Department of Narcotics Control

ESTIMATION OF THE NUMBER AND CATEGORY OF PERSONS ABUSING DRUGS AND ASSOCIATED FACTORS

A NATIONWIDE STUDY IN BANGLADESH

Department of Virology
BANGLADESH MEDICAL UNIVERSITY

RESEARCH AND MANAGEMENT CONSULTANTS

June 2025

Report

Estimation of the Number and Category of Persons Abusing Drugs and Associated Factors: A Nationwide Study in Bangladesh

Department of Narcotics Control (DNC)

Ministry of Home Affairs

Government of the People's Republic of Bangladesh

Study Conducted by

Bangladesh Medical University (BMU)

Research and Management Consultants Ltd. (RMCL)

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Implemented by

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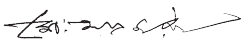
Message of Director General

Drug abuse remains one of the most pressing public health and social challenges Bangladesh has been facing nowadays. The increasing prevalence of drug abuse particularly among the young people threatens not only individual health and well-being but also the social fabric and economic progress of our nation. The Department of Narcotics Control (DNC), under the Ministry of Home Affairs, has remained steadfast in its commitment to curbing the spread of illicit drugs and ensuring a safer, healthier Bangladesh.

In line with our evidence-based approach to policy and intervention, we are proud to present the findings of this nationwide study on the estimation of drug abusers and associated factors, undertaken in collaboration with the Bangladesh Medical University (BMU) and Research and Management Consultants Ltd. (RMCL). This comprehensive research provides valuable insights into the scope, trends, and underlying causes of drug abuse across urban and rural areas, including vulnerable and hard-to-reach populations.

The findings of this study will play a crucial role in guiding the formulation of effective prevention strategies, treatment programs, rehabilitation services, and community-based interventions. I would like to express my heartfelt appreciation to the research team, field investigators, partner institutions, and all participants whose efforts and contributions made this study possible.

Let us now move forward with a renewed sense of purpose and collaboration to build a future where every citizen, especially our youth, can thrive in a drug-free society.



Md. Hasan Maruf
Director General
Department of Narcotics Control (DNC)
Ministry of Home Affairs
Government of the People's Republic of Bangladesh

Acknowledgment

We extend our deepest gratitude to all those who made this nationwide study possible. This endeavor, aiming to estimate the number and category of persons abusing drugs and analyze the associated factors across Bangladesh, would not have been successful without the contributions, cooperation, and commitment of a wide array of individuals and institutions.

First and foremost, we are sincerely grateful to the Department of Narcotics Control (DNC) under the Ministry of Home Affairs, Government of the People's Republic of Bangladesh, for commissioning and guiding this important research initiative. We especially acknowledge the visionary leadership and continuous support of Md. Hasan Maruf, Director General (DG), DNC, whose guidance and encouragement significantly shaped the direction and depth of this study. The technical team at DNC provided valuable input throughout the planning, training of the field research team and data collection phases.

Special thanks are due to the enumerators, field supervisors, and data analysts, who worked tirelessly across urban and rural settings, often under challenging conditions, to collect quality data. Their dedication ensured the robustness of our quantitative and qualitative findings. We also wish to recognize the Department of Narcotics Control's district officials, local law enforcement agencies, healthcare providers, detoxification centers, and the leadership of community- based organizations (CBOs) who facilitated access and cooperation at the local level. Our deepest appreciation goes to the study participants - people who use drugs, community members, and key informants who shared their lived experiences, perspectives, and insights with honesty and courage. Without their participation and openness, the study would not have been possible.

We are grateful to all reviewers, stakeholders, and partners who provided feedback at various stages of the study. Their suggestions enhanced the clarity and policy relevance of the final report.

This acknowledgment would remain incomplete without recognizing the collective effort and spirit of collaboration that this study represents. We hope the findings will meaningfully contribute to data-driven policy and targeted interventions in addressing substance abuse in Bangladesh

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Table of Contents

List of Tables

List of Figures

Abbreviations

BDT	Bangladeshi Taka
BMU	Bangladesh Medical University
CBO	Community-Based Organization
CRC	Capture-Recapture
DNC	Department of Narcotics Control
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
IDI	In-Depth Interview
KII	Key Informant Interview
LSD	Lysergic Acid Diethylamide
MoHA	Ministry of Home Affairs
NGO	Non-Governmental Organization
NSUM	Network Scale-Up Method
PWUD	People Who Use Drugs
RFA	Rapid Field Assessment
RMCL	Research and Management Consultants Ltd.
SDG	Sustainable Development Goals
SOP	Standard Operating Procedure
SPSS	Statistical Package for the Social Sciences
STI	Sexually Transmitted Infection
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization

Glossary

Drug abuse	The use of a substance under international control for non-medical purposes within last one year is considered drug abuse.
Drug dependency	A cluster of physiological, behavioral, and cognitive phenomena where the use of a substance takes a higher priority than other behaviors, despite harmful consequences.
Harm reduction	A public health strategy aimed at minimizing the adverse health, social, and legal impacts associated with drug abuse, without necessarily requiring cessation of drug abuse.
Illicit drugs	Substances whose production, distribution, or use is prohibited by law, including heroin, cannabis, methamphetamine + Caffeine, lsd, ice, and others.
Network scale-up method (NSUM)	An indirect estimation method used to determine the size of hidden populations by asking members of the general population how many people they know who belong to the target population.
People who use drugs (PWUD)	Individuals who consume one or more psychoactive substances through various routes such as inhalation, injection, ingestion, or smoking, regardless of frequency or dependence.
People who Inject Drugs (PWID)	The practice of administering drugs directly into the bloodstream or body tissues using a syringe and needle.
Poly-drug abuse	The concurrent or sequential use of more than one drug or type of drug by an individual, either knowingly or unknowingly.
Stigma and discrimination	Negative attitudes and behaviors directed at individuals based on their drug abuse status.
Treatment and rehabilitation	Comprehensive medical, psychological, and social services designed to help individuals overcome drug dependency.

Executive Summary

Illicit drug abuse poses a growing public health and socio-economic challenge in Bangladesh, affecting individuals, families, and communities across all regions and social classes. The increasing domestic consumption of narcotics, including cannabis, methamphetamine (Yaba), heroin, codeine phosphate, sedatives, and synthetic substances such as LSD and ice, has become a matter of urgent national concern. Despite the severity of the problem, there has been a lack of comprehensive, nationally representative data to guide effective policies and programs.

In response to this evidence gap, the Department of Narcotics Control (DNC), under the Ministry of Home Affairs, commissioned a nationwide study in collaboration with Department of Virology, Bangladesh Medical University (BMU) and Research and Management Consultants Ltd. (RMCL). The objective of this study was to estimate the number and category of individuals who abuse drugs in Bangladesh and to identify the socio-demographic and behavioral factors associated with substance use. The study sought to generate a foundational evidence base to support the design of targeted, data-driven prevention, treatment, rehabilitation, and harm reduction strategies.

The study adopted a mixed-methods design that integrated both quantitative and qualitative approaches. The Network Scale-Up Method (NSUM) was employed to estimate the prevalence of illicit drug abuser in Bangladesh. The study was conducted in 13 districts and 26 upazilas across all eight divisions of Bangladesh. A total of 5,351 general population respondents participated in the survey using the Network Scale-Up Method (NSUM), which estimated hidden populations through social network data.

To determine the socio-demographic and behavioral factors associated with substance use, structured interviews were conducted with 3,468 identified drug abusers (from 13 districts and 26 upazilas). Additionally, the study included 34 in-depth interviews (IDIs), 26 focus group discussions (FGDs), and 59 key informant interviews (KIIs) to understand lived experiences and institutional perspectives.

The findings reveal that the estimated national prevalence of illicit drug abuse in Bangladesh is 4.88%, indicating that approximately 8.3 million individuals are engaged in illicit drug abuse. Prevalence was highest in Mymensingh (6.02%), Rangpur (6.00%), and Chattogram (5.50%) divisions, while Rajshahi (2.72%) and Khulna (4.08%) had the lowest, indicating regional variability in both access to and patterns of illicit drug abuse. Cannabis (3.58%) was the most widely consumed substance, followed by methamphetamine (Yaba) (1.35%), alcohol (1.19%), and Codeine phosphate (0.20%). Injecting drug abuse remained low at 0.023%, and the substances like LSD (0.003%), ice (0.007%), and cocaine (0.008%) had very minimal use.

The patterns of drug abuse revealed that the majority of users (59.2%) initiated illicit drug consumption between the ages of 18 and 25. Oral consumption (%) and inhalation (%) were the most common initial methods of drug administration. Most users cited dealers and peer networks as the primary sources of drugs. Alarmingly, 88.6% reported easy access to drugs, reflecting the efficiency and pervasiveness of local distribution networks. Financing of drug abuse was primarily through personal earnings, but borrowing, theft, and exploitative means such as begging and sex work were also reported. Daily expenditure on drugs ranged between BDT 100 to 300, highlighting the economic burden on low-income users.

Access to treatment services was found to be significantly limited. Only 13.2% of people who use illicit drugs had ever received any form of detoxification treatment or rehabilitation. While 51.7% of respondents reported having attempted to quit drug abuse either on their own or through institutional support, the primary reasons included family pressure (46.2%), self-motivation (30.7%) and health concerns (19.0%). The respondents expressed the need for rehabilitation services (69.0%), counseling support (61.9%), and a combination of treatment and job assistance (41.2%).

The study concludes that drug abuse in Bangladesh is both widespread and deeply rooted in socio-economic and structural conditions. The dominant punitive approach, which relies on law enforcement and imprisonment, has shown limited effectiveness in addressing the complex realities of drug abuse. Therefore, a paradigm shift toward a public health and rights-based approach is essential.

Based on the study findings, the key recommendations are proposed to address the problem in Bangladesh. The recommendations include expanding accessible and inclusive treatment and rehabilitation services for all types of illicit drug abusers and increasing coverage of opioid substitution therapy (OST) and harm reduction strategies like needle-syringe exchange programs for Injecting drug abusers, and strengthening prevention efforts targeting education institutes and accessible mental health support. Economic vulnerabilities must be addressed through skill training, livelihood, and social protection programs, while stigma should be reduced via awareness campaigns and family counseling. Staff in law enforcement agencies should be trained on human rights and drug dependence. Capacity-building for service providers and community organizations is essential, alongside the formation of a multi-sectoral national taskforce with dedicated funding for coordinated implementation.

There is no gold standard method for estimating the prevalence of drug abuse. The limitation of the NSUM used for hidden populations' size estimation are that respondents may under or over report the number of people they know using drugs. The other limitations of this study may include self-reporting biases and issues with geographic representativeness. Despite these limitations, the study provides a strong, evidence-based platform for transforming Bangladesh's response to drug abuse. The findings are intended to facilitate the national planning processes, support the development of a comprehensive national drug policy, and guide interventions by government, NGOs, and international development partners.

Section 1: Introduction

1.1 Background and Rationale

Substance use and drug dependency had emerged as pressing global health concerns, transcending geographic, socio-economic, and cultural boundaries. Drug abuse continues to be high worldwide. In 2021, 1 in every 17 people aged 15–64 in the world had used a drug in the past 12 months. The estimated number of users grew from 240 million in 2011 to 296 million in 2021 (5.8 per cent of the global population aged 15–64). This is a 23 percent increase, partly due to population growth. An estimated 39.5 million people worldwide were suffering from drug abuse disorders in 2021 [1]. Countries in the South Asian region, including Bangladesh, had not been immune to these challenges. Unfortunately, regional connectivity, shared borders, easy communication and mobile payment systems are badly plaguing our country to drugs, causing untold suffering in rural and urban areas [2].

Over the past few decades, Bangladesh has witnessed a notable increase in the availability and use of illicit drugs. For instance, in 2020, Bangladeshi law enforcement agencies seized over 3.6 million Methamphetamine (Yaba) tablets, indicating the scale of methamphetamine trafficking from neighboring Myanmar [2]. Although the issue of drug abuse was not new, the changing patterns of drug consumption, the emergence of newer psychoactive substances such as crystal meth (Ice), LSD (Lysergic Acid Diethylamide) and the increasing involvement of users among the youth and marginalized communities have exacerbated the urgency of the problem [3]. Drug dependency had been particularly alarming among adolescents and young adults of Bangladesh, making up the majority of drug-using populations. Various studies have reported that over 50% of Methamphetamine (Yaba) users in urban slums were under 25 years old [4]. Drug abuse among adolescents and young adults has been found to correlate strongly with unemployment, domestic violence, family breakdown, and limited access to mental health services [5]. In Dhaka's slum areas, youth describe substance use as a coping mechanism against hopelessness, boredom, and neglect [6].

Despite the increasing prevalence and complexity of drug-related issues in Bangladesh, there has been a glaring gap in nationally representative and methodologically robust data that could inform strategic policy responses. Previous assessments [6-8] were focused on small-scale, geographically limited, or focused on specific populations (e.g., people who inject drugs), which could not reflect the true national picture. The absence of comprehensive data had constrained evidence-based planning, prevented accurate estimation of service needs, and undermined the effectiveness of interventions.

The Ministry of Health and Family Welfare, Government of Bangladesh, in collaboration with Bangladesh Medical University, has conducted several studies on high-risk groups, including size estimation of people who inject drugs (PWID), HIV/STI prevalence and risk behaviors among them, and the status of illicit drug use in prison settings [6-8]. However, studies to estimate the size of illicit drug abusers in the general population in Bangladesh are scarce. A study in Dhaka's urban slums indicated that substance use is often perceived by young people as a coping mechanism against hopelessness, boredom, and social neglect, underscoring the deep-rooted socio-economic drivers of drug use in marginalized communities [9].

Recognizing these limitations, the Department of Narcotics Control (DNC) under the Ministry of Home Affairs initiated this nationwide study. The primary goal was to estimate the number of persons abusing drugs in Bangladesh, identify the types of substances being used, and analyze associated socio-demographic, geographic, and economic factors. The study aimed to serve as a foundational reference for national planning and coordination efforts on drug prevention, treatment, and harm reduction.

Given the multifaceted and sensitive nature of substance use, especially among hidden and stigmatized populations, the study employed mixed-method approaches combining quantitative surveys with qualitative interviews. It further integrated network scale-up techniques to generate accurate population estimates, addressing the challenges posed by the invisibility and marginalization of drug-abusing communities.

By building a comprehensive and disaggregated evidence base, the study sought to contribute meaningfully to drug policy discourse in Bangladesh

1.2 National Context of Drug Abuse in Bangladesh

Bangladesh's geographical location had placed it at a significant disadvantage in terms of its exposure to international drug trafficking networks. Sandwiched between the infamous "Golden Crescent" (Afghanistan, Iran, and Pakistan) and the "Golden Triangle" (Myanmar, Thailand, and Laos), Bangladesh had increasingly become a transit and destination country for the regional drug trade. This strategic positioning, coupled with more than 4,400 km of porous borders, has made the country vulnerable to transnational drug trafficking networks. Over the past two decades, Bangladesh has increasingly shifted from being a transit country to a significant consumer market for illicit drugs, particularly Methamphetamine (locally known as Yaba), heroin, and synthetic substances [2].

Methamphetamine (Yaba) has become the most trafficked and abused drug, smuggled largely from Myanmar through Cox's Bazar and Chattogram. In 2018 alone, Bangladeshi authorities seized over 53 million Methamphetamine (Yaba) tablets and despite an enhanced border surveillance, 3.6 million tablets were still seized in 2020 during the COVID-19 pandemic [10].

The easy availability of this potent stimulant had led to a significant increase in its use, particularly among urban youth, informal labor market, transport workers, sex workers, and returnee migrants.

Other widely used substances such as cannabis, heroin, codeine phosphate (a codeine-based cough syrup), and injectable narcotics had remained prevalent among drug abusers. In recent years, newer psychoactive substances such as Lysergic Acid Diethylamide (LSD) and crystal meth (Ice) have begun to emerge in elite and youth circles, reflecting a diversifying drug landscape. This trend raised serious health concerns, including the risk of overdose, the transmission of blood-borne diseases like HIV and Hepatitis B/C through shared injecting equipment, and the increased likelihood of mental health disorders.

Urban slums, refugee camps, and border districts had been particularly affected by high levels of drug abuse. In Dhaka, Chattogram, and other major cities, the proliferation of drug hotspots has overwhelmed both community safety and public health services. Refugee camps in Cox's Bazar, hosting nearly a million Rohingya refugees, are increasingly implicated as vulnerable zones for drug trafficking due to high population density, inadequate enforcement, and economic desperation [11].

On the supply side, the drug market in Bangladesh had been supported by both organized crime networks and loosely connected local syndicates. In some instances, the nexus between political patronage, criminal networks, and law enforcement complicity had enabled the continuity of drug flows and hindered effective enforcement. While law enforcement agencies had launched aggressive anti-narcotics operations, including special drives and border surveillance, the demand for drugs and the underlying socio-economic drivers of drug abuse had continued to challenge the sustainability of punitive approaches.

At the community level, stigma and discrimination had remained pervasive against people who use drugs. Social rejection, denial of employment, family exclusion, and fear of legal repercussions had discouraged many from seeking help. The situation is even more critical for women and adolescents, whose drug abuse is often hidden due to gender-based stigma, increasing their vulnerability to exploitation, violence, and poor health outcomes. This invisibility not only affected the individuals but also distorted national data and hindered the development of responsive services.

1.3 Public Health and Socio-Economic Implications

The widespread abuse of drugs in Bangladesh had posed severe threats to individual and public health, social harmony, and national development. Substance abuse, particularly among youth and marginalized populations, had been associated with a range of acute and chronic health issues. These include cardiovascular complications, liver and kidney damage, respiratory disorders, and mental health issues such as depression, anxiety, psychosis, and

suicidal ideation. The early onset of drug abuse, often during adolescence, can lead to long-term neurological and cognitive impairments that reduce educational attainment and economic productivity.

Injecting drug abuse, although less prevalent than other routes of administration, presents serious public health risks, particularly due to needle sharing and unsafe injecting practices. Studies have shown high vulnerability to HIV, hepatitis B and C, and tuberculosis (TB) among people who inject drugs (PWID) in Bangladesh [6-8]

Drug abuse also intersects with other structural vulnerabilities. Among women, particularly those involved in informal labor or sex work, drug abuse is closely linked to gender-based violence, sexual exploitation, and reproductive health risks. Female drug abusers often face double discrimination-both as users and as women-resulting in exclusion from healthcare, legal support, and safe housing. At the family level, substance use can trigger profound disruptions. Families with drug-using members often experience emotional trauma, financial depletion, domestic violence, and social ostracism. Many drug abusers become estranged from their families due to shame, conflict, or fear of stigmatization. In extreme cases, children of drug abusers are neglected or forced into child labor and street life, perpetuating cycles of poverty and vulnerability.

The economic costs of drug abuse extend well beyond individual users. These include loss of productivity, increased healthcare burden, property crime, and strain on the criminal justice system. A growing number of youths becoming unfit for employment due to drug abuse represents a significant loss of national human capital. Public facilities, particularly mental health and rehabilitation centers are often under-resourced and ill-equipped to deal with the complex needs of drug-dependent populations.

The overreliance on punitive approaches, such as incarceration for drug possession, has contributed to the overcrowding of prisons in Bangladesh. Inmates frequently lack access to treatment or counseling services, leading to relapse and repeat offenses after release. In many cases, imprisonment leads to further marginalization and poor reintegration prospects, particularly for youth and first-time offenders.

Moreover, systemic discrimination limits the access of people who use drugs to healthcare, employment, education, and housing, thus reinforcing their social exclusion. This is especially true for key populations such as PWID, sex workers, and transgender individuals, who face additional layers of stigma in both public and institutional settings.

1.4 Study Objectives

In response to these multi-dimensional challenges, the Department of Narcotics Control (DNC) designed a nationwide study to generate empirical evidence on the prevalence and associated factors for drug abuse in Bangladesh.

1.4.1 General Objective

The overall objective of this study was to determine the number and category of persons abusing drugs and analyze associated factors among the study population in Bangladesh.

1.4.2 Specific Objectives

The specific objectives were to:

1. Estimate the number of drug abusers currently in Bangladesh
2. Determine the socio-demographic, economic, geographic and other associated factors for drug abuse

1.5 Scope and Significance of the Study

This nationwide study represented one of the most comprehensive initiatives undertaken in Bangladesh to assess the extent and characteristics of drug abuse and its associated factors. The scope of the study was carefully designed to ensure both breadth and depth, covering urban and rural settings across all eight administrative divisions of the country. By employing network scale-up methods (NSUM), the study aimed to generate robust estimates of the size of drug-using populations including individuals who are often hidden, stigmatized, or beyond the reach of conventional data collection approaches. While not definitive, this method approach enhances the reliability of estimates compared to previous efforts by triangulating multiple data sources and mitigating common biases such as underreporting and visibility gaps.

Importantly, the study went beyond merely estimating the number of drug abusers. It delved into the socio-demographic profiles of individuals engaged in substance use such as their age, gender, educational attainment, marital status, occupation, and income level. It also examined the types of drugs consumed, routes of administration, duration and frequency of use, initiation pathways, and drug financing mechanisms. These data points were essential for tailoring interventions to specific risk groups and regions.

In addition to quantitative surveys, the study incorporated extensive qualitative research including in-depth interviews (IDIs), focus group discussions (FGDs), and key informant interviews (KIIs) to capture the lived experiences of people who use drugs, their interactions with healthcare and law enforcement systems, and the barriers they faced in accessing support. This mixed-methods approach ensured that the study findings were not only statistically valid but also grounded in real-world insights and contextual understanding.

The significance of this study lay in its ability to generate a national evidence base for policymaking. Until now, drug-related programming in Bangladesh had largely been informed

by fragmented or outdated data, often collected from small, non-representative populations. As a result, resource allocation, prevention strategies, treatment services, and legal reforms had struggled to meet the actual needs of those affected. This study filled that critical gap by providing reliable, actionable, and disaggregated data.

Furthermore, the study had implications beyond national borders. As a country situated along a major drug trafficking corridor, Bangladesh's experience with drug abuse and control could offer valuable lessons for other nations facing similar challenges. The study's methodological innovations- such as combining community-led mapping with network scale-up estimation contributed to the growing global knowledge base on how to effectively study hard-to-reach populations.

Another key aspect of the study's significance was its potential to guide more humane, inclusive, and rights-based responses to drug abuse. The findings emphasized the need to move away from punitive models and toward public health approaches that prioritized harm reduction, rehabilitation, and community reintegration. By highlighting the voices of people who use drugs and the structural factors that influenced their behavior, the study provided a foundation for evidence-based advocacy and policy transformation.

Ultimately, the study aimed not only to describe a public health crisis but also to catalyze coordinated action from government, civil society, development partners, and affected communities. Its results were expected to inform future drug control policies, enhance service delivery, and contribute to achieving national and global health and development goals, including those related to the Sustainable Development Goals (SDGs).

Section 2: Approaches and Methodology

2.1 Study Design

After reviewing all the available methodologies and their limitations, the study used the network scale-up approach to collect reliable and internationally comparable data to estimate the prevalence and number of illicit drug abusers in Bangladesh (objective 1). This methodology has been used in other countries to estimate the size of hard-to-reach populations [12, 13]. It may be noted that earlier studies on size estimation of key populations in Bangladesh used the census-taking method [7]. For the other objective (objective 2), this study employed a mixed-method (both quantitative and qualitative) cross-sectional approach.

For size estimation, data were collected from throughout Bangladesh taking a representative sample from all divisions. Data were collected to determine the prevalence, number and categories of illicit drug abusers, including the patterns and type of drug abuse.

To determine the socio-demographic characteristics and other factors related to illicit drug abuse (objective 2), data were collected from drug abusers through face-to-face interviews using a structured questionnaire. Qualitative data (through in-depth interviews and key informant interviews) were also collected to get in-depth information about drug abusers, particularly the sources and financing of drugs, and other related factors.

The subsequent sections of the methodology have been organized in three sections, namely:

A) Size estimation of illicit drug abusers using network scale-up method and
B) Quantitative and qualitative methods of data collection from drug abusers

2.2 Size Estimation of Illicit Drug Abusers Using the Network Scale-up Method

2.2.1 Study Population

For the size estimation, information was collected from general population from 13 selected districts across 8 divisions through a questionnaire interview.

2.2.2 Sample Size

The following formula was used to calculate the number of respondents required to interview for the data collection under the network scale-up method [14].

$$n = \frac{Z^2_{(1-\alpha/2)}PQ}{d^2}$$

Where

- *n is the desired sample size;*
- *Z is the value from the standard normal distribution at a specified level of significance (α) (Z-value is 1.96, as alpha is set at 0.05);*
- *P is the anticipated prevalence of drug abusers in the general population (considered as 4.0%) [7];*
- *Q is (1 – P);*
- *d is the allowable error (absolute precision required on either side of the estimated proportion, considered as 1.5% or 0.015); and*
- *Alpha (α) is the level of significance (considered as 0.05)*

Using the above parameters, the calculated sample size was 656 (~ 660). Since it was planned to provide separate estimates for all the 8 divisions, the total sample size for the study was 5,280. This calculated sample size was divided into 8 divisions based on their population size as shown in Table 2.3 (see Section 2.2.3). In total, data were collected from 5,351 respondents from 8 divisions for the network scale-up method.

2.2.3 Sampling Design

This study employed a multi-stage stratified sampling technique to select the study sites (districts, upazilas, and unions) for both size estimation (Objective 1) and the quantitative data collection to identify the socio-demographic and behavioral factors associated with drug abuse (Objective 2).

In total, there are 64 districts in Bangladesh. This study selected 13 districts from all divisions for size estimation and data collection on demographic characteristics (Table 2.1). The number of districts from each division was determined based on the population proportion of divisions, and the districts within each division. The districts were selected randomly using the PPS (probability proportional to size) method. In the next stage, two upazilas were selected randomly (also using the PPS method) from each selected district for the study, resulting in a total of 26 upazilas for data collection, as shown in Table 2.2. Finally, all unions under the selected upazilas were chosen for data collection. Data were collected from both urban and rural areas of the selected districts. The urban areas consisted of the city corporation or municipality areas of the district/ upazila, while the rural areas were the regions outside the urban areas (including the Unions).

Participants from urban areas were selected from three areas stratified based on the socio-economic status of the population (see Section 2.2.4). After selecting the areas, the research team identified locations for size estimation using the network scale up method and for data collection from drug abusers to assess their sociodemographic and other characteristics. For the network scale-up method, data were collected from 2-4 public places (main streets and parks) from each stratum, as discussed in Section 2.2.4.

Data collection from rural areas took place at the union level. This study collected data from all unions in the 26 selected upazilas. Similar to the urban areas, the research team identified locations at union levels for the selection of respondents for size estimation and quantitative survey data collection.

2.2.4 Selection of Study Subjects

In each division, study subjects for interview were selected from both urban (city corporation/ municipality areas; n=2,680) and rural (union levels; n=2,671) areas. In urban areas, data were collected from the study subjects from randomly selected spots (such as busy street areas). The city corporation areas were divided into three strata considering the socio-economic status of the population (e.g., slum areas, affluent areas, and middle-class population areas). Data were collected from public places (main streets and parks) from each stratum. A street-based sampling was adopted because responses to sensitive topics were more reliable in street-based sampling than in phone or home-based surveys. Interviewers were not allowed to approach and select people in shopping centers, offices, or workplaces.

Participants (a passer-by selected randomly) were selected from within the strata on regular days of the week and at busy hours. The inclusion criteria were:

- Residing in the city corporation/municipality area or in the union for at least 2 years
- Being 18 years of age or older, and
- Having the mental ability to answer the questions.

Participants from rural areas were selected randomly from the union headquarters using the same inclusion criteria, on all weekdays and at busy hours.
The study population for qualitative data collection was DNC officials, health officials, NGO officials, police officials, local government and community. The study subjects for qualitative data collection was selected purposively.

2.2.5 Data Collection from Respondents

Data were collected from respondents on all weekdays in the morning and evening. Before the data collection process, verbal consent was obtained from those who agreed to participate. Data from respondents were collected in two stages using a pre-tested questionnaire:

- In the first stage, the personal network size of respondents was determined and
- In the second stage, data were collected from respondents on the number of individuals they knew using illicit drugs in their respective personal networks within the last 12 months.

Table 2.1 Data collection coverage by Division

Division	No. of Districts	% of Districts	No. of Districts for data collection	No. of Upazilas for data collection	No. of Unions
Barisal	6	9.38	1	2	All unions
Chittagong	11	17.19	2	4	As above
Dhaka	13	20.31	2	4	As above
Khulna	10	15.63	2	4	As above
Mymensingh	4	6.25	1	2	As above
Rajshahi	8	12.50	2	4	As above
Rangpur	8	12.50	2	4	As above
Sylhet	4	6.25	1	2	As above
Total:	**64**	**100.00**	**13**	**26**	**All unions**

Table 2.2 Data collection districts and upazilas by Division

Sl	Division	District	Upazila 1 (Sadar)	Upazila 2 (Remote)
1	Barisal	Barisal	Barisal Sadar	Hizla
2	Chattogram	Chattogram	Chattogram Sadar	Banshkhali
3	Chattogram	Rangamati	Rangamati	Kaptai
4	Dhaka	Dhaka	Dhamrai	Nawabganj
5	Dhaka	Tangail	Tangail Sadar	Madhupur
6	Khulna	Khulna	Khulna Sadar	Koyra
7	Khulna	Jessore	Jessore Sadar	Sharsha
8	Mymensingh	Mymensingh	Mymensingh Sadar	Haluaghat
9	Rajshahi	Rajshahi	Rajshahi Sadar	Godagari
10	Rajshahi	Natore	Natore Sadar	Bagatipara
11	Rangpur	Rangpur	Rangpur Sadar	Pirgachha
12	Rangpur	Dinajpur	Dinajpur Sadar	Biral
13	Sylhet	Sylhet	Sylhet Sadar	Gowainghat

Table 2.3 Number of respondents by Division for the Network scale-up method

Division	No. of Data Collected
Barisal	305
Chittagong	1,056
Dhaka	1,482
Khulna	470
Mymensingh	395
Rajshahi	648
Rangpur	630
Sylhet	365
Total:	**5,351**

2.2.6 Estimation of Personal Network Size

For the estimation of personal network size, the following definition for "Know" was used :

> "People whom you know and who know you, in appearance or by name, with whom you can interact, if needed, and with whom you have had personal contact over the last 2 years by telephone or email".

There are two methods of estimating the personal network size. They are a) known population method and b) summation method. The known population method uses specific population characteristics to estimate the network size, e.g., how many doctors, nurses, bus drivers, van drivers, etc. the respondent knows, while in the summation method, the respondents are asked to enumerate the number of people they know in a list of specific relationship types or categories, such as family, neighbors, friends, coworkers, etc. The summation of these responses yields an estimate of personal network size.

This study used the summation method because it was easier for respondents to provide accurate answers and was suitable for our country situation. The potential problems of over and under counting were handled cautiously (by selecting the categories carefully and ensuring careful data collection). For the estimation of personal network size, a questionnaire was developed to collect relevant information from respondents through face-to-face interviews.

2.2.7 Data Collection on Number of Drug Abusers Within The Personal Networks

Once the personal network size was estimated, the respondents were asked (through face-to face interview using a questionnaire) to report the total number of people they know in their network who used any kind of illicit drugs at least once in the past 12 months. Respondents were also asked to specifically report the names of drugs (as much as possible) used by the individuals they know, including the drug abusers' age and gender.

2.2.8 Estimation of the Size of Illicit Drug Abusers

After collecting data on personal network size and number of drug abusers they know in their personal network, the estimated size of drug abusers was determined using the following formula:

$$\hat{e} = \frac{\sum_i m_i}{\sum_i \hat{c}_i} \times N$$

where ê is the estimated size of the drug abusers, mi is the number of people uses drugs known by person in his/her network i; ci is the estimated personal network size of person i, and N is the size of the general population. That is, the network scale-up estimator calculates the size of drug abusers by: total the number of drug abusers known by respondents in their network divided by

the total number of people (network size) known by respondents and multiplied by the size of the general population of the data collection sites.

The size of drug abusers in the selected districts was extrapolated (based on the calculated proportion of drug abusers) to the division considering the general population size of 18-60 years. Finally, the size of drug abusers for the whole country was calculated by combining the size in each division.

2.2.9 Data Analysis of Network Scale-up Method

Quantitative data were collected from the respondents in Kobo Toolbox Software. Subsequently, the data transferred into statistical analysis software, specifically SPSS (SPSS Inc., Chicago, Ill., USA) and Stata (StataCorp, College Station, TX, USA), for processing and analysis. Before conducting the final analysis, data were cleaned for out-of-range errors and inconsistencies.

The quantitative data collected through interviews were analyzed using descriptive statistics to describe the characteristics of respondents. Descriptive statistics (such as mean, standard deviation, sum, minimum, maximum, frequency, percentage, etc.) were used to estimate the personal network size, the number of drug abusers in the personal network, and prevalence of drug abuse, including the 95% confidence intervals using the Clopper-Pearson exact method. The results are organized and presented in the form of tables (by division and socio-demographic factors) and graphs, which helped to visually illustrate the findings and facilitated easier interpretation.

2.3 Quantitative and Qualitative Methods of Data Collection from Drug Abusers to Determine the Socio-demographic and Behavioral Factors

2.3.1 Quantitative Data Collection

Quantitative method, through questionnaire interview, was used to determine the categories of illicit drug abusers, including the patterns and types of drug abuse, socio-demographic characteristics, and other factors related to illicit drug abuse (Objective 2). It was noted that qualitative data were also collected to supplement the second objective, as stated below.

2.3.1.1 Study Population

The quantitative data for this study were collected from the illicit drug abusers identified during the size estimation method from all divisions (according to the sampling design, as stated in Section 2.2.3) through a structured questionnaire interview. The findings of the quantitative data were triangulated with qualitative information.

2.3.1.2 Sample Size

Since this was a descriptive cross-sectional study, the following formula was used to calculate the sample size for quantitative data collection through questionnaire interview [14].

$$n = \frac{Z^2_{(1-\alpha/2)}PQ}{d^2}$$

Where

- *n is the desired sample size;*
- *Z is the value from the standard normal distribution at a specified level of significance (α) (Z-value is 1.96, as alpha is set at 0.05);*
- *P is the anticipated population proportion.*
- *Q is (1 – P);*
- *d is the allowable error (absolute precision required on either side of the estimated proportion, considered as 5% or 0.05); and*
- *Alpha (α) is the level of significance (considered as 0.05).*

Based on the above parameters, the sample size required for the study was 402 (~410). To ensure a representative sample, data were collected from all eight divisions, resulting in a total sample size of 3,280 (410 x 8) or 3,300. However, a total of 3,468 identified drug abusers were interviewed for this study.

2.3.1.3 Sampling Design and Selection of Study Subjects

The study subjects were selected for interview during the size estimation exercise. Study subjects were selected from the selected districts, upazilas, and unions from where size estimation data were collected (see Section 2.2.3). After identification of the drug abusers in the spots, the desired number of drug abusers was selected randomly (based on availability) for the interview.

2.3.1.4 Data Collection From Study Subjects and Data Collection Tools

Data from the study subjects (drug abusers) were collected through face-to-face interviews using a structured questionnaire. The questionnaire was pre-tested prior to data collection. The data collection tool (questionnaire) was developed to capture information needed to answer the objectives, such as demographic information and drug abuse details including type, route of administration, duration, and source.

Interviews were conducted in a private setting to maintain confidentiality, and were carried out by a group of trained data collectors with previous experience of collecting data from such groups. Data were collected using electronic data capture methods, such as tablets or smartphones equipped with the survey software, to facilitate real-time data collection and entry, minimizing errors

2.3.1.5 Online Data Collection and Data Storage

The quantitative data were collected through a secured online data collection and data management software. A tab-based software (Kobo) was developed for building and managing online surveys and databases, capable of collecting virtually any type of data in any environment. This customized software was developed after finalizing the quantitative for data collection tools. Relevant team members collected data using this software and kept backups regularly on the central server.

2.3.1.6 Data Analysis of Drug Abusers' Interviews

Quantitative data were collected from drug abusers in Kobo Toolbox Software. Subsequently, the data were transferred into statistical analysis software, specifically SPSS (SPSS Inc., Chicago, Ill., USA) and Stata (StataCorp, College Station, TX, USA), for processing and analysis. Before conducting the final analysis, the data were cleaned for out-of-range errors and inconsistencies.

Quantitative data collected from the drug abusers were analyzed using descriptive statistics, such as frequency, percentage, mean, and standard deviation, etc. and are presented in the form of tables and graphs.

2.3.2 Qualitative Method

Qualitative data were collected from a wide range of individuals who had information about illicit drugs and drug abusers through In-Depth Interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIIs) as described below. Comprehensive guidelines for qualitative data collection were developed to ensure consistency and depth in the data gathering process.

2.3.2.1 In-Depth Interviews (IDIs)

Participants: The participants for the IDIs were drug abusers from various categories. Respondents were purposively selected to gain a deeper understanding of their individual experiences, sources of drugs and money, and other relevant information.

A total of 34 IDIs were conducted with the drug abusers. An interview guideline was developed to cover all pertinent topics, while maintaining flexibility for participants to raise and elaborate on issues they considered significant.

2.3.2.2 Focus Group Discussions (FGDs)

Focus Group Discussions (FGDs) were conducted with illicit drug abusers across selected 26 Upazilas, with one FGD per Upazila. These discussions provided a collective perspective on the patterns, motivations, and socio-environmental factors influencing drug abuse within communities. Participants were purposively selected to ensure representation from different drug-user categories, age groups, and socio-economic backgrounds.

The FGDs aimed to capture shared experiences, perceptions, and social dynamics related to illicit drug abuse, including factors such as accessibility, peer influence, stigma, law enforcement interaction, and community support mechanisms. The discussions also explored the effectiveness of existing interventions and potential strategies for harm reduction and rehabilitation.

A structured FGD guide was developed to facilitate discussions while allowing flexibility for participants to express their views openly. Each FGD had a trained facilitator and a note-taker to ensure accurate documentation of insights while maintaining ethical considerations such as confidentiality and informed consent. The FGDs complemented the In-depth Interviews (IDIs) and Key Informant Interviews (KIIs) by providing a broader community-based understanding of the drug-use landscape in Bangladesh.

2.3.2.3 Key Informant Interviews (KIIs)

Participants of Key informant interviews for this study included Department of Narcotics Control center staff, health officials (including detoxification center staff), NGO workers, police personnel, local government representatives, community leaders, and other stakeholders. These individuals provided broader insights into the socio-demographic characteristics of drug abusers, patterns of drug abuse, availability of drugs, and other factors that influenced the target populations. In total, 59 KIIs were conducted for this study from all divisions.

An interview protocol was prepared in advance to ensure comprehensive exploration of all relevant topics and areas during the KIIs.

2.3.2.4 Qualitative Data Analysis

The qualitative data collected through Key Informant Interviews (KIIs), Focus Group Discussions (FGDs), and In-depth Interviews (IDIs) were analyzed using thematic analysis to identify patterns, key insights, and emergent themes related to drug abuse among adolescents in urban slums of Dhaka City. The analysis process involved the following steps:

- Transcription and Familiarization: All recorded interviews and discussions were transcribed verbatim. The research team reviewed the transcripts thoroughly to develop an in-depth understanding of the content
- Initial Coding and Thematic Identification: A preliminary coding framework was developed based on predefined themes, such as factors contributing to drug abuse, accessibility, social influences, law enforcement interactions, and rehabilitation challenges. Open coding was also conducted to capture emergent sub-themes that arose organically from the data
- Data Saturation and Refinement: Coding continued iteratively until data saturation was

reached, meaning no new information emerged from additional transcripts. Similar codes were grouped into overarching themes for systematic analysis

Thematic Compilation and Interpretation: Identified themes were compiled, analyzed, and interpreted in relation to the study's objectives. A narrative synthesis of the findings was presented, incorporating direct quotes where necessary to support the analysis

2.4 Training of the Data Collection Team

A three-day training was organized for the data collection team. A detailed schedule was prepared for the training. The primary objectives of the training were to enhance the knowledge and skills of data collectors on the methodology, objectives of the study, data collection tool, and ethical issues.

2.5 Field Management

The study team followed a participatory monitoring and supervision process for this survey. Since the beginning of the survey, the principal investigator (PI), key team members, and associates conducted regular/random/sample-based monitoring and supervision of field progress. The Research and Field Manager was responsible for ensuring that the survey was implemented in the field according to the protocol. Regular and periodic team meetings were held to follow the updates and progress of data collection and to solve any field-level problems.

2.6 Data Quality Control

The quality of the study was ensured by following a four-pronged strategy: selecting a skilled research team, building the research team's capacities for mapping and size estimation by providing them with formal and on-the-job training, implementing a monitoring and supervisory structure, and revalidating the mapping and size estimation data across ten percent of the locations. The research team responsible for conducting the size estimation exercises comprised research staff, research fieldworkers, field executives, supervisors, and investigators. According to their respective profiles, each person was provided with a specific term of reference (ToR) and a set of deliverables for which they were held accountable. All personnel were selected and appointed on the basis of their relevant past experience in mapping or related disciplinary fields. In addition, community representatives who were recruited to support the field research were selected based on their experience.

All field research teams collectively attended and successfully completed a skill-building training that was conducted in Dhaka. The primary objectives of the skill-building training were to enhance their knowledge and skills on the study objectives, methodology, and data collection, including ethical issues.

The fieldwork conducted by the research team was monitored on a daily basis to oversee activity implementation and to provide supportive supervision and feedback. The research team also monitored the activities and progress at the location and site levels daily to ensure timely progression of size estimation and adherence to protocols and ethical standards.

2.7 Ethical Considerations

The study protocol (PR-1305) was reviewed and approved by the Institutional Review Board (IRB) of Bangladesh Medical University. The study team and enumerators ensured ethical standards throughout the survey process. They were trained to obtain informed consent, explaining the survey's purpose, participants' rights, and the voluntary nature of their involvement.

To adhere to the "do no harm" principles, the team followed protocols to avoid any risk or discomfort to participants. They maintained respect and justice by treating all respondents fairly, without any discrimination or bias. Privacy and confidentiality were safeguarded by the team through proper data anonymization, secure storage, and restricted access to sensitive information. The team strictly followed these guidelines to maintain ethical standards.

Section 3: Results

3.1 Estimated Prevalence and Number of Drug Abusers in Bangladesh

The network scale-up method (NSUM) was used to estimate the prevalence of illicit drug abuse in Bangladesh. Data were collected from 5,351 respondents across all eight divisions of the country, including both urban (n=2,680) and rural (n=2,671) areas (Table 3.1). The study assessed respondents' personal network sizes and the number of known drug abusers within those networks to estimate the overall prevalence of illicit drug abusers.

3.1.1 Socio-Demographic Characteristics of Respondents

Table 3.1 presents the socio-demographic characteristics of the respondents interviewed to estimate the network size and the number of drug abusers within their networks. The mean age was 35.6 years (SD: 9.8). Majority of the respondents were in the age groups 21-30 years (32.1%) and 31-40 years (35.1%). Most respondents were male (93.3%) and had education beyond the primary level (91.9%). The respondents were from various occupations, such as private jobs (16.6%), day labor (15.8%), students (14.6%), street vendors (13.8%) and other professions. Over three-fourths (76.4%) of respondents were married.

Table 3.2 shows the average personal network size of respondents participated in NSUM. Overall, the average personal network size was 122.2 (95% Confidence interval (CI): 121.1-123.3) ranging from 19 to 279. The highest average network size was observed in Sylhet division (164.9), followed by Rangpur (135.5) and Chattogram (129.5), while Khulna division showed the lowest average (91.2). Urban areas demonstrated slightly larger network sizes (123.8) compared to rural areas (120.7).

Table 3.3 presents the average number of drug abusers in the personal network size of respondents, including the 95% CI. The analysis revealed that across the respondents' average personal network of 122 individuals, the mean number of known drug abusers (overall) was 5.97
(SD: 3.3), with a 95% confidence interval (CI) of 5.38–6.56. This figure varied by division. The highest averages were in Rangpur (8.13), Chattogram (7.12), and Sylhet (7.05) divisions, suggesting a higher concentration or awareness of drug abuse in these regions. In contrast, Rajshahi (3.14) and Khulna (3.72) divisions showed the lowest averages.

Gender and age-specific network reporting shows disparities: among the average number of drug abusers (5.97) in the personal network, 5.58 were male, 0.21 were female, and 0.18 were children.

Table 3.1. Socio-demographic characteristics of respondents participated in the network scale-up method (NSUM)

Characteristics	No.	Percentage
Age (years):		
18-20	170	3.2
21-30	1,716	32.1
31-40	1,877	35.1
41-50	1,211	22.6
>50	377	7.0
Mean (SD)	35.6 (9.8)	
Gender:		
Male	4,993	93.3
Female	353	6.6
Transgender	5	0.1
Education:		
Primary or No Education	435	8.1
Secondary	1,314	24.6
Higher Secondary	1,357	25.4
Graduate and above	1,209	22.6
Occupation:		
Private job	885	16.6
Day laborer (including rickshaw puller)	848	15.8
Student	780	14.6
Street vendor, hawker, etc.	737	13.8
Hotel/restaurant worker	267	5.0
Bus/truck helper or driver	255	4.8
Unemployed / No job	185	3.5
Government Employee	161	3.0
Teacher / Trainer	158	3.0
Domestic worker	150	2.8
Freelancer (e.g., IT professional & others)	63	1.2
Involved in theft/mugging or other crimes	6	0.1
Other (please specify)	856	16.0
Marital status:		
Unmarried	1,205	22.5
Married	4,087	76.4
Divorced/separated	35	0.7
Widowed	24	0.4
Total	**5,351**	**100**

Urban respondents reported a slightly higher number of average drug abusers in their networks (6.24) compared to rural (5.7).

Table 3.2. Average personal network size of respondents participated in the NSUM by division and area

Characteristics	Personal network size				
	Mean	SD	Minimum	Maximum	95% CI
Overall	**122.2**	**40.9**	**19**	**279**	**121.1-123.3**
Division:					
Barisal	99.6	27.1	29	198	96.6-102.7
Chattogram	129.5	40.3	19	273	127.1-131.9
Dhaka	123.3	40.7	22	258	121.2-125.3
Khulna	91.2	24.9	24	154	88.9-93.5
Mymensingh	104.0	24.3	44	204	101.6-106.4
Rajshahi	115.1	29.2	58	191	112.9-117.4
Rangpur	135.5	35.2	39	279	132.8-138.3
Sylhet	164.9	55.2	56	275	159.2-170.6
Area					
Urban	123.8	43.4	19	279	122.1-125.4
Rural	120.7	38.2	28	275	119.2-122.1

Table 3.4 presents the prevalence of drug abusers, estimated by the network scale-up method. The overall prevalence of drug abusers in the country is estimated to be 4.88% (95% CI: 4.83-4.94). Divisional variation was notable with higher prevalence was observed in Mymensingh

Table 3.3. Average number of drug abusers in the personal networks by division and area

Characteristics	No. of drug abusers in the personal network				
	Mean	SD	Minimum	Maximum	95% CI
Overall:	**5.97**	**3.3**	**0**	**25**	**5.38-6.56**
Division:					
Barisal	4.32	1.8	0	12	3.57-4.10
Chattogram	7.12	3.2	0	23	6.19-7.30
Dhaka	6.18	3.2	0	23	5.11-6.26
Khulna	3.72	1.3	0	7	2.87-3.33
Mymensingh	6.26	2.5	0	16	5.45-6.35
Rajshahi	3.14	1.7	0	10	2.53-3.14
Rangpur	8.13	3.5	1	24	7.18-8.43
Sylhet	7.05	3.5	0	20	6.21-7.47
Population Group:					
Male	5.58	3.3	0	24	4.99-6.17
Female	0.21	0.7	0	12	0.08-0.34
Children	0.18	0.4	0	2	0.11-0.25
Area:					
Urban	6.24	3.4	0	25	5.63-6.85
Rural	5.70	3.1	0	22	5.14-6.26

(6.02 %), Rangpur (6.00 %), and Chattogram (5.50 %) divisions, while Rajshahi (2.72 %) and Khulna (4.08%) had the lowest prevalence.

By population groups, drug abuse was more prevalent among males (4.57%). The prevalence among females (0.17%) and children (0.15%) was lower than adult males. The prevalence of drug abuse in urban areas (5.04%) was slightly higher than in rural areas (4.72%).

The type wise prevalence estimates showed that the most common substance used nationally was cannabis (3.58%), followed by Methamphetamine (Yaba) (1.35%), alcohol (1.19%), and Codeine phosphate (0.20%). Injecting drug abuse remained low at 0.023%, and less commonly used substances like LSD (0.003%), Ice (0.007%), and Cocaine (0.008%) had very minimal prevalence.

Table 3.4. Prevalence of drug abusers by division, population groups and drug types

Characteristics	Prevalence	
	Percentage	95% CI
Overall prevalence:	**4.88**	**4.83-4.94**
Division:		
Barisal	4.34	4.11-4.58
Chattogram	5.50	5.38-5.62
Dhaka	5.01	4.91-5.11
Khulna	4.08	3.89-4.27
Mymensingh	6.02	5.79-6.25
Rajshahi	2.72	2.61-2.84
Rangpur	6.00	5.84-6.16
Sylhet	4.27	4.11-4.44
Population Group:		
Male	4.57	4.51-4.61
Female	0.17	0.16-0.18
Children	0.15	0.14-0.16
Area:		
Urban	5.04	4.96-5.11
Rural	4.72	4.65-4.80
Types of Drugs:		
Ganja (Cannabis)	3.58	3.55-3.61
Methamphetamine (Yaba) (a mixture of methamphetamine and caffeine)	1.35	1.34-1.38
Sleeping pills	0.18	0.17-0.19
Inhalants (e.g., glue, paint thinner)	0.09	0.09-0.10
Heroin (diacetylmorphine and diamorphine)	0.19	0.18-0.20
Codeine phosphate (Triprolidine and Codeine)	0.20	0.19-0.21
LSD	0.003	0.002-0.004
Alcohol	1.19	1.18-1.22
Injecting drugs	0.023	0.020-0.025
Crystal Meth (Ice)	0.007	0.005-0.008
Others:	0.08	0.075-0.085

Table 3.5 represents the estimated number of drug abusers by division. The study estimated 8,194,651 drug abusers. Divisional variation was notable with higher numbers observed in Dhaka (2,287,970), Chattogram (1,879,503), and Rangpur (1,080,588) Divisions, while Rajshahi (566,509), Sylhet (488,141), and Barisal (404,918) had the lowest number.

Table 3.5. Estimated number of drug abusers by division

Division	Estimated no. of drug abusers
Whole country (any drug abuser)	**8,194,651**
Barisal	404,918
Chattogram	1,879,503
Dhaka	2,287,970
Khulna	726,210
Mymensingh	760,812
Rajshahi	566,509
Rangpur	1,080,588
Sylhet	488,141

Table 3.6 represents the Estimated Number of Drug abusers in Bangladesh. Extrapolating from the national population of 169.83 million, the study estimated 8.3 million drug abusers. By substance, the most used was cannabis (approx. 6.1 million), followed by Methamphetamine (Yaba) (a mixture of methamphetamine and caffeine) (2.3 million), alcohol (2.0 million), Codeine phosphate (Triprolidine and Codeine) (339,660), and heroin (diacetylmorphine and diamorphine) (322,677). The use of injectable drugs was estimated at 39,061, and LSD at just 5,095 people nationwide.

Table 3.6 Estimated number of drug abusers by type of drug use*

Types of drug used	Estimated no.
Ganja (Cannabis)	6,079,914
Methamphetamine (Yaba)	2,292,705
Alcohol	2,020,977
Codeine phosphate	339,660
Heroin	322,677
Sleeping pills	305,694
Inhalants (e.g., glue, paint thinner)	152,847
Injecting drugs	39,061
Crystal Meth (Ice)	11,888
LSD	5,095
Others	135,864

*Multiple response (a person may use multiple drugs)

3.2 Socio-Demographic and Geographic Profile of Drug Abusers and Associated Risk Factors

3.2.1 Quantitative Findings

3.2.1.1 Socio-Demographic Characteristics of Drug Abusers

The study included a total of 3,468 drug abusers across various divisions of Bangladesh. The respondents exhibited diverse socio-demographic profiles in terms of age, gender, marital status, education, occupation, and monthly family income. Figure 3.1 shows the mean age of the respondents was 31 years. Nearly half of the participants (47.7%) were aged between 21 and 30 years, followed by 31.9% in the 31 - 40 age group. Young adults aged 18–20 comprised 6.9%, while older age groups 41–50 years and above 50 accounted for 10.9% and 2.5% respectively. These findings indicate that the majority of drug abusers belong to the productive working-age population (21–40 years).

Figure 3.1 Age distribution of drug abusers

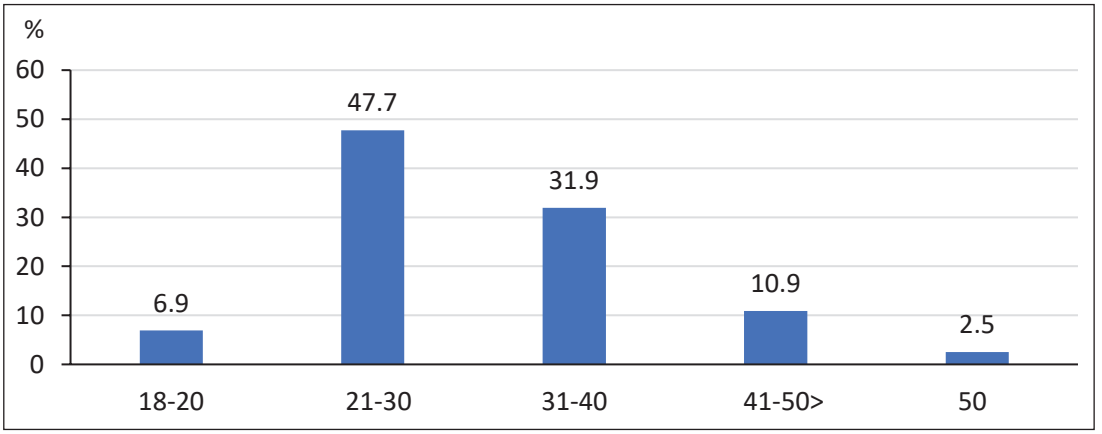


Table 3.7 shows a vast majority of the drug abusers were male (99.1%), and only 0.9% identifying as female. Most drug abusers were married (63.6%), followed by unmarried individuals (34.4%). A small proportion were divorced or separated (1.7%) and widowed (0.3%). This highlights that drug abuse is prevalent even among individuals with familial responsibilities.

Table 3.7. Gender and marital status of the drug abusers

Characteristics	No.	Percentage
Gender:		
Male	3,437	99.1
Female	31	.9
Marital status:		
Unmarried	1,193	34.4
Married	2,205	63.6
Divorced/separated	58	1.7
Widowed	12	.3

Educational attainment among drug abusers was varied (Figure 3.2); 15.5% had no formal education, 34.7% completed primary education, 28.7% reached secondary level, 13.9% studied up to higher secondary, and 7.2% had graduate-level or higher education.

Figure 3.2 Education level of drug abusers

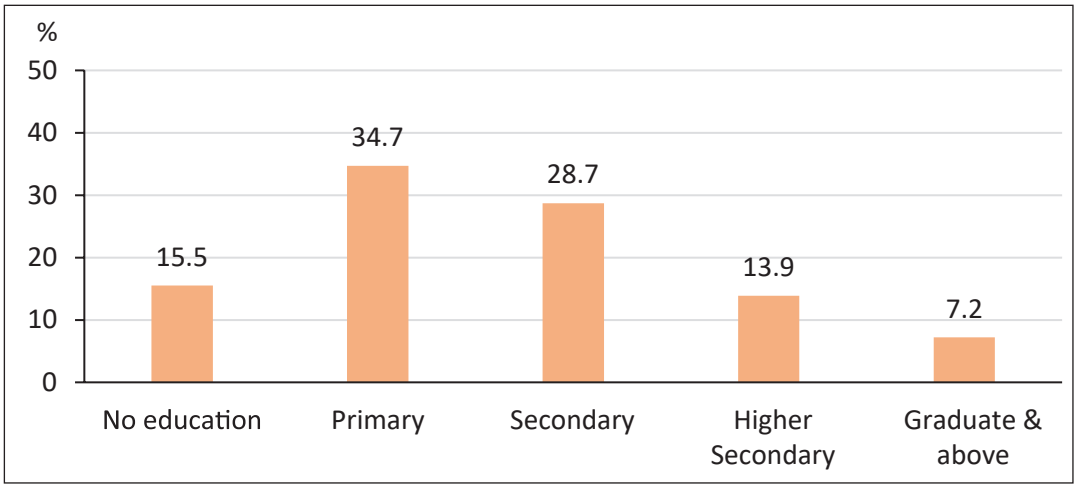


Table 3.8 shows that the most commonly reported occupation among respondents was day laborer (30.4%), followed by bus/truck/CNG drivers and helpers (15.1%) and students (10.5%).

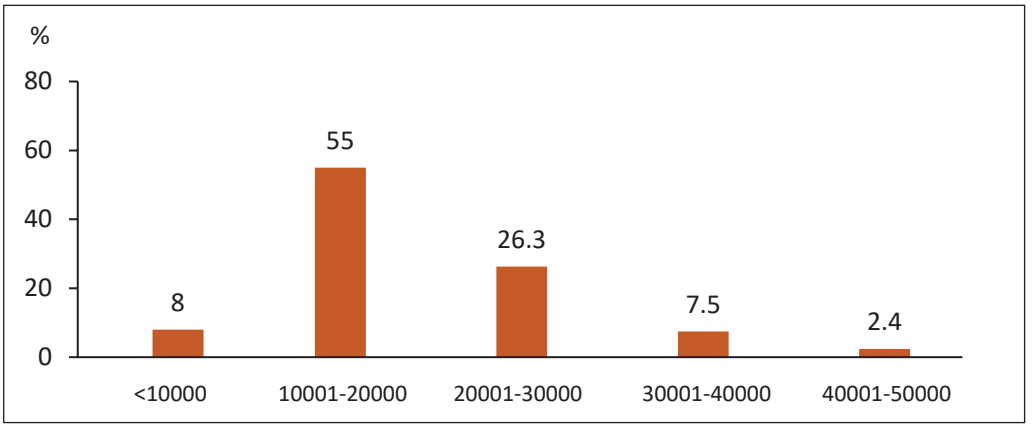
Table 3.8 Occupation of drug abusers

Characteristics	No.	Percentage
Day laborer	1,056	30.4
Bus/Truck/CNG driver/helper	524	15.1
Student	365	10.5
Unemployed	241	6.9
Hawker / Painter / Haircutter / Tailor etc.	297	8.6
Street vendor	251	7.2
Theft/robbery or criminal activity (self-confessed)	46	1.3
Job	123	3.5
Hotel/Restaurant Worker /Garments worker	246	7.1
Others: Marketing/sales man/ Business/farmer/tea stall	319	9.2

Unemployed individuals accounted for 6.9% of the sample. A significant portion of respondents were engaged in informal work, including hawkers, painters, haircutters, tailors (8.6%), street vendors (7.2%), and hotel/restaurant or garments workers (7.1%). Additionally, 9.2% were involved in a variety of other income-generating activities such as marketing, sales, small business, farming, or running tea stalls. A smaller group (3.5%) reported having formal jobs. Alarmingly, 1.3% of respondents self-reported involvement in theft, robbery, or other criminal activities.

Figure 3.3 shows monthly family income of the drug abusers who participated in the NSUM. Over half of the respondents (55.0%) reported a family income between BDT 10,001–20,000, with 26.3% earning BDT 20,001–30,000. Only 8% reported earning below BDT 10,000, while 10.7% reported earning more than BDT 30,000. The mean monthly family income was approximately BDT 21,231. This distribution suggests that while drug abuse is often linked to poverty, it is not exclusive to the lowest income groups.

Figure 3.3 Monthly family income of drug abusers (in Taka)

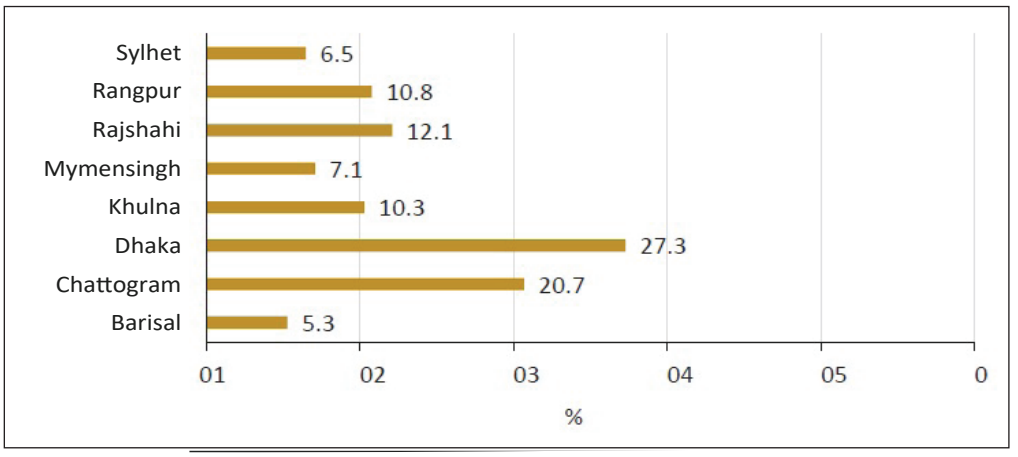


3.2.1.2 Living Arrangements of Drug Abusers

The living arrangements of drug abusers were explored across various residential categories, including administrative division, urban-rural settings, specific living arrangements, and household composition. The findings reveal how drug abuse is distributed spatially and socially in Bangladesh.

Participants were drawn from all eight administrative divisions. Figure 3.4 shows that the highest proportion of drug abusers were from Dhaka Division (27.3%), followed by Chattogram (20.3%), Rajshahi (12.1%), Rangpur (10.8%), and Khulna (10.3%). Mymensingh (7.1%), Sylhet (6.5%), and Barishal (5.3%) accounted for the remaining respondents.

Figure 3.4 Proportion of drug abusers by Division



When asked about the specific location of their living arrangement, the majority (64.7%) reported living in their own home, while 25.3% were renters. A significant 8.4% stayed in slums, and 1.6% reported living on the streets or in abandoned places. A majority of respondents (89.9%) lived with family, while 4.7% lived alone. Others lived with friends (3.8%), and in community shelters (1.0%) (Table 3.9).

Table 3.9 Living arrangements of drug abusers

Living arrangements	No.	Percentage
Lives in:		
Own home	2,245	64.7
Rented house	876	25.3
Slum areas	290	8.4
Street/homeless	57	1.6
Lives with:		
Alone	163	4.7
Family	3,116	89.9
Friend	133	3.8
Society	34	1.0
Street	22	.6

3.2.1.3 Drug Abuse Practices

This section explores the patterns, substances used, and routes of administration among the surveyed drug abusers, offering valuable insight into behavioral trends and associated health risks. Figure 3.5 shows in the month preceding the survey (last 30 days), 85.0% of users had consumed cannabis, followed by Methamphetamine (Yaba) (45.2%), Codeine phosphate and Cough Syrup (11.7%), sleeping pills (10.1%), and heroin (7.5%) and alcohol (6.5%). Injectables were used by 4.4%, and a small number reported ice, inhalants, and LSD use.

Figure 3.5 Type of drug used (%) by drug abusers in last 30 days

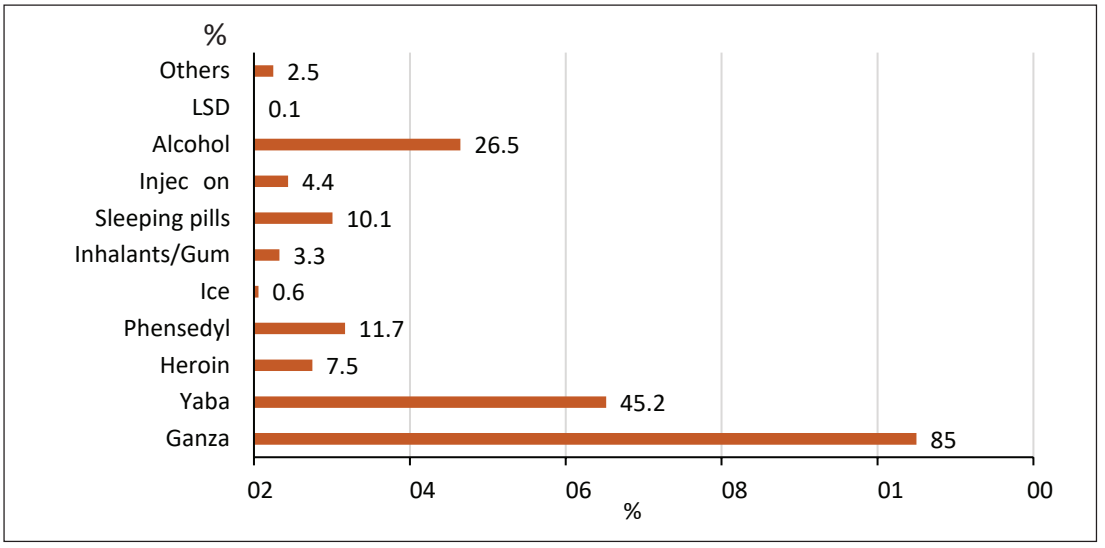


Table 3.10 shows drug abusers age at first use of drug. Most respondents (59.2%) began using drugs between the ages of 18–25 years, while 32.8% started during adolescence (8–17 years). Smaller proportions initiated at 26–30 years (5.2%), 31–35 years (1.9%), 36–40 years (0.6%), and above 40 years (0.2%). The mean age of initiation was 20 years, indicating early exposure and potential long-term dependency.

Table 3.10 Percent distribution of drug abusers by age at first use of drugs and division

Age (in years)	Division; %								Total
	Barisal	Chattogram	Dhaka	Khulna	Mymensingh	Rajshahi	Rangpur	Sylhet	
8-17	21.7	22.8	52.2	18.8	36.2	24.2	37.3	19.2	32.8
18-25	63.6	65.4	46.2	61.0	55.3	72.7	52.8	78.1	59.2
26-30	9.2	7.4	1.0	9.8	6.9	3.1	8.3	2.2	5.2
31-35	2.7	3.6	0.3	7.6	1.6	0.0	0.5	0.0	1.9
36-40	2.7	0.7	0.1	2.2	0.0	0.0	0.5	0.4	0.6
>40	0.0	0.1	0.2	0.6	0.0	0.0	0.5	0.0	0.2
Mean (SD)	21 (5)	21 (5)	18 (4)	22 (6)	19 (4)	20 (3)	19 (5)	19 (3)	20 (5)

Table 3.11 shows respondents' frequency of drug abuse per day, per week, and per month. On a daily basis, 54.2% used drugs once, 43.7% used 2–3 times, and 2.1% more than 3 times. Weekly frequency showed 65.3% used drugs more than five times a week.

Table 3.11 Percent distribution of drug abusers by frequency of drug use and Division

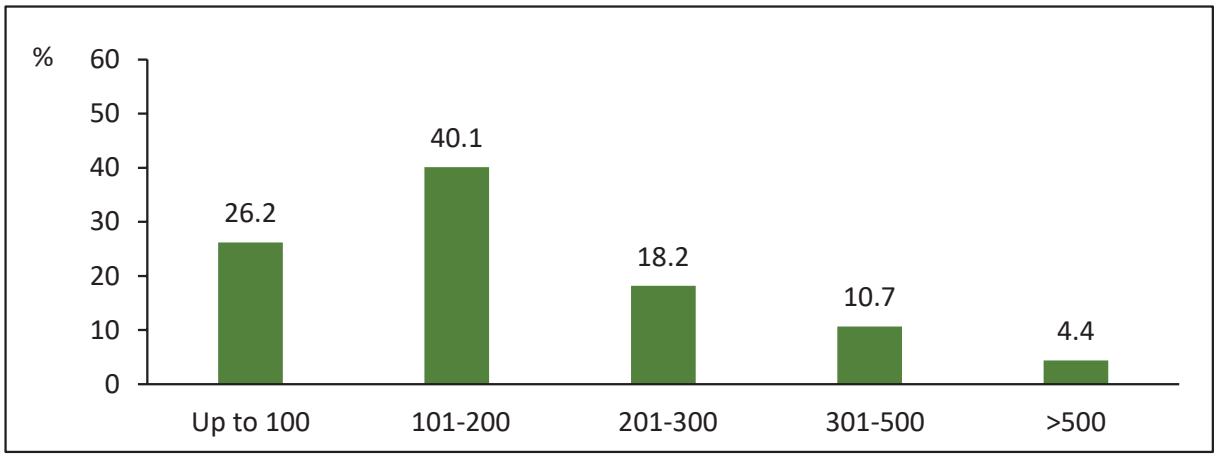
Frequency of drug abuse	Division; %								Total
	Barisal	Chattogram	Dhaka	Khulna	Mymensingh	Rajshahi	Rangpur	Sylhet	
Per day									
Once	80.6	40.0	47.6	80.0	36.4	83.6	71.7	41.8	54.2
2 to 3 times	19.4	57.9	49.6	20.0	63.6	16.0	28.0	46.4	43.7
4-5 times	0.0	2.2	2.6	0.0	0.0	0.0	0.3	9.8	1.9
>5 times	0.0	0.0	0.2	0.0	0.0	0.4	0.0	2.0	0.2
Per week:									
Once	17.4	1.1	1.3	5.4	0.0	1.8	0.6	0.0	2.4
2 to 3 times	41.3	8.5	6.7	29.2	9.5	26.4	6.4	10.0	14.8
4-5 times	6.6	14.6	8.9	17.5	27.0	19.4	32.1	25.9	17.6
>5 times	34.7	75.8	83.2	47.9	63.5	52.3	60.9	64.2	65.3
Per month:									
Once	0.0	0.0	0.4	0.6	0.0	0.0	0.0	0.0	0.1
2 to 5 times	3.2	0.7	0.2	1.4	0.0	0.3	0.0	1.0	0.7
6-10 times	17.7	1.9	1.0	5.3	0.0	0.5	0.6	2.9	2.6
>10 times	79.0	97.3	98.5	92.7	100.0	99.2	99.4	96.2	96.6
Persons with whom use drugs:									
Alone	39.1	67.0	59.5	44.7	56.1	95.0	49.3	93.3	63.6
With friends	78.3	86.9	94.3	88.5	99.2	98.8	97.6	99.6	92.9
With unknown groups	17.4	0.3	10.9	24.7	2.8	11.7	1.6	10.7	9.0

Monthly frequency showed a high rate of chronic use, with 96.6% using more than 10 times per month. Use was largely social, with 92.9% using drugs with friends. A notable of 63.6% is also used alone, and 9.0% with unknown individuals or groups.

3.2.1.4 Access to Finance for Drug Abuse

Figure 3.6 shows the amount of money spent (BDT) for drugs per day. The majority of users 40.1% spent BDT 101–200 per day on drugs. Around 18.2% spent BDT 201–300, while 10.7% spent BDT 301–500. A notable of 26.6% spent less than BDT 100, and 4.4% spent more than BDT 500 per day, with an overall mean daily expenditure of BDT 217.

Figure 3.6 Amount of money (Tk.) spent for durgs per day



3.2.1.5 Stigma, Discrimination, and Treatment Experience

Table 3.12 shows that among the drug abusers, 68.0% reported experiencing stigma and discrimination due to their drug abuse, while 32.0% did not experience such issues. Among those who experienced family-related problems, 69.6% reported physical, mental, or verbal abuse, followed by 68.8% who experienced stigma and social humiliation, and 49.7% who were kicked out of the family. Other notable issues included cutting off ties with friends and relatives (33.2%), police harassment and arrests (49.5%), and job or income cut-offs (21.1%). Though less common, some respondents also reported barriers to accessing treatment (11.1%), settlement problems (13.4%), and discrimination in education (2.3%). These findings indicate that stigma and discrimination are deeply entrenched within family and community settings, with abuse and social exclusion being the most prevalent consequences for people who use drugs.

A question was asked to respondents about whether or not they ever tried to quit illicit drug use. Overall Table 3.13 shows that 51.7% of respondents had tried to quit drugs, while 48.3% had never attempted to stop. The top reasons for trying to quit drugs were family pressure (46.2%), self-motivation (30.7%), and health concerns (19.0%). Other less common reasons were fear of arrest (4.0%) and financial difficulties (0.2%).

Table 3.12 Percent distribution of respondents faced problems in families due to drug abuse by division

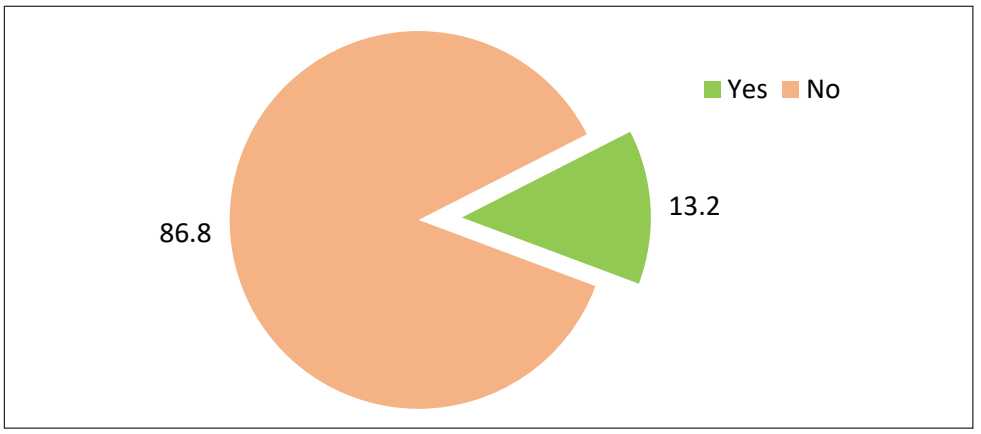
Discrimination	Division; %								Total
	Barisal	Chattogram	Dhaka	Khulna	Mymensingh	Rajshahi	Rangpur	Sylhet	
Faced problems from family due to drug abuse:									
Yes	65.2	78.9	78.9	70.5	85.8	79.4	45.3	5.4	68.0
No	34.8	21.1	21.1	29.5	14.2	20.6	54.7	94.6	32.0
Types of problems faces:									
Stigmatized and social humiliation	54.2	68.8	66.1	50.6	76.8	90.1	64.7	91.7	68.8
Being kicked out of the family	45.8	54.0	47.1	56.6	27.0	49.1	69.4	33.3	49.7
Physical, mental and verbal abuse	67.5	62.8	69.0	66.1	74.4	76.2	82.9	58.3	69.6
Job/income cut-off	29.2	15.5	22.6	18.3	22.3	30.7	12.9	0.0	21.1
Cutting off ties with friends and relatives	15.0	28.9	33.9	44.2	43.1	27.1	41.8	16.7	33.2
Police harassment and arrests	55.8	48.9	34.2	68.1	44.1	61.7	66.5	33.3	49.5
Barriers to access treatment and services	7.5	4.6	21.0	6.0	13.7	5.7	9.4	8.3	11.1
Settlement problems	5.8	18.7	16.5	13.9	2.4	11.7	5.9	0.0	13.4
Marriage interruption or separation	2.5	16.6	12.4	8.4	0.5	11.1	13.5	0.0	11.2
Expulsion or discrimination from school/college	1.7	1.4	1.4	2.4	2.8	0.9	11.2	0.0	2.3

Table 3.13 Percent distribution of respondents who tried to quit drugs and reasons

Behavior	Division; %								Total
	Barisal	Chattogram	Dhaka	Khulna	Mymensingh	Rajshahi	Rangpur	Sylhet	
Ever tried to quit drugs									
Yes	50.0	65.5	49.2	50.6	63.8	72.7	30.1	4.9	51.7
No	50.0	34.5	50.8	49.4	36.2	27.3	69.9	95.1	48.3
Reasons for trying to quit drugs									
Self-decision	28.3	22.7	48.0	13.3	45.9	6.9	64.6	36.4	30.7
Health problems	10.9	9.3	26.7	13.3	29.9	21.1	20.4	36.4	19.0
Family pressure	56.5	62.0	23.9	69.4	23.6	63.2	14.2	27.3	46.2
Risk of arrest	4.3	5.9	.9	3.9	0.0	8.9	.9	0.0	4.0
Financial problem	0.0	0.0	.6	0.0	.6	0.0	0.0	0.0	.2

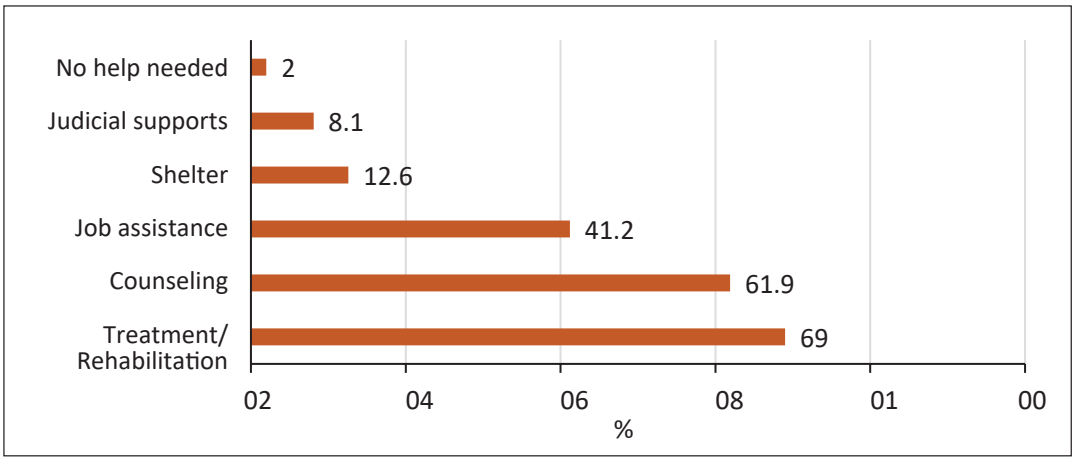
Respondents were asked whether they received rehabilitation/treatment from any counselling center. Only 13.2% of respondents had replied that they received drug treatment or rehabilitation, while 86.8% had never accessed any formal care (Figure 3.7).

Figure 3.7 Ever received treatment from any counseling center



When asked what kind of support they needed to stop drug abuse, the most frequently mentioned responses were rehabilitation services (69.0%), counseling (61.9%), treatment and job assistance (41.2%). Other important needs included shelter (12.6%) and judicial support (8.1%), while only 2.0% stated they needed no help (Figure 3.8).

Figure 3.8 Types of support needed to stop drug use as opined by drug abusers



3.2.2 Qualitative Findings

3.2.2.1 Peer Influence and Initiation Pathways

A recurring theme across in-depth interviews (IDIs), focus group discussions (FGDs), and key informant interviews (KIIs) was the influence of peers and social networks in initiating drug abuse. Most participants reported that drug abuse began during adolescence or early adulthood, typically between ages 10 and 18, typically introduced by friends or individuals in their community. The initial exposure often involved substances like cigarettes or cannabis, with progression to more potent drugs such as Methamphetamine (Yaba), heroin, injectables, Codeine phosphate, and locally known substances like "banana." Settings of use were usually secluded areas such as abandoned buildings, rail tracks, or forests, reflecting the stigma surrounding drug abuse and the desire for concealment. The social environment, particularly in urban slums and informal settlements, fostered easy access and normalized experimentation, especially among youth facing boredom, curiosity, or emotional distress. Peer pressure, curiosity, romantic relationships, and emotional distress including breakups, trauma, or job loss were cited as key triggers. The influence of older friends or drug dependent family members was also reported. Once initiated, drug abuse became embedded in group behavior, reinforcing dependency and normalization. Some individuals also mentioned being introduced to drugs by older friends or even family members, highlighting the pervasive reach of this influence.

"The participant first started using drugs at the age of 14 or 15 after spending time with friends who were inhaling heroin." – [IDI, Rajshahi]

"Initially, I just followed my friends. I didn't know what I was doing. Later I got drug dependency." – [IDI, Rangpur]

"I started using methamphetamine (Yaba) with a girlfriend and friends... It gave me energy and pleasure." – [IDI, Rangpur]

3.2.2.2 Socio-Economic Drivers of Drug Abuse

Economic hardship emerged as a powerful driver of drug abuse across diverse contexts. Many participants indicated that poverty, unemployment, and financial instability had made them vulnerable to substance use. Individuals struggling to meet basic needs often turned to drugs as a coping mechanism to deal with stress, frustration, and hopelessness. For some, job loss particularly after returning from overseas employment triggered depression and a subsequent dependence on drugs.

Participants also described how income from small-scale businesses or informal work was often diverted to purchase drugs, creating a vicious cycle of economic strain and drug abuse. In households with low income, the cost of treatment was another barrier, preventing families from seeking professional support for drug dependency members.

"I use my tea shop's income to buy drugs. I've also been harassed by law enforcement." – [IDI, Rangpur]

"While in Malaysia, I couldn't find any job and got involved in selling and using methamphetamine (Yaba). When I came back, I couldn't stop." – [IDI, Chattogram]

"In villages, three friends with Tk. 20 each can get gaza and they use together." – [KII, Rajshahi]

"I sold my rickshaw to buy drugs… now I roam the streets." – [FGD, Mymensingh]

3.2.2.3 Stigma, Social Isolation, and Family Rejection

Stigma and social exclusion featured prominently in the experiences of drug abusers, with many reporting feelings of isolation, discrimination, and dehumanization from both family and community members. Once their drug abuse became known, several participants described being treated as outcasts verbally abused, denied food, or forced to leave home. This rejection not only deepened their emotional suffering but often intensified their reliance on drugs as an escape.

Family rejection, particularly from parents and siblings, was a common and painful experience. In some cases, users were denied access to family events or even medical care. Stigmatization extended into the community as well, with neighbors spreading rumors or refusing to associate with them. This social exclusion created significant barriers to recovery, as individuals were often left with no support system or pathway back to acceptance.

"My family treats me like a dog. They verbally and physically abuse me." – [IDI, Rajshahi]

"I cannot talk to my family or see them. They don't accept me anymore." – [IDI, Dinajpur]

"My elder brother betrayed me." – [FGD, Sylhet]

"The police caught us as we were sitting on a road side, eventhough we were not taking drugs." – [FGD, Rangamati]

3.2.2.4 Health Risks and Physical Deterioration

The physical and mental health impacts of drug abuse were evident throughout the interviews. Many respondents reported severe health issues ranging from chronic respiratory and gastrointestinal problems to mental health disorders such as depression, anxiety, and hallucinations. Injection drug abusers frequently mentioned skin infections, abscesses, and symptoms consistent with bloodborne infections, underscoring their exposure to unsafe injecting practices.

Participants also described physical weakness, weight loss, and disrupted sleep as common consequences of long-term drug abuse. Several expressed frustration that their deteriorating health limited their ability to work, sustain relationships, or even seek help-further deepening

their dependency and marginalization. The interplay between poor health and drug abuse created a cycle that few could escape without medical and psychosocial intervention.

"I often vomit blood, can't eat properly, and feel like my body is burning from inside." – [IDI, Rajshahi]

"My body is weak now… my teeth have rotted, I can't sleep, and I feel like I'm going mad." – [IDI, Rangpur]

"I feel like something is chasing me, I can't sleep." – [FGD, Chattogram]

"They are suffering from abscess, Hepatitis B and C, HIV, STI." – [FGD, Khulna]

These testimonies highlight the urgent need to scale up harm reduction services, including medical treatment, mental health care, and safe injecting facilities.

3.2.2.5 Barriers to Treatment and Service Access

Access to treatment and rehabilitation services was reported as extremely limited, especially for those in rural or low-income settings. While many respondents expressed a desire to quit drug abuse, they faced numerous barriers—ranging from high treatment costs and lack of nearby facilities to poor quality of services and fear of arrest or harassment by law enforcement.

Some participants had prior experiences with detoxification or rehabilitation centers but cited relapse due to the lack of follow-up support or community reintegration programs. Others mentioned being discouraged by previous negative encounters with healthcare providers who showed little empathy or understanding. A few noted the absence of harm reduction services, particularly for people who inject drugs (PWID), and the lack of availability of methadone or buprenorphine programs.

"I want to stop. But where can I go? Treatment costs money. We don't even have food sometimes." – [IDI, Khulna]

"Many doctors are unwilling to treat drug abusers." – [IDI, Rangpur]

"They treat you badly in rehab. Once you come out, no one helps you find work or shelter." – [IDI, Chattogram]

"We haven't received any help from the government." – [FGD, Mymensingh]

3.2.2.6 Community-Level Recommendations and Demand for Integrated Support

Participants across all qualitative tools (IDIs, FGDs, and KIIs) emphasized the need for community-driven, holistic solutions to address drug abuse. There was a shared call for awareness programs, youth engagement activities, and accessible rehabilitation services that were free from harassment, stigma, and abuse. Many suggested integrating drug treatment

with livelihood opportunities, psychosocial support, and family counseling to ensure long-term recovery and reintegration.

Respondents highlighted the importance of building trust between drug abusers, service providers, and law enforcement. Several key informants advocated for a public health approach rather than punitive measures, with a focus on harm reduction and early intervention. Suggestions also included strengthening school-based education, engaging religious leaders, and creating safe community spaces for youth to prevent drug initiation.

"We need a place where people can go and get help without being judged or arrested. Many want to quit, but they have no support." – [FGD, Dhaka]

"Youth centers, skill training, and counseling must be part of the solution-not just jail and punishment." – [KII, Rajshahi]

"We need counseling, jobs, and a place to stay after rehab." – [FGD, Chattogram]

"Law enforcement frequently detains drug abusers without clear reasons." – [IDI, Rangpur]

The qualitative component of the study, IDIs, FGDs, and KIIs across eight districts, revealed multifaceted and interlinked drivers of drug abuse in Bangladesh. The findings highlighted that peer influence was a common pathway for initiation, particularly among adolescents and young adults. Friends, romantic partners, and even family members often introduced individuals to drugs, normalizing their use within social circles.

Socio-economic factors played a significant role in sustaining drug dependency. Poverty, unemployment, and financial distress-often compounded by return migration or family breakdown-created conditions where drugs became a coping mechanism for stress, depression, or despair. Many users reported diverting limited income towards substance use, perpetuating cycles of economic vulnerability.

Stigma and family rejection emerged as central barriers to recovery. Participants described experiences of isolation, verbal and physical abuse, and social exclusion, which deepened their dependence and diminished their willingness to seek help. Additionally, health-related deterioration including physical weakness, mental instability, and symptoms of chronic disease was commonly reported, particularly among long-term and injecting drug abusers.

Despite a willingness among some participants to seek treatment, barriers to accessing services such as high costs, poor quality, lack of availability, and fear of arrest hindered recovery efforts. Community-level respondents emphasized the need for integrated interventions, including awareness programs, youth engagement, skill development, and harm reduction services.

The findings point to an urgent need for comprehensive, inclusive, and community-sensitive approaches that combine health, social, and legal strategies to effectively prevent and respond to drug abuse across Bangladesh.

Section 4: Conclusion, Recommendations, and Limitations

4.1 Conclusion

This nationwide study, conducted under the leadership of the Department of Narcotics Control (DNC), represents the most comprehensive assessment to date of illicit drug abuse and its associated factors in Bangladesh. Through a rigorous mixed-method approach integrating the Network Scale-Up Method (NSUM), quantitative data collection from drug abusers and qualitative inquiry, the study estimates that approximately 8.3 million individuals, 4.88% of the population, use illicit drugs, with cannabis, Methamphetamine (Yaba), and alcohol being the most commonly consumed substances in Bangladesh.

The findings highlight a striking concentration of drug abuse among males. Drug abuse was found to be highest among young adults aged 21-40, with peer influence, socio-economic hardship, and psychological distress as key drivers. Access to drugs remains alarmingly easy, while treatment and harm reduction services are limited and underutilized, with only 13.2% of users ever receiving formal support. Drug abuse was found to be more prevalent in urban areas, yet substantial numbers were also reported in Rural and Peri-Urban regions, underscoring the widespread nature of the problem. Economic hardship, unemployment, and peer influence were key drivers, while stigma, discrimination, and poor access to affordable treatment emerged as major barriers to recovery.

The qualitative data provide deep insights into the lived realities of people who use drugs (PWUD). Many participants recounted experiences of family rejection, police harassment, physical and mental health deterioration, and failed attempts at quitting due to the lack of follow- up support.

The study clearly indicates that the current drug control strategies, largely reliant on punitive enforcement, are insufficient and, in many cases, counterproductive. A paradigm shift is needed: one that embraces a public health and human rights-based approach, supported by strong community systems, rehabilitative services, and harm reduction mechanisms. Addressing the drug crisis in Bangladesh is not merely a criminal justice issue; it is an imperative for sustainable development, public health, and social cohesion.

4.2 Recommendations

Based on the study's findings and aligned with the study objectives, the following actionable recommendations are proposed:

1. Expand treatment and rehabilitation services across all districts in collaboration with the Ministry of Health and Family Welfare, ensuring they are accessible, evidence-based, and inclusive of marginalized populations.

2. Increase coverage of harm reduction interventions such as needle-syringe exchange programs and opioid substitution therapy to minimize health risks of injecting drug abusers.

3. Implement early prevention programs targeting adolescents and youth through schools, communities, and peer networks.

4. Address economic drivers of drug abuse by promoting livelihood training, job placement, and social protection for vulnerable groups.

5. Reduce stigma and promote reintegration through mass awareness, family counseling, and community-based support systems.

6. Train law enforcement personnel on drug dependency and human rights, ensuring diversion to care instead of punishment.

7. Build capacity of service providers and community actors through structured training and partnerships.

8. Ensure intersectoral coordination and dedicated funding by form ing a national task force and integrating drug response into development planning.

9. Promote and support public health and clinical research to generate evidence that in forms program development and policy reforms.

4.3 Ways Forward

The scale and complexity of drug abuse in Bangladesh demands a national commitment to short term and long-term multisectoral solutions. The DNC, as the lead agency, works with other government bodies, civil society organizations, development partners, and affected communities to translate the findings of this study into concrete policy reforms and scalable programs.

4.4 Limitations

This study used the network scale-up method for the size estimation of drug abusers in Bangladesh. Though this method is widely used for the size estimation of hard to reach populations, there are a number of limitations, as stated below:

- Field implementation of this method showed that respondents may under-report the number of people known in larger populations and over-report the number known in smaller populations.
- Transmission error (when respondents inaccurately report the number of people they know using drugs due to misunderstandings or incomplete knowledge) was particularly likely in settings where the behavior of interest was highly stigmatized
- The application of this method required the assumption that the network of social contacts in the general population was essentially random.
- People might have known someone in a hidden population and been aware of that fact but not reported this information in an interview because of the sensitive nature of the behavior involved. However, this method did not require respondents to identify themselves as a member of the hidden population
- Barrier effects were particularly important in this context. These barrier effects could have been particularly problematic if those who were more likely to know members of the hidden population (drug abusers) were less likely to be included in the sample, either because of incompleteness of the sampling frame or non-response.

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