



Infectious Diseases and Health Access among Migrants in Cambodia

FINAL REPORT

The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the International Organization for Migration (IOM). The designations employed and the presentation of material throughout the publication do not imply expression of any opinion whatsoever on the part of IOM concerning the legal status of any country, territory, city or area, or of its authorities, or concerning its frontiers or boundaries.

IOM is committed to the principle that humane and orderly migration benefits migrants and society. As an intergovernmental organization, IOM acts with its partners in the international community to: assist in meeting the operational challenges of migration; advance understanding of migration issues; encourage social and economic development through migration; and uphold the human dignity and well-being of migrants.

This publication was made possible through support provided by the IOM Development Fund.

Publisher: International Organization for Migration
17 route des Morillons
P.O. Box 17
1211 Geneva 19
Switzerland
Tel.: +41 22 717 9111
Fax: +41 22 798 6150
Email: hq@iom.int
Website: www.iom.int

Required citation: International Organization for Migration (IOM) (2023). *Infectious Diseases and Health Access among Migrants in Cambodia - Final Report*. IOM, Geneva.

ISBN 978-92-9268-713-7 (PDF)

© IOM 2023



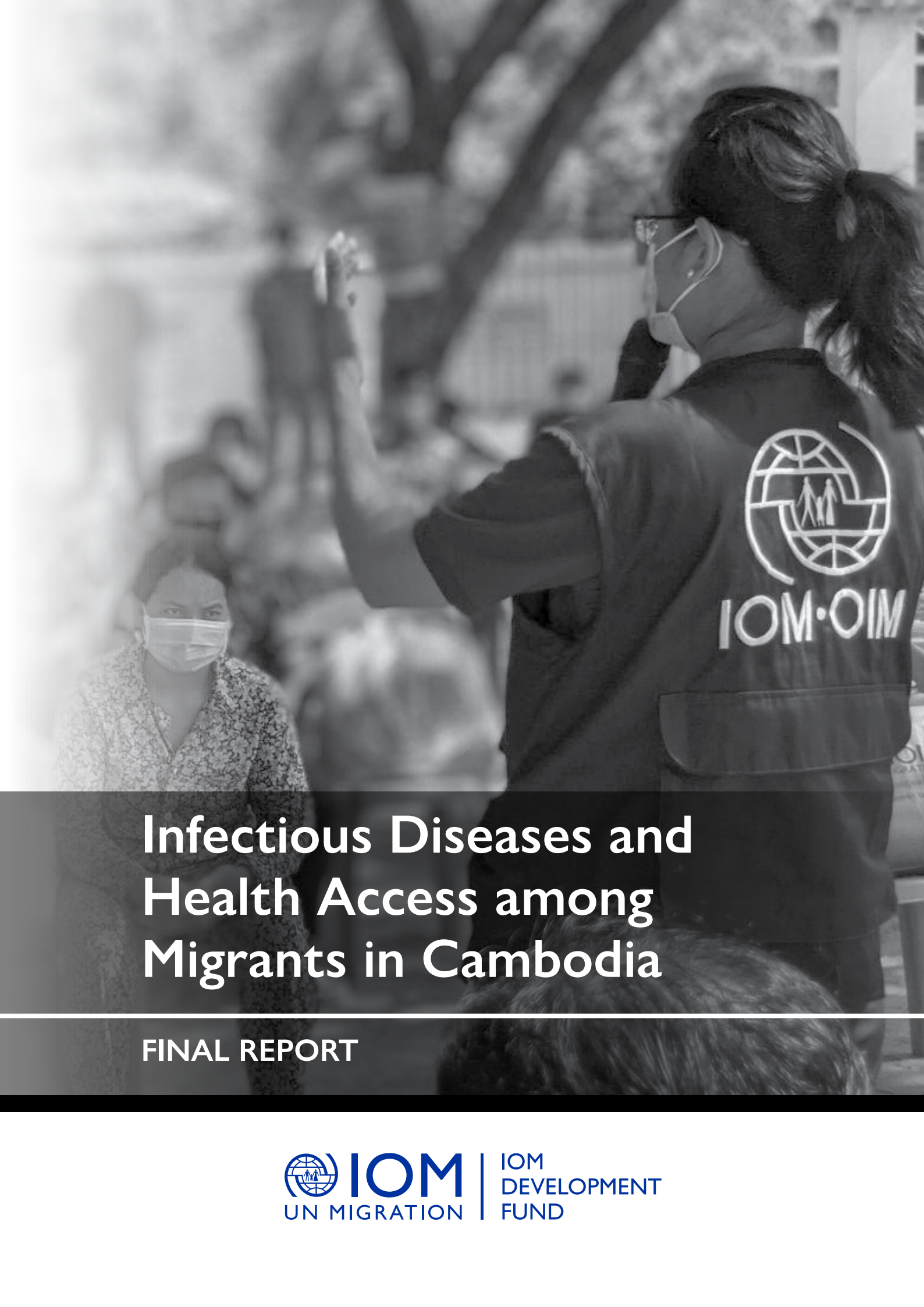
Some rights reserved. This work is made available under the [Creative Commons Attribution-NonCommercial-NoDerivs 3.0 IGO License \(CC BY-NC-ND 3.0 IGO\)](https://creativecommons.org/licenses/by-nc-nd/3.0/igo/legalcode).*

For further specifications please see the [Copyright and Terms of Use](#).

This publication should not be used, published or redistributed for purposes primarily intended for or directed towards commercial advantage or monetary compensation, with the exception of educational purposes, e.g. to be included in textbooks.

Permissions: Requests for commercial use or further rights and licensing should be submitted to publications@iom.int.

* <https://creativecommons.org/licenses/by-nc-nd/3.0/igo/legalcode>



Infectious Diseases and Health Access among Migrants in Cambodia

FINAL REPORT



IOM
UN MIGRATION

IOM
DEVELOPMENT
FUND



Contents

List of figures and tables	iv
Abbreviations	vii
Glossary.....	ix
Executive summary	xi
A. Introduction.....	xi
B. Objectives.....	xi
C. Methodology	xi
D. Results.....	xii
E. Conclusions and recommendations	xii
I. Background.....	1
II. Objectives	5
III. Methods.....	7
1. Research design.....	7
2. Study population and selection criteria.....	7
3. Sample size.....	8
4. Data collection and tools	9
5. Data collection training	10
6. Data quality assurance and data safety.....	10
7. Data collection and analysis.....	10
8. Ethical considerations and informed consent	11
9. Research duration	11
IV. Limitations.....	13
V. Results.....	15
1. Sociodemographic information	15
2. Mobility.....	19
3. Access to health care and services.....	21
4. Knowledge, attitudes and practices related to HIV, TB, hepatitis B, hepatitis C, dengue fever and malaria	23
5. Engagement of MMPs and other stakeholders in HIV/TB interventions	40
VI. Conclusions and recommendations.....	43
A. Conclusions.....	43
B. Recommendations	44
References	49

List of tables and figures

Table 1.	MMPs selected and interviewed, KII and FGD sessions.....	9
Table 2.	Sex and province	15
Table 3.	Knowledge about and experience with on HIV/AIDS and TB testing.....	26
Table 4.	HIV test in the previous 12 months, by age group	27
Table 5.	Comfort with sharing latest HIV/TB test results	28
Table 6.	Challenges of living with HIV/AIDS	29
Table 7.	TB Treatment practices.....	32
Table 8.	TB treatment and experience.....	33
Table 9.	Awareness of institutions engaging in preventions of HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever, and malaria in the community (n = 462).....	40

Figure 1.	Age of respondents by province (%).....	15
Figure 2.	Marital status of respondents by province (%).....	16
Figure 3.	Proportions of respondents by number of children (%)	16
Figure 4.	Education (Grade completed) (%).....	16
Figure 5.	Current employment by category	17
Figure 6.	Previous employment by category (n = 284, %).....	18
Figure 7.	Average monthly income from current work	18
Figure 8.	Type of mobility	19
Figure 9.	Duration of mobility outside Cambodia (n = 399).....	19
Figure 10.	Previous locations (n = 196).....	20
Figure 11.	ID Poor card possession	21
Figure 12.	Opinion of usefulness of the ID Poor card (n = 162)	21
Figure 13.	Reasons for not having the ID Poor card.....	22
Figure 14.	Health accessing concerns for MMPs mobile outside of Cambodia.....	22
Figure 15.	Reasons for not having heard about HIV/AIDS and/or TB.....	23
Figure 16.	Sources of information about HIV/AIDS, TB and the four other diseases.....	23
Figure 17.	Place to go when MMPs need information or services related to HIV/AIDS.....	24
Figure 18.	Reasons for not communicating about HIV/AIDS.....	24
Figure 19.	Awareness of other services providers related to TB, HIV/AIDS and the four diseases	25
Figure 20.	Type of other service providers	25
Figure 21.	Type of services provided by other service providers	25

Figure 22. Knowledge about HIV transmission (n = 462).....	26
Figure 23. Time since last HIV test	27
Figure 24. Reasons for not having been tested for HIV.....	27
Figure 25. STIs, and HIV experience among MMPs and their family members.....	28
Figure 26. Female MMPs who experienced with STI symptoms (last 12 months, n=205).....	28
Figure 27. Knowledge on how to access TB services.....	29
Figure 28. Knowledge on conditions which may facilitate the transmission of TB.....	30
Figure 29. Knowledge of TB symptoms.....	30
Figure 30. Sputum checks and lung radiographed (n = 386, %)	31
Figure 31. Reasons for not having sputum checked or lung radiographed (n = 266).....	31
Figure 32. Perceptions of the TB treatment process, including getting medicines (n = 16).....	32
Figure 33. Experience visiting HCs/hospitals for TB care and treatment (n = 16).....	33
Figure 34. Causes of TB treatment disruption for family members.....	34
Figure 35. Challenges faced by MMPs' family members during TB treatment (n = 29).....	34
Figure 36. Severity of TB discrimination (n = 190).....	35
Figure 37. Sources of information on hepatitis B, hepatitis C, dengue fever, or malaria (n = 457).....	35
Figure 38. Knowledge of where to seek infectious-disease information or services	36
Figure 39. Knowledge of hepatitis B transmission (n = 258).....	36
Figure 40. Knowledge of hepatitis C transmission (n = 223).....	37
Figure 41. Knowledge of dengue fever transmission (n = 437).....	37
Figure 42. Knowledge of malaria transmission (n = 434).....	38
Figure 43. Knowledge of testing locations.....	38
Figure 44. Testing results.....	39
Figure 45. Treatment for positive cases (n = 75).....	39
Figure 46. Treatment challenges for malaria, dengue fever, hepatitis B and hepatitis C (n = 75).....	39
Figure 47. Family members having had malaria, dengue fever, hepatitis B or hepatitis C (n = 462).....	40
Figure 48. Best-perceived transmission of educational messages on HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever, and malaria.....	41
Figure 49. Perceived relevance social-media channels for communicating educational messages on HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever, and malaria (n = 312).....	41
Figure 50. Most relevant ways to communicate on HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever and malaria messages to MMPs.....	42



Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral therapy
CDC	US Centers for Disease Control and Prevention
CENAT	National Center for Tuberculosis and Leprosy Control
CCWC	Community Centre for Women and Children
DESA	United Nations Department of Economic and Social Affairs
DNA	Deoxyribonucleic acid
FGD	Focus group discussion
HC	Health centre
HBsAg	Hepatitis B surface antigen
HBV	Hepatitis B virus
HIV	Human immunodeficiency virus
IEC	Information, education, and communication
ILO	International Labor Organization
IOM	International Organization for Migration
KII	Key-informant interview
MDR-TB	Multidrug-resistant tuberculosis
MMPs	Migrants and members of mobile populations
MoH	Ministry of Health
NAA	National AIDS Authority
NCHADS	National Center for HIV/AIDS, Dermatology and STIs
NMC	National Center for Parasitology, Entomology and Malaria Control
NGO	Non-governmental organization
RH	Referral hospital
SD	Standard deviation
STI	Sexually transmitted infection
TB	Tuberculosis
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States dollar
VHSG	Village health support group



Glossary

Terminology In this study, the following terminology is used as defined by IOM (2019).

Migration: The movement of persons away from their place of usual residence, either across an international border or within a State.

Migrants: An umbrella term, not defined under international law, reflecting the common lay understanding of a person who moves away from his or her place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons. The term includes a number of well-defined legal categories of people, such as migrant workers; persons whose particular types of movements are legally defined, such as smuggled migrants; as well as those whose status or means of movement are not specifically defined under international law, such as international students.

Internal migration: Any person who is moving or has moved within a State for the purpose of establishing a new temporary or permanent residence or because of displacement.

Inbound migrants: Foreign immigrants regardless of their immigration status (e.g. regular/documentated or irregular/undocumented) and purpose (e.g. work or pleasure; temporary or permanent).

Outbound migrants: Citizens of a country who are temporary or permanent emigrants that travel or travelled out of the country regardless of duration or residency status.

Migrants and mobile populations (MMPs): Either inbound, outbound or internal migrants regardless of (1) a person's legal status; (2) whether the movement is voluntary or involuntary; (3) what the causes for the movement are; or (4) what the length of the stay is. MMPs include cross-border migrants.

Cross-border migration: a process of movement of persons across international borders. Cross-border migrants move across a border between two countries.

Undocumented migrants: A non-national who enters or stays in a country without the appropriate documentation. This includes, among others: a person (a) who has no legal documentation to enter a country but manages to enter clandestinely, (b) who enters or stays using fraudulent documentation, (c) who, after entering using legal documentation, has stayed beyond the time authorized or otherwise violated the terms of entry and remained without authorization.



Executive summary

A. Introduction

Cambodia has seen a significant increase in the number of individuals migrating for employment and better living conditions. According to the Cambodian Ministry of Labour and Vocational Training, over 1.2 million Cambodians worked abroad in 2018, with the majority seeking employment in Thailand. International migration has continued to increase, accompanied by a variety of challenges and vulnerabilities, which have been exacerbated by the COVID-19 pandemic. Furthermore, internal migration within Cambodia is also significant, with an estimated 26.52 per cent of the population, or approximately 4.1 million individuals, shifting residences. Most of these internal migrants work in low-skilled fields such as garment manufacturing and tourism.

There is an increased vulnerability among migrants to infectious diseases, including HIV/AIDS, tuberculosis (TB), malaria, dengue fever, and hepatitis B and C. These vulnerabilities are exacerbated by factors that contribute to these vulnerabilities, such as limited access to health care, poor living conditions, and language barriers. The risk of exposure to communicable diseases is further increased by cross-border movements, which raises concerns regarding public health.

B. Objectives

The purpose of this study is to evaluate the knowledge, attitudes, and practices of mobile and migrant populations (MMPs) in Cambodia regarding HIV/AIDS, TB, hepatitis B and C, dengue fever, and malaria. Moreover, the study aims to identify barriers that may prevent MMPs from accessing relevant health services and to provide key recommendations to policymakers and stakeholders to improve access to health care for this vulnerable population. Ultimately, the research aims to contribute to improving access to health care for MMPs and to strengthen support for MMPs through migrant-inclusive, evidenced-based approaches to planning, programming, communication and messaging.

C. Methodology

This research employed a cross-sectional, mixed-methods quantitative and qualitative approach to collect data from five provinces on Cambodia's borders with Thailand, Viet Nam and the Lao People's Democratic Republic. The study involved two categories of participants: MMPs and stakeholders (health-care staff, border officers and community leaders).

Time-location sampling procedures were applied, with the sample frame being the pool of existing MMPs in five provinces in Cambodia. MMP eligibility criteria included being mobile for at least three months, being aged 18 or above, and not showing COVID-19 symptoms. Stakeholder selection criteria included having at least three years of experience in their position, interacting with MMPs for at least one year, and not presenting COVID-19 symptoms. Participants provided informed consent before being interviewed. The total sample size was 462 MMPs and the specific number of MMPs for each province was determined based on the estimated MMP population.

The survey was conducted using structured questionnaires (on tablets running KOBO software) for MMPs and question guides for stakeholder interviews. Data collectors were trained in data collection procedures, methodology, interview ethics, data privacy, and respondent confidentiality. Data were collected using tablets, uploaded to a server, cleaned and exported to STATA software for

analysis. HIV and TB prevalence among MMPs were calculated, and descriptive and bivariate analyses were conducted. Qualitative information was reviewed and summarized to supplement and explain quantitative findings.

Ethical approval was obtained from the National Ethics Committee for Health Research. Informed-consent procedures were followed, and participants were assured of anonymity and confidentiality. All data were stored and used in accordance with the IOM Data Protection Manual (2015). The research process, including protocol development, data collection, and report drafting, lasted approximately seven months from April to October 2021.

D. Results

A survey was conducted among 462 MMPs in Cambodia. Most respondents were male, with an average age of 37.5 years old. Mobility was primarily within Cambodia and the main reason for mobility was employment. Nearly 45 per cent had completed primary school, and 24 per cent were engaged in agricultural, forestry, and fishing activities.

The majority of respondents had heard of HIV/AIDS and TB, but only 70 per cent felt that they had sufficient knowledge of these diseases. There was a low rate of HIV and TB testing, with only half reporting that they had been tested for HIV and 14 per cent reporting that they had been tested for TB. Misconceptions about transmission were prevalent. Most respondents were aware of where to obtain TB testing, and those who were diagnosed with the disease were treated. Discrimination against TB patients in MMP communities was reported.

Malaria and dengue fever were more widely recognized than hepatitis B and C. There was a lack of understanding about the transmission of these diseases. The prevalence of testing for hepatitis B varied from 30 per cent to 23 per cent, and the prevalence of testing for hepatitis C varied from 16.3 per cent to 11.5 per cent. The highest positivity rates were observed for malaria (28.1%) and dengue fever (10%).

There were several mechanisms for community engagement for prevention, including local media, health centres/rehabilitation homes (HCs/RHs), social media and the local community. A majority of respondents reported that HCs/RHs, the local community, and local media were most effective at transmitting educational messages. Communication was primarily conducted through Facebook, YouTube and Facebook Messenger.

E. Conclusions and recommendations

Based on the findings of this study, it is evident that MMPs in Cambodia require improved knowledge, attitudes, and practices regarding HIV/AIDS, TB, and other infectious diseases. Misconceptions regarding transmission and inadequate knowledge of prevention measures must be addressed. The report proposes several recommendations, including collaboration, health-care education, the use of communication technologies, policy advocacy and other factors. It is expected that implementing these recommendations will enable MMPs to significantly improve their knowledge, attitudes, and practices related to HIV/AIDS, TB, and other infectious diseases, ultimately leading to better health outcomes for this vulnerable group of people.

I. Background

In 2018, the Annual General Meeting of the Cambodian Ministry of Labour and Vocational Training reported that the population of Cambodian migrants working in other countries numbered 1,235,993. In 2020, the United Nations Department of Economic and Social Affairs estimated that number of Cambodian nationals living abroad had slightly increased, from 1,074,572 in 2015 to 1,104,819 (DESA, 2020), most of whom being labour migrants seeking employment opportunities and better wages. Cambodian labour migrants prefer Thailand as a destination country, where they are employed in the construction, manufacturing, and agricultural sectors (IOM, 2018). By 2017, 723,911 Cambodian nationals had been granted the right to reside in Thailand (IOM, 2018), while a joint International Labor Organization (ILO) and IOM study reported that less than a third of Cambodian migrants use regular channels of migration. Thailand closed its borders on 22 March 2020 because of the COVID-19 pandemic, leading to the return of more than 215,058 Cambodian migrant workers back to Cambodia since then (NCCT, 2021). Back in Cambodia, these migrants face underreported challenges and vulnerabilities. Such challenges have been exacerbated by COVID-19 continuing to infect increasing numbers of people in the country.

Moreover, internal migrants in Cambodia also constitute a significant proportion of the population. In 2013, the National Institute of Statistics estimated that nearly one quarter of the Cambodian population (approximately 4.1 million individuals – or 26.52% of the Cambodian population) had changed their location of residence. Most internal migrant workers work in jobs requiring low or no skills, such as garment manufacturing and tourism (ADB and ILO, 2015). Rural-to-rural migration accounted for 58.4 per cent, followed by rural-to-urban migration (24.5%) (NIS, 2013a). The main rural-to-urban migration destination is Phnom Penh, which receives half of all Cambodia's rural migrants, followed by other economically active provinces such as Siem Reap, Battambang and Kampong Cham (UNESCO, 2018).

HIV/AIDS

Internal migrants and their families are also vulnerable. In some countries, almost all sex workers are migrants from villages, who use the income from sex work to support their families. Studies indicate that women who have been internationally trafficked and forced into sexual exploitation also have a significantly higher HIV prevalence, along with an increased vulnerability and exposure to violence (Silverman et al., 2009). Migrants may acquire HIV in their country of destination or while in transit and face specific vulnerability to HIV related to their status as a migrant. In South-East Asia, HIV prevalence among migrants to Thailand from Cambodia, Myanmar, southern China and Viet Nam is up to four times the HIV prevalence among the general population (UNAIDS, 2014). The highest prevalence among migrants in Thailand was found in the fishing industry, with rates of 2 per cent among fishermen and 2.3 per cent among fishery workers, as compared to an HIV prevalence of 1.1 per cent and 0.74 per cent among factory workers and farm workers, respectively (UNDP et al., 2012). It is similarly worth mentioning that in 2019, the HIV prevalence in Cambodian adults (general population) aged 15 to 49 was 0.5 per cent.

In addition to HIV/AIDS, other communicable diseases such as malaria and TB are of epidemiological and public-health concern. Migrating people often do not have access to proper health check-ups. Irregular migration of people in border areas also leaves them susceptible to abuse and exploitation. Cross-border movements increase the vulnerability of migrants to communicable diseases (PAHO, 2018).

Tuberculosis

Tuberculosis has been of significant public-health concern. Six of the eleven World Health Organization South-East Asia Member States are on the list of the top 30 high-burden countries identified for TB, MDR-TB and TB/HIV for the period 2016–2020 (WHO, 2021a). Cross-border migration between mid- and high-TB burden countries can also contribute to challenges for prevention and management of MDR-TB due to delayed diagnosis, interrupted or poor-quality treatment, and unavailability of appropriate drug regimens at various stages of migration. With delayed diagnosis and interrupted or substandard treatment, the emergence of MDR-TB can be of concern in conflict situations with forced displacement (Acosta et al., 2014).

For Cambodia, the incidence of all forms of TB was estimated at 287 per 100,000 population, accounting for around 60,000 people with new active TB each year (WHO, 2020a). The rate of MDR TB in Cambodia is comparatively low but increasing. Exposure to TB infection is higher among migrants due to overcrowded living and working conditions. TB diagnosis is commonly delayed due to difficulty in health-care access, lack of education, poor health-seeking behaviors, cultural beliefs, stigma and marginalization (IOM, 2012). Migrants in Thailand often do not have access to correct TB-related information on prevention, transmission and latent infections due to language barriers, stigma-related fear, lack of awareness of entitlement to health services, all leading to reluctance in seeking care or adhering to treatment, potentially causing MDR-TB (ibid.).

The CENAT report of 2017 found the number of HIV-positive patients among 29,238 TB patients registered for treatment (including those who knew that they were HIV infected prior to TB treatment) and having done a blood test was 137 (0.47%). Conversely, the same report also indicated that the number of TB-positive patients among 4,140 people living with HIV registered for treatment at Voluntary Counselling and Testing centres and who had done a TB test was 519 (all forms of TB) (16.30%).

Malaria

Regarding malaria, from July to September 2020, the Greater Mekong Subregion countries reported 18,671 malaria cases, representing a 47 per cent decrease compared to the same time period in 2019. Cambodia ranked second after Myanmar in terms of malaria prevalence (WHO, 2020b). In Cambodia, approximately 9.3 million people (equivalent to 58% of the total population) live in 55 operational districts of 21 provinces which are prone to malaria infection (CNM, 2021). According to the Malaria Indicator Survey report, the incidence between January and December of 2020 was 0.56 over 1,000 people, having dropped by 71 per cent compared to 2019. The total number of illnesses caused by malaria dropped from 106,228 cases in 2010 to 9,234 cases in 2020 (ibid.). Cases are mostly concentrated in the northeastern and northwestern regions of Cambodia, along the forested border areas with Viet Nam, the Lao People's Democratic Republic and Thailand (ibid.).

Migration on its own is not a risk factor for increased malaria transmission (WHO, 2020). However, movement into malaria-endemic regions, because of infrastructure and rural development, deforestation for logging and economic farming, political movements, and natural disasters, can make migrant populations more vulnerable to malaria. Malaria is endemic in five of the six Greater Mekong Subregion countries (Cambodia, the Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam). The Thailand-Myanmar border and some provinces in Cambodia are the areas with the highest prevalence of malaria (WHO, 2017).

Dengue fever

The National Dengue Control Program of the National Center for Parasitology, Entomology and Malaria Control recorded two outbreaks of dengue fever in Cambodia between January 2004 and December 2016 (Cousien et al., 2019). The magnitude of these outbreaks reached approximately 10,000 cases – compared to the usual number of fewer than 5,000 cases. The incidence was always lowest during the dry season (i.e. November–April). A total of 685 dengue cases, including one death, were reported in Cambodia in 2021 (WHO, 2021b). This cumulative number of cases represents approximately a five fold decrease compared to the number of cases reported during the same period in 2020.

Hepatitis B and C

According to the latest the Coalition for Global Hepatitis Elimination (CGHE) dashboard data (2019), the hepatitis prevalence in Cambodia for HBsAg was 6.98 per cent, and HCV (RNA+/cAg) is 5.36 per cent. The same report stressed that the HBsAg positivity rate was 4.7 per cent in mothers and 0.52 per cent in their children. Genotype C (80.49%) was abundantly found throughout the whole of Cambodia while genotype B (19.51%) was exclusively found in regions bordering Viet Nam. S gene mutants of the HBV were found in 24.29 per cent of mothers and 16.67 per cent of children with serums positive for HBV DNA (Ko et al., 2020).

The purpose of the present research study among MMPs in Cambodia is to learn about their knowledge, attitude and practices related six infectious diseases (HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever and malaria) and possible barriers which may prevent them from accessing relevant services as well as formulate key recommendations for policymakers, relevant stakeholders who contribute to supporting migrants and mobile population to access health services.



II. Objectives

The **general objectives** of this research project are to:

- Contribute to improving access to health care for migrants and members of mobile populations, especially women, at selected border provinces of the borders between Cambodia and each of Thailand, Viet Nam and the Lao People's Democratic Republic. These provinces were identified by the technical research team¹ by including MMPs in existing national guidelines/policies related to health.
- Strengthen support for MMPs through migrant-inclusive, evidenced-based approaches to planning, programming, communication and messaging.

The **specific objectives** are to:

1. Understand MMPs' knowledge, attitudes and practices related to HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever and malaria.
2. Explore the challenges impeding MMP's access to health services (i.e. consultation, screening and treatment) for HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever and malaria.
3. Provide practical solutions and recommendations to address these challenges and facilitate MMPs' access to appropriate culturally and contextually relevant prevention, care and treatment services involving whole-of-society and whole-of-government mechanisms.

¹ Including officials from NAA, NCHADS, CENAT and IOM.



III. Methods

1. Research design

Cross-sectional, mixed-methods quantitative and qualitative approaches were applied for this study to collect and analyse information and data. Five provinces on the borders of Cambodia with Thailand, Viet Nam and the Lao People's Democratic Republic, where internal and cross-border migration are prevalent, were selected as research sites. The provinces at each border were:

- Cambodia–Thailand: Battambang and Banteay Meanchey
- Cambodia–Viet Nam: Prey Veng and Svay Rieng
- Cambodia–Lao People's Democratic Republic: Stung Treng.

Two categories of participants were interviewed in this research:

- MMPs who met the selection criteria and lived in the catchment areas corresponding to the five provinces.
- Stakeholders: antiretroviral therapy (ART) clinic staff, health centre staff,² border officers, representatives of VHSGs, and community/village leaders.

For the quantitative part, 462 MMPs were interviewed focusing on their knowledge, attitudes and practices concerning HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever and malaria. Additionally, challenges which impede MMPs' access to health services (e.g. consultation, screening and treatment) for HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever and malaria were also covered by the interviews. For the qualitative part, 55 KIs were conducted, and five FGDs were organized (see Table 1 for details).

2. Study population and selection criteria

Time–location sampling procedures were employed. The sampling frame used was the pool of existing MMPs in the five provinces as identified and accepted³ by the local authorities on the day of the interviews. The number of MMPs selected and interviewed in each province was proportionate to the estimated proportion of the current MMP populations in those provinces as compared to the national figure.

The eligibility of the MMPs participating in the research was insured by applying the following selection criteria:

- (a) Being an MMP for at least three months – regardless of whether mobile within the country or from outside;
- (b) Being aged 18 years old or above; and
- (c) Not presenting any signs or symptoms of COVID-19.

² In charge of TB or representing a VHSG.

³ Note that this acceptance was based on the COVID-19 situation on the day of the visit. In some locations, the initial agreement on the site to be visited was shifted to another site which had no or fewer COVID-19 cases.

If interviewees had one of the three main diseases (HIV/AIDS, TB, malaria), they were also interviewed in depth a second time upon their agreement using a separate question guide designed for that purpose. These criteria were carefully checked by facilitators with every potential participant during recruitment. Enumerators also double-checked to reconfirm the eligibility before admitting them for interview.

For stakeholder interviews, the selection criteria were:

- (a) Having worked in their position (see above) for at least three years;
- (b) Have been in interaction with MMPs for at least one year; and
- (c) Not presenting any signs or symptoms of COVID-19.

The MMPs and stakeholders were asked to sign a consent form before being interviewed.

3. Sample size

Time–location sampling⁴ was applied to select appropriate participants based on the criteria set out above. Based on the national population of MMPs of 6.3 million and using sample-size calculations considering a 95 per cent confidence interval, a design effect of 1 and prevalence of 50 per cent, the sample size required was 385 (UNICEF, 2006). After factoring in a 20 per cent non-response rate (77 samples), the total sample size required for this research was 462 MMPs (aged 18 or above). The specific number of MMPs for each of the five provinces was computed based on the estimated size of the MMP population in each.

Following a two-day training conducted on 3 and 4 September 2021, the research team, supervised by the field supervisor, went to Banteay Meanchey province, leaving Phnom Penh on Sunday 5 September using two vans to transport the team of 12 members and one field supervisor while a research leader provided oversee from central level. The field supervisor was in close communication with the team throughout the fieldwork. Daily communication between the team leader, the field supervisor and the enumerators was established through a Telegram group to monitor the research process.

Two IOM staff members also joined the provincial trip with the team to support the roll-out of the research. In the field, they were responsible for making incentive payments to the respondents. Additionally, at the provincial level, three IOM focal-point staff also provided communication with relevant local authorities to facilitate the identification of MMPs to be interviewed. Considerable assistance to identify and locate MMPs was also received from the local district governors, health centre staff, community leaders, village leaders, VHSGs and the focal point staff from the communities' women's and children's committees.

Banteay Meanchey was visited first because the letter of support from the governor of this province was received first. Next, the team moved to Battambang province, followed by Stung Treng, Prey Veng and Svay Rieng (in that order). Specific districts to be covered in each province were decided before the fieldwork began based on the availability and concentration of MMPs in those areas as confirmed by the IOM focal point and/or local government staff.

It is important to stress that to ensure the safety of the team members, the enumerators measured the body temperature of each MMP before that person was allowed for interaction and interview. They also measured their own temperature every day before and after going to the field. Other

⁴ In this case, the enumerators looked for potential MMPs at relevant sites as described above. The enumerators set up fixed places (in the five provinces) for the interviews, while a facilitator (a field supervisor) together with the village leader or the community leader called relevant MMPs for the interview as they find them. Initial screening was done by the facilitator and secondary screening by the enumerator, just before the interview.

COVID-19 prevention measures were also applied: wearing masks, maintaining distances, washing hands.

Table 1 illustrates the sequence of interview sessions conducted in the five provinces and the approximate timeframe covered by each province. Specific numbers of MMPs interviewed under the quantitative part and the qualitative part are also shown in the table. In total, for the quantitative part, the team interviewed 462 MMPs as planned with a male-to-female proportion of 56 per cent to 44 per cent.

Table 1. MMPs selected and interviewed, KII and FGD sessions

Provinces and districts		Banteay Meanchey (Ou Chrov and Malai)	Battambang (Kamreang and Phnom Prek)	Stung Treng (Provincial town and Siem Pang)	Prey Veng (Pearaing and Svay Antor)	Svay Rieng (Kg. Ro and Chantrea)	Total
Dates		6–8 September	9–11 September	13 September	15 September	16–17 September	
Quantitative (Survey)	MMPs	185	133	37	49	58	462
	Male	76	93	19	32	37	257
	Female	109	40	18	17	21	205
Qualitative (KIIs)	MMPs	4	4	4	4	4	20
	ART clinic staff ⁵	2	2	1	1	1	7
	HC TB staff ⁶	2	2	1	1	1	7
	Immigration/ border officer	2	2	1	1	1	7
	Village leaders ⁷	2	2	1	1	1	7
Qualitative (FGDs)	VHSGs ⁸	5	5	5	5	5	25

The identification and initial screening of MMPs for interview were conducted by the field supervisor with the assistance of the village leaders, the enumerators and representatives of VHSGs. Eligible MMPs were retained for interview (for the survey part), while those not eligible were dismissed. Interviewed MMPs who confirmed having HIV (two cases) and TB (two cases) were retained for the second round of KII interview sessions as part of the qualitative phase. Eight more cases of people infected with HIV (identified by ART clinic staff) and eight cases of people having TB (identified by HC staff) were also interviewed, making a total of 10 cases each for HIV/AIDS and TB. The qualitative team also interviewed seven health staff working at the ART clinics, seven health staff working at health centres, seven border officers and seven village leaders. Moreover, five FGD sessions were also conducted among five VHSG groups – each one of them had five participants. In total, for the qualitative part, 53 interview sessions were conducted, amongst these 20 KII sessions with MMPs, 28 KII sessions with other stakeholders, and five FGD sessions with VHSGs. (See Table 1 for details.)

4. Data collection and tools

The survey was conducted in Khmer among MMPs using a structured questionnaire (uploaded onto tablets running the survey software Kobo). Survey items mainly concerned respondents' sociodemographic characteristics; their knowledge, attitudes and practices related to HIV/AIDS, TB,

⁵ Six additional ART staff were interviewed for additional information – two each in Banteay Meanchey Battambang and Prey Veng.

⁶ Six additional TB staff were interviewed for additional information – two each in Banteay Meanchey, Battambang and Prey Veng.

⁷ Six additional village leaders were interviewed for additional information – two each in Banteay Meanchey, Battambang and Prey Veng.

⁸ Some 14 additional VHSGs were interviewed (in an FGD session) for additional information – six in Banteay Meanchey and four each in Battambang and Prey Veng.

hepatitis B, hepatitis C, dengue fever and malaria; and the engagement of MMPs and other stakeholders with interventions on the same six diseases. The questionnaire and tablets were tested (and corrected as part of the training) with two MMP individuals prior to the fieldwork. As for the qualitative part with stakeholders and MMPs, question guides were developed for the KII and FGD sessions focusing on interactions with and responsibilities vis-à-vis MMPs, the level and types of health services provided to MMPs, the challenges faced while serving MMPs, and so on.

Research team

A team of 11 people (10 enumerators and one field supervisor), who were well trained on data collection procedures, methodology and so on, was responsible for the interviews in the five provinces for a period of 14 days (in September 2021). They were guided and very closely monitored by the team leader through phone and Telegram communication throughout the field data collection.

5. Data collection training

A two-day training was organized by the research team leader for 11 data collectors (including one field supervisor) to ensure that everyone fully understood the research objectives, the method and approach to be used and other related aspects, namely the standard data collection procedures and requirements for careful review of the records/notes on the tablets (right after the interview sessions) to ensure clarity and completeness of the responses before sending them to the server.

Appropriate conduct of the enumerators, including interview ethics, data privacy and respondents' confidentiality during the interviews and KII/FGD sessions were also stressed. After the training, several adjustments were made to the draft questionnaire during the training session, which also allowed the enumerators to practise using the tablets loaded with questions and to practice synchronizing and uploading data to the server. After the training, the questionnaire was tested with two MMPs to ensure the smooth flow of the questions and to avoid possible flaws and unclarity. Recording devices were used for the KII and FGD sessions with informed consent obtained from all participants. The training was also attended by IOM technical staff.

6. Data quality assurance and data safety

The tools for data collection were deployed and saved in a password-protected Kobo platform and uploaded onto Android tablets. Each enumerator was assigned a user ID to access the tablets and to ensure the security of the data. Peer data checking was performed by the data collectors before data submission. In addition, 10 per cent of the surveys were randomly checked on the server by the data management specialist. Data back-up was also performed daily from the central server. All data sets were also stored in external hard drives with password protection. Each interviewer was also requested to report the number of refusals to the data management specialist at the end of each data collection day. The data cleaning was done after export to the STATA 16 programme by focusing on logical inconsistencies (including outliers) and before starting the actual data analysis to be sure that no data error (inconsistency or improbability) would remain in the final data set.

7. Data collection and analysis

Equipped with tablets (running the Kobo application), the enumerators performed direct data entry while interviewing respondents. The raw data were saved and stored offline on the tablets after each interview. At the end of each day, the field supervisor checked and verified the raw data. The data were then uploaded from the tablets to the server when access to the Internet became available. The raw data were then cleaned, making them ready to be exported to STATA for analysis.

The HIV and TB prevalence among the MMP population were calculated by dividing the total number of reported cases by the total sample size. Descriptive and bivariate analyses were conducted. Means and standard deviations were computed for continuous variables, and frequencies were calculated for categorical variables to describe the characteristics of the variables. A careful review and summary of the qualitative information was conducted to identify the most important points, especially those that answered the research questions. The qualitative component supplemented general research findings and provided explanations of the findings derived from the analysis of quantitative data.

8. Ethical considerations and informed consent

Ethical approval was obtained from the National Ethics Committee for Health Research before the fieldwork. At the start of each interview day, the enumerators explained to the participants the research objectives, the risks and benefits they might expect from participating in the research, and their rights as respondents. The enumerators also informed respondents that no personally identifiable information would be collected and anonymity would be ensured at all times by the use of identity codes rather than names, and all collected information would be stored securely and confidentially and not shared with other parties. Participants were informed that they could withdraw from the research at any time if they wished to discontinue the interview for any reason, and their withdrawal would not impact the services they received or would receive at health facilities. At the end, the enumerators sought verbal informed consent from the participants, along with signatures on informed-consent sheets, before proceeding to ask questions. All data were stored and used in accordance with the *IOM Data Protection Manual* (2015). The dissemination of findings will not include any personally identifiable information.

9. Research duration

The research process, including protocol development, questionnaire drafting, data collection in the five provinces, report drafting, and so on lasted approximately seven months from April to October 2021.



IV. LIMITATIONS

During the preparation stage, the lack of reliable national data on MMPs and their breakdown by provinces (each of the five provinces) complicated the process of sampling and decisions on the exact number of MMPs to interview in each province and at each site. As foreseen before the fieldwork, it is very likely that people who have been infected by either HIV or TB would not dare to reveal their status, which implies that the true prevalence of the two diseases might be higher than measured here. Despite good preparation and support received from the local authorities, other challenges faced by the research team included:

- Hesitation by the district governors (in Ou Chrov and Malai) to allow the interviews to take place due to the COVID-19 situation;
- Several villages banning people from entering – the research team had to renegotiate with the local authorities to select other sites;
- A COVID-19 outbreak in Kamreing (Battambang province) – the team was compelled to move to another site approximately 80 km away;
- Several KIIs with border police at international borders could not be carried out as the prospective interviewees needed a letter of permission from the Ministry of the Interior – the team had to arrange interviews with border police at informal border checkpoints instead;
- A few informal border checkpoints being located far away (around 100 km) from the interview sites – here, interviews were held by telephone instead;
- Some stakeholders not allowing the team to carry out face-to-face interviews;
- Several ART sites not being located at the interview sites – the team had to travel to those interviews;
- Rain slowing the whole fieldwork process.



V. RESULTS

1. Sociodemographic information

Table 2 shows the number of respondents by sex and by province. The research covered 462 respondents who were MMPs in total, with 55.6 per cent of respondents being male. Most of the respondents were from Banteay Meanchey province (185; 40%), followed by Battambang (133; 28.8%), Svay Rieng (58; 12.5%), Prey Veng (49; 10.6 %) and Stung Treng (37; 8%). Almost 60 per cent of respondents were female in Banteay Meanchey.

Table 2. Sex and province

	Banteay Meanchey		Battambang		Svay Rieng		Prey Veng		Stung Treng		Total	
Male	76	41.1%	93	69.9%	37	63.8%	32	65.3%	19	51.4%	257	55.6%
Female	109	58.9%	40	30.1%	21	36.2%	17	34.7%	18	48.7%	205	44.4%
Total	185	100.0%	133	100.0%	58	100.0%	49	100.0%	37	100.0%	462	100.0%

Figure 1. Age of respondents by province (%)

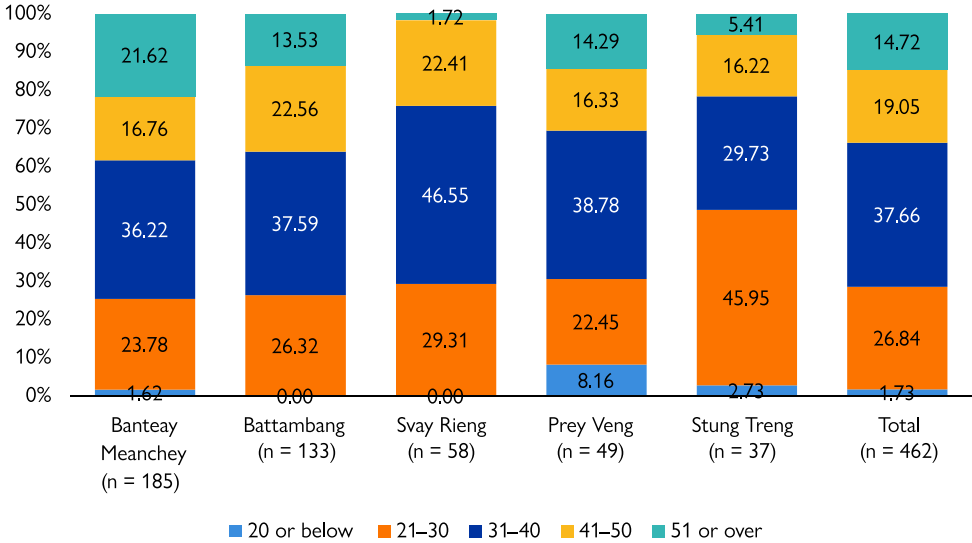


Figure 1 shows the age distribution of respondents by province. The most frequent age category was 31 to 40 years (37.7%), followed by 21 to 30 (26.9%), 41 to 50 (19%), and 51 or higher (14.7%). Those belonging to the age group of 51 or above were most common in Banteay Meanchey, followed by Prey Veng and Battambang with rates of 21.6 per cent, 14.3 per cent and 13.5 per cent respectively. The average age was 37.5 years (SD = 10.87).

Figure 2. Marital status of respondents by province (%)

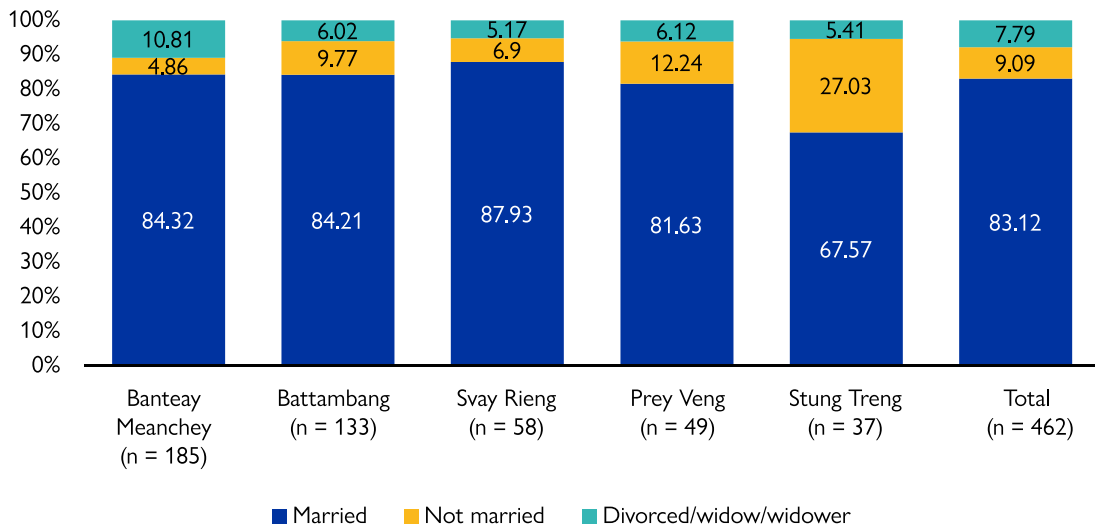


Figure 2 shows the marital status of respondents by province. Over 80 per cent of respondents from all provinces except Stung Treng were married. Stung Treng had the highest number of single respondents (27.03%). In all provinces, divorced or widow or widower respondents constituted the smallest proportion, which fluctuated between 5.4 per cent and 10.8 per cent.

Figure 3. Proportions of respondents by number of children (%)

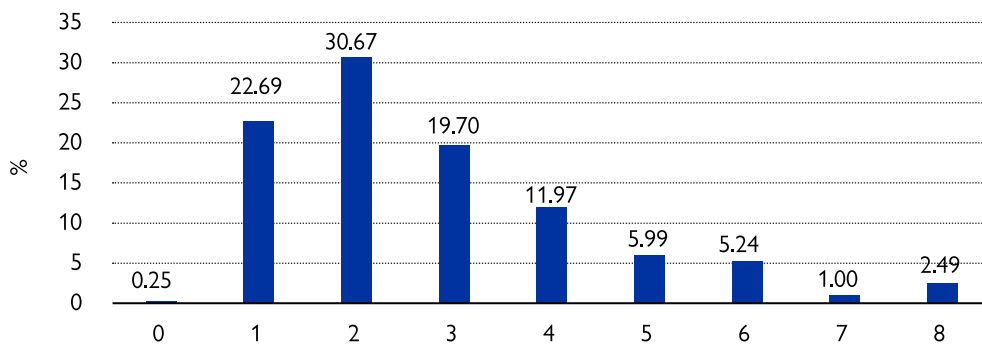


Figure 3 shows the proportions of respondents having different numbers of children. The largest proportion was 30.7 per cent having two children, followed by 22.7 per cent with one child, 19.7 per cent with three, 12 per cent with four, 6 per cent with five and 5.24 per cent with six children. The largest number of children was eight, corresponding to 2.5 per cent of respondents.

Figure 4. Education (Grade completed) (%)

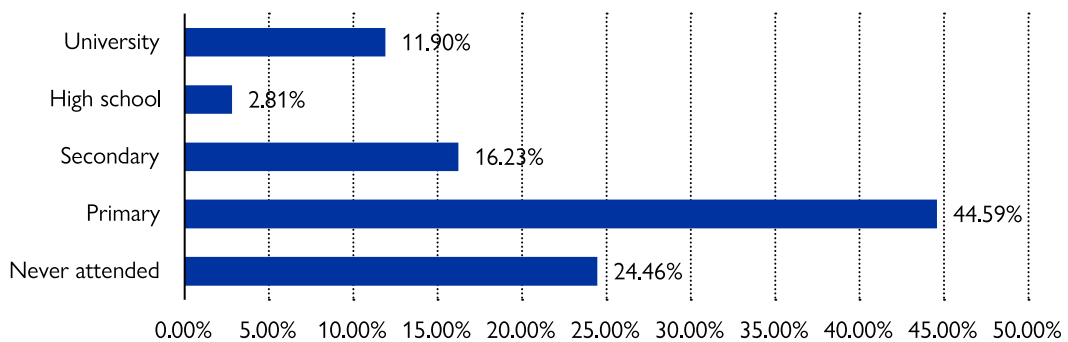


Figure 4 shows respondents' highest levels of education. Almost 45 per cent of respondents had only completed a primary level of education. Almost 25 per cent of respondents had never attended school, 16.2 per cent had completed secondary level, 2.8 per cent had completed high school and 11.9 per cent had graduated from university.

Figure 5. Current employment by category

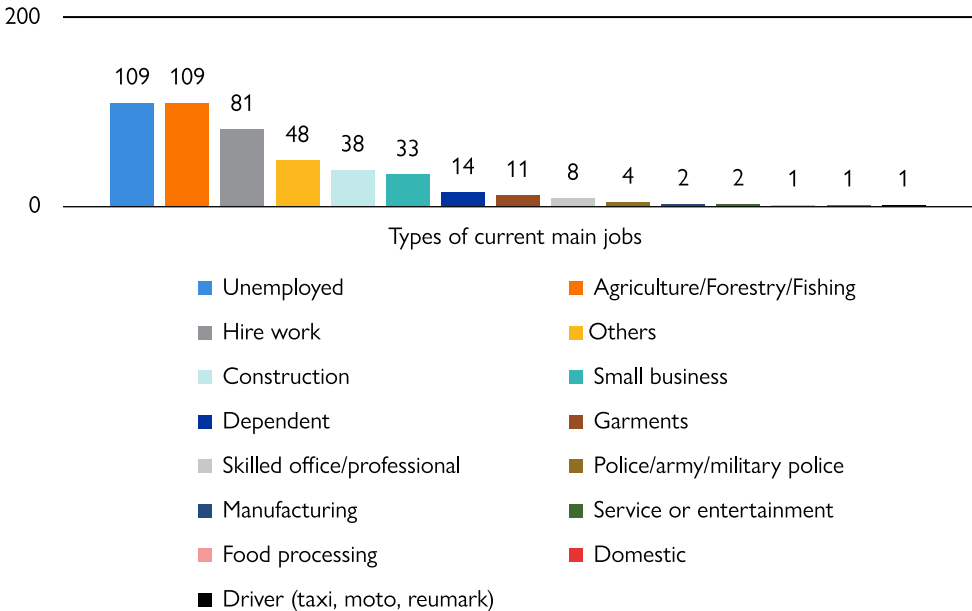


Figure 5 shows respondents' current main employment. The most frequent response (111; 23.6%) was the agriculture/forestry/fishing sector. The same proportion responded being unemployed (110; 23.6%). Twenty-nine (20%) respondents held hire work and 54 (10%) held types of work not listed for the survey. Thirty-eight respondents were construction workers (8%).

About 30 per cent of the 339 employed respondents have been working in their current job for less than a year. A similar proportion of respondents had been in their current jobs for seven or more years. Around 27 per cent of respondents had been in their current jobs for 1–3 years and 16.5 per cent for 4–6 years.

In addition, over 60 per cent of respondents responded positively, while just under 40 per cent had not had a previous job.

Figure 6. Previous employment by category (n = 284, %)

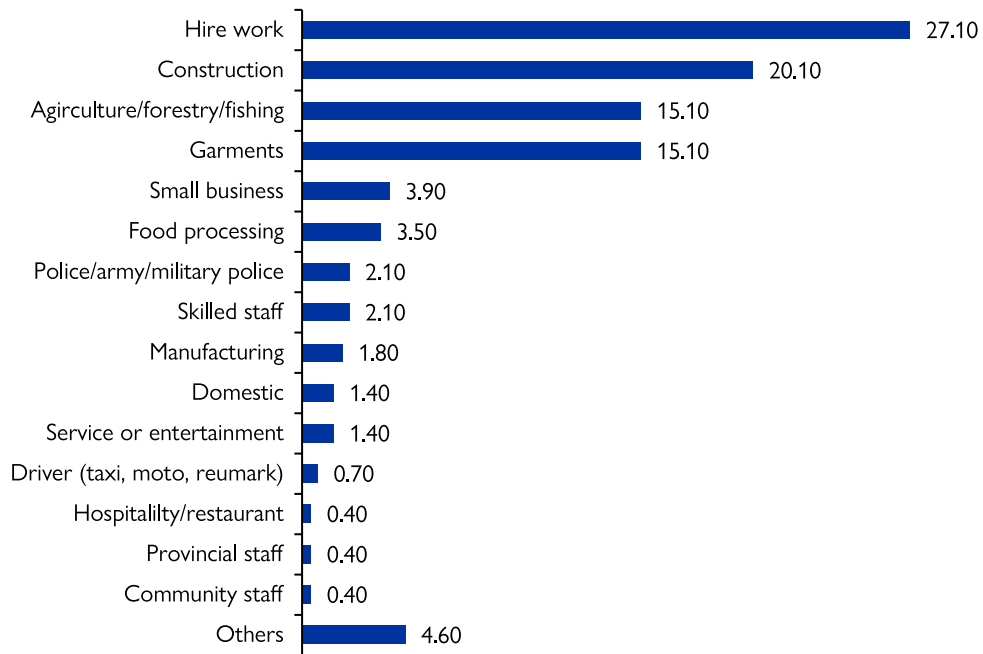


Figure 6 shows the categories of employed respondents' previous jobs. About 27 per cent were engaged in hired work prior to their current job, 20 per cent had previously been construction workers and 30 per cent had previously worked in each of the garments and agriculture/forestry/fishing sectors. Small business, food processing, police/military, skilled staff, and manufacturing ranked next at rates of 3.9, 3.5, 2.1, 2.1 and 1.8 per cent respectively.

Moreover, 36.6 per cent of them had worked between one and three years, nearly 30 per cent had worked for seven years or longer, around 17 per cent had worked for less than a year and about 16 per cent had worked for 4–6 years in their previous jobs.

Figure 7. Average monthly income from current work

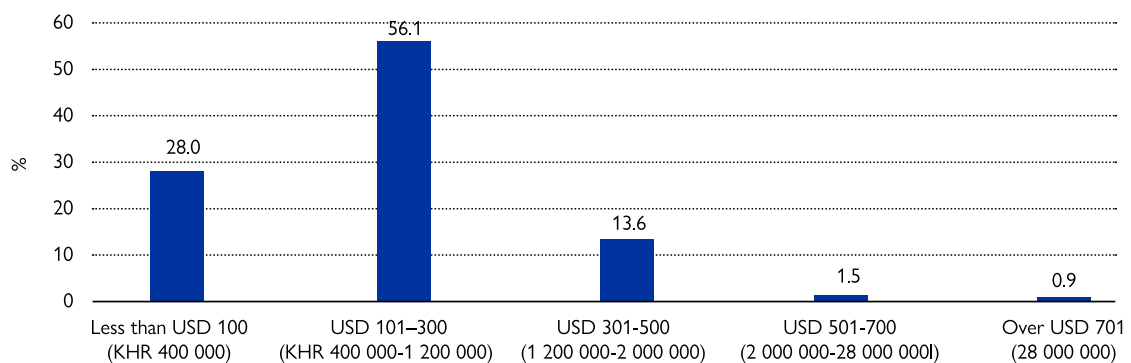


Figure 7 shows the ranges of average monthly income for each employed respondent from their current employment. More than half of them earned USD 101–300 per month, 28 per cent less earned than USD 100 per month, about 13 per cent earned USD 301–500 per month and less than 1 per cent earned over USD 701 per month.

2. Mobility

Figure 8. Type of mobility

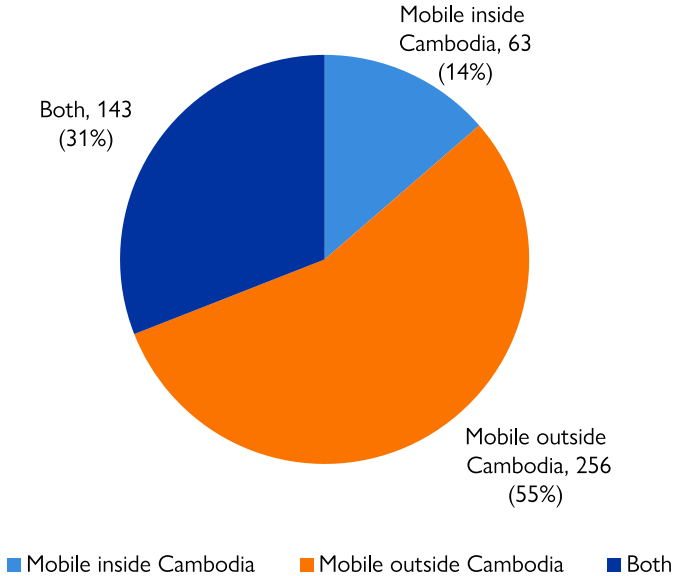
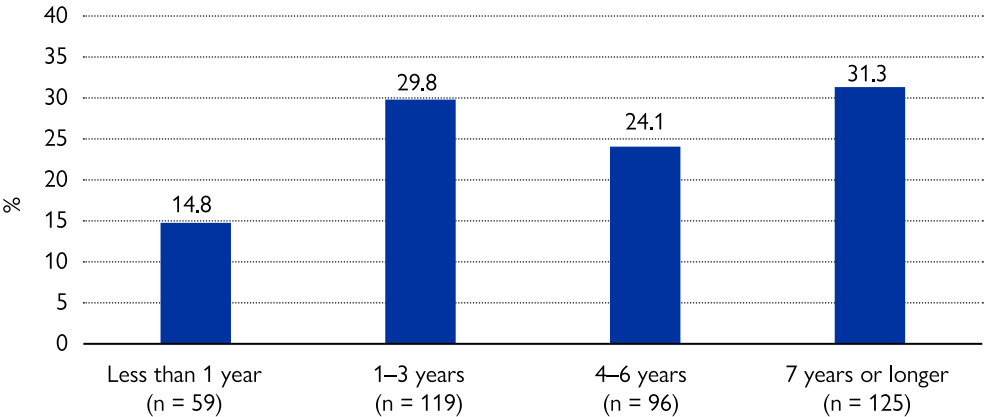


Figure 8 shows respondents’ type of mobility. More than half were mobile outside Cambodia. About 30 per cent were mobile both inside and outside, while 14 per cent were mobile only within Cambodia. A third of respondents (n: 62) mobile within Cambodia had been so for less than a year, followed by 29.1 per cent (n: 60) mobile within the country for seven years or longer, then 27.7 per cent (n: 57) between one and three years. Only 13.1 per cent (n: 27) were mobile for 4–6 years.

In addition, most frequently cited reasons were the absence of jobs in their previous locations (55.8%) and the availability of jobs in new places (50.5%). Almost half of respondents attributed their mobility to family reasons, and around 23 per cent of them said their wages were too low in their previous locations. Following other villagers was cited by 19.4 per cent of respondents. The other reasons combined (security, children’s education, loss of land in previous locations and access to health care) made up about 10 per cent of responses.

Figure 9. Duration of mobility outside Cambodia



Note: Total number of interviews = 399; n = total replies per category.

Figure 9 shows the duration of respondents’ mobility outside Cambodia. For respondents who had temporarily moved outside Cambodia, around 31 per cent had spent seven years or more abroad, while 30 per cent had spent their time working and living there for between one and three years. About 24 per cent were away from the country for between four and six years, and almost 15 per cent for less than a year.

Employment was one of the main reasons given: 66.4 per cent cited a lack of jobs in their previous locations and 65.7 per cent cited increased job availability in their new locations. Higher salaries and family were two other push factors, accounting for 53.4 and 43.1 per cent respectively. Following other villagers was mentioned by 22 per cent of respondents. Another reason cited was to pursue education for one's children, at 6.5 per cent.

Figure 10. Previous locations (n = 196)

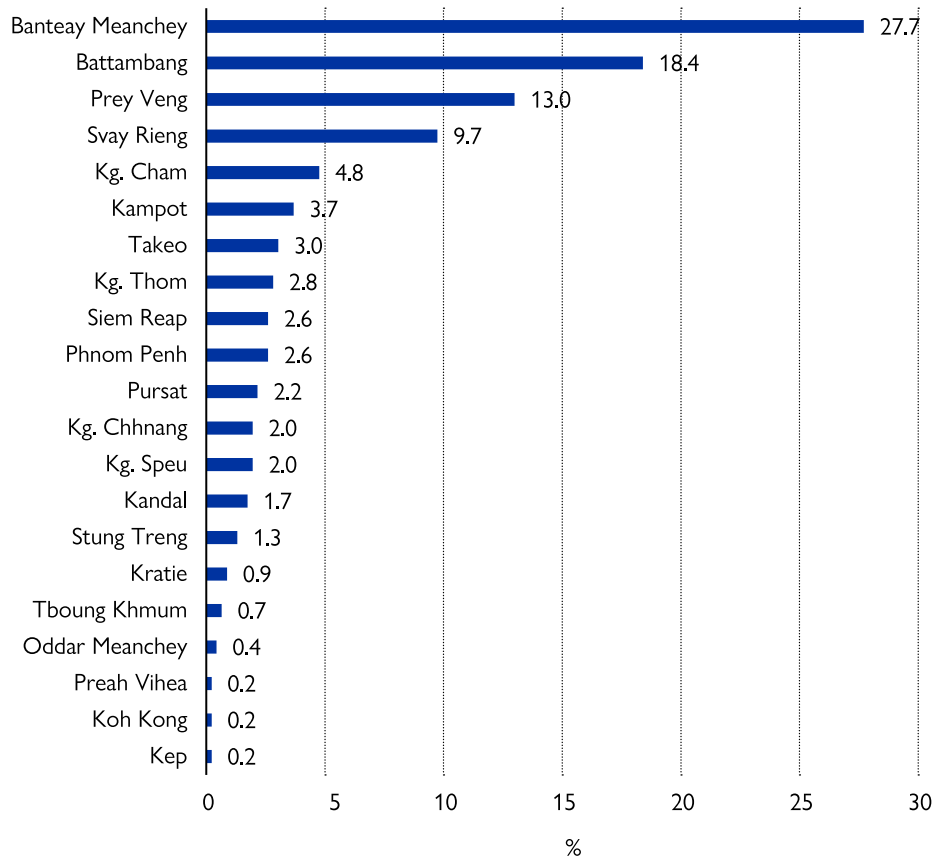


Figure 10 shows the locations where respondents had lived prior to their current locations. The most common answer was Banteay Meanchey province (27.7%). Almost 20 per cent used to live in Battambang, 13 per cent used to live in Prey Veng and almost 10 per cent used to live in Svay Rieng. The proportion ranged between 0.2 and 4.8 per cent for remaining provinces, including Phnom Penh.

Almost 60 per cent said they had only lived in their current location, 32 per cent had lived in one previous location, 9 per cent had lived in two to three previous locations and the remaining 1.3 per cent had previously lived in four or more locations.

3. Access to health care and services

Figure 11. ID Poor card possession

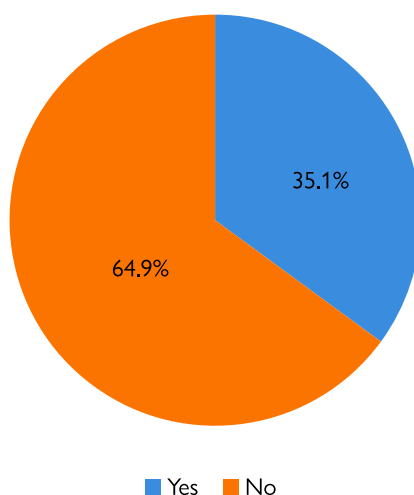


Figure 11 shows the proportions of respondents who either had an ID Poor card or not. The ID Poor card is part of the Cash Transfer Programme for Poor and Vulnerable Households, a government initiative designed to help strengthen social protection in Cambodia. ID Poor cards help sick people get health services for free or at a reduced cost. Some 64.9 per cent of respondents did not have an ID Poor card – only 35.1 per cent did.

Figure 12. Opinion of usefulness of the ID Poor card (n = 162)

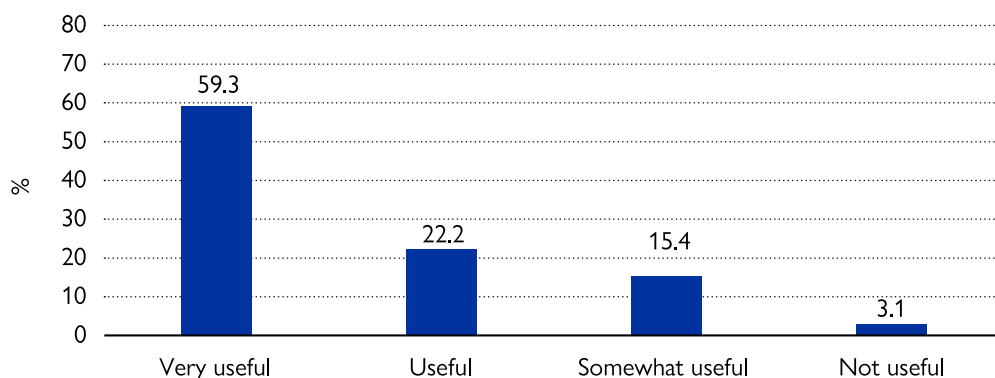


Figure 12 shows the usefulness of the ID Poor card as perceived by those 162 respondents who had one. Almost 60 per cent believed it was very useful, 22.2 per cent thought it was useful and 15.4 per cent somewhat useful, while 3.1 per cent thought it was not useful.

However, among respondents who perceived their ID Poor cards as not being useful, 76.7 per cent reported that it only covered a small portion of health service cost, 30 per cent said their card had expired, 20 per cent cited users of the cards being offered lower-quality treatment, while another 20 per cent stated other reasons.

Figure 13. Reasons for not having the ID Poor card

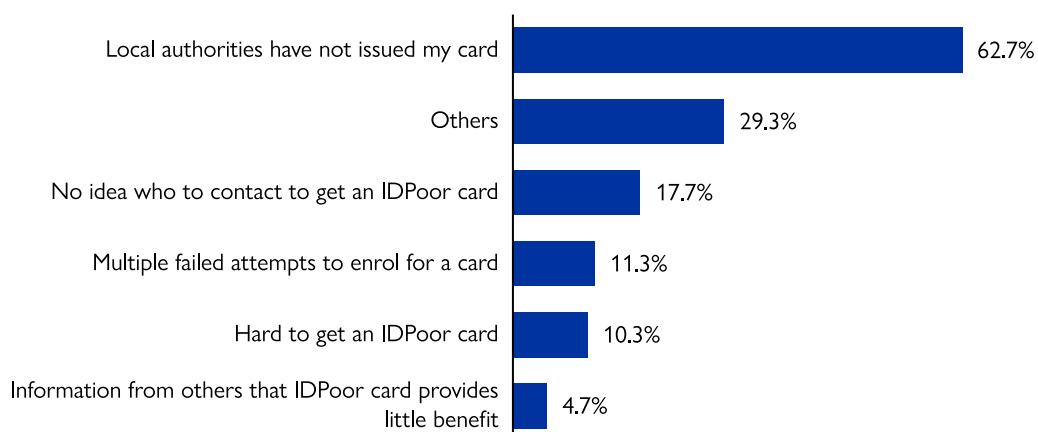


Figure 13 shows the reasons respondents gave for not having the ID Poor card. Some 62.7 per cent said the local authorities had not issued it to them, 29.3 per cent stated other reasons, 17.7 per cent had no idea where or how to acquire a card, 11.3 per cent had not been able to get one despite having applied for it several times, 10.3 per cent said the card was hard to get, 4.7 per cent said they had learned from others that the card offered little benefit.

Figure 14. Health accessing concerns for MMPs mobile outside of Cambodia

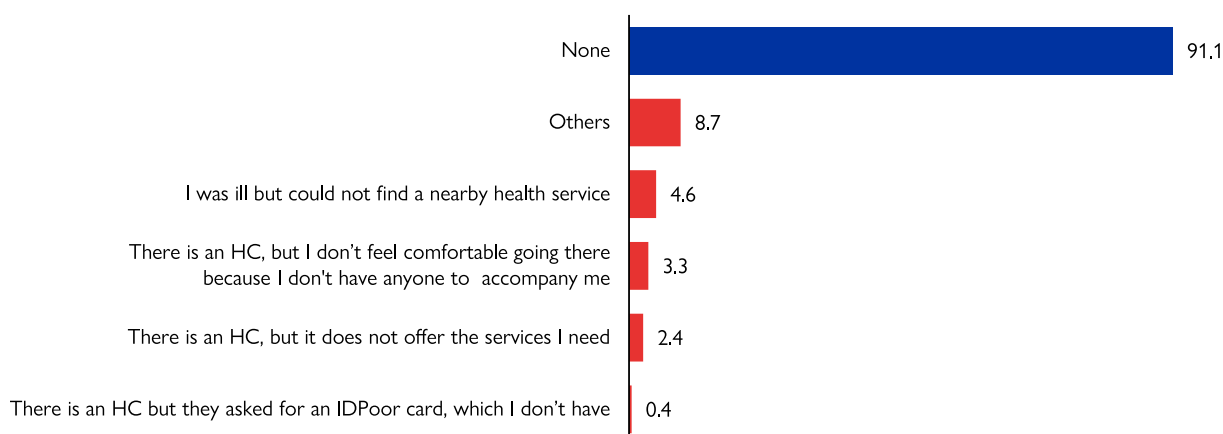


Figure 14 shows respondents' concerns regarding access to health care while working and living outside Cambodia. Almost all (91.1%) had no problem accessing health facilities. For those who did, almost 5 per cent said they couldn't find a health centre nearby when they were sick, around 3 per cent said they didn't feel comfortable to go to a health centre because they had no one to accompany them, 2.4 per cent said their local HC did not have the services they needed, and 0.4 per cent said they had been asked for an ID Poor card that they did not have. Almost 9 per cent faced other problems related to accessing health care.

The reports on challenges in accessing health services were collected during KIIs and FGDs with both MMPs and other stakeholders.

4. Knowledge, attitudes and practices related to HIV, TB, hepatitis B, hepatitis C, dengue fever and malaria

4.1. HIV/AIDS and tuberculosis

Almost all respondents had heard about HIV (452; 97.8%), TB (450; 97.4%) and the other four diseases (hepatitis B, hepatitis C, dengue fever and malaria) (457; 98.9%). Only very few respondents had not heard about each of the three categories of diseases (10, 12, and 5, respectively).

Figure 15. Reasons for not having heard about HIV/AIDS and/or TB

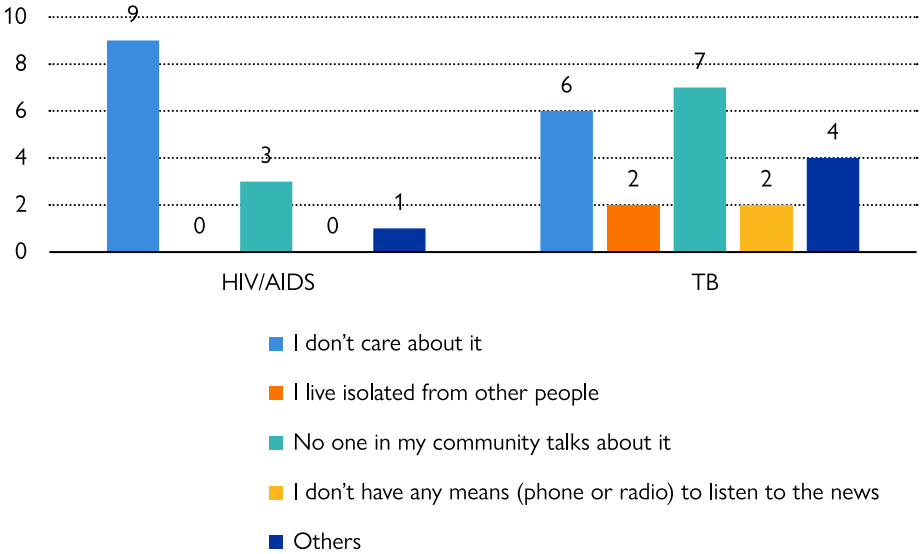


Figure 15 shows respondents' reported reasons for not having heard about HIV/AIDS and/or TB. For HIV/AIDS, 10 respondents who had heard about it said they did not consider it a priority in their lives, while three others had never heard anyone in their community talking about it. For TB, seven respondents mentioned no one in their community talking about it, six reported not considering TB a priority, two said they lived isolated from other people, two responded that they had no means such as a phone or radio to access to the news, and four others gave other reasons.

Figure 16. Sources of information about HIV/AIDS, TB and the four other diseases

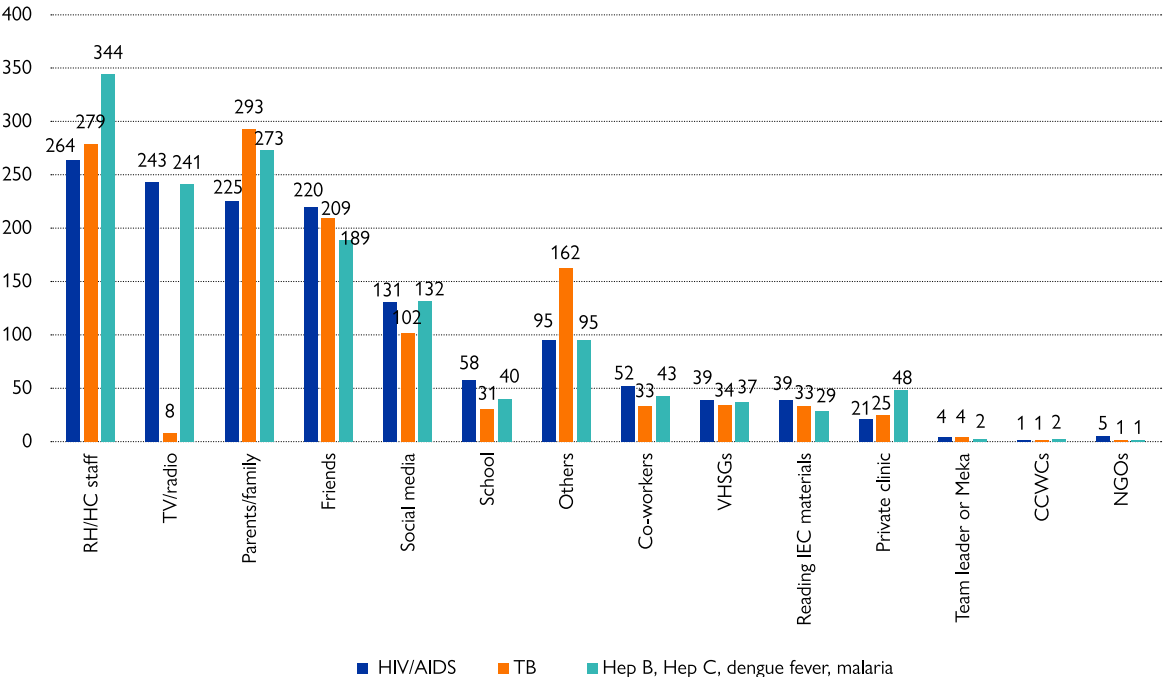


Figure 16 shows the sources of information where respondents found out about the six diseases. Overall, RH/HC staff, television/radio (except for TB), parents/family, and friends were the main sources of information about HIV/AIDS, TB and the four other diseases, with rates fluctuating between 50 and 60 per cent. Social media, school, co-workers and VHSGs also featured.

In addition, most of respondents thought they had enough knowledge and information on HIV/AIDS and TB. Some 313 of respondents (67.3%) indicated they did not have enough information on HIV/AIDS, while 319 (69%) reported not having enough information on TB. Only about a third of said they did have enough information on the two diseases.

Figure 17. Place to go when MMPs need information or services related to HIV/AIDS

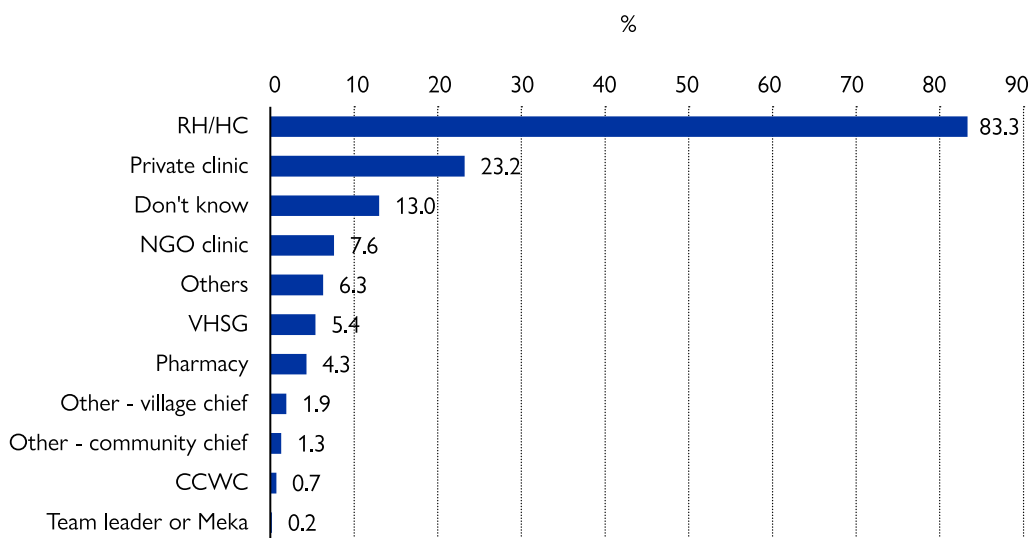


Figure 17 shows where respondents said they would go for information or services related to HIV/AIDS. Some 83.3 per cent of respondents chose RH/HCs, 23.2 per cent chose private clinics, 7.6 per cent chose NGO clinics, and 13 per cent answered that they did not know where to go.

Figure 18. Reasons for not communicating about HIV/AIDS

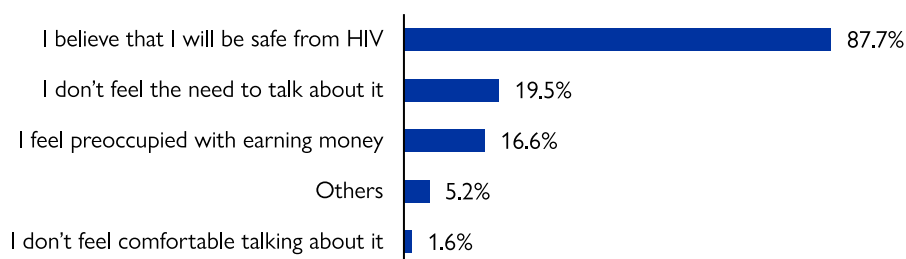


Figure 18 shows respondents' reasons for not communicating. Almost 90 per cent of them believed that they were safe from HIV, nearly 20 per cent did not feel the need to communicate, above 15 per cent cited being preoccupied with earning money, and only 1.6 per cent said that they felt uncomfortable communicating with others to learn more about HIV/AIDS.

Figure 19. Awareness of other services providers related to TB, HIV/AIDS and the four diseases

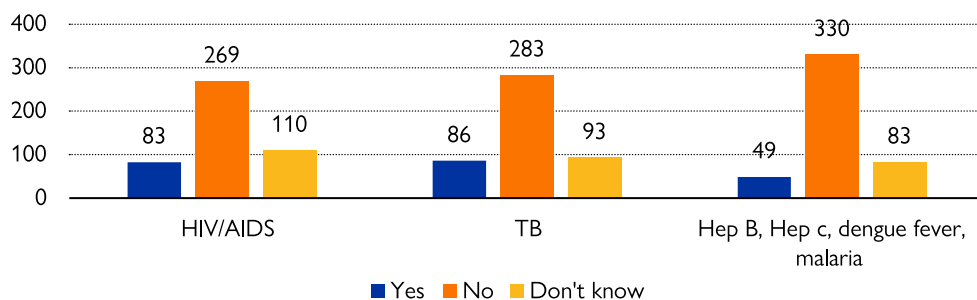


Figure 19 shows whether respondents were aware of other service providers related to HIV/AIDS, TB, and the four other diseases in question. For HIV/AIDS, only 83 (17.9%) said they knew about such offers. For TB, the number was similar at 86 (18.6%). For the four other diseases, the number of respondents aware of other services was only 49 (10%).

Figure 20. Type of other service providers (n = 83)

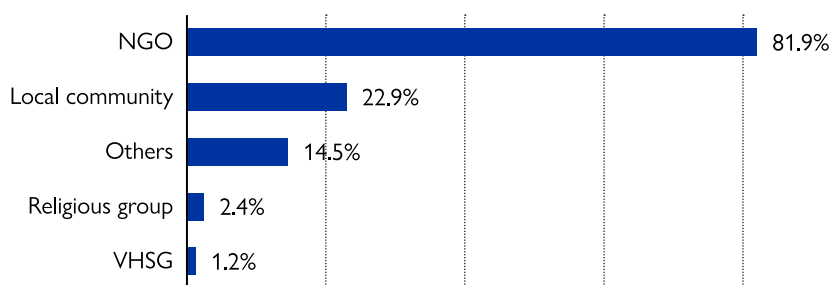


Figure 20 shows the sources of other support cited by respondents. About 82 per cent had received extra support from NGOs, about 23 per cent from the local community, less than 15 per cent cited other sources of support. Religious groups and VHSGs were also reported to have provided extra support, but only at minimal rates: 2.4 and 1,2 per cent respectively.

Figure 21. Type of services provided by other service providers (n = 83)

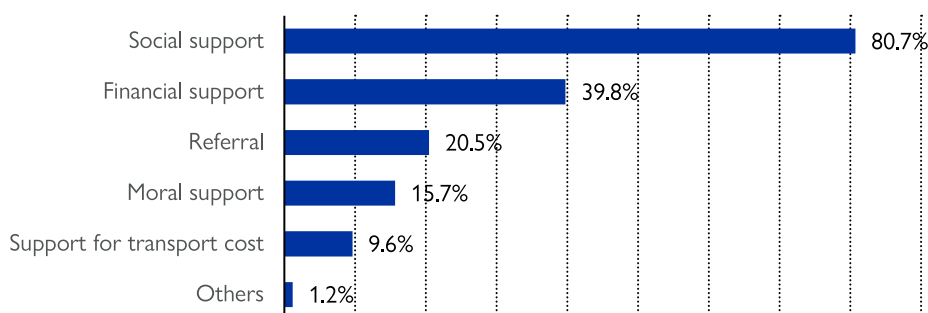


Figure 21 shows the types of services that respondents reported having received from other agencies. Out of the total of 83 responses to this survey item, about 81 per cent said the extra support they received was in the form of social support; under 40 per cent reported receiving financial support from other agencies. About 20 per cent had received referrals and about 15 per cent had received moral support. Almost 10 per cent received support for transportation costs.

Figure 22 Knowledge about HIV transmission (n = 462)

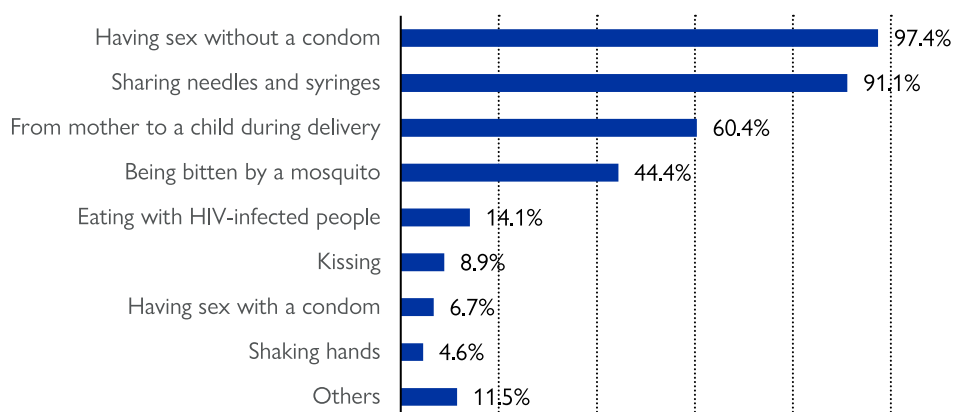


Figure 22 shows respondents' knowledge about HIV transmission. Some 97.4 per cent knew that HIV can be transmitted by having sex without a condom and 91.1 per cent knew that HIV could also be transmitted through the sharing of needles and syringes. About 60 per cent of respondents reported that HIV can be transmitted from a mother to her child during childbirth. There were also some misconceptions about HIV: respondents believed that HIV could be transmitted through mosquito bites (44.4%), eating with HIV-infected people (14.1%), kissing (8.9%), and shaking hands (4.6%).

Table 3 shows respondents' knowledge about and experience with HIV/AIDS and TB testing. Almost 90 per cent reported knowing where to go for an HIV test; about 50 per cent of respondents confirmed that they had been tested for HIV in the past. Similarly, almost 90 per cent knew where to go to get their sputum tested and/or their lungs radiographed. Among these, around 30 per cent confirmed that they had their sputum checked and/or lungs radiographed, while 69 per cent had done neither.

Table 3. Knowledge about and experience with on HIV/AIDS and TB testing

Variables	Yes			No	Total
Do you know where you can go if you want to do an HIV test?	407 (88.1%)			55 (11.9%)	462
Have you been tested for HIV in the past?	205 (50.4%)			202 (49.6%)	407
Do you know where to go if you want to do a sputum test?	386 (89.2%)			47 (10.8%)	433
	Had sputum checked	Had lung X-rayed	Both	No to Both	Total
Have you ever got your sputum checked and/or your lungs radiographed – for TB consultation?	39 (10.1%)	27 (6.1%)	54 (13.9%)	266 (68.9%)	386

Figure 23. Time since last HIV test

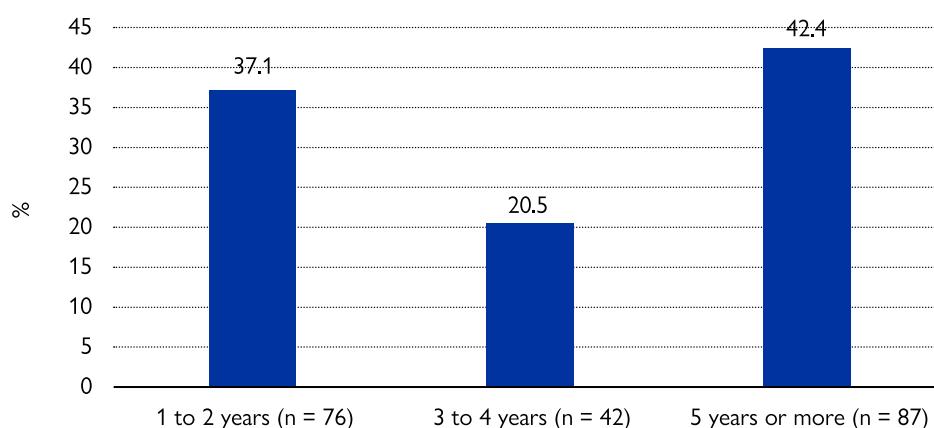


Figure 23 shows the time that had passed since respondents' last HIV test (where applicable). Some 42.4 per cent said they had last been tested 5 or more years prior to the survey, 37.1 per cent 1-2 years, and 20.5 per cent 3-4 years.

Table 4 shows the distribution of respondents' reporting having been tested for HIV in the 12 months prior to the survey as a function of their age. Respondents in the age groups 31–40 and 21–30 accounted for significantly higher proportions of positive answers, at 42.9 and 29.8 per cent respectively (n: 205).

Table 4. HIV test in the previous 12 months, by age group

Age	n	Yes	No	p-value
< 20 years	7	2.9%	0.5%	0.00 1
21–30 years	114	29.8%	26.2%	
31–40 years	157	42.9%	34.2%	
41–50 years	78	18.5%	19.8%	
> 51 years	51	5.9%	19.3%	

Figure 24. Reasons for not having been tested for HIV

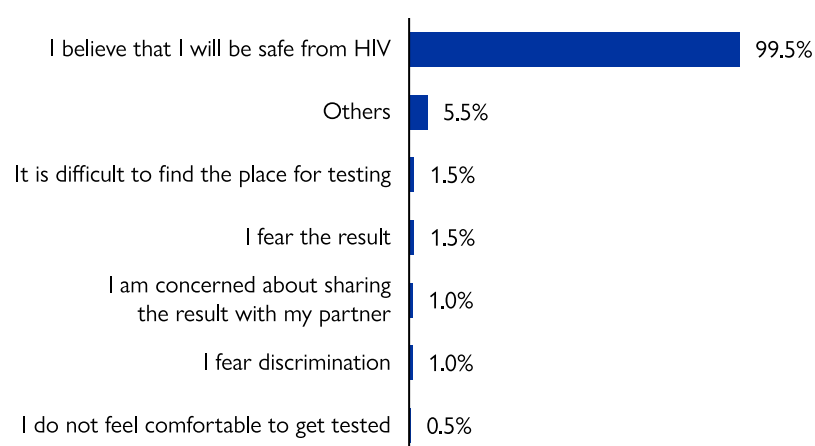


Figure 24 shows respondents' reasons for not having been tested for HIV (where applicable). Of the 202 untested respondents, 99.5 per cent believed they were safe from HIV. Fear of the result and difficulty in finding a testing centre each made up 1.5 per cent of the responses, while fear of discrimination and concerns about sharing the result with a partner each made up 1 per cent.

Table 5 shows how many respondents felt comfortable sharing the result of their latest HIV or TB test for the survey. Some 201 respondents (99.5%) felt comfortable doing so. However, among these, none reported being HIV-positive. A total of 116 respondents felt comfortable sharing their latest TB test results. Among these, 17 (14.7%) reported having been TB-positive.

Table 5. Comfort with sharing latest HIV/TB test results

Variables	Yes	No	Total
Do you feel comfortable in telling me the result of your last HIV test?	201 (99.5%)	1 (0.5%)	202
Variables	Positive	Negative	Total
If you feel comfortable in telling me, what was your test result?	0 (0%)	201 (100%)	201
Variables	Yes	No	Total
Do you feel comfortable in telling me the result of your last TB consultation?	116 (100%)	0 (0%)	116
Variables	Positive	Negative	Total
If you feel comfortable in telling me, what was the result?	17 (14.7%)	99 (85.3%)	116

Figure 25. STIs, and HIV experience among MMPs and their family members

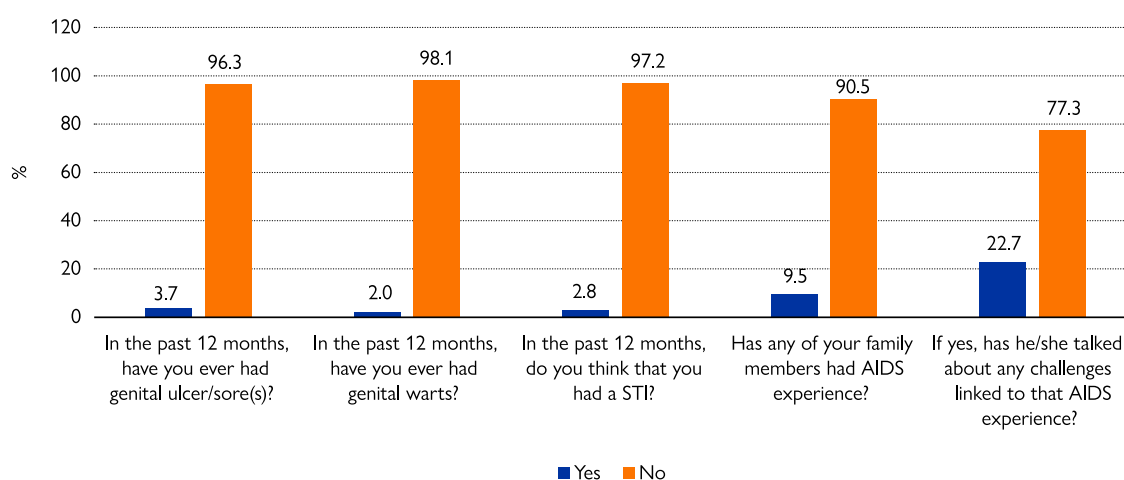


Figure 25 shows respondents' estimations of their STIs in the 12 months prior to the survey and the perceived prevalence of HIV among their family members. Less than 4 per cent reported having had genital ulcers/sores over the past 12 months; only 2 per cent reported having had genital warts in the same period, and nearly 3 per cent thought they had had an STI.

The figure also indicates that 9.5 per cent of respondents confirmed that at least one of their family members had AIDS. Among these, 22.7 per cent indicated that their family members had talked about challenges linked to the illness.

Figure 26. Female MMPs who experienced with STI symptoms (last 12 months, n=205)

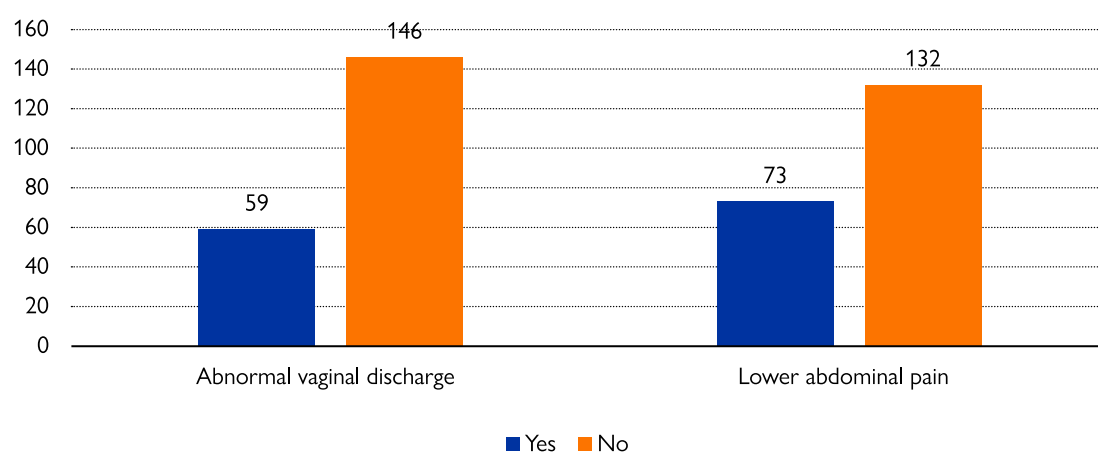


Figure 26 shows the numbers of female respondents who reported having had symptoms of STIs in the 12 months prior to the survey. 59 female respondents (28.78%) confirmed having had an abnormal vaginal discharge over the previous 12 months, while 73 female respondents (35.6%) confirmed having had lower abdominal pain over the last 12 months.

Among female respondents in the age ranges 31–40 and 21–30 accounted for having had abnormal vaginal discharge during the 12 months prior to the survey in higher proportions of 47.5 and 35.6 per cent respectively (p-value = 0.001).

Table 6 shows the types of challenges faced by respondents who reported having family members living with HIV/AIDS. Of the 10 respondents whose family members had talked about challenges linked to having AIDS, most of them (60%) mentioned discrimination from the community. Only a few mentioned the side effects of medications, long distances of travel to obtain medications, difficulty in obtaining medications, and so on.

Table 6. Challenges of living with HIV/AIDS

Variables	Number	Percentage
Discrimination from the community	6	60.00
Long distance of travel to get medications	4	40.00
Side effects of medications	4	40.00
Insufficient money to pay for travel to get medications	2	20.00
Others	2	20.00
Discrimination from health staff	1	10.00
Discrimination within the family	1	10.00
Additional charges when visiting the ART clinic	1	10.00
No one for company when visiting the ART clinic	1	10.00

Figure 27. Knowledge on how to access TB services

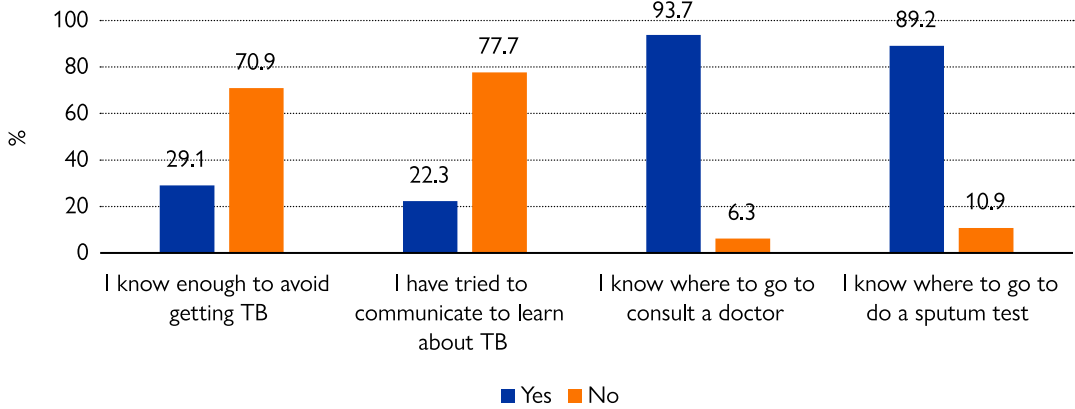


Figure 27 shows respondents' perceptions of their own knowledge on how to access TB services. Almost 30 per cent of respondents believed they had enough knowledge on how to avoid getting TB; around 22 per cent had tried to communicate with others to learn about TB. Nearly 94 per cent knew where to go to consult a doctor; almost 90 per cent knew where to go to for a sputum test.

Figure 28. Knowledge on conditions which may facilitate the transmission of TB (n = 462)

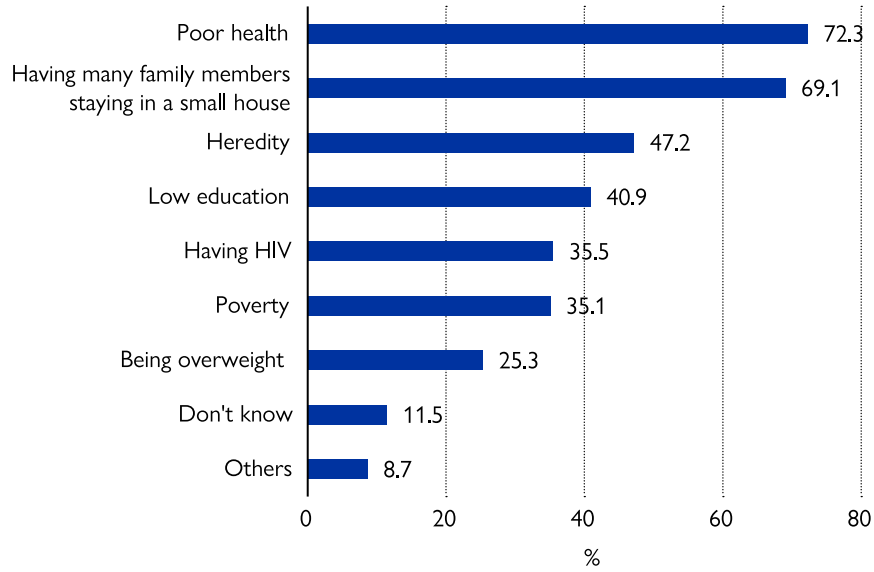


Figure 28 shows respondents' knowledge on conditions which may facilitate the transmission of TB (multiple answers were possible). About 72 per cent of respondents mentioned that those in poor health may be vulnerable to TB, almost 70 per cent said that having many family members living together in a small house can also be a factor. Nearly half of the respondents thought transmission may be hereditary. Low education, having HIV, and poverty were reported as factors of TB transmission at rates of 40.9, 35.5, and 35.1 per cent, respectively. About 25 per cent believed that being overweight could also facilitate TB transmission.

The two main exacerbating factors cited were poor health and having many family members living in a small house (about 36% each). Around 10 per cent mentioned heredity, and less than 4 per cent though having HIV would make one more susceptible to catch TB.

Figure 29. Knowledge of TB symptoms (n = 462)

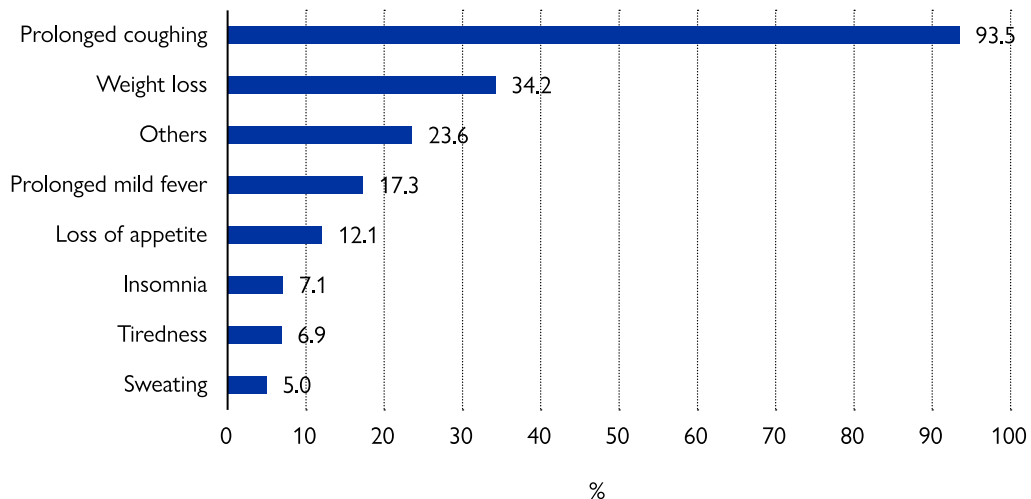


Figure 29 shows respondents' knowledge of the most common TB symptoms (they were asked to select three). Some 93.5 per cent of respondents said prolonged coughing was the symptom most likely to indicate TB, followed by 34.2 per cent citing weight loss, and almost 24 per cent stated other symptoms not listed in the survey item.

In addition, the respondents also shared about their knowledge of TB transmission channels. Some 92.4 per cent cited sitting close to a TB-infected person who was coughing. Over 83 per cent of respondents believed that sharing the same utensils or eating together were possible channels. More than 76 per cent and almost 70 per cent respectively said that sharing needles and living with a TB-infected person were possible channels. About a quarter of respondents thought shaking hands was a channel for TB transmission.

Figure 30. Sputum checks and lung radiographed (n = 386, %)

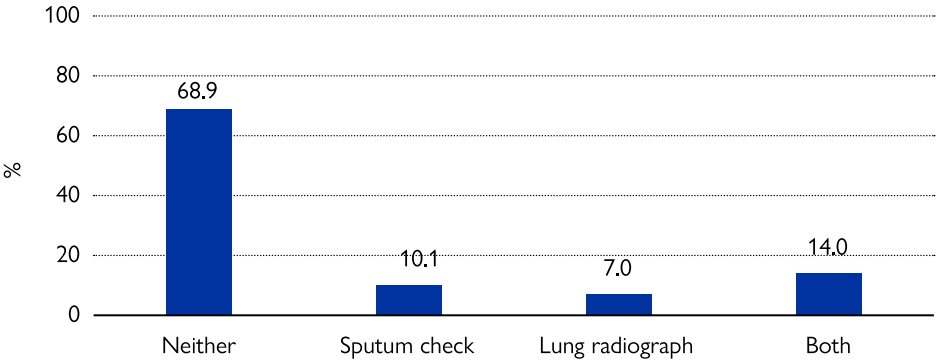


Figure 30 shows whether respondents had ever had their sputum checked and/or lung radiographed. About 69 per cent said they had done neither, only 14 per cent confirmed they had done both, another 10 per cent had only had their sputum checked, and the remaining 7 per cent had only had their lungs radiographed.

Figure 31. Reasons for not having sputum checked or lung radiographed (n = 266)

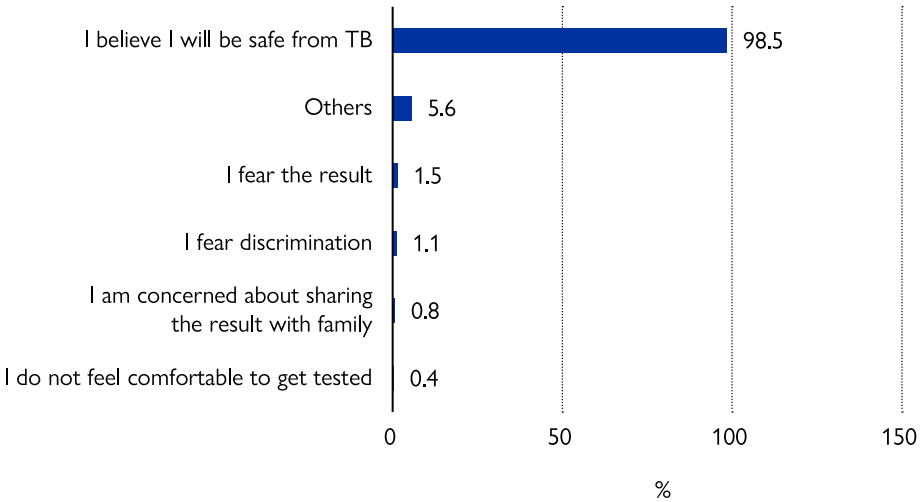


Figure 31 shows the reasons respondents gave for not having had their sputum checked nor their lung radiographed. Of the 266 respondents who had had neither sputum checked nor lung radiographed, about 98 per cent said this was because they believed they were safe from TB. Less than 2 per cent were fearful of the result or feared discrimination.

Table 7 shows respondents' TB treatment practices. Of 17 respondents who confirmed that they had been TB-positive, 16 of them had registered for treatment in Cambodia – all of those who had registered had then obtained medicines for their TB treatment.

Table 7. TB Treatment practices

Variables	Number	Percentage
If your test was positive, did you register at a TB treatment site?		
Yes	16	94.1
No	1	5.9
Total	17	100
If yes, where did you register:		
Cambodia	16	100
Thailand	0	0
Viet Nam	0	0
Lao People's Democratic Republic	0	0
Total	16	100
If yes, did you receive any TB medicines?		
Yes	16	100
No	0	0
Total	16	100

Figure 32. Perceptions of the TB treatment process, including getting medicines (n = 16)

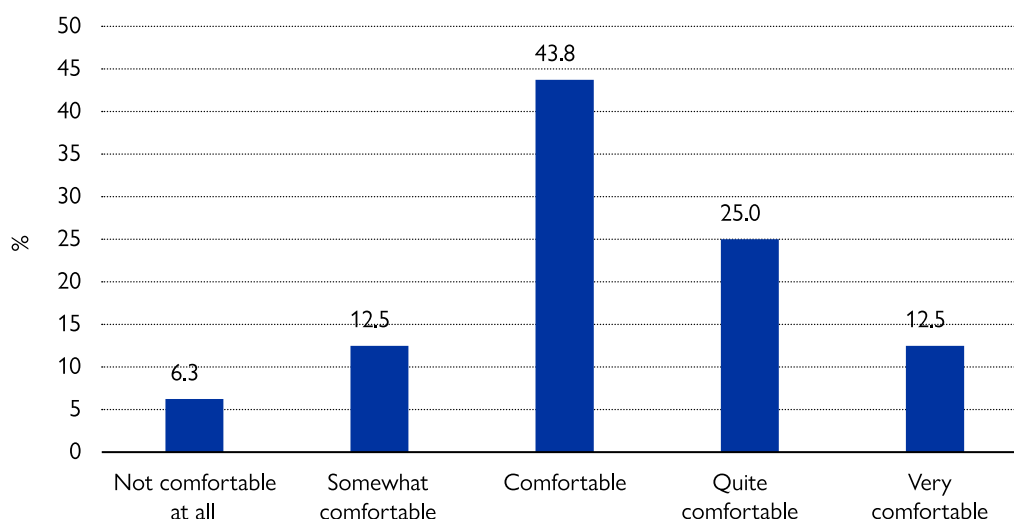


Figure 32 shows the degree of comfort respondents perceived during the TB treatment process, including getting medicines. Of 16 respondents who had registered at a TB site, 43.8 per cent said it was “comfortable”, 25 per cent said it was “quite comfortable”, 12.5 per cent each “somewhat comfortable” and “very comfortable”, while 6.3 per cent reported that it was “not comfortable at all” because of long waiting times, crowded spaces, poor staff behaviour, or difficulty in making themselves available for appointments, among other factors.

Figure 33. Experience visiting HCs/hospitals for TB care and treatment (n = 16)

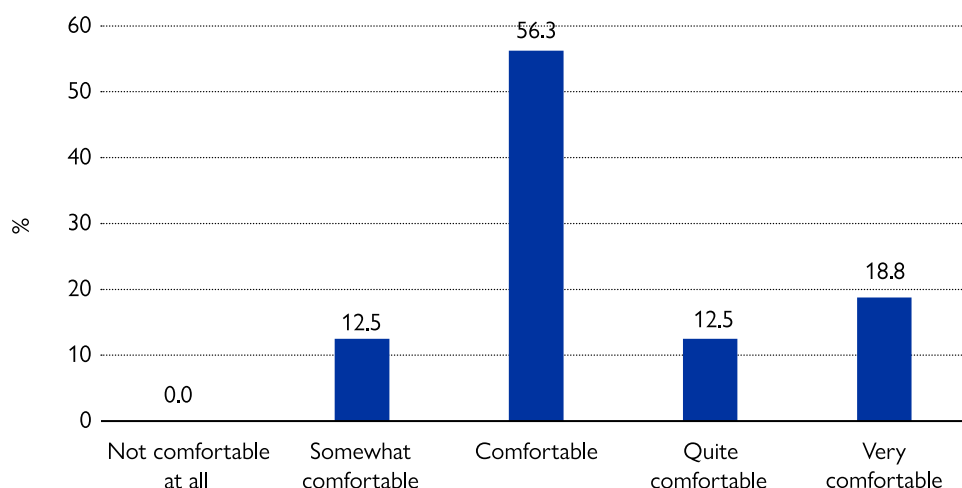


Figure 33 shows the degree of comfort respondents perceived during visits to HCs/hospitals for TB care and treatment. Of the 16 respondents who had had such an experience, 56.3 per cent said it had been “comfortable”, 18.8 per cent “very comfortable”, and 12.5 per cent each said “somewhat comfortable” or “quite comfortable”.

Table 8 shows respondents’ TB treatment and experience. Of the 116 respondents whose family members had also been infected with TB, 92.2 per cent said their family members had been treated. Some 5.2 per cent said their family members had not been treated and 2.6 per cent of respondents said they were unsure. Of those whose family members had been treated, all but two (treated in Viet Nam) reported the treatment having been done in Cambodia. Concerning treatment disruption, 27 per cent of respondents answered that there had been some disruption. About 41 per cent of respondents said they were aware of discrimination against TB patients in their community.

Table 8. TB treatment and experience

Variables	Yes	No	Don't know	Total
If yes, have they been treated?	107(92.2%)	6 (5.2)	3 (2.6%)	116
	Cambodia	Viet Nam	Lao People's Democratic Republic	Total
If yes, did they get TB medicines from abroad or from Cambodia?	105 (98.1%)	2 (1.9%)	0 (0%)	107
	Yes	No	Don't know	Total
Has there been any disruption of TB treatment for them?	29 (27.1%)	56 (52.3%)	22 (20.6%)	107
In your community, are you aware of any discrimination against TB patients?	109 (41.1%)	235 (50.9%)	37 (8%)	462

Figure 34. Causes of TB treatment disruption for family members (n = 29)

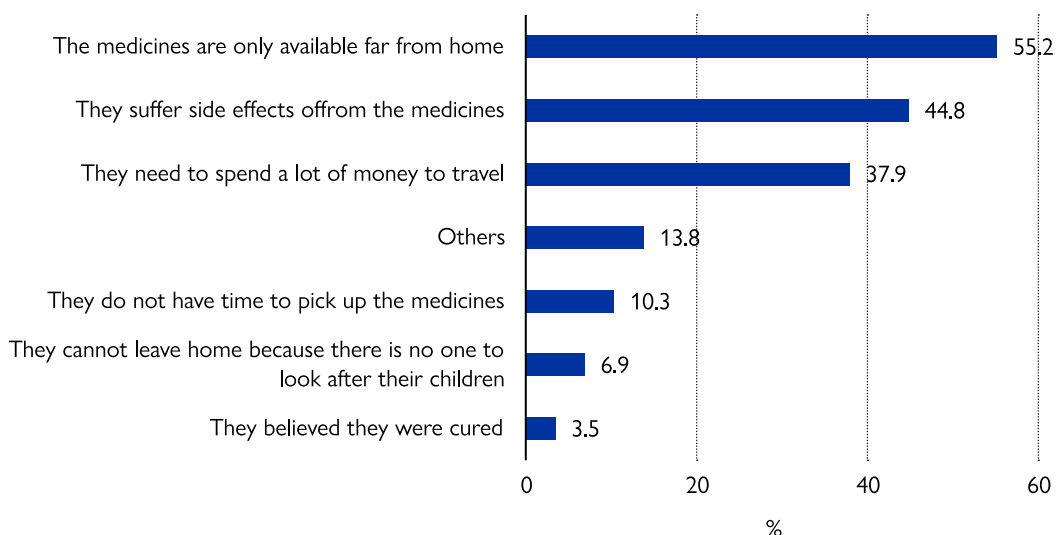


Figure 34 shows the causes of treatment disruption experienced by respondents' family members. Of 29 respondents, 55.2 per cent attributed the disruption to medicines only being available far from home, followed by 44.8 per cent saying their family members suffered from side effects of the medicines. Almost 40 per cent of respondents said their family members had to spend a lot of money to be able to travel and get their medicines. Other causes included a lack of time to pick up the medicines, and not being able to leave home due to childcare responsibilities. Only 3.5 per cent said the treatment was disrupted because their family members felt they had been cured.

Figure 35. Challenges faced by MMPs' family members during TB treatment (n = 29)

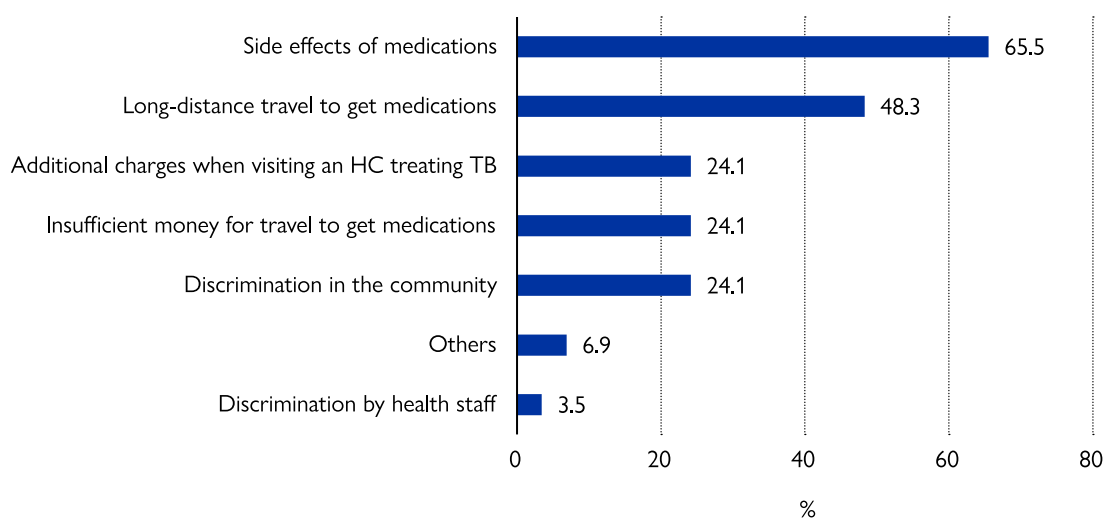


Figure 35 shows the challenges faced by respondents' family members while being treated for TB. Around 65 per cent of the 29 respondents said that side effects of the medications were a challenge faced by their family members while under TB treatment, 48.3 per cent mentioned the long distance their family members had to travel to get the medications, 24.1 per cent reported their family members being exposed to community discrimination, 24.1 per cent cited having insufficient money to cover travel costs to get the medications, and 24.1 per cent highlighted additional charges when visiting HCs. Some 3.5 per cent cited discrimination from health-care staff.

Figure 36. Severity of TB discrimination (n = 190)

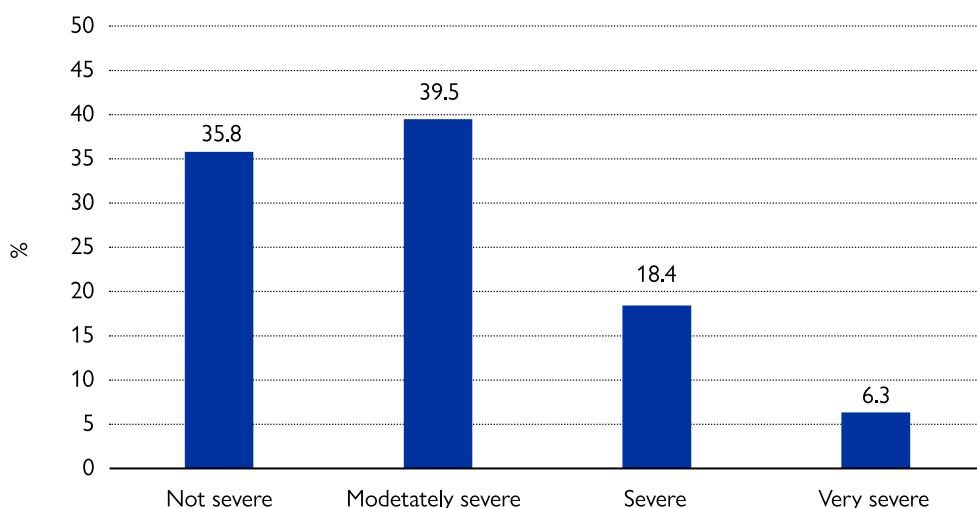


Figure 36 shows the severity of TB-related discrimination in respondents' communities. About 65 per cent of respondents cited levels of severity ranging from "moderately severe" (almost 40%), to "severe" (18%) and "very severe" (6.3%). The remaining 35 per cent said the discrimination was not severe.

4.2. Hepatitis B and hepatitis C

Respondents had ever heard of hepatitis B, hepatitis C, dengue fever, or malaria. Dengue fever and malaria were much more well known to respondents: more than 90 per cent of respondents were aware of them. About 55 per cent said they had heard of hepatitis B and almost 50 per cent hepatitis C.

Figure 37. Sources of information on hepatitis B, hepatitis C, dengue fever, or malaria (n = 457)

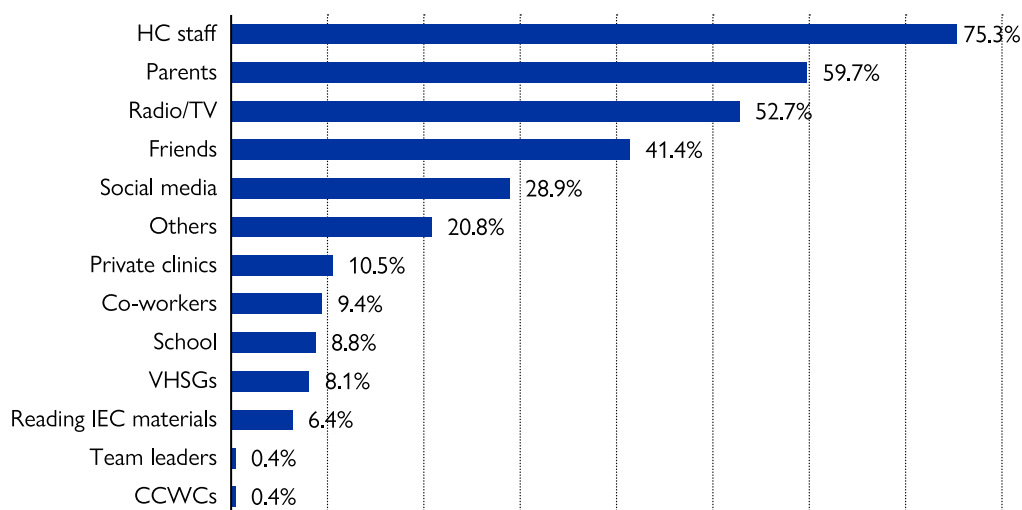


Figure 37 shows the sources of information respondents used to get information about hepatitis B, hepatitis C, dengue fever, or malaria. Approximately 75 per cent of the 457 respondents had heard about the infectious diseases in question from HC staff, while approximately 60 per cent had heard about them from their parents. More than 50 per cent cited radio/TV. About 40 per cent of respondents mentioned their friends as a source and almost 30 per cent said social media. Private clinics, co-workers, schools, VHSGs and IEC were also reported as sources of information; and they represented 10.5, 9.4, 8.8, 8.1 and 6.4 per cent, respectively.

Figure 38. Knowledge of where to seek infectious-disease information or services

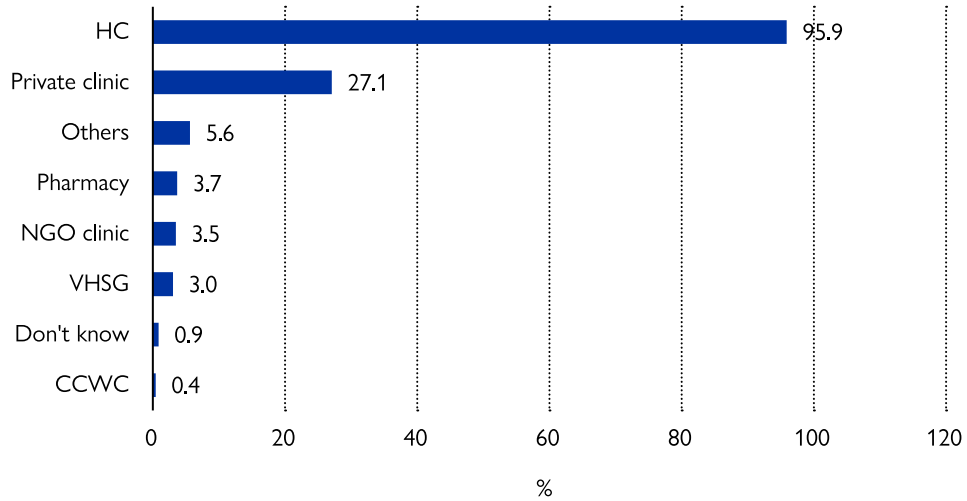


Figure 38 shows the locations named by respondents when asked where to go for information or services related to the diseases in question. Around 96 per cent of respondents mentioned health centres, almost 30 per cent said private clinics and less than 4 per cent cited other locations.

Figure 39. Knowledge of hepatitis B transmission (n = 258)

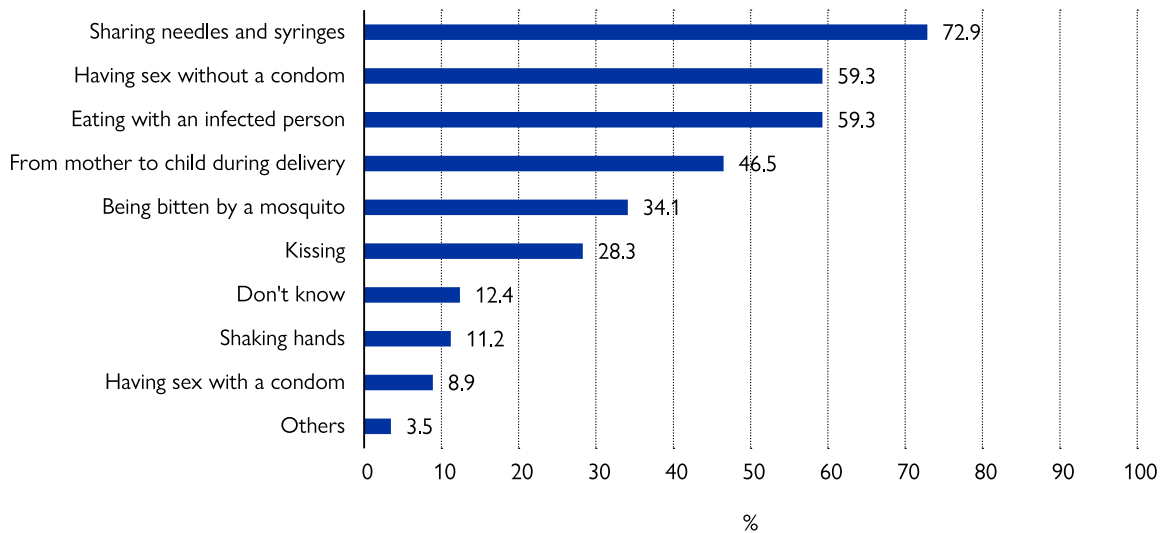


Figure 39 shows respondents' knowledge of hepatitis B transmission. Surprisingly, 59.3 per cent said that hepatitis B can be transmitted by eating with infected persons. They also mentioned mosquito bites, kissing and shaking hands as enabling the transmission of hepatitis B at rates of 34.1, 28.3 and 11.2 per cent respectively.

Figure 40. Knowledge of hepatitis C transmission (n = 223)

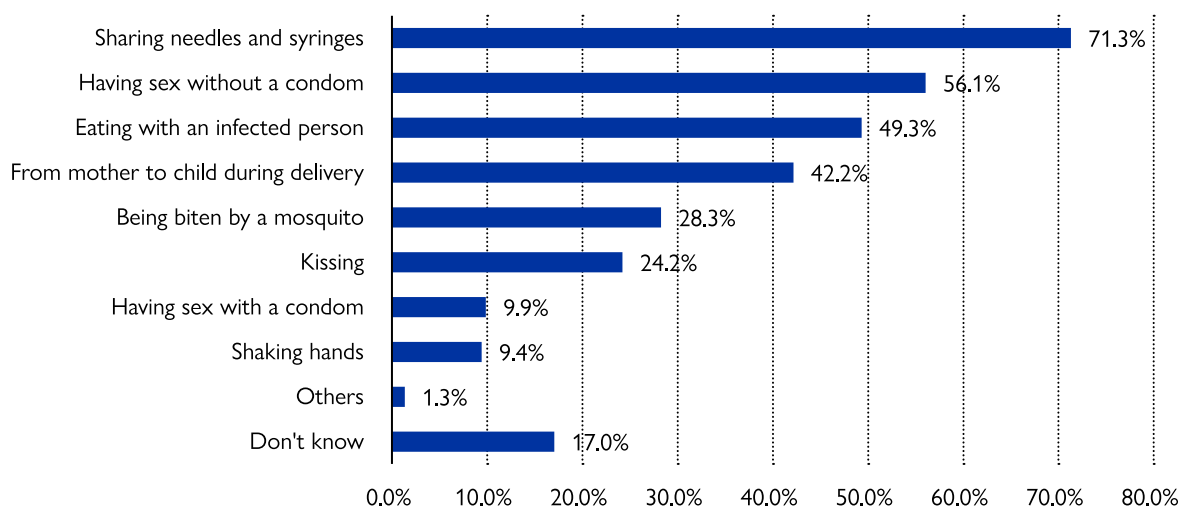


Figure 40 shows respondents' knowledge of hepatitis C transmission. About 50 per cent said hepatitis C can be transmitted by eating food with an infected person. Around 42 per cent said hepatitis C can be transmitted from a mother to her child during delivery. Other cited sources of hepatitis C transmission were mosquito bites, kissing, having sex with a condom, and shaking hands at 28.3, 24.2, 9.9 and 9.0 per cent, respectively).

4.3. Dengue fever and malaria

Figure 41. Knowledge of dengue fever transmission (n = 437)

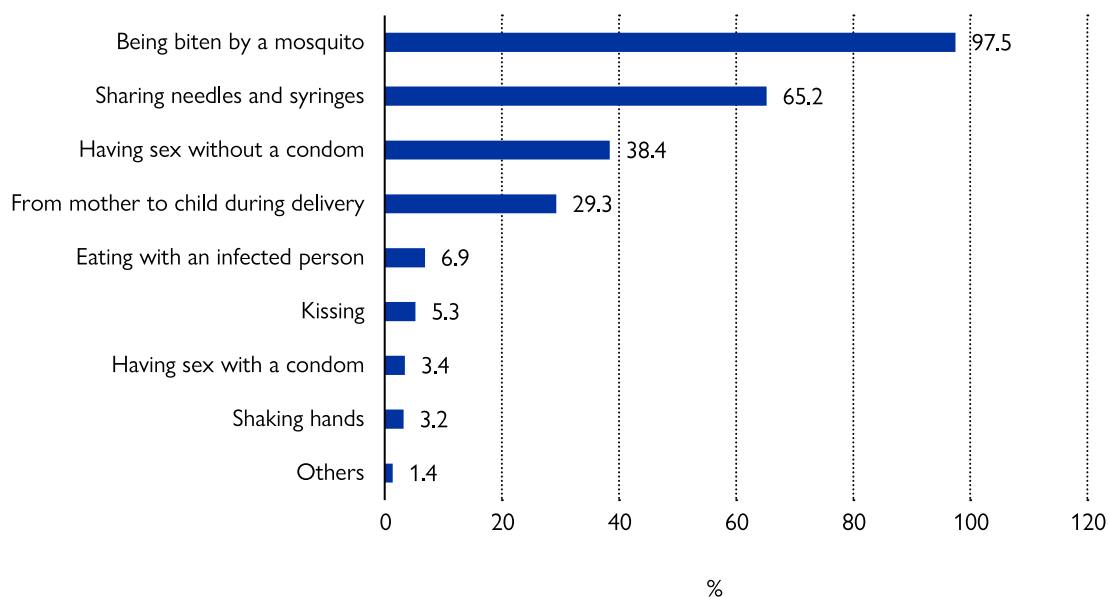


Figure 41 shows respondents' knowledge of dengue fever transmission. Some 97.5 per cent of respondents believed mosquito bites were a channel of transmission. Around 65 per cent believed that sharing needles and syringes could be a transmission route, and 38.4 per cent cited unprotected sex as another. Almost 30 per cent mentioned transmission from mother to child during childbirth could also occur. Almost 7 per cent thought that having meals with an infected people, while kissing, having sex with a condom, and shaking hands were also mentioned as leading to the transmission of dengue fever.

Figure 42. Knowledge of malaria transmission (n = 434)

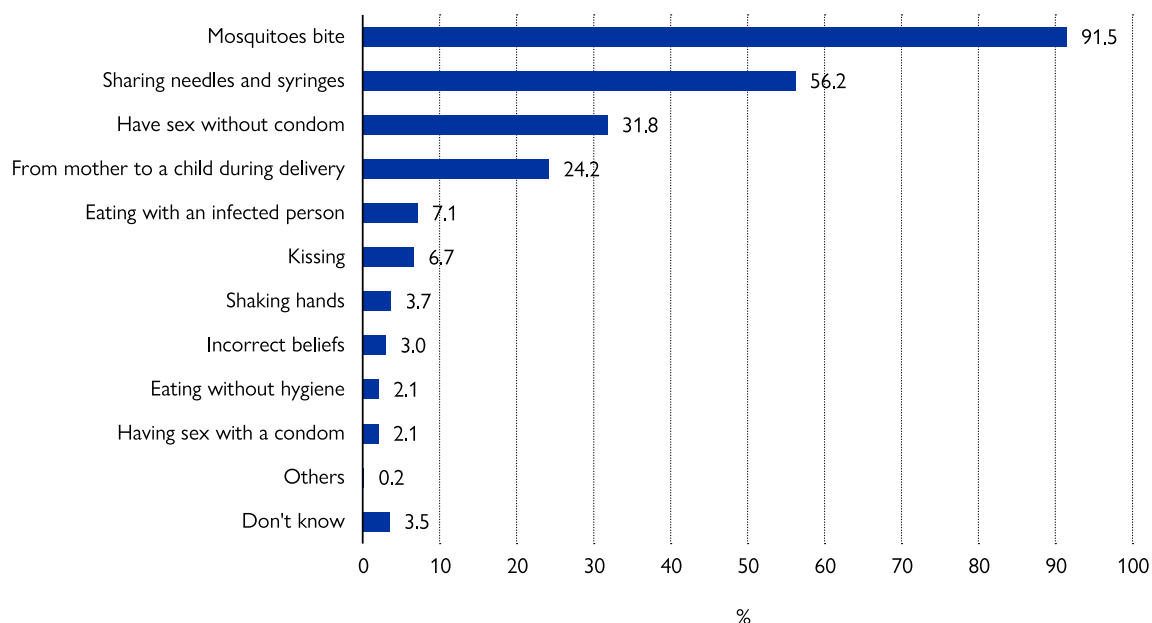


Figure 42 shows respondents' knowledge of malaria transmission. Around 91 per cent of respondents said malaria can be transmitted by mosquito bites. Around 56 per cent also cited sharing needles and syringes. Almost 32 per cent mentioned unprotected sex, and about 24 per cent knew of transmission from mother to child during childbirth. A sizeable number of respondents believed that malaria could be channelled via eating with an infected person, kissing, shaking hands, or having sex with a condom (7.1%, 6.7%, 3.7%, and 2.1%, respectively).

Figure 43. Knowledge of testing locations

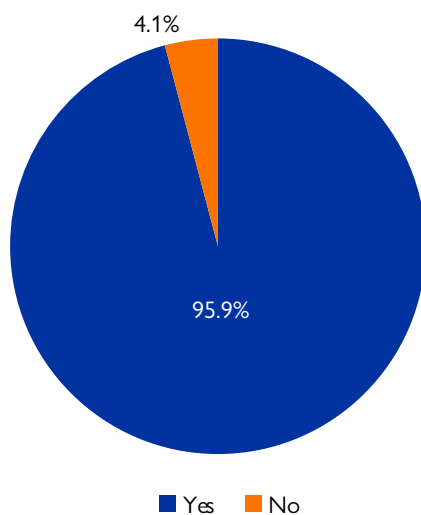


Figure 43 shows that almost 96 per cent of respondents knew where to get tested for hepatitis B, hepatitis C, dengue fever, or malaria.

Figure 44. Testing results

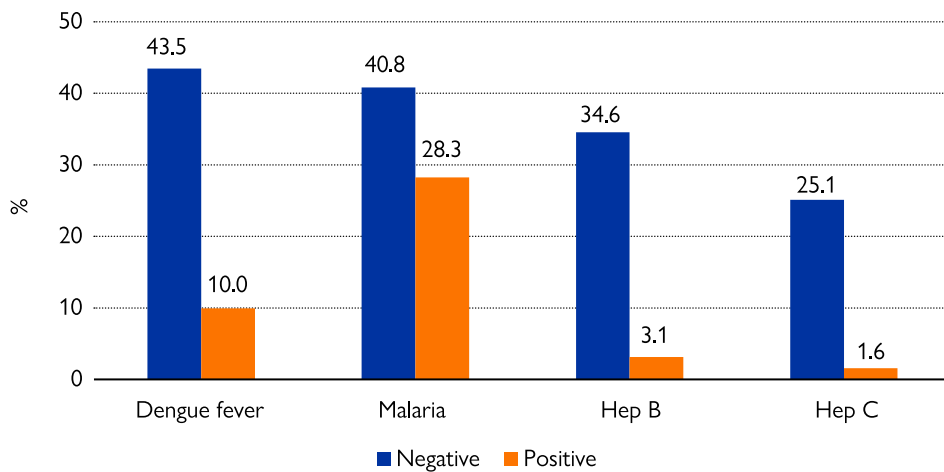


Figure 44 shows respondents reported test results for each of the four infectious diseases in question. Of the respondents who had been tested, 28.1 per cent had been positive for malaria, 10 per cent for dengue fever, 3.1 per cent for hepatitis B and 1.6 per cent for hepatitis C.

Figure 45. Treatment for positive cases (n = 75)

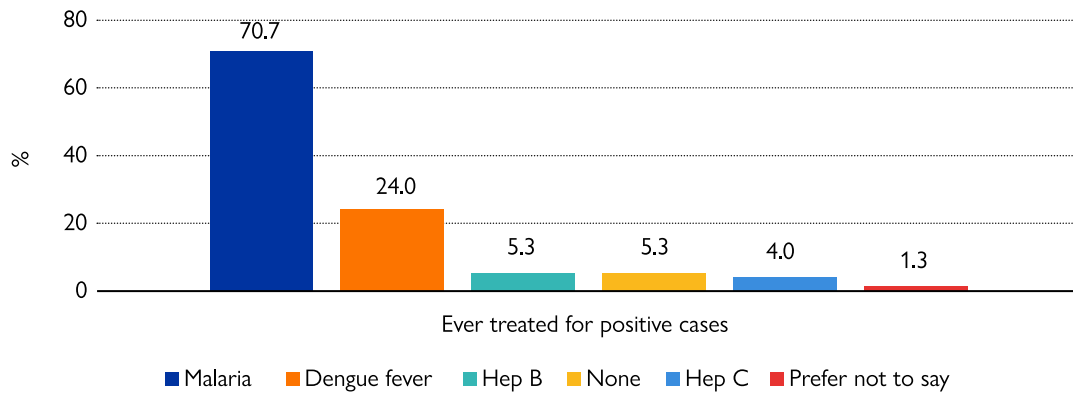


Figure 45 shows that, among the positive results of infectious-disease test, approximately 70 per cent had received treatment for malaria and 24 per cent had received treatment for dengue fever, while only about 5 per cent and 4 per cent had received treatment for hepatitis B and hepatitis C, respectively. About 5 per cent had not received treatment at all for any diseases.

Figure 46. Treatment challenges for malaria, dengue fever, hepatitis B and hepatitis C (n = 75)

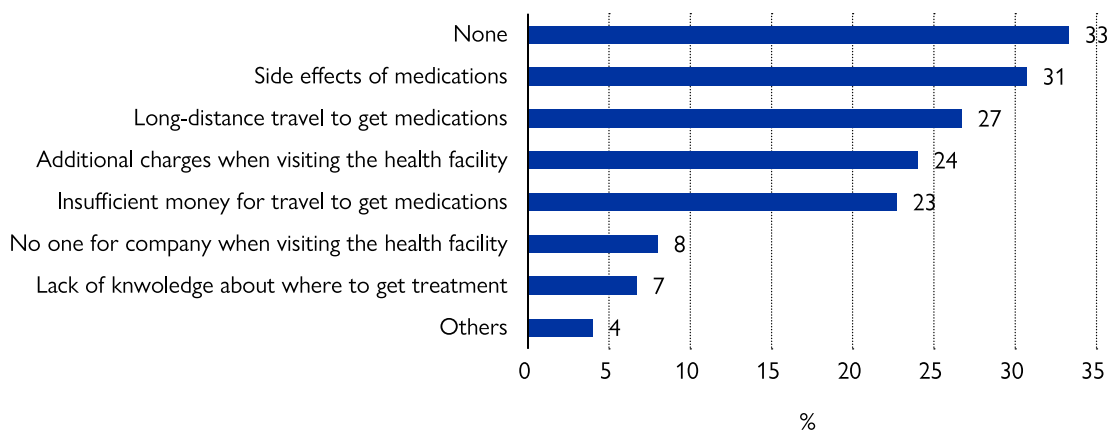


Figure 46 shows the challenges faced by respondents when being treated for the four diseases in question. Of the 75 respondents, 31 per cent said side effects from medication were a challenge. Other challenges were long-distance travel to obtain medications (27%) and additional charges when visiting a health facility (24%), followed by having insufficient money to travel to obtain medications (23%). In addition, 8 per cent reported having no support person to accompany them to health facilities, and 7 per cent had no idea where to go for treatment.

Figure 47. Family members having had malaria, dengue fever, hepatitis B or hepatitis C (n = 462)

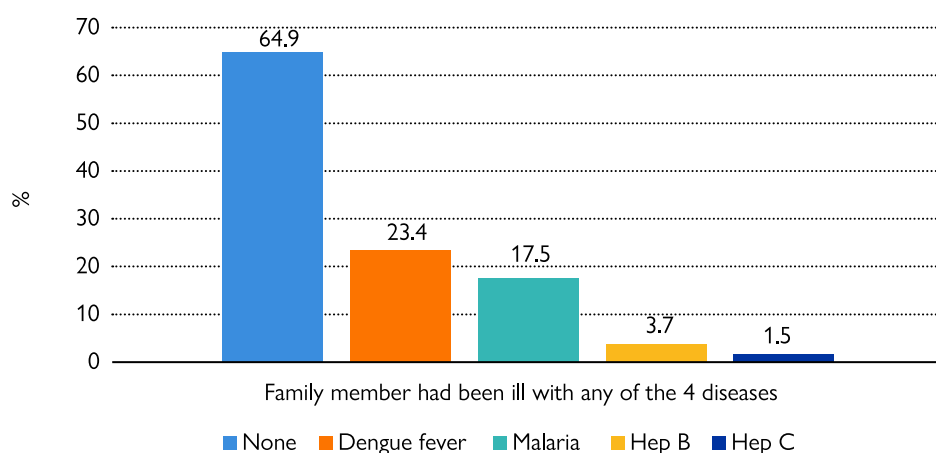


Figure 47 shows whether respondents reported having family members who had caught any of the four diseases in question. Of the 462 respondents, about 65 per cent said none of their family members had been ill. Family cases of dengue fever, malaria, hepatitis B, and hepatitis C accounted for 23.4, 17.5, 3.7, and 1.5 per cent of responses, respectively.

5. Engagement of MMPs and other stakeholders in HIV/TB interventions

Table 9 shows respondents' awareness of institutional engagement in preventing the six infectious diseases in their community. The most frequently cited mechanisms engaging in the prevention of HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever and/or malaria in the MMP community were mainly local media, HCs/RHs, social media and the local community, at respective rates of 85.7, 79.4, 67.5 and 66 per cent, respectively. Next in the respondents' ranking were NGOs, co-workers, MMPs themselves and local schools at rates of 52, 49.6, 49.6 and 48.1 per cent, respectively.

Table 9. Awareness of institutions engaging in preventions of HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever, and malaria in the community (n = 462)

Institution	Yes	No	Not sure
Local media	85.7%	7.1%	7.1%
Health centre/Referral hospital	79.4%	11.0%	9.5%
Social media network	67.5%	20.6%	11.9%
Local community	65.8%	22.1%	12.1%
NGO	52.0%	32.7%	15.4%
Yourself	49.6%	48.3%	2.2%
Co-workers	49.6%	45.7%	4.8%
Local school	48.1%	34.2%	17.8%
CCWC	33.8%	46.1%	20.1%
Team leader	30.1%	64.1%	5.8%
Border officers	28.6%	50.9%	20.6%
Department of Labour	21.7%	56.9%	21.4%
Identification department	17.5%	61.3%	21.2%

Institution	Yes	No	Not sure
Immigration department	16.0%	56.7%	27.3%
Department of Social Affairs	10.8%	61.9%	27.3%
Others	5.2%	91.6%	3.3%

Figure 48. Best-perceived transmission of educational messages on HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever, and malaria

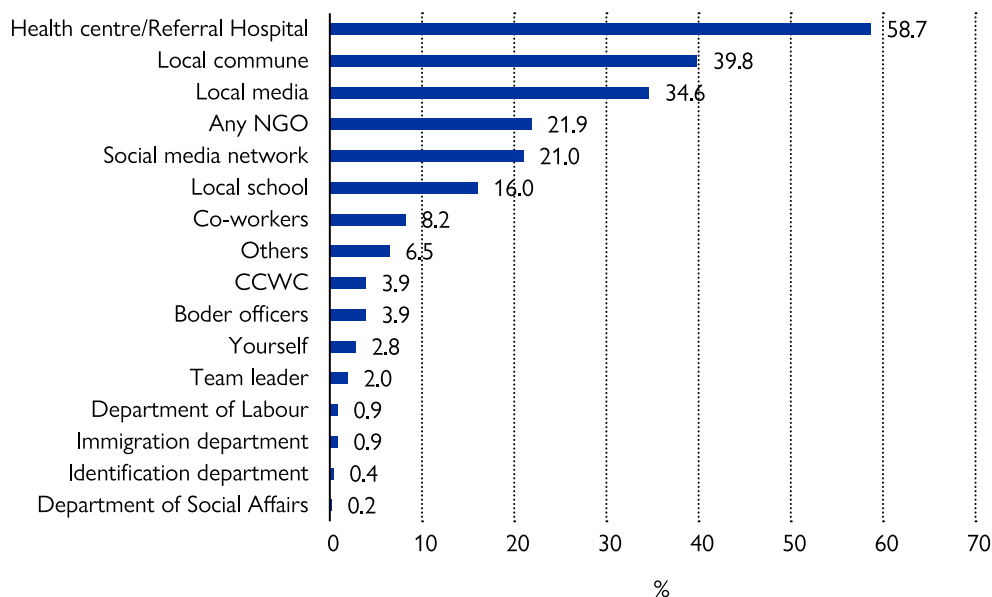


Figure 48 shows respondents' perception of which institutions best transmit messages on the six diseases. The top three institutions were health centres/referral hospitals (58.7%), local communities (39.8%) and local media (34.6%). Other notable institutions include NGOs, social media, local schools and co-workers.

Figure 49. Perceived relevance social-media channels for communicating educational messages on HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever, and malaria (n = 312)

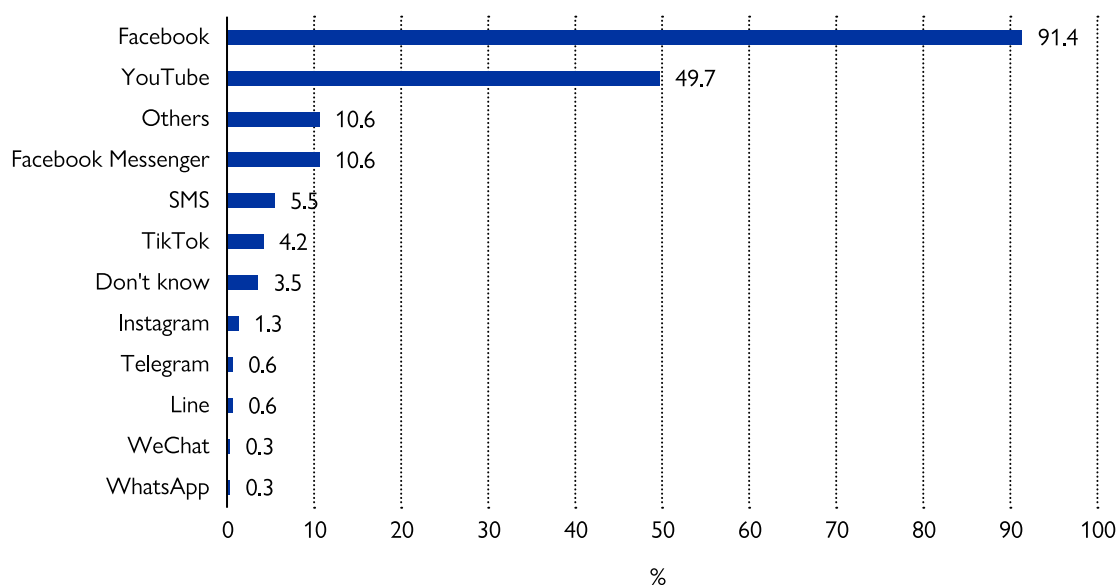


Figure 49 shows which social-media channels respondents perceive as most relevant for communicating educational messages about the six diseases in question. Over 90 per cent of respondents said Facebook, about 50 per cent chose YouTube and about 10 per cent chose Facebook Messenger (multiple answers were possible).

Figure 50. Most relevant ways to communicate on HIV/AIDS, TB, hepatitis B, hepatitis C, dengue fever and malaria messages to MMPs

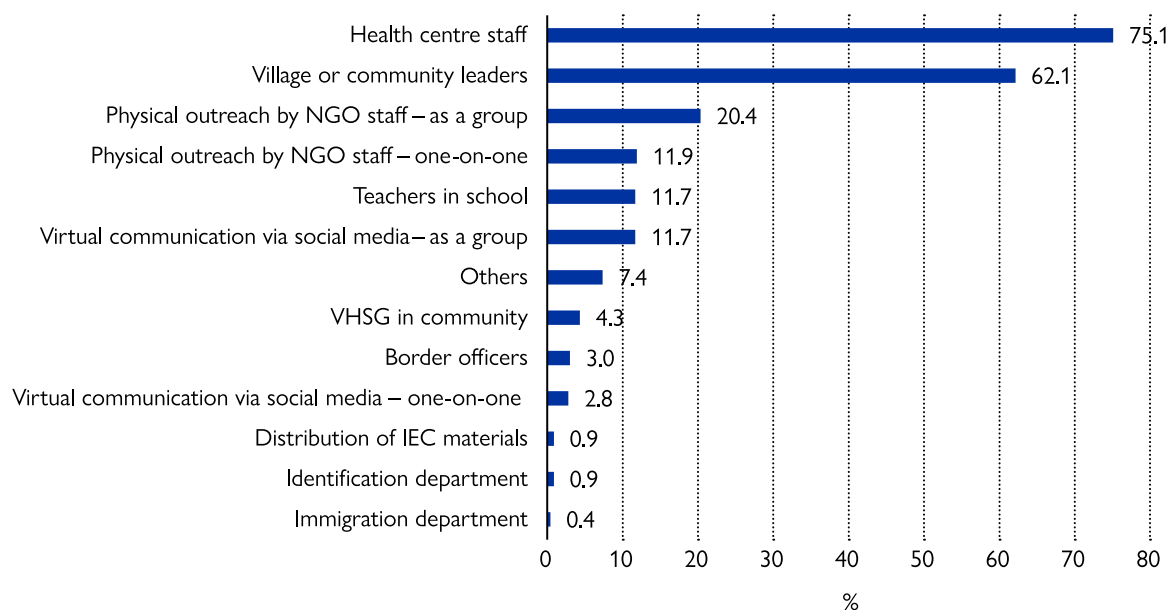


Figure 50 shows the methods of communicating educational messages about the six diseases perceived as most relevant by respondents. About 75 per cent chose health centres and about 62 per cent chose village or community leaders, while 20 per cent of respondents chose physical outreach by NGO staff.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

Overall, this study provides valuable insights into the knowledge, attitudes, and practices of 462 MMPs from five Cambodian provinces with respect to HIV/AIDS, TB, and other infectious diseases (hepatitis B, hepatitis C, dengue fever and malaria). The findings reveal that while most respondents have heard of these diseases, there are significant gaps in their understanding, attitudes and behaviours, indicating the need for targeted health education and awareness programmes.

There were significant misconceptions among the respondents regarding the transmission of these diseases. Due to decreased funding for HIV programmes and deep-rooted cultural beliefs, these misunderstandings may have been attributed to a reduction in educational programmes. To address these misconceptions and promote accurate information, culturally sensitive and evidence-based educational campaigns are essential.

Furthermore, this report emphasizes the concerning issue of low testing rates for diseases such as malaria, dengue fever, hepatitis B and hepatitis C, with many respondents having never been tested for any of these diseases. To ensure early detection and treatment of these conditions, it is essential to implement accessible and affordable testing and screening programmes.

Furthermore, the research identifies the most effective community engagement mechanisms and institutions to convey educational messages, with health centres/research hospitals, local media, and local communities ranking the highest in effectiveness. Social media platforms such as Facebook and YouTube were identified as preferred communication channels, indicating the potential for leveraging digital technologies to enhance the reach and effectiveness of health interventions.

This study also illustrates the problem of disrupted adherence to TB treatment and care, as well as evidence of discrimination against TB-infected individuals in MMP communities. In light of these findings, it is imperative that interventions be implemented that address stigma and promote social inclusion, while also ensuring continuity of care for individuals who have been affected by mental health issues.

This study highlights the urgent need for improved education, awareness campaigns, and community engagement to address the knowledge gaps and misconceptions regarding infectious diseases among MMPs. Health interventions targeting this vulnerable population can be improved by leveraging both traditional and digital channels, as well as by creating a supportive environment that encourages accurate information and social inclusion.

B. RECOMMENDATIONS

This study aims to contribute to target relevant policymakers and ministries that can contribute to the use of the National Policy on Migrant Health as the roadmap for national and subnational health care facilities such as the Ministry of Health (MoH), Ministry of Interior (Mol), Ministry of labor Vocational Training (MoLVT), Ministry of Social Affairs Veterans and Youth Rehabilitation (MoSVY), Ministry of Women Affairs (MoWA), as well as other institutions and health development partners that find importance in migrants having access to health services. These target audiences should all, within their remits:

1. IOM: work with close partners⁹ to urge the Cambodian MoH to put MMP issues on the agenda of relevant Technical Working Group (TWG)¹⁰ meetings.
2. Normalize relationships between stakeholders (e.g. NAA, NCHADS, CENAT, CDC/MoH, NMC, relevant provincial health departments, operational districts, HCs, and the community) where MMPs are predominant for effective reactivation of programme activities and related planning or policy development at national and subnational level).
3. Establish regular connections between IOM/partners and relevant local mechanisms, namely NGOs, HIV counsellors, VHSGs, malaria focal points in the affected MMP communities to effectively get regular updates about MMPs vis-à-vis the six diseases¹¹ for possible intervention at the community level.
4. IOM: consider maximizing integration of key educational messages in whatever ways are available, such as educational outreach activities by the malaria focal point, vaccination programmes or TB programmes. To make this possible and sustainable, regular communication should be established between IOM and the high-level management of HIV/AIDS programmes, TB programmes, malaria programmes, vaccination programmes, and so on.
5. IOM: discuss with NAA, NCHADS, CENAT and CNM to consider supporting VHSGs (which are usually low in costs) and their educational activities in high-prevalence or busy communities.
6. Where possible and applicable, explore and invest in the use of social media and communication technologies¹² to: (a) provide information and educational message on HIV/TB and other infectious diseases to MMPs using an attractive application¹³ and (b) enable MMPs to share their feedback on services received and their immediate needs.
7. IOM and other development partners: consider developing attractive (hard copy) leaflets and booklets showing key educational messages targeting MMPs and covering HIV/TB and the four other diseases in question. These should be distributed and explained to MMPs during educational sessions to be performed by VHSGs or volunteers.¹⁴
8. IOM, with facilitation by NAA, NCHADS, NMC, and CENAT: consider establishing one MMP focal point per province (at least in high-prevalence provinces; in addition to the IOM focal point) whose role will be to mediate connections between their MMP community and the IOM focal point, the government system (RH/HC) or NGOs that are providing treatment services or prevention activities. Considerable support should be provided to encourage this person to fulfill their assigned roles. Selected MMP focal points from each province (four or

⁹ e.g. NAA, NCHADS, CENAT, CDC/MoH, NMC and NGOs.

¹⁰ Especially the TWG on Migration. This recommendation is very relevant and very strategic in a sense that if successful, all forms of interventions amongst MMPs in the future will be efficient and smooth.

¹¹ These people could serve not only as watchdogs to monitor the situation and movement of MMPs but also as day-to-day communicators who could help convey key messages on ways to prevent the six diseases in question and on how/where to get tested, treated, etc.

¹² Especially Facebook and Telegram.

¹³ Note that an app called សុខភាពប្រចាំថ្ងៃ (Daily Health) has been working well and is very well known.

¹⁴ Educational materials should use pictures more than words (as many MMPs might not be able to read). When developing educational materials including apps, it is important to focus on the most-at-risk migrant workers (as in the HIV/AIDS sector) as this will improve the efficiency of interventions.

five in total) should have direct contact with IOM staff (e.g. via Telegram) and report to IOM on a regular basis.¹⁵

9. Promote collaboration between IOM and its partners (NAA, NCHADS, CENAT, NMC, CDC/MoH) to facilitate participation by MMP focal points in relevant policy and programming efforts (e.g. by including them in related working groups,¹⁶ the Health Center Management Committee meeting¹⁷ or Community Council Committee meetings¹⁸).
10. Update the CDC and MoH on the findings linked to hepatitis B and hepatitis C for possible reflection and adjustment of relevant policies, guidelines and programming activities.
11. IOM: consider doing more research among MMPs covering other areas such non-communicable diseases, mental health, the impact of mobility on MMP children, social security of MMPs, and so on.
12. IOM: present this research's findings and recommendations to relevant institutions and partners (including local authorities and MMP communities) to make sure they are fully aware of the critical situation and the current status of MMPs' knowledge, attitudes and practices related to HIV/AIDS/TB and the four infectious diseases in question.

¹⁵ Specific tools to guide reporting should be produced, including IOM indicators.

¹⁶ One of which has been organized and running for some time – with involvement of different government staff including from the MoH.

¹⁷ Only in high-prevalence provinces.

¹⁸ Ibid.

HIV/AIDS

1. Thanks to NCHADS support, the registration and getting treatment are smooth. We have good database records of patients; we will call them if they do not come to get medicines as expected. There was a case who denied the positive result of the blood test.¹⁹ Health centre staff in charge of HIV/AIDS in Prey Veng.
2. For us, because we don't have enough staff, we opened only in the afternoon²⁰ (from Monday to Friday). Health centre staff in charge of HIV/AIDS in Prey Veng.
3. There were cases that we sent medicines through relative to the patients who are working outside of Cambodia. Treatment abandon has increased during the COVID-19 pandemic. Health centre staff in charge of HIV/AIDS in Prey Veng.
4. There was a case of MSM who refused to come for blood test confirmation. There was also case that could not be contacted as he/she worked abroad.²¹ Health centre staff in charge of HIV/AIDS in Banteay Meanchey.
5. Coming to the HC is difficult for the patient because the appointment date is not the same as the date when that person is supposed to get paid.²² Another challenge is that people could not get permission (to enable him/her to come to the HC) from the workplace.²³ If he/she declare that he/she is infected with HIV, the workplace will cut the salary.²⁴ Health centre staff in charge of HIV/AIDS in Banteay Meanchey.
6. Another challenge related to people who are working and ended up in jail in Thailand. The treatment has completely stopped.²⁵ Health centre staff in charge of HIV/AIDS in Svay Rieng.
7. There was a case that we need to send medicines through transport company to the patient in Thailand. For this case, it is difficult to find his/her partners; and the partners might refuse to come and do blood test.²⁶ Health centre staff in charge of HIV/AIDS in Battambang.
8. I have shared information on HIV/AIDS through Facebook but there is no single person who liked it.²⁷ RH Battambang.
9. 40% might understand about the way to prevent themselves from HIV; the remaining 60% might not know it and are careless in preventing themselves from infection. They are lacking education. About 50% of the ethnic minority believe in religion, culture and spirit. Immigration officer, Stung Treng (HIV).
10. People do not have any phone, nor TV or radio. Most of them leave home for work early in the morning and only return home in late afternoon. When the local authorities do educational activities, they were not there (at the village), so they missed the session. Immigration officer, Stung Treng (HIV).
11. Challenges for me are long distance travelling, lack of money for travelling and for meals when travelling. Health staff are friendly, the facility is good enough, the medicines are enough and I met my doctor at every appointment. The ID poor can help me to cover about 50% of the total cost. MMP, Kamrieng Battambang (HIV).
12. VHSg helped me to fill up the registration paper; and they also visited me a home too. MMP, Svay Rieng (HIV).

¹⁹ Health centre staff in charge of HIV/AIDS in Prey Veng.

²⁰ To receive PLHIV.

²¹ Health centre staff in charge of HIV/AIDS in Banteay Meanchey.

²² Meaning he/she does not have money to travel to the HC – which implies that he/she is indeed very poor.

²³ Because the manager does not always accept request for a day off.

²⁴ Sometimes, the manager will stop them from working.

²⁵ Health centre staff in charge of HIV/AIDS in Svay Rieng.

²⁶ Health centre staff in charge of HIV/AIDS in Battambang.

²⁷ RH Battambang (File 34 – page 2).

TB

13. The registration and provision of TB medicines went well.²⁸ Health centre staff in charge of TB in Banteay Meanchey.
14. We have VHSG who could help to collect sputum at the household; and our HC is able to examine the sputum and to do lung X-ray.²⁹ TB patient does not need to wait and they are given the priority to get service before other people.³⁰ Health centre staff in charge of TB in Svay Rieng.
15. Sometimes, the VHSG could also help to get medicines for TB patient who could not come to the HC – especially elderly.³¹ There was also case who could not come to get medicines because he/she has not got the monthly payment; and he/she asked for someone to get for him/her. (Those VHSGs are supported by Catholic Relief Service). Health centre staff in charge of TB in Battambang.
16. There were cases of TB treatment interruption because MMPs moved to work in Thailand, and they did not have supporting documents.³² Health centre staff in charge of TB in Battambang.
17. They don't want to come to do the test (TB) because they felt ashamed and they trust in themselves. Health Centre Chrey, Prey Veng (TB).
18. They don't want to come because they don't have means for travelling; don't have sufficient money for travelling; the road is far for them. Some are illiterate and they need to ask many people before they could find the right service. Health Centre Chrey, Prey Veng (TB).
19. Many of them still believe that TB is a hereditary illness and cannot be treated. Others fear discrimination while other only want to concentrate on their daily work for their income. Health Centre Chrey, Prey Veng (TB).
20. When they only felt mildly ill, they went to buy medicines from the pharmacy. Only when they don't feel better when they will decide to go to the hospital for a sputum check or X-ray. Immigration officer Stung Treng (TB).
21. The reason why they don't want to go to the hospital is because they felt ashamed and fear of discrimination. There are also other reasons such as discrimination, the lack of money for travelling, they need to borrow money from the company (they are working with) that will need to be returned later. Immigration officer, Stung Treng (TB).

Dengue fever

22. MMPs having dengue fever will receive special care by HC, and they will be referred to the referral hospital if found having this disease. We are experiencing difficulty for some MMPs who had been treated in Thailand or Viet Nam because the treatment records are written in Thai or Viet Nam that we could not read.³³ Health centre staff in charge of dengue fever Prey Veng.
23. When I was sick the first time, I was treated at a clinic for ten days. The doctor treated me well and gave me drip. When I was sick the second time, I went to the same clinic and I rested there for twenty days for the treatment. MMP (Dengue fever) Prey Veng.

²⁸ Health centre staff in charge of TB in Banteay Meanchey.

²⁹ Health centre staff in charge of TB in Svay Rieng.

³⁰ Health centre staff in charge of TB in Svay Rieng.

³¹ Battambang.

³² Battambang.

³³ Prey Veng.

Malaria

24. Now our lab is able to perform blood check as we have enough reagents, thanks to NGOs support; but in the past (2018 and 2019) we run out of the reagents. The registration went well; and there was no abandon case. We closely followed up with the patients.³⁴ Health centre staff in charge of Malaria, Stung Treng.

Hepatitis B and Hepatitis C

No quotes were related to Hepatitis B or C because most of the MMPs who attended the interviews were not familiar with those diseases; other stakeholders who joined mostly knew about TB, HIV/AIDS and Malaria.

REFERENCES*

- Acosta, C.D., D.N. Kaluski and M. Dara (2014). [Conflict and drug-resistant tuberculosis in Ukraine](#). *The Lancet*, 384:1500–1501.
- Asian Development Bank (ADB) and International Labour Organization (ILO) (2015). [Cambodia Addressing the Skills Gap: Employment Diagnostic Study](#).
- Coalition for Global Hepatitis Elimination (CGHE) (2019). [Data dashboards – Cambodia](#).
- Cousien, A., J. Ledien, K. Souv, R. Leang, R. Huy, D. Fontenille, S. Ly, V. Duong, P. Dussart, P. Piola, S. Cauchemez and A. Tarantola (2019). [Predicting dengue outbreaks in Cambodia](#). *Emerging Infectious Diseases*, 25(12):2281–2283.
- International Organization for Migration (IOM) (2012). [Migration and Tuberculosis: A Pressing Issue](#). Migration and health position paper series.
- IOM (2015). [IOM Data Protection Manual](#).
- IOM (2018). [Situational Assessment of Migrants' Health Cambodia](#) (internal resource).
- IOM (2019). [Glossary on Migration](#). International Migration Law No. 34.
- Joint United Nations Programme on HIV/AIDS (UNAIDS) (2014). [The Gap Report](#).
- National Center for Parasitology Entomology and Malaria Control (CNM) (2021). [របាយការណ៍សមិទ្ធផលការងារមជ្ឈមណ្ឌលជាតិប្រយុទ្ធនឹងជំងឺគ្រុនចាញ់ ប៉ារ៉ាស៊ីតសាស្ត្រ និងបាណកសាស្ត្រ ឆ្នាំ២០២១ និងទិសដៅការងារ ឆ្នាំ២០២២](#) [Malaria achievements 2021 and way forward 2022], pp. 38 and 44.
- National Committee Combating Trafficking (NCCT) (2021). [របាយការណ៍សមិទ្ធផលការងារមជ្ឈមណ្ឌលជាតិប្រយុទ្ធនឹងជំងឺគ្រុនចាញ់ ប៉ារ៉ាស៊ីតសាស្ត្រ និងបាណកសាស្ត្រ ឆ្នាំ២០២១ និងទិសដៅការងារ ឆ្នាំ២០២២](#) [Annual Report on Result of Combatting Trafficking in 2021 and Way Forward in 2022].
- National Institute of Statistics (NIS) (2013a). [Cambodia Socio-Economic Survey 2013](#).
- NIS (2013b). [Cambodia Inter-Censal Population Survey 2013](#).
- Ko, K., K. Takahashi, S. Nagashima, C. Yamamoto, V. Ork, A. Sugiyama, T. Akita, M. Ohisa, C. Chuon, Md. S. Hossain, B. Mao and J. Tanaka (2020). [Existence of hepatitis B virus surface protein mutations and other variants: Demand for hepatitis B infection control in Cambodia](#). *BMC Infectious Diseases*, 20(1).
- Pan American Health Organization (PAHO) (2018). [Health of refugees and migrants: Regional situation analysis, practices, experiences, lessons learned, and ways forward](#).
- Silverman, J.G., M.R. Decker, H.L. McCauley and K.P. Mack (2009). [A regional assessment of sex trafficking and STI/HIV in Southeast Asia: connections between sexual exploitation, violence and sexual risk](#). UNDP, Colombo.
- United Nations Children's Fund (UNICEF) (2006). [Monitoring The Situation of Children and Women. Multiple Indicator Cluster Survey Manual 2005](#).
- United Nations Department of Economic and Social Affairs (DESA) (2020). [World Social Report 2020](#).

*All hyperlinks were active at the time of writing this report.

United Nations Development Program (UNDP), Joint United Nations Initiative on Mobility, Health and HIV in Asia (JUNIMA) and ADB (2012). [Meeting report: Consultation on the Memorandum of Understanding to Reduce HIV Vulnerability Associated with Population Movement](#). Bangkok, 11–13 July 2012.

United Nations Educational, Scientific and Cultural Organization (UNESCO) (2018). [Policy Briefs on Internal Migration in Southeast Asia: Overview of Internal Migration in Cambodia](#).

World Health Organization (WHO) (2017). [Population mobility and malaria](#).

WHO (2020a). [Global Tuberculosis report 2020](#). Available at: [Global tuberculosis report 2020 \(who.int\)](#).

WHO (2020b). [Mekong Malaria Elimination: Epidemiology Summary, Volume 11, July-September 2020](#).

WHO (2021a). [WHO releases new global lists of high-burden countries for TB, HIV-associated TB and drug-resistant TB](#).

WHO (2021b). [Update on the Dengue situation in the Western Pacific Region](#).

