

Assessing the Safety and Health Needs of Migrant Workers in Worker Dormitories: Lessons from a Public Health Crisis

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Abstract

Public health crisis management requires a comprehensive and inclusive approach, particularly in countries that rely heavily on migrant labour to support the key economic sectors. During large-scale health emergencies, the ability of existing systems to protect migrant workers becomes critical, as weaknesses in accommodation governance can pose serious risks to both workers' safety and broader public health security. Worker dormitories, especially those who characterised by overcrowding and shared facilities, emerged as high-risk environments during the COVID-19 pandemic. This study aims to identify the key safety and health needs of migrant workers residing in worker dormitories and to analyse the factors contributing to the spread of COVID-19 within these accommodation settings. Adopting a qualitative research design, the study draws on elite interviews with institutional stakeholders and focus group discussions with migrant workers across multiple economic sectors. The findings reveal that the outbreaks in worker dormitories are closely linked to inadequate living conditions, regulatory gaps, limited enforcement, and weak coordination among key stakeholders. These findings highlight the importance of integrated policy responses that align dormitory governance, labour regulation, and public health preparedness to strengthen the protection of mechanisms and improving crisis management in future public health emergencies.

Keywords: Migrant Workers, Worker Dormitories, Safety and Health, Public Health Crisis, Protection, Governance

Introduction

Malaysia is one of the major destination countries for migrant workers globally. Migrant workers play a crucial role in supporting Malaysia's economic development across multiple

sectors as referred in Figure 1. As of March 2024, there were more than 2,171,798 documented migrant workers holding valid permits in Malaysia. The five largest source countries of migrant workers are Bangladesh, Indonesia, Nepal, Myanmar, and India (Immigration Department of Malaysia, 2024; Ministry of Home Affairs, 2024). Migrant workers in Malaysia can generally be classified into two main groups: expatriates, who comprise professionals and skilled workers, and non-expatriate migrant workers, who are predominantly semi-skilled and low-skilled labours (IOM, 2023; Muhammad Danial et al., 2023). Migrant labour constitutes an essential component of both developed and developing economies. In labour-importing countries such as Malaysia, Singapore, Japan, and the United States, migrant workers are engaged to support national development across key sectors, including the economy, construction, manufacturing, and services, in accordance with each country's development priorities. Table 1 illustrates the employment restrictions by country of origin and the approved source sectors for migrant workers employed in Malaysia.

Table 1

Approved source countries and sectors for migrant workers in Malaysia

Country	Domestic Helper Sector	Sectoral / Occupational Restrictions
Bangladesh	✗	Plantation sector only
Cambodia	✓	No restriction
India	✓	• Not allowed in Manufacturing • Allowed for specific occupations in Construction (high tension cable only) and Services (goldsmith, wholesale/retail, restaurant cooks only, metal/scrap materials and recycling, textiles, and barbers) • Allowed in Agriculture and Plantation
Indonesia	✓	• Males allowed for all sectors except Manufacturing • Females allowed for all sectors
Kazakhstan	✗	No restriction
Lao PDR	✓	No restriction
Myanmar	✗	No restriction
Nepal	✗	No restriction
Pakistan	✗	No restriction
Philippines	✓	• Females only allowed in the domestic helper segment • No restrictions for males
Sri Lanka	✓	No restriction
Thailand	✓	No restriction
Turkmenistan	✗	No restriction
Uzbekistan	✗	No restriction
Vietnam	✓	No restriction
Source: Immigration Department of Malaysia		
Note: ✗ Not allowed ✓ Allowed		

Source: World Bank, 2020

Table 1 reveals the substantial variation in sectoral and occupational restrictions imposed on migrant workers based on their countries of origin, reflecting an uneven regulatory approach to migrant labour management, particularly in terms of access to specific employment sectors. Migrant workers from countries such as Cambodia, Lao PDR, Sri Lanka, Thailand, and Vietnam are facing minimal or no sectoral restrictions, allowing broader participation across economic sectors. While such regulatory flexibility may support labour market efficiency, it simultaneously raises the important of governance concerns, as it places increasing pressure on institutional mechanisms responsible for regulating worker accommodation, safety, and health standards. These pressures are particularly pronounced in high-density dormitory settings, where regulatory oversight and enforcement often remain fragmented and inconsistent.

In contrast, migrant workers from countries including Bangladesh, Kazakhstan, Myanmar, Nepal, Pakistan, Turkmenistan, and Uzbekistan are subject to more restrictive employment conditions, either through limitations on domestic work or confinement to specific sectors. For example, Bangladeshi workers are restricted to the plantation sector, while workers from India and Indonesia are governed by detailed sectoral and gender-based limitations. These differentiated restrictions shape patterns of worker placement and concentration, frequently resulting in the clustering of workers from specific nationalities within particular industries and accommodation facilities. The clustering of workers within dormitories poses considerable challenges for management, as heightened occupancy density, restricted mobility, and unequal access to essential facilities hinder efforts to maintain adequate safety and health standards.

From the perspective of safety and health, the concentration of migrant workers in labour intensive sectors and high-density living environments heightens exposure to environmental, sanitary, and occupational risks, particularly when accommodation management systems are inadequate or weakly enforced. Sector-specific employment restrictions may therefore inadvertently contribute to overcrowded dormitory conditions, increasing vulnerability to health hazards and disease transmission. These dynamics suggest that labour policies extend beyond employment regulation alone and play a crucial role in shaping the safety and health conditions experienced by migrant workers within dormitory settings. Consequently, the lack of alignment between labour regulation and accommodation governance represents a critical policy gap that warrants closer examination.

At the same time, migrant workers remain essential contributors to labour-importing economies by addressing workforce shortages, meeting demand for semi-skilled and low-skilled labour, and supporting national development and economic growth (Yotwilai, 2025; Nurina et al., 2019). In Malaysia, the patterns of migrant labour migration are influenced by long-term relationships involving income differentials, historical ties, trade relations, unemployment trends, and national employment policies (Suhana et al., 2025; Intan, 2020). In addition, structural conditions in labour-sending countries, including income disparities, trade dynamics, and unemployment pressures in Bangladesh, Indonesia, Nepal, Myanmar, India, Cambodia, Thailand, and Lao PDR, continue to drive cross-border labour migration (IOM, 2024).

However, the growing influx of migrant workers also presents substantial challenges to the human security of the workers themselves (Afira et al.; Sharmin, 2020; Intan & Sity, 2018). In practice, gaps in accommodation governance are sometimes being exploited, with some employers housing with large numbers of migrant workers in shop-house buildings or densely clustered container units with limited facilities. Such living arrangements frequently lack adequate sleeping areas, rest spaces, sanitation facilities, access to clean water, drying areas, cooking spaces, and dining facilities, thereby exposing migrant workers to heightened safety and health risks. These conditions underscore the vulnerability of worker dormitories as living environments, particularly during public health emergencies, and highlight the need for a more integrated approach that links labour regulation, accommodation governance, and public health preparedness.

The COVID-19 public health crisis exposed significant vulnerabilities in the living conditions of migrant workers, particularly those residing in worker dormitories, where overcrowding, shared facilities, and limited health protection heightened the risk of disease transmission. Despite the critical role of migrant workers in supporting key economic sectors, existing studies have largely focused on employment conditions and labour regulation, with limited empirical attention given to migrant workers' safety and health needs within dormitory environments. Despite these challenges, empirical evidence that systematically examines the interaction between accommodation conditions, governance practices, and public health risks among migrant workers remains limited. Therefore, this study is conducted to address this gap by identifying the key safety and health needs of migrant workers residing in worker dormitories and analyzing the factors contributing to the spread of COVID-19 within these accommodation settings. By doing so, the study seeks to provide evidence-based insights that can support more integrated approaches to labour regulation, dormitory governance, and public health preparedness.

Literature Review

A literature review is a systematic process of examining, analyzing, and synthesizing findings from previous studies in order to develop a clear and comprehensive understanding of the issue under investigation (Snyder, 2019; Davis et al., 2014). In the context of this study, the literature review is particularly important because migrant workers constitute a core component of the national labour market, especially in labour intensive sectors such as construction, plantations, manufacturing, and services. The high level of dependence on migrant labour has generated various socio-economic and management-related challenges, which became more pronounced during the COVID-19 pandemic. The pandemic exposed significant weaknesses in areas including social protection, health security, migrant worker dormitory accommodation, and the effectiveness of migration policy enforcement. Beyond revealing the vulnerabilities faced by migrant workers, the pandemic also highlighted the challenges faced by the state in balancing economic imperatives with public safety. Therefore, a review of the literature on migrant workers and the issues that emerged during the COVID-19 period is essential for understanding risk dynamics, policy implications, and directions for improving safety and health management in migrant worker dormitories in Malaysia.

Migrant Workers in Malaysia

Migrant workers are defined as non-citizen workers who move to another country in searching of employment (Anderson et al., 2024). The term also refers to foreign nationals

who possess valid work permits issued by local authorities under the Immigration Act, the Employment Act, and related regulations enacted thereafter (Law Insider, 2023). Malaysia is a Southeast Asian country that has adopted policies encouraging the entry of foreign nationals as temporary workers (Sheikh Mohammad et al., 2022; Bastide, 2021). While Malaysia functions both as a recipient and a contributor to migrant labour flows. It is more prominently recognized as a destination country for migrant workers (Sunam, 2022). This is attributable to factors such as the country's strategic geographical location, political stability, migrant labour recruitment policies, and rapid economic growth. All of which have positioned Malaysia as a key destination for foreign workers, including undocumented migrants (Md Nor et al., 2023; Intan, 2018).

As of March 2024, more than 2,171,798 documented migrant workers holding valid permits were employed in Malaysia, originating primarily from countries such as Bangladesh, Indonesia, Nepal, Myanmar, and India (Ministry of Home Affairs, 2024). According to Mohd Faisal and Mohd Ikbāl (2022), Malaysia has a persistent demand for low-skilled and semi-skilled migrant labour in sectors such as plantations, agriculture, manufacturing, and construction, which are commonly categorized as 3D jobs, namely dirty, difficult, and dangerous, and are essential to national economic development. In Malaysia context, migrant workers are defined as individuals who possess valid passports and work permits, commonly referred to as Temporary Employment Visit Passes, and are employed in six economic sectors approved by the Malaysian government: manufacturing, construction, plantations, agriculture, services, and domestic work (Wahab, 2023). Large-scale migrant labour inflows into Malaysia began in the 1990s, coinciding with the implementation of major infrastructure projects and a period of rapid economic growth (Low, 2023). Notable mega projects included the construction of the Kuala Lumpur Tower, the Petronas Twin Towers (KLCC), Kuala Lumpur International Airport (KLIA), Putrajaya as the national administrative centre, and the Sepang International Circuit (Formula 1). During this period, the government actively facilitated the legal entry of migrant workers to meet labour demands.

However, the continued influx of migrant workers has also contributed to emerging social and security challenges (Intan, 2020). These include issues related to migrant labour management, social problems within migrant settlements, increasing levels of organized and irregular migration, the establishment of informal settlements, environmental pollution, rising crime rates, and overcrowding in urban centers, particularly during weekends when public spaces are also used by local communities. Such conditions have disrupted social harmony and generated concern among local residents.

Migrant Worker Issues During the COVID-19 Pandemic

Malaysia remains highly dependent on low-skilled and temporary contract migrant workers to address labour shortages across various sectors (Mohd Khamdani et al., 2025; Wahab, 2022). Although migrant labour continues to underpin the Malaysian economy, the COVID-19 pandemic significantly exacerbated employment and living conditions for migrant workers. During the early stages of the pandemic, COVID-19 outbreaks were reported in migrant worker accommodation facilities in Selangor, Johor, and Kuala Lumpur, particularly among workers in the industrial sector (Khor, 2021). These outbreaks attracted extensive media attention as infection rates among migrant workers rose sharply. Besides, the rapid spread of COVID-19 was largely attributed to overcrowded and densely populated living conditions in

migrant worker accommodation, including dormitories, container housing, terrace houses, and shop houses (Immigration Department of Malaysia, 2023; Royal Malaysia Police, 2022). It is estimated that approximately 90 per cent of migrant workers from Bangladesh, Indonesia, Nepal, India, and Myanmar resided in overcrowded and substandard housing with poor sanitation provided by employers (Verghis, 2023). These conditions were not a new phenomenon, as employers had long housed migrant workers in similar environments prior to the pandemic (Tasleem et al., 2019; IOM, 2023).

Mohd Na'eim et al. (2026) reported that the COVID-19 pandemic intensified existing vulnerabilities among migrant workers, including job insecurity, limited access to healthcare services, and inadequate social protection. The rapid transmission of COVID-19 within migrant worker dormitories compelled both employers and the government to recognize the urgency of strengthening infectious disease prevention measures (Luqman & Ilah, 2020; Gorny et al., 2021). These risks extended beyond migrant workers themselves, posing potential threats to public health more broadly. During the pandemic, Malaysia received both domestic and international media attention due to substandard migrant worker housing conditions that failed to meet minimum accommodation standards (Jones et al., 2024; Nur Nazirah & Suhaida, 2024).

Furthermore, approximately 2.4 million documented migrant workers from South and Southeast Asia were employed in Malaysia across sectors such as manufacturing, construction, services, agriculture, and plantations. Reports by international organizations, including the ILO and human rights bodies between 2020 and 2021, highlighted Malaysia's failure to provide migrant worker accommodation that met basic human rights standards (Gee-Weon, 2021). Numerous employers, particularly in the construction, manufacturing, and services sectors, were found to have neglected the welfare and safety of migrant workers (Foley, 2023). Noorayuni et al. (2025) argue that migrant workers in Malaysia continue to face significant constraints in fully exercising their labour rights and accessing trade union protection, despite the constitutional guarantee of freedom of association. The literature further indicates that restrictive labour regulations, low levels of migrant workers' participation in trade unions, and precarious employment conditions have limited their access to collective protection. For example, during the COVID-19 pandemic, migrant workers were often overlooked in terms of healthcare provision and occupational safety by employers.

The management of migrant workers requires strong and sustained commitment from all relevant stakeholders. The pandemic exposed structural inequalities in crisis management, including weaknesses in support systems for migrant workers and challenges related to repatriation. The failure to integrate the specific needs of migrant workers into crisis planning further heightened the vulnerability of this group (Andriesse, 2025). The COVID-19 pandemic also had significant impacts on migrant workers and their families, including job losses, reduced income, and experiences of stigma and discrimination (Silva, 2026). Moreover, the COVID-19 pandemic exposed the harsh and inadequate living conditions faced by migrant workers in Malaysia, rendering them more susceptible to infection and contributing to higher transmission rates. Media and human rights reports documented issues such as overcrowded, unhygienic, unsafe, and poorly maintained accommodation, including stacked containers and rented apartments inadequately managed by employers (Department of Industrial Relations Malaysia, 2022). Housing and dormitory conditions for migrant workers have thus become a

critical policy concern, particularly due to widespread non-compliance with the Workers' Minimum Standards of Housing and Amenities Act 1990 (Act 446).

Studies have shown that many migrant worker dormitories suffer from overcrowding, excessive occupancy, inadequate sanitation systems, and poor ventilation (Zanariah & Noor Atiqah, 2020). Additional concerns include unsafe environments, unpleasant odors, rodent and cockroach infestations, limited living space, makeshift sleeping arrangements without proper beds or mattresses, clothes drying inside living areas, and the absence of basic furniture conditions that constitute clear violations of Act 446 (Astro Awani, 2022).

From a human security perspective, this study emphasizes environmental safety and comprehensive health protection against non-traditional threats such as health, economic, and social risks. The concept of human security aligns with human rights principles that uphold dignity and well-being without discrimination (UNDP, 1994). In the context of migrant workers, restricted access to healthcare services, hazardous working conditions, and communication barriers have heightened human security threats, particularly during the COVID-19 pandemic (ILO, 2020; WHO, 2020). The failure to integrate a rights-based approach into health and labour governance has resulted in the continued marginalization of migrant workers from mainstream protection systems, contradicting the universal principles of human security (OHCHR, 2021).

In summary, poor housing and dormitory conditions for migrant workers are closely associated with increased risks of infectious diseases and mental health problems during the COVID-19 pandemic (2020–2021). Chung et al. (2020) identified overcrowding and inadequate hygiene facilities in migrant worker dormitories as key factors contributing to the spread of infectious diseases. Consequently, from a legal and policy perspective, there is a pressing need to strengthen the enforcement of existing regulations and to develop more comprehensive policies to safeguard the rights and well-being of migrant workers in Malaysia.

Methodology

This study adopted a qualitative approach to achieve its research objectives, which emphasize an in-depth understanding of the realities surrounding the management of safety and health for migrant workers residing in worker dormitories during public health crises. A qualitative approach was selected because it allows researchers to examine experiences, governance practices, and institutional as well as social dynamics in a holistic manner, particularly in crisis situations that are complex and multidimensional. As argued by Groenland and Dana (2019), qualitative methods are appropriate for investigating phenomena that require deep interpretation of behavior, structures, and social interactions. In line with this, the study also draws on the perspective of Subandi (2011), who emphasizes that qualitative research generates descriptive, narrative-based data that more authentically reflect field realities. Data collection in this study was conducted using a triangulation approach, involving field observations, elite interviews, and focus group discussions (FGDs), to enhance the validity and reliability of the research findings.

Interviews

This study employed an in-depth interview approach, comprising elite interviews and focus group discussions (FGDs). Structured interviews were conducted with elite informants

consisting of government agency officers and subject-matter experts who are directly involved in the management and welfare of migrant workers in Malaysia. The elite informants included officers from the Immigration Department of Malaysia, the National Security Council, the Department of Labour of Peninsular Malaysia, the Attorney General's Chambers of Malaysia, paramedics, as well as academics and subject-matter experts with research experience related to migrant worker issues. The use of structured interviews aimed to ensure that the questions posed were aligned with the research objectives and themes, while it also enabling the researcher to systematically focus discussions according to the informants' areas of expertise.

Table 2

Details of the Number of Informants

Agencies (elite interviews)	No. of Informants
Department of Labour of Peninsular Malaysia	1
Immigration Department of Malaysia	1
National Security Council	1
Attorney General's Chambers of Malaysia	1
Paramedics	2
Academics / Subject Matter Experts	2
	8
Foreign workers (FGD)	
Manufacturing	5
Construction	5
Plantation	5
Services	5
Agriculture	5
	25
Total number of informants	33

Fieldwork, 2022–2023

The selection of the number and categories of informants was based on the informational needs of this study. Elite informant interviews were conducted through both face-to-face and online modes using the Google Meet platform, depending on the availability and preferred timing of the research informants.

Focus Group Discussions (FGDs) and Fieldwork

For the focus group discussions, an unstructured interview approach was employed involving migrant workers who live and work in the states of Selangor, Negeri Sembilan, and the Klang Valley. The FGDs covered five main employment sectors, namely manufacturing, construction, plantations, services, and agriculture, and were conducted face-to-face to enable the researchers to obtain more accurate and in-depth information regarding the experiences and challenges faced by migrant workers. This group-based approach also helped to overcome language barriers and limitations in understanding terminology, as interactions within the group allowed participants to assist one another in clarifying information. In addition, this method reduced pressure on informants, thereby encouraging more open sharing of experiences compared to individual interviews. Accordingly, observations and fieldwork were conducted through visits to selected migrant worker dormitories and

industrial areas in Selangor, Negeri Sembilan, and several locations within the Klang Valley, as presented in Table 3.

Table 3

Study areas for fieldwork

Locations	Sector
Shah Alam, Bandar Baru Bangi, Subang Jaya, Rawang, Nilai 3	Manufacturing
Cyberjaya & Puchong	Construction
Hulu Selangor (Felda Soeherto, Kuala Kubu Bharu)	Plantations
Ampang, Cyberjaya & Sepang	Services
Kuala Langat	Agriculture

Source: Fieldwork, 2023

These locations were selected because they are among the main concentration areas for migrant worker settlements and had recorded significant outbreaks of infectious diseases during the COVID-19 pandemic. The study also involved the manufacturing, construction, plantation, services, and agriculture sectors to ensure that variations in economic contexts and working environments were comprehensively examined.

Qualitative Data Analysis Process

The sample size in this study was determined based on qualitative research principles that emphasize data depth and information saturation rather than the number of participants alone. Data were collected through focus group discussions (FGDs) and semi-structured interviews, with participants selected using a purposive sampling approach. The informants included academics, enforcement officers, and implementing officials to ensure source triangulation. To enhance the rigor and transparency of the qualitative data analysis, all interview and FGD data were systematically analyzed using ATLAS.ti software (version 8.0). The analysis process began with full transcription of the interview recordings, followed by repeated readings to allow the researchers to become thoroughly familiar with the data content.

Subsequently, open coding was conducted to identify meaning units related to issues of safety, health, dormitory management, and public health crisis responses. These initial codes were developed inductively based on field data and were reviewed iteratively to ensure consistency and accuracy of interpretation. In the next stage, conceptually similar codes were integrated through axial coding to form more meaningful categories and sub-themes. This process enabled clearer identification of relationships among migrant workers' experiences, employer management practices, institutional roles, and policy frameworks.

ATLAS.ti was utilized to map the relationships among codes, categories, and themes through the network view function, thereby supporting the analysis of linkages between health security, environmental safety, and migrant worker dormitory governance. Selective coding was then conducted to synthesize the emerging core themes and to link them with the theoretical framework and research objectives. The analytical findings subsequently served as the empirical foundation for the development of a new framework for protecting the safety and health of migrant workers in dormitory settings during public health crises. This staged analytical approach ensured that the framework developed was grounded not only in policy and literature, but also in robust and credible field data.

Overall, this study involved a total of 33 informants, comprising enforcement agency officers, health and medical personnel, academics, legal practitioners, employers or industry representatives, and migrant workers. The selection of the sample size and composition was guided by the principles of information adequacy and data saturation, whereby data collection continued until no significant new themes emerged from the interviews and discussions. In qualitative research, emphasis is placed on the depth and diversity of perspectives rather than large sample sizes; thus, the inclusion of 33 informants across multiple sectors and institutions was deemed sufficient to generate robust and credible findings.

All interview sessions were audio-recorded with the informed consent of the participants and transcribed for analysis. Qualitative data analysis was conducted thematically using ATLAS.ti version 8.0 to identify themes, sub-themes, and patterns of relationships between empirical data and the study's conceptual framework. This analytical process supported the development of a new framework for safeguarding the safety and health of migrant workers in dormitory settings, formulated through the synthesis of field findings, theoretical perspectives, and existing policy requirements. This study adhered to the principles of social research ethics by ensuring that informed consent was obtained from all informants prior to the commencement of interview sessions and focus group discussions. Participation in the study was entirely voluntary, and all informants were clearly informed about the purpose of the research. To safeguard confidentiality and privacy, the identities of all informants were fully protected through the use of coded identifiers. All data collected were used solely for academic purposes, and the names of key informants were not disclosed in the study in accordance with the confidentiality agreement between the researchers and the informants. Audio recordings and interview transcripts were securely stored and accessed only by the researchers to ensure the protection of sensitive information.

Findings and Discussion

According to Rosita et al. (2025), labour migration has increased significantly at the global level, with migrant workers often exposed to exploitation and precarious forms of employment that negatively affect their health status. Although the Asia-Pacific region hosts millions of international migrant workers, empirical evidence consistently shows that access to healthcare services and adequate health protection for this population remains limited. Within this broader context, the present study focuses on migrant workers residing in worker dormitories, where living conditions, accommodation management, and access to safety and health protection directly shape their daily experiences and vulnerability during public health crises. Accordingly, this study was guided by two main objectives: to identify the primary needs of migrant workers residing in worker dormitories, and to analyze the factors contributing to the spread of COVID-19 among migrant workers living in dormitory settings during the recent public health crisis.

To address these objectives, focus group discussions were conducted with migrant workers employed in the manufacturing, construction, plantation, services, and agriculture sectors. Each group consisted of five participants to ensure focused and interactive discussions. The questions posed to participants centered on three key domains, namely basic needs within dormitories, safety and health protection, and the forms of care and treatment provided by employers. Through this qualitative approach, the study captured migrant workers' lived

experiences of dormitory life, revealing how accommodation conditions, shared facilities, and employer practices shape their sense of safety, health, and well-being on a daily basis. These accounts provide insight into the practical challenges faced by migrant workers in employer-provided accommodation, particularly during periods of heightened health risk. Ensuring the safety, health, and welfare of migrant workers in dormitory settings is critically important, as it not only upholds fundamental human rights but also contributes to productivity and national economic well-being (Yotwilai, 2025). Participants' experiences indicate that safe, clean, and well-managed living environments play a crucial role in reducing exposure to infectious diseases, workplace-related accidents, and mental stress. Conversely, poorly maintained dormitories with limited space, shared sanitation facilities, and inadequate hygiene measures increase vulnerability to health risks. These conditions demonstrate how dormitory environments function as critical spaces where health risks can either be mitigated or intensified, particularly during public health emergencies.

The failure to integrate migrant workers' needs, particularly dormitory management, into crisis planning weakens public health responses and increases the risk of disease transmission to the wider community (Michael, 2024). Findings from Andriess et al. (2025) further demonstrate that governance quality plays a decisive role in determining the effectiveness of protection mechanisms and crisis management during pandemics. In the Malaysian context, the COVID-19 pandemic exposed structural weaknesses in migrant worker protection systems, particularly in relation to mobility restrictions, overcrowded accommodation, and limited access to timely support. The pandemic also revealed significant public health risks when socio-demographic factors and housing quality are overlooked in residential planning (Lai, 2026). These findings highlight that dormitory settings are not merely residential spaces but environments that require targeted governance and health interventions during crises.

In addition, well-managed living environments can reduce social tensions and facilitate better integration of migrant workers into local communities (Jones, 2024), thereby fostering more harmonious and productive workplaces. The findings of this study suggest that addressing migrant workers' safety and health needs within dormitory settings requires a more coordinated approach that links accommodation governance, employer responsibility, and public health planning. The following section therefore presents the findings related to the first research objective, namely the identification of the primary needs of migrant workers residing in worker dormitories. The study sample comprised 25 migrant workers who participated in focus group discussions across five economic sectors, namely manufacturing, construction, plantation, services, and agriculture. Figure 1 illustrates the needs identified within the migrant workers' dormitory environment.

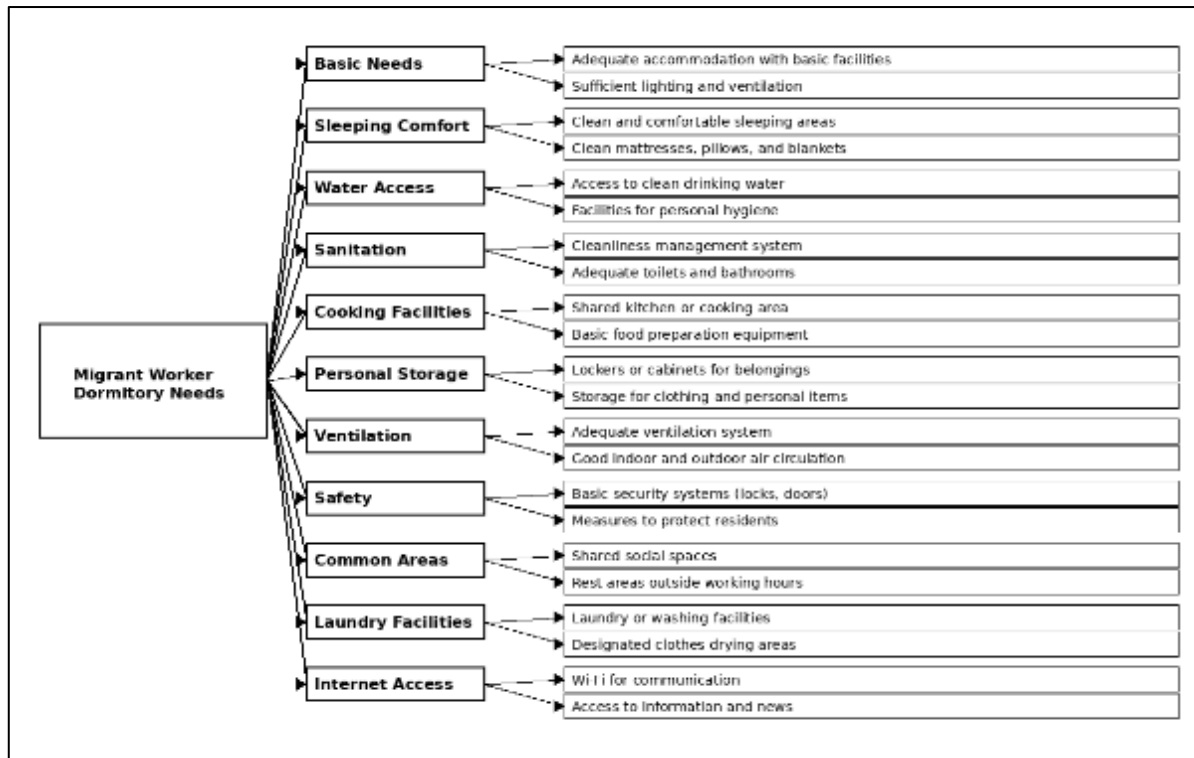


Figure 1 ATLAS.ti analysis based on fieldwork across five economic sectors

Source: Fieldwork, 2022-2023

Figure 1 illustrates the key findings related to the needs identified within the migrant worker dormitory environment. Based on qualitative data analysis, the findings of this study generated 11 main themes that were inductively identified and analysed using ATLAS.ti software. The findings indicate that migrant workers place significant emphasis on the provision of adequate basic facilities within worker dormitories. Informants highlighted that sufficient lighting, proper ventilation, and safe electrical wiring systems are essential to ensure comfort and to reduce safety risks in daily living conditions. As expressed by one participant:

"We live here with insufficient basic facilities. The lighting and fans are inadequate. This situation makes us feel uncomfortable."

(FGD informant, manufacturing sector)

In addition, the provision of clean and comfortable sleeping facilities was identified as a fundamental need that directly affects workers' physical and mental well-being. Informants reported that overcrowded sleeping spaces and inadequate bedding have reduced rest quality and increased fatigue:

"The sleeping space is very limited and we have to share rooms with many people. This makes it difficult for us to rest properly."

(FGD informant, construction sector)

Furthermore, access to clean water and well-maintained sanitation facilities was consistently identified as a critical requirement. Participants emphasized that clean water is essential for drinking, cooking and personal hygiene, while insufficient or poorly maintained sanitation facilities increase health risks:

"The water supply is sometimes insufficient and the toilets are often dirty. This makes it difficult for us to maintain personal hygiene."

(FGD informant, plantation sector)

The availability of appropriate cooking facilities and personal storage spaces was also identified as an important element in daily living and personal dignity. Informants stated that limited cooking areas and the absence of secure storage facilities affect their ability to manage daily routines effectively:

"The kitchen space is very limited and we have to share it with many people. There are no lockers provided to store personal belongings safely."

(FGD informant, services sector)

Safety within the dormitory environment was another recurring concern raised by participants. They emphasized the need for basic security measures, such as properly functioning door locks and controlled access, to ensure personal safety and peace of mind:

"Security in the dormitory is not well assured and we often feel worried."

(FGD informant, agriculture sector)

Migrant worker accommodation must be equipped with adequate basic facilities to ensure their well-being and safety (Sunam, 2022). Among the essential facilities are sufficient lighting and fans, as well as ensuring that electrical wiring systems are properly maintained and meet safety standards. Well-managed and compliant electrical installations can reduce the risk of undesirable incidents such as short circuits and fires. The provision of a well-equipped living environment not only enhances workers' comfort but also plays a crucial role in preventing accidents within residential settings. In addition, the provision of clean and comfortable sleeping facilities constitutes a fundamental requirement that contributes to the physical and mental well-being of migrant workers (Hui & Chin, 2024). Each worker should have an individual sleeping space equipped with clean mattresses, pillows, and blankets to ensure quality rest. Adequate sleeping facilities help reduce stress, improve restfulness, and support workers' productivity in performing daily tasks. Maintaining cleanliness in sleeping areas is also essential to prevent the spread of diseases and to safeguard environmental health within living quarters.

Furthermore, access to clean water is a critical element in ensuring the survival and health of migrant workers. Clean water is required for drinking, cooking, daily activities, and personal hygiene practices. Insufficient supply or poor water quality can pose serious risks of waterborne diseases and negatively affect overall well-being. Therefore, the provision of a sufficient and safe clean water supply represents a fundamental component that must be prioritized in migrant worker accommodation. Proper sanitation encompasses public hygiene control systems, including treated water supply, waste management, and organized sewage disposal. Basic facilities such as toilets and bathrooms must be provided in adequate numbers, kept clean, and maintained in good working condition to minimize the risk of infectious diseases. Well-managed sanitation not only enhances residents' comfort but also plays a vital role in ensuring a healthy and safe living environment, particularly in high-risk situations such as public health crises. Findings from Verghis (2023), based on interviews with Nepali workers in Malaysia, indicate that residents are generally expected to take responsibility for maintaining cleanliness in their living spaces, rather than relying solely on

employers. Hygiene regulations became more stringent during the COVID-19 pandemic compared to the pre-pandemic period, largely due to the emphasis on self-regulation to prevent the spread of infectious diseases. This highlights the importance of maintaining cleanliness within residential environments.

In addition, migrant workers require appropriate and safe cooking spaces to prepare their daily meals. Shared kitchen or cooking areas should be equipped with basic facilities such as stoves, sinks, and clean food preparation spaces. Adequate cooking facilities enable workers to prepare their own meals in a more cost-effective manner while maintaining healthy dietary practices (Nor Suzylah & Rosfaraliza, 2023). At the same time, proper hygiene management in cooking areas is essential to prevent food contamination and reduce health risks. Similarly, personal storage spaces such as cabinets or lockers constitute an important necessity to ensure the privacy and security of migrant workers' belongings (Informants from the manufacturing and services sectors, 2022). Adequate storage facilities allow workers to organize and safeguard clothing, important documents, and personal items. Such provisions contribute to a more orderly living environment and enhance respect for the rights and privacy of each resident.

Adequate accommodation safety is a critical aspect in protecting the physical security of migrant workers and their personal belongings. Basic security measures such as functional door locks, the presence of security personnel, and other monitoring mechanisms should be provided to reduce the risk of theft or other undesirable incidents (Informants from the construction sector, 2022). A safe living environment not only provides residents with peace of mind but also supports their psychological well-being, particularly for workers who live far away from their families and countries of origin. In addition, migrant worker accommodation should include comfortable common or shared spaces, both indoors and outdoors, to allow residents to socialize, rest, and engage in leisure activities outside working hours. Well-organized and secure common areas can enhance social interaction among residents, reduce stress and feelings of isolation, and foster a more harmonious community among migrant workers.

Laundry facilities constitute an essential basic need for maintaining personal hygiene and cleanliness within accommodation settings. The provision of washing machines or designated areas for washing and drying clothes enables workers to maintain daily hygiene standards in a convenient and effective manner. Beyond health considerations, these facilities also contribute to residents' comfort and overall satisfaction in their daily lives. Access to the internet has become an important necessity for migrant workers to communicate with their families in their home countries and to obtain up-to-date information, including local and international news. The provision of Wi-Fi connectivity or areas with reliable internet coverage within accommodation facilities enhances residents' quality of life, facilitates the dissemination of important information, and supports their mental well-being by enabling continued social connections despite physical distance from their families.

Furthermore, this study analyzed the factors contributing to the spread of COVID-19 among migrant workers residing in worker dormitories. The rapid transmission of COVID-19 among migrant workers in dormitories in 2020 was primarily driven by high population density within dormitory settings, the shared use of common facilities, difficulties in maintaining hygiene

practices, and the inability to observe physical distancing measures. These factors were the main contributors to the spread of COVID-19 in migrant worker dormitories during the pandemic period. The situation was further exacerbated by challenges in contact tracing, limited awareness during the early stages of the pandemic, and restricted access to self-care and healthcare services. Dependence on public transportation and exposure to high-risk working environments also increased migrant workers' vulnerability to the virus. In addition, resource constraints and delays in institutional responses to address dormitory-specific issues accelerated the spread of infection within this community. Based on interviews with industry representatives and employer stakeholders, the study identified the primary factors contributing to the large-scale spread of COVID-19 among migrant workers in dormitories in 2020, as illustrated in Figure 2.

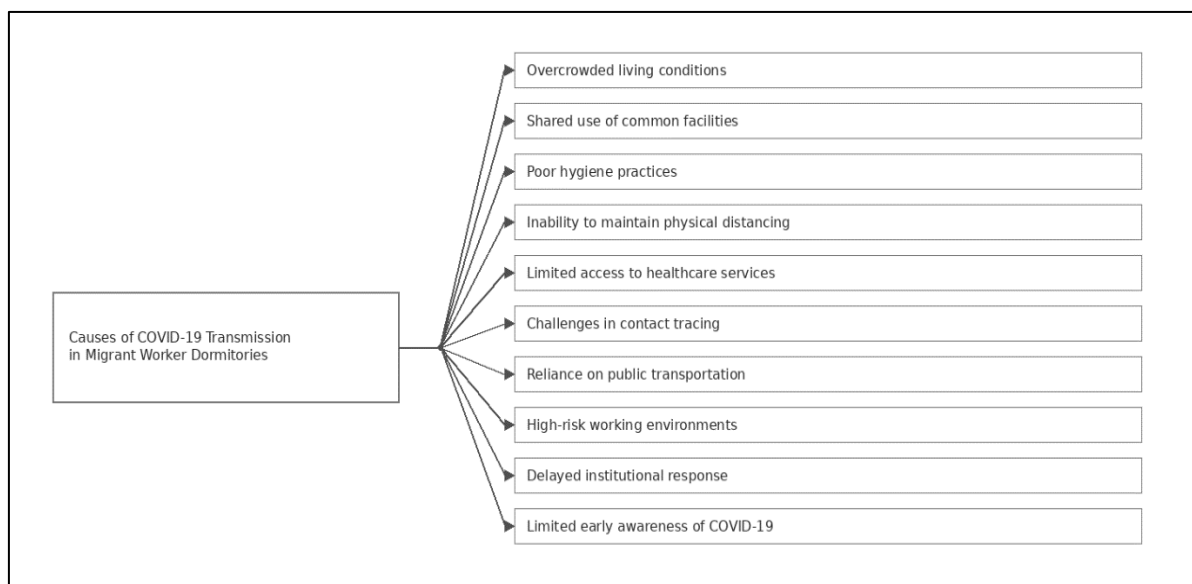


Figure 2 Causes of COVID-19 Transmission in Migrant Worker Dormitories

Source: Fieldwork across five economic sectors, 2022–2023

The findings indicate that the rapid spread of COVID-19 among migrant workers residing in dormitories was primarily driven by high occupancy density within confined living spaces. Overcrowded dormitory conditions, where workers shared bedrooms, bathrooms, and common facilities, made it difficult to practise physical distancing and increased the risk of infection. As described by one participant:

"We live in very crowded conditions. Many people share the same room and facilities, so it is impossible to keep distance."

(FGD informant, manufacturing sector)

In addition, the shared use of common facilities such as dining areas, kitchens, and recreational spaces further contributed to virus transmission through frequent close contact and shared surfaces. Informants reported that daily interactions in shared spaces increased their exposure to infection risks:

"We share the dining area and kitchen every day. Many people touch the same places, so the risk of getting infected is high."

(FGD informant, services sector)

Poor hygiene practices and difficulties in maintaining cleanliness were also identified as contributing factors. Limited access to hygiene facilities and inconsistent cleaning routines made infection prevention more challenging, particularly during the early stages of the pandemic:

"It was hard to keep everything clean because the facilities were limited and many people were using them at the same time."

(FGD informant, plantation sector)

Beyond physical conditions, limited awareness and understanding of COVID-19 during the initial phase of the pandemic further exacerbated the situation. Some workers reported that information about preventive measures was not clearly communicated at the beginning:

"At the beginning, we did not really understand how dangerous COVID-19 was or what we should do to protect ourselves."

(Paramedics)

From the perspective of employers and institutional stakeholders, challenges related to monitoring, enforcement, and contact tracing within densely populated dormitories were identified as major obstacles to controlling the spread of the virus. Both agencies highlighted that overcrowded living arrangements significantly constrained effective oversight and hindered timely contact tracing efforts:

"When workers are housed in overcrowded accommodations, monitoring and contact tracing become extremely difficult."

(Immigration Department of Malaysia)

"High-density worker accommodation poses substantial challenges to effective monitoring and the implementation of contact tracing measures."

(Department of Labour of Peninsular Malaysia)

These findings demonstrate that the spread of COVID-19 in migrant worker dormitories was the result of a combination of structural, behavioral, and institutional factors. The interaction between overcrowded living conditions, shared facilities, limited hygiene practices, and governance challenges created an environment that was highly conducive to large-scale transmission during the pandemic.

The findings indicate that the primary factor contributing to the spread of COVID-19 in migrant worker dormitories was the high density of occupants within confined living spaces. Shared living arrangements, including bedrooms, bathrooms, and other basic facilities, made it difficult for workers to practice physical distancing, thereby increasing the risk of infection. In addition, most workers shared dining areas, kitchens, and recreational spaces, which indirectly heightened the likelihood of virus transmission through close physical contact and frequently touched surfaces. Inconsistent hygiene practices, such as inadequate hand washing and poor maintenance of environmental cleanliness, further exacerbated the risk of disease transmission. These conditions were compounded by complacency and limited early awareness of COVID-19, particularly during the initial phase of the pandemic, when information on preventive measures had not yet reached all residents.

Moreover, beyond physical factors, social aspects also played a significant role in facilitating virus transmission within migrant worker dormitories. Limited communication with management and insufficient dissemination of safety guidelines resulted in workers not fully understanding the actual risks involved. The routine sharing of facilities and the inability to maintain physical distancing in daily life demonstrate that the dormitory environment itself was conducive to the spread of infectious diseases. Consequently, these factors underscore the importance of more systematic planning to reduce overcrowding and to enhance residents' awareness of preventive measures. At the same time, challenges in controlling COVID-19 transmission in migrant worker dormitories were complex and multifaceted. One major challenge was the difficulty in contact tracing, as residents living in densely populated environments were hard to separate or monitor individually. Workers' reliance on public transportation to commute to and from workplaces further increased the risk of virus transmission beyond the dormitory setting. Moreover, working conditions in certain sectors, such as construction sites and factories, exposed workers to environments with a higher likelihood of infection, indicating that controlling transmission within dormitories alone was insufficient without corresponding preventive measures at the workplace.

Furthermore, limited access to healthcare services and resource constraints during the early stages of the pandemic posed significant challenges to infection control efforts. Many migrant workers lacked medical insurance, faced high treatment costs, and were initially excluded from vaccination programmes that prioritized citizens, which limited their access to timely medical care and early preventive interventions. In addition, insufficient resources from employers and authorities to implement comprehensive preventive measures such as health screenings, COVID-19 testing, and timely public health responses further contributed to the accelerated spread of the virus. Collectively, these challenges underscore the urgent need for more systematic and integrated management strategies to safeguard the safety and health of migrant workers residing in dormitories.

Findings from focus group discussions (FGDs) and elite interviews indicate that Malaysia's experience in managing the COVID-19 pandemic revealed the need for a more structured public health crisis management approach that requires collaboration among multiple stakeholders. For instance, an academic informant with enforcement experience stated:

"The management of migrant worker dormitories should not be viewed as the responsibility of a single agency. It must involve all government agencies as well as the private sector. During COVID-19, weaknesses emerged when actions were not coordinated across agencies."

(Academic 1)

This perspective was supported by an officer from the National Security Council, who emphasized that in addressing large-scale public crises, it is the responsibility of all parties to work together and to draw lessons from the COVID-19 experience. The officer stressed that the country must establish a preparedness and protection mechanism as part of crisis readiness:

"We need to have a clear action plan before a crisis occurs, not only respond after an outbreak has spread."

(National Security Council Officer)

These findings reinforce the central role of the government as the primary driver in policy formulation, the development of guidelines, and the enforcement of laws related to the management of migrant worker accommodation. Furthermore, interviews with officers from the Department of Labour revealed that weak compliance with existing regulations prior to the pandemic was a major contributing factor to the spread of infections in migrant worker dormitories:

"Many dormitories did not comply with minimum standards. During the pandemic, these weaknesses became very apparent and had a significant impact on public health, leading to rapid transmission among migrant workers."

(Department of Labour of Peninsular Malaysia Officer)

In parallel, informants from the health sector emphasized that the condition of migrant worker accommodation has a direct relationship with the risk of infectious disease transmission, particularly in overcrowded and poorly managed dormitory environments (Paramedic, 2022). According to informants from the National Security Council (2022) and the Department of Labour of Peninsular Malaysia (2023), factors such as high occupancy density, shared basic facilities, inadequate ventilation, and low levels of cleanliness render migrant worker dormitory's high-risk locations for disease outbreaks. These conditions not only complicate infection control efforts but also accelerate the spread of disease among dormitory residents and potentially into surrounding communities. Health officials further explained that these risks are not limited to a single disease, but extend to multiple infectious diseases closely linked to living environment conditions:

"Overcrowded and unhygienic dormitories accelerate the transmission of infectious diseases, not only COVID-19, but other communicable diseases as well."

(Academic 2)

The findings highlight that effective management of migrant worker dormitories is essential for preventing and controlling infectious disease, especially during public health crises. Dormitories that fail to meet health standards not only increase infection risk among migrant workers but also pose wider threats to public health security. Malaysia's experience during the COVID-19 pandemic underscores the need for government responses to adopt a holistic approach, built on close collaboration among diverse stakeholders. While legal frameworks for protecting migrant workers already exist, the central challenge remains enforcement, which has yet to be applied with sufficient firmness and consistency to ensure employer compliance (Attorney General's Chambers of Malaysia, 2023).

Therefore, strengthening the government's enforcement of minimum housing standards in a comprehensive manner demands firm commitment from the industrial sector to adhere the regulations, alongside proactive measures by employers to ensure safe and healthy living conditions in migrant worker dormitories. This integrated strategy not only protects the health and safety of migrant workers but also enhances societal well-being and reinforces national economic resilience during public health crises.

Conclusion

This study examined the safety and health needs of migrant workers residing in worker dormitories in Malaysia by drawing lessons from a public health crisis that exposed long-standing weaknesses in accommodation governance. Through a qualitative approach

combining focus group discussions with migrant workers across key economic sectors and elite interviews with institutional stakeholders, the study provided a detailed account of how dormitory conditions, management practices, and governance arrangements shape migrant workers' safety and health experiences during crisis situations.

The findings clearly demonstrate that significant gaps persist between existing minimum housing standards and actual living conditions in worker dormitories. Overcrowding, inadequate basic facilities, poor sanitation, limited access to healthcare services, and insufficient safety measures emerged as recurring challenges that directly affected migrant workers' well-being. During the COVID-19 pandemic, these conditions heightened health risks and constrained the effective implementation of infection prevention and control measures, including physical distancing, health monitoring, and contact tracing. In addition, limited awareness of rights among migrant workers and weak coordination among relevant institutions further intensified these vulnerabilities, revealing how structural and governance-related factors interact within dormitory settings.

Importantly, this study highlights that migrant worker dormitories should not be viewed merely as housing facilities, but as critical sites where public health, labour governance, and human security intersect. The COVID-19 experience illustrates that inadequate dormitory management can undermine broader public health responses and pose risks beyond the migrant worker population. These findings underscore the rationale for conducting this study, namely the need to better understand how accommodation conditions and governance practices contribute to safety and health risks during public health emergencies, an area that has received limited empirical attention in existing research.

In terms of contribution, this study offers empirical evidence that supports the need for more integrated and proactive policy responses. Strengthening the enforcement of minimum housing standards, improving health and safety education, enhancing inter-agency coordination, and establishing comprehensive monitoring mechanisms are essential to ensuring safer and healthier dormitory environments. Such measures not only protect migrant workers' safety and health, but also contribute to stronger public health preparedness and more resilient labour governance systems.

In conclusion, safeguarding migrant workers' health and safety in dormitories is critical, especially in preparing for future public health emergencies. Unsafe or undignified housing endangers workers and threatens wider social resilience. Tackling these challenges is fundamental to human security, workers' rights, and sustainable growth in migrant-dependent economies.

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Ethical Considerations

The authors declare that all respondents agreed with this research.

Conflict of Interest

The authors declare no conflicts of interest.

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