections in the urinary tract are caused due to unsanitary working environments and unhygienic practices. Our research participants also suffer from skin infections due to the incessant use of chemicals and constant touch with salt water.

Table 2: Occupational Diseases Related to the Fishing Sector Faced by Inter-state Migrants in the Marine Sector

Diseases	Percentage
Musculoskeletal Diseases	21.7
Gastro-Intestine Problems	3.3
Urinary Track Problems	1.7
Skin Issues	8.3

Source: Authors

One of the respondents, Mr Sudip, who is working in the ice plant in Ernakulam, stated:

Ice plants add chemicals to the ice to keep the fish fresh. It is not good for our health. We cannot say anything about it in detail. It will affect our jobs. Ice plant always smells these chemicals. I got a reaction in my legs because of these chemicals. Firstly, it was slightly itching, which later developed into pain and blisters on the skin's surface. Still, it is there, but I am taking proper medications.

Another respondent, Ms Sunita, expressed:

I have an allergy to Prawn. Not with every type. Some types of prawns cause allergies in me. It started recently. Initially, I did not know that I had an allergy. I consulted more than two doctors. Finally, a doctor from the private hospital found the reason. Currently, I

am taking medicines and ointments for allergy issues.

These migrants working in the catching and processing sectors have minimal healthcare facilities. The adverse working conditions are causing various general and occupational diseases among inter-state migrant workers in the marine fisheries sector.

Apart from diseases, the migrants have also been suffering from several injuries during their occupation. Due to challenging working conditions and fixed schedules, the pressure on fishermen is very high, resulting in various occupational injuries. As evident below in Figure 2, nearly 8% of them have cuts in their bodies, and 3% of fishermen have reported to have suffered from lacerations. The instances of bone fractions and injuries from fish are estimated to be nearly 2%. The fishermen have experienced a lot of physical stress in operationalising heavy equipment and vessels.

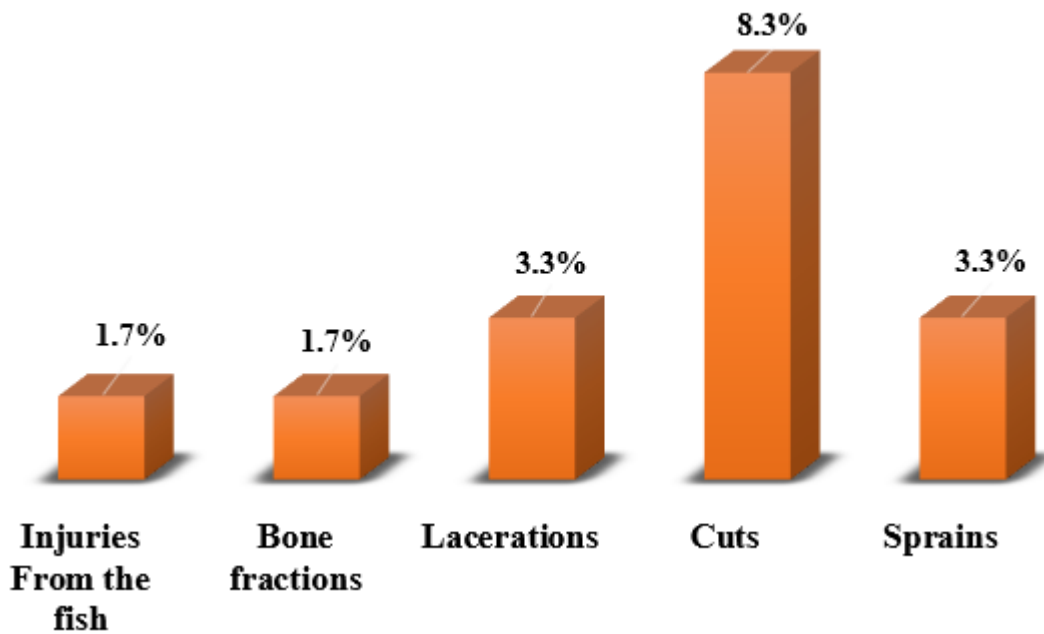


Figure 2: Injuries Related to the Fishing Sector Faced by Inter-State Migrants

Source: Authors

One member of FGD held in a village in Ernakulam district said:

The fishing trip is not easy every time. We have to face storms, winds or rain in the

sea. Sometimes, we get a warning from the authorities. So, we take precautions, but sometimes it leads to uncertainty. We stop fishing until the storm or wind

ends and stay calm until it ends. Our small, bad decisions can lead us to death. In times of uncertainty, we stay united and obey our leader. This is the law among sea people. A few months ago, a boat accident happened in our sea. The team saved two people. But one is still missing, and his dead body is not recovered yet.

Overall, the findings of our study reveal that health-seeking behaviour among migrants reflects the deficiency of primary healthcare facilities, which results in non-recovery from general and occupational diseases. The consequent exposure to various physical injuries has led to long-term illness of migrant workers in these areas.

Impact of Socio-Economic Conditions of Inter-State Migrants on their Health

This study has found that the socio-economic conditions of inter-state migrants have significantly impacted their health. Due to poor economic conditions and lower status in the social hierarchy, these inter-state migrants lack access to healthcare facilities. The educational background and economic conditions have forced these people to migrate to Kerala.

Most migrant workers come from their native places due to the influence of their friends and relatives who have already been engaged in this profession. Mr Sudip, from a village in the Alappuzha district of Kerala, said:

I do not have any interest in studying more. After quitting school, I joined with my cousin. He had some good contacts in Kolkata city. Before coming here, I did some loading, driving, and other daily wage jobs. One of my friends from the next village working in Kerala said he was getting a good salary there. He will provide me with accommodation and food also.

Another respondent, Mr Kashi, from a village in the Ernakulam district of Kerala, stated:

I joined the company via a contractor from Odisha. Some joined here via a contractor, and some came through

friends and relatives. We are all getting a monthly salary of INR 9500. In the beginning, we did not get that much. We are all new to this field. After coming here, we have learned about grading and packing.

The miserable financial conditions of migrants have led to deteriorating conditions of their healthcare. As evident from Figure 3, 25% of migrants have fluctuations in their income. Nearly 17% of inter-state migrants live on low wages. Their income is entirely dependent upon the fish stock. The continuity in their income fluctuation has led to an economic crisis among them, directly affecting their chances of getting adequate healthcare support. Low wages are reported among the people working in the processing units. This financial challenge leads to the lack of prioritisation of health issues among inter-state migrants.

The rate of expenditure on health by inter-state migrants is relatively minimal. The consequent negligence of migrants towards spending on health care is leading to the spiralling problem of several lethal diseases among them. Table 3 shows that only 13% of respondents spend money on their healthcare in these two districts. Most respondents were reluctant to spend money on healthcare due to their preconceived notions about healthcare being costly.

One member of FGD, which was conducted in a village in the Alappuzha district, said:

Most of the time, we depend upon tablets and first-aid from the workplace. Going to the hospital and getting treatment is a little bit expensive. If we spend that much on treatment, nothing will be left to send home.

As discussed above, most of these inter-state migrants come from a very ordinary financial background, which has compelled them to remit a significant chunk of their income back home. The acute financial distress has forced them to spend less adequately on healthcare. Sometimes, the high hospital bills have also deterred them from accessing healthcare facilities.

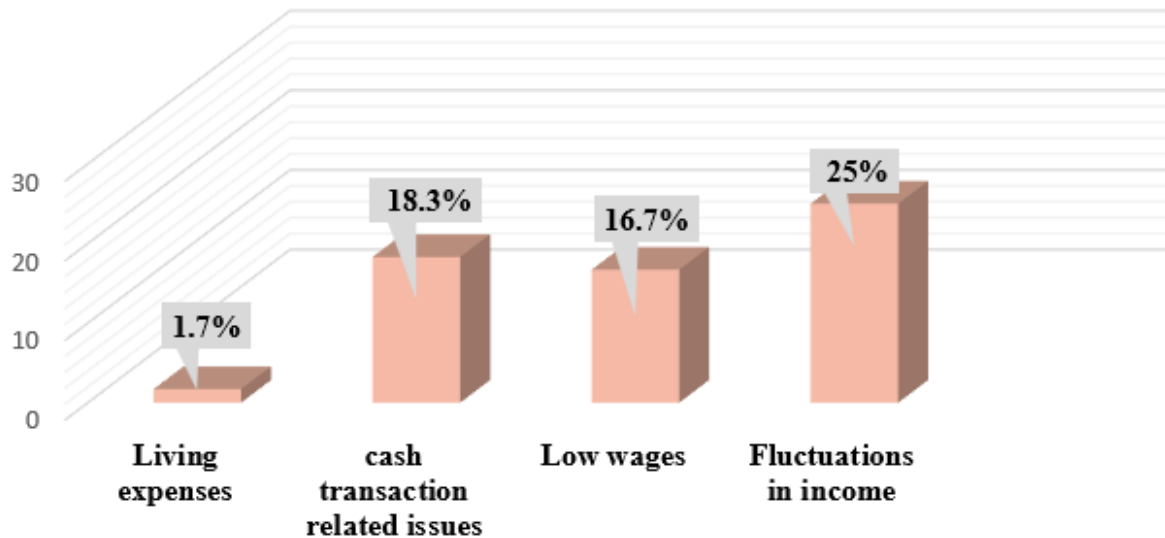


Figure 3: Economic Challenges Faced by Inter-State Migrants

Source: Authors

Table 3: Spending Status for Healthcare by Inter-State Migrants	
Spending Status for Healthcare by Inter-state migrants	Percentage
Yes	13
No	87
Source: Authors	

Another respondent, from a village in Ernakulam district of Kerala, who was suffering from renal problems, stated:

Kidney issues started with stomach pain, pain in the lower back and fever, which became severe later on. I could not go for catching. My friends were helping me at that time. Firstly, they took me to Ernakulam General Hospital. Friends said that I would get treatment free of cost. But I spent more than INR 1000 there for scanning and buying medicines. Some of the drugs were not available in the hospital pharmacy. So, I had to buy it from the outside. The doctors found that I had a severe kidney stone issue and needed an immediate operation. Another friend working in the Kozhikode marine sector suggested that I would get good treatment for kidney issues at Kozhikode Medical College. I got admitted at Kozhikode Medical College for an operation and landed in spending more than 20000 rupees from my

pocket. It included my transportation, food and ten days of hospital expenses. It took a tremendous toll on me to remit money back home.

Due to this situation, most of the inter-state migrants do not report their disease to any hospital. Economic challenges, lack of trust in the healthcare system, or work-related constraints can be attributed to not reporting the health issues. They were leaving health concerns without reporting a significant constraint on accessing healthcare facilities. Due to poor economic conditions, the inter-state migrants are forced to live in a very formidable condition. One of the respondents from the Ernakulam district of Kerala mentioned:

The company is good, and I am getting free accommodation here. In my room, there are 15 people. We are living together in a room like a family. Food also we will get from the company.

People working in the catching sector do not have separate accommodation facilities. They

live in the boat even after the fishing trip. The boat is their home. The boat contains essential facilities such as bathrooms, washrooms, a kitchen, a resting area, tv, electricity and toilets. However, 16 people live in the boat. In such a scenario, the hygiene and health of inter-state migrants are always compromised. As shown in Table 4, about 18% of the migrants live in shared

rooms with 1 to 5 co-workers, and about 82% of migrants share rooms with 11 to 15 co-workers. The majority of the migrants in our study live in crowded living conditions, and it may increase their health risks. This shows that inter-state migrants are deprived of proper accommodation facilities in Kerala.

Table 4: Living Conditions of Inter-State Migrants	
People Sharing the Accommodation	Percentage of Respondents
1-5	18.3
6-10	0
11-15	81.7
Source: Authors	

The crowded living conditions make it difficult for these migrants to ensure a healthy lifestyle. There is a high chance of air-borne and water-borne infection transmission among co-workers. Their poor economic conditions primarily cause the problem of co-workers in these shanty living conditions. Very few of them have access to healthcare facilities, but the chances of contracting diseases among them are very high.

Role of Healthcare Institutions in Promoting Awareness Among Inter-State Migrants

In the case of inter-state migrants living in very miserable conditions, the role of healthcare institutions in promoting awareness among them seems to be primordial. The Government of Kerala is advancing awareness among inter-state migrants through the AAWAZ health insurance scheme. Through this scheme, the inter-state migrants are getting assistance right from hospital admission expenses to expenses incurred on medicines and auxiliary services. Even the Primary Health Centre (PHC) has also intervened by organising health awareness

camp on various communicable and non-communicable diseases. The study findings show that 50% of inter-state migrants learned about infectious diseases through these camps (Table 5). Through these camps, 50% t of these migrants also received testing kits for HIV/AIDS. Even the AIDS council in Kerala organised medical camps for screening of HIV/AIDS through which 50% of inter-state migrants of our study received services.

During the FDG, one of the research participants mentioned:

One day, I participated in a medical camp conducted for HIV tests. My supervisor said that in other companies, AIDS is reported among the workers. A few months ago, we attended a class regarding health issues and insurance for inter-state migrants. We went there by a vehicle arranged by the company. We spent a little time there and returned to the company.

Table 5: Health Awareness Programme by Primary Health Centre	
Type of Programmes	Percentage
Testing for HIV/AIDS	50
Awareness of Communicable Disease	50
Source: Authors	

Timely awareness regarding chikungunya, malaria, and other viral fever is also conducted among the migrants, which allows them to take

appropriate precautions. Apart from Primary Health Centre (PHC), the role of contractors and social media is also very significant. Nearly 3.3%

of awareness has been delivered by the contractors. In comparison, social media has contributed to this affair by about 1.7%. Regarding treatment, care and support, most inter-state migrants have received services from private hospitals in these two districts of Kerala. The utilisation of Government Hospital and services is significantly less among migrants, which should increase the enjoyment of economically friendly healthcare services among inter-state migrants. Our study findings also show that the contribution of medicine shops in the casual treatment of diseases among migrant labourers stands at nearly 27%, which showcases the reluctance of migrants to get admitted into hospitals due to it being quite expensive. Almost 20% of them expressed their willingness to be admitted into government hospitals.

One of the respondents of the study said:

We only return to the shore after 10-15 days. Tablets for fever, cough, vomiting, gas issues and painkillers are always available in our box. While on the boat, if anyone encounters any minor diseases, we give these tablets. Small burns, cuts and sprains are common among the workers. It happens when they deal with nets and during fish catching. So, we also keep some bandages and ailments for this and let the injured rest completely. If his condition becomes worse, we return to the shore.

The trend of taking medicine without consultation is very high among these inter-state

migrants. This only suppresses the symptoms of the diseases. Actual health problems remain untreated. Our findings also showed that the inter-state migrants who come through the contractors receive little more awareness about health care services in Kerala than those who migrated through the social networks. Migrants working in the processing units receive more attention from the government authorities. In the catching sector, welfare is entirely dependent upon the owner. If the owner is good, then the workers may get some benefits.

Lack of awareness among migrants about the AAWAZ health insurance scheme and other schemes adds to existing woes. One focus group discussion participant in the Alappuzha district of Kerala said:

My contractor had helped me join the AAWAZ health insurance. I did not know about the insurance scheme. The contractor said we should join the insurance. It would help if we had to be admitted to the hospital. He completed the procedures for me and my friends. I got the insurance card. They told me how to use it. I completely forgot about it. Still, the card is with me. I did not use it till now. Not only me but also my friends did not use it.

Most inter-state migrants have been provided awareness programmes on the prevention of diseases by government healthcare institutions. These programmes play a vital role in promoting the health of migrant workers, which directly affects the public health of Kerala.

Table 6: Role of Healthcare Institutions in Curative Services	
Place of Treatment	Percentage
Private Hospital	51
Government Hospital	20
Medical Shops	27
Private Clinics	2
Source: Authors	

Conclusion

The primary objective of this study was to examine the health status of inter-state migrant labourers in Kerala. The trend of inter-state migration in Kerala has illustrated demographic changes and numerous emerging health problems among migrant labourers. Kerala's experience also showcases fragmented initiatives taken by the Government to facilitate these migrant labourers' access to healthcare services. In the absence of institutionalised and pragmatic arrangements carefully envisaged to implement and monitor the programmes, ensuring synergy within and between departments, these measures have been tangential rather than complementary. It would be imperative if the state could leverage the potential of inter-state migrant labourers and provide them with requisite social security schemes through conciliation between their employer and service delivery institutions. There are still inconsistencies in their application, particularly in health. Healthcare disparities are anticipated to affect a large number of migrant workers, especially unregistered employees and those employed in the informal economy. The best way to manage them is to administer them effectively in compliance with labour laws and plan to accept and accommodate them well in advance. This will allow them to live comfortably in a hassle-free atmosphere. The authorities must ensure that these inter-state migrant labourers arrive in the state with valid legal documents.

Additionally, the Government must guarantee that these migrant workers receive improved working conditions and medical services (Saviour, 2018). Although the state government has taken numerous steps to alleviate the distress of migrant workers, yet there is a long way to go in terms of facilitating healthcare services for them. Most of these inter-state migrant labourers live in dilapidated *kutcha* (temporary) structures without access to safe drinking water and toilets. The policy measures and substantial investments in social security programmes have not yielded a positive outcome. There is an urgent requirement for

district-level nodal agencies to liaise with contractors in the fishing sector to ensure accessibility of healthcare services among inter-state migrant labour. This may unlock the potential of employers and organisations to facilitate welfare measures for inter-state migrant labourers.

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Ethical Approval

The manuscript is prepared following academic ethics. This research took an effort to prevent any ethical violations during the study. Informed consent was obtained from each participant in the study. The author(s) ensured the confidentiality of data.

Conflict of Interest Declaration

The author(s) declare no competing interests. The author(s) also declare no potential conflicts of interest concerning this research, authorship, and/or publication.

Author Contribution Statement

The manuscript is prepared based on contributions from both the author(s) throughout research, data collection and manuscript editing. The manuscript is edited by both the author(s) at different stages, ranging from desk review of articles, data collection from the field, and interpretation and analysis of data through software.

Informed Consent

The author(s) obtained informed consent from all participants in the study. Informed consent forms from the participants were written in both Hindi and English. Before conducting the study, the informed consent forms were verbally explained to the respondents. Personally identifiable data were not collected, and all participants were free to participate without any pressure.

Funding

The author(s) received no financial support for the research and/or authorship. Ms Jenikrishna M U conducted this independent research as part of her PhD research under the supervision of Dr Neelmani Jaysawal.

Data Availability Statement

The primary data within the manuscript may be retained by the journal with the permission of the author(s).

Acknowledgements

The author(s) hereby acknowledge the Department of Social Work, Visva-Bharti, West-Bengal, for allowing them to conduct the study. The author(s) are also grateful to the Department of Fisheries, Government of India, Directorate of Fisheries, Government of Kerala, and the Fishermen's community of Alappuzha and Ernakulam districts of Kerala for their valuable contributions to the research study. Further, the authors are highly grateful to the anonymous reviewers for their feedback/comments in an earlier manuscript.