



THE UNITED REPUBLIC OF TANZANIA

DRUG CONTROL COMMISSION

Mapping of People Who Use Drugs
and People Who Inject Drugs
in Selected Regions of Tanzania



June 2015

Study Team:

Yovin Ivo Laurent, MSc	Drug Control Commission
Willi McFarland, MD, PhD	University of California, San Francisco
Henry F. Raymond, DrPH, MPH	University of California, San Francisco
Amani Msami, MPH	Drug Control Commission
Syangu Mwankemwa, MD, MPH	Drug Control Commission
Moza Makumbuli, MA	Drug Control Commission
Alois Ngonyani, MSc	Drug Control Commission
Joel Ndayongeje, MSc	University of California, San Francisco
Susie Welty, MPH	University of California, San Francisco
Jenny Tiberio, MPH	University of California, San Francisco
Meghan Morris, PhD, MPH	University of California, San Francisco
Christen Said, MPH	University of California, San Francisco
Eva Matiko, MD, MPH	U.S. Centers for Disease Control and Prevention, Tanzania
Mary Kibona, MD, MMed	U.S. Centers for Disease Control and Prevention, Tanzania

Implementing Institution:

Drug Control Commission (DCC)

Technical Assistance Provided By:

University of California, San Francisco (UCSF)

Sponsoring Institution:

U.S. Centers for Disease Control and Prevention (CDC), Tanzania

This research has been supported by the President’s Emergency Plan for AIDS Relief (PEPFAR) through the Centers for Disease Control and Prevention under the terms of grant #U2GPS001472.



We wish to acknowledge with sincere gratitude all those who contributed to the study design, collection of data, analysis, and production of this document. Our deep thanks go to all primary and secondary key informants for their willingness to share valuable information. Without their contributions, this report would not have been possible. We also acknowledge the support provided by the regional authorities during all periods of data collection, as well as all stakeholders for their contributions during the planning of this study.

We acknowledge with special gratitude the financial support provided by the American People under the President's Emergency Plan for AIDS Relief (PEPFAR) through the U.S. Centers for Disease Control and Prevention (CDC). We especially wish to thank the University of California, San Francisco (UCSF) for the technical expertise provided throughout the whole process of instrument design, training, data collection, analysis, and production of the report. Finally, we wish to express our great appreciation to Yovin Ivo Laurent, Amani Msami, Syangu Mwankemwa, Alois Ngonyani, Moza Makumbuli, Joel Ndayongeje, Jenny Tiberio, Susie Welty, and Meghan Morris for their dedication and tireless work in the field during the data collection process.



.....
Kenneth J. Kasseke
COMMISSIONER

Table of Contents

Abbreviations.....	5
Glossary of Terms.....	5
EXECUTIVE SUMMARY	7
1.0 INTRODUCTION	10
1.1 Background and rationale	10
1.2 Drug mapping objectives	10
2.0 STUDY METHODS.....	11
2.1 Description of study locations.....	11
2.2 Design and methods.....	12
<i>Sampling and recruitment</i>	12
<i>Data collection and analysis</i>	13
3.0 RESULTS	15
3.1 Geographical areas.....	15
3.2 Key informants.....	16
<i>Sociodemographic characteristics of primary key informants</i>	19
3.3 Estimated number of people who use drugs	21
3.4 General scope of illicit drug use in the 12 study regions	22
3.5 Drug use patterns	32
<i>Hotspots</i>	32
<i>Types of illicit drugs being used</i>	33
<i>Modes of administration of illicit drugs</i>	34
<i>Cost of drugs</i>	34
3.6 Law enforcement responses to the drug-use problem.....	35
3.7 Perceptions of drug use and of those who use drugs	36
<i>Community perception of PWUD</i>	36
<i>Perception among PWUD of people who inject drugs</i>	37
3.8 Available services for people who use drugs.....	38
<i>Access among PWUD to general health services</i>	38
<i>Services targeted specifically to the drug-using population</i>	39
3.9 HIV risk behaviour and perceptions of risk.....	42
4.0 LIMITATIONS.....	44
5.0 CONCLUSION.....	45
6.0 RECOMMENDATIONS.....	46
Appendix 1.....	49

Abbreviations

AIDS	acquired immunodeficiency syndrome
CBO	community-based organization
CDC	U.S. Centers for Disease Control and Prevention
CPZ	Chlorpromazine
CSO	community service organization
DCC	Drug Control Commission
GPS	global positioning system
HIV	human immunodeficiency virus
HTC	HIV testing and counselling
ICAP	International Center for AIDS Care and Treatment Programs
IDU	injecting drug user
IEC	information, education, and communication
MoHSW	Ministry of Health and Social Welfare
MSM	men who have sex with men
NGO	nongovernmental organisation
PEPFAR	The U.S. President's Emergency Plan for AIDS Relief
PrEP	pre-exposure prophylaxis
PWID	people who inject drugs
PWUD	people who use drugs
SAADA	Small Axe Against Drug Abuse
TAYODEA	Tanga Youth Development Association
UCSF	University of California, San Francisco
UNODC	United Nations Office on Drugs and Crime

Glossary of Terms

Ashton	a prescription medication for paediatric dental care
aspirin	an over-the-counter nonsteroidal pain reliever and anti-inflammatory, also known as acetylsalicylic acid
busta	slang term referring to a pack of heroin; approximately 1 gram in weight (20-24 kete)
cocktail	a combination of cannabis dust, tobacco, and heroin
hotspot	geographic location or place where regular drug use occurs
illicit drugs	illegal drugs according to Tanzanian law
kete	slang term referring to a pack of heroin or cocaine; approximately 1/24 gram in weight
khat	a plant native to tropical East Africa and Arabia that, when chewed (or drunk), acts as a stimulant
teja	slang term for addict or someone who uses heroin or cocaine

unga slang term that describes white, brown, or khaki-coloured drugs (heroin/cocaine) in powder or crystal form, originating from the Kiswahili word “unga,” meaning flour

Valium a trademark of diazepam; a prescription medication used primarily to relieve anxiety

vijiwe slang term referring to a street hangout

EXECUTIVE SUMMARY

Introduction

This report details the findings of a rapid assessment study employing multiple methods to characterise and estimate the drug use epidemic within 12 regions of Tanzania. Between July 2013 and August 2014 we conducted qualitative data collection including in-depth interviews with key informants, mapping, and enumeration activities in Mtwara, Dodoma, Morogoro, Pwani, Kilimanjaro, Tanga, Arusha, Mwanza, Mbeya, Shinyanga, Geita, and Kigoma. The study objective was to increase understanding of the scope and magnitude of non-injection and injection use of illicit drugs, including heroin and cocaine, and detail the geographic dispersion of people who use drugs (PWUD) and people who inject drugs (PWID) along the coast and in other regions of Tanzania. These findings will inform next stage research, policy, and community responses including targeted HIV-prevention strategies.

Results

Study staff conducted a total of 436 interviews across 47 towns/municipalities in 12 regions. The majority (75%) were with primary key informants (current or recent PWUD) and the remaining quarter (25%) were with secondary key informants (i.e., service providers, community experts). Interviews identified that PWUD populations were predominately male, aged 20 to 39 years, suggesting that drug use was concentrated among people of working age, whose income often came from employment as a bus tout/agent, casual labourer, petty trader, or stealing. The majority reported not having a steady income and 1 in 5 were unemployed. A few, mainly women, engaged in trading sex for money.

Study estimates of the number of PWUD across regions were: 5,190 in Tanga, 3,300 in Mwanza, 2,700 in Arusha, 1,539 in Pwani, 1,500 in Morogoro, 1,096 in Dodoma, 820 in Mbeya, 563 in Kilimanjaro, 319 in Shinyanga, 108 in Geita, 100 in Kigoma, and 65 in Mtwara. We estimated the number of PWID was 540 in Tanga, 300 in Mwanza, 297 in Morogoro, 230 in Arusha, 164 in Pwani, 133 in Dodoma, 107 in Kilimanjaro, 64 in Mbeya, 25 in Shinyanga, 7 in Mtwara, 3 in Geita, and 0 in Kigoma.

Across all regions, illicit drug use was increasing; with heterogeneity in the magnitude and type of drug use epidemic across regions. Cannabis was the most common illicit drug used, followed by heroin. Drug use hotspots were more numerous in regions with major roadways, and commonly located near bus stops or intercity bus stands within municipalities and along

main roads. Hotspots were also found in low-income residential areas, areas with abandoned or unfinished buildings, and fishing camps along the Indian Ocean.

The majority of PWUD engaged in smoking “cocktail,” which is a combination of cannabis dust, tobacco, and heroin. Few PWUD injected or had ever injected drugs. Those who were identified as PWID appeared to inject heroin. Within all regions several primary and secondary key informants could not distinguish heroin from cocaine by name, but instead referred to both as “unga,” a slang term that describes white, brown, or khaki-coloured drugs in powder form. In all regions, needle sharing was high among the small number who engaged in injection drug use. Risky sexual behaviours (e.g., condomless sex, multiple sex partners, and transactional sex) also appeared high among PWUD.

Individuals believed to use drugs were often stigmatised by community members. Community members did not trust these individuals and often referred to them with derogatory terms such as “teja” (addict). Teja refers only to those who use unga; members were more accepting of those who smoked cannabis or used khat.

We identified few drug-related services for PWUD. Both primary and secondary key informants expressed a desire for harm reduction services, including methadone treatment; rehabilitation programmes, such as sober houses; vocational training to learn skills for income-generating activities; and employment opportunities and loans to help generate a reliable source of income.

In all regions, needle sharing appeared to be high among the PWID. Risky sexual behaviours (e.g., condomless sex, multiple sex partners, and transactional sex) appeared high within the larger PWUD group.

Conclusion

This study provides a description of the scope and magnitude of non-injection and injection drug use across 12 regions in Tanzania. We characterise drug using behaviours, describe drug use hotspots, and provide estimates for the number of PWUD and PWID within each region. Findings serve as a foundation for understanding the nature of the drug-use epidemic in previously unstudied areas of Tanzania. This study provides valuable information to target services for drug using populations and the expansion of HIV prevention strategies at the local and regional level. Heterogeneity in both the scope and magnitude of drug use within each region reinforces the importance of follow-up studies to identify key drivers of the

epidemic. Findings highlight the escalating drug use epidemic within all 12 regions and encourage timely national and local responses with strategies to serve the needs of drug using populations in Tanzania.

Recommendations

Based on findings and stakeholder meetings, we provide the following recommendations to inform next steps:

- Provide primary drug use and HIV risk prevention strategies for all risk groups
- Carry out advocacy and sensitisation activities at all levels to reduce stigma and to support PWUD services
- Increase capacity (knowledge, attitudes, and skills) among service providers for PWUD, and increase the visibility of existing health services within the community
- Improve current providers' ability to serve PWUD, with pre-service training and curricula for social workers, health care providers, and community development officers
- Strengthen coordination and governance of community and government resources for the support of drug-use interventions/programmes at the national and regional levels
- Strengthen collaboration and linkages among existing drug and HIV programmes across all relevant sectors, and scale up and/or build upon existing structures with additional services, including drug treatment and harm reduction
- Carry out additional studies, particularly quantitative epidemiological studies to measure the prevalence of HIV and associated risk behaviours among PWUD, and mixed methods studies in order to provide more information about drug use, drug types used, adulteration practices and their health effects

1.0 INTRODUCTION

1.1 Background and rationale

Mitigating the negative health effects of drug use continues to be an international challenge, as drug use appears to be on the rise globally. According to UNODC, WHO, UNAIDS, and World Bank, the number of PWID is estimated to be 12.7 million (8.9 million to 22.4 million), which is 0.27% of all people aged 15-64 years.ⁱ In 2008, a study in 148 countries found that sub-Saharan Africa was home to an estimated 1.5 million PWIDⁱⁱ. Injection drug use has continued to spread in sub-Saharan Africa; however, the prevalence of injection drug use behaviour is not well documented in Tanzania beyond Dar es Salaam and Zanzibar. With little information on the scope of drug use, it is difficult to plan and effectively implement health and social interventions that are needed by these populations to prevent HIV infection and other negative health outcomes, as well as provide them with lifesaving services.

Therefore, the Drug Control Commission (DCC), with the support of the U.S. Centers for Disease Control and Prevention (CDC) and with technical assistance from the University of California, San Francisco (UCSF), planned and implemented this activity to understand the scope of the problem in select regions and to identify the services needed.

1.2 Drug mapping objectives

The overall objective of this study was to better understand the scope of non-injection and injection drug use, as well as the geographic dispersion of PWID along the coast and in other inland regions of Tanzania, in order to inform the targeting of HIV prevention and care interventions.

Specific objectives are:

- To locate and characterise hotspots within select geographic areas for non-injection and injection drug use;
- To document basic demographic profiles of PWUD and assess their need for HIV prevention and care services;
- To describe the scope of drug use, and the types of drug use within hotspots in selected geographic areas; and
- To conduct population size estimates of PWUD and PWID for each hotspot and for selected geographic areas.

2.0 STUDY METHODS

2.1 Description of study locations

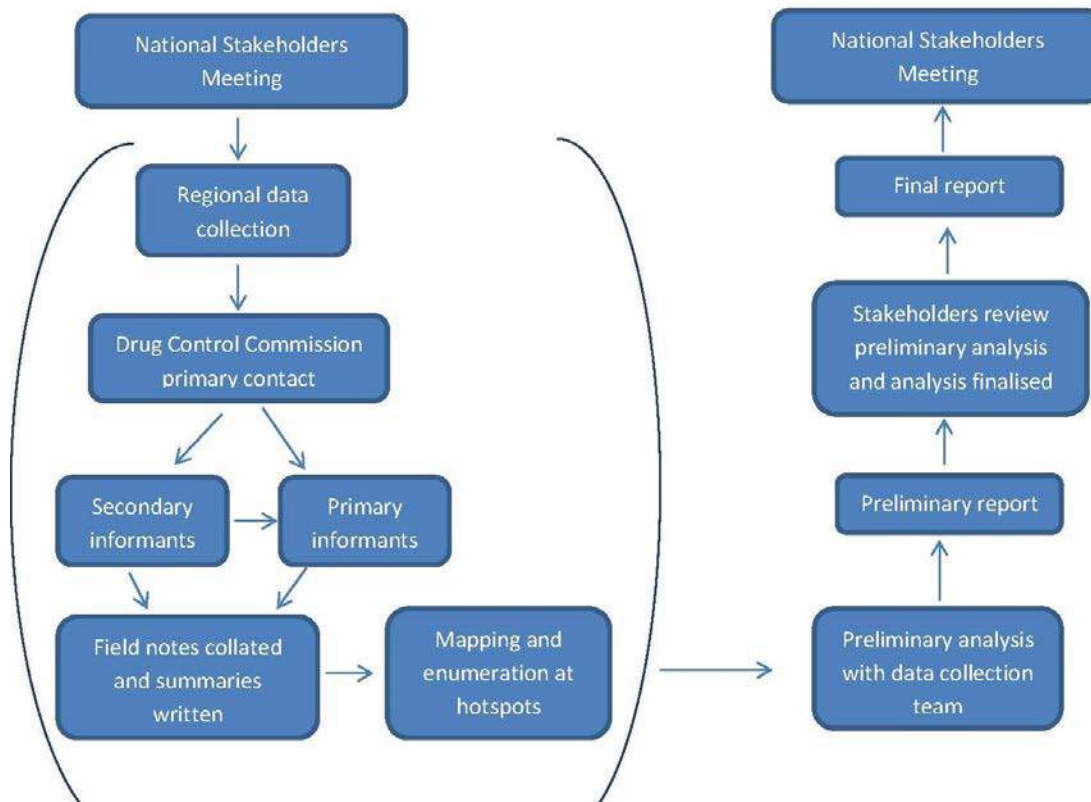
Originally, 7 regions were selected for inclusion based on their proximity to the coastal corridor and major transit routes. A national stakeholders meeting was held, and the regions were narrowed to 5: Mtwara, Pwani, Dodoma, Morogoro, and Kilimanjaro. (1) Mtwara, a region along the coast and bordering Mozambique, was chosen because it is along the coastal corridor and has a seaport, fishing activities, mining, and oil exploration that could lead to an influx of people at risk for drug use. (2) Pwani is also a coastal region, very near the metropolitan centre of Dar es Salaam, and has roadway access, tourism activity at heritage sites, official and nonofficial seaports, and oil and gas exploration. (3) Dodoma is in the middle of Tanzania, with access to 2 of the 3 major roadways in the country. Dodoma has a fast-growing capital city with mixed interactions due to the presence of government activities, an increase in the number of young people attending local universities, and established local cannabis cultivation. Similarly, (4) Morogoro lies in the hills (ideal for cannabis cultivation) and is bisected by the trans-African highway that leads to Zambia. (5) Kilimanjaro, in northern Tanzania, has an international border (with multiple entry points from Kenya), has an international airport, is a major tourist destination, has khat and cannabis cultivation, and serves as a transit route for drugs throughout Tanzania and beyond.

After the first round of data collection was completed in the initial 5 regions, preliminary analysis was conducted and shared with stakeholders. Another 7 regions were selected for a second round of data collection. The 7 regions of Tanga, Arusha, Mwanza, Mbeya, Shinyanga, Geita, and Kigoma were selected to ensure that the study included the largest metropolitan centres outside of Dar es Salaam, to sample additional regions along major road networks, and to assess our hypothesis that drug activity was concentrated within these regions. Specifically, (1) Mbeya shares a border with Zambia, Malawi, and 6 regions within Tanzania, and it has high transit activity. Similarly, (2) Kigoma shares a border with the Democratic Republic of Congo, Burundi, Zambia, and 4 other regions. (3) Shinyanga and (4) Geita have mining activity and are situated along a major road network. (5) Mwanza has a fast-developing city near mining industry and shares a border with 5 other regions. (6) Tanga is located along the coastal roadway and borders Kenya. Lastly, (7) Arusha is situated along a major roadway and borders Kenya as well as 5 other regions in Tanzania. Tanga, Arusha, and Mwanza were hypothesised to have many drug hotspots.

2.2 Design and methods

This study was carried out in phases, using successive rounds of key informant interviews, hot spot mapping with enumeration, and expert interpretation. The first round of data collection (5 regions) took place over 6 weeks, from July to September 2013. The second round (7 regions) lasted approximately 8 weeks during the period of May to August 2014. Interviews initially targeted service providers/local experts (secondary key informants), who were identified with the help of the DCC's local contacts, then the interviewers selected members of the target population: current or recent PWUD (primary key informants), who were identified by the secondary key informants (see Figure 1).

Figure 1: Study design and methods



Sampling and recruitment

Participants underwent screening to determine if they were eligible for the study. Inclusion criteria stipulated that participants be aged 15 years or older, not exhibiting violent or erratic behaviour at the time of the interview, and not under the visible influence of drugs or alcohol at the time of the interview. Primary key informants were those who reported having used illicit drugs in the past 30 days, and for PWID those who reported having injected illicit drugs in the past 30 days. For providers/experts, selection was made among those who provided

services to, had in-depth knowledge of, or interacted on a regular basis with the PWUD target population.

Recruitment for the primary key informant interviews was carried out using purposive sampling in order to recruit participants with a variety of demographic characteristics and thereby garner a diversity of perspectives. Two to 6 primary key informants were interviewed at selected hotspots. In the vast majority of cases, eligible participants agreed to be interviewed. Sadala, a small town in Kilimanjaro, was the only place where someone who was identified as a potential primary key informant denied using drugs and declined to participate in the study. Possible hotspots where PWUD congregate were initially identified by secondary key informants; thereafter, additional hotspots were identified through interviews with primary key informants. Persons who appeared to be PWUD were approached by the study team. Identifying PWUD was somewhat subjective and relied on the expertise of the researchers to assess their appearance, though presence in an area of high drug use was usually a strong enough indicator. Occasionally, primary key informants used drugs in the interviewers' presence. Otherwise, screening with specific questions on drug use helped ensure that appropriate participants were recruited into the study.

Recruitment for the secondary key informant interviews was also done using purposive sampling based on formative conversations with leaders in each community/organisation. Informed consent was obtained before beginning the interviews.

Data collection and analysis

Interviews were conducted in Kiswahili by a trained, two-person data collection team. One person acted as the interviewer or facilitator, and the other took notes. Interviews covered the following topics: locations of hotspots where illicit drug use occurs, estimates of the number of people who use non-injection and injection drugs who frequent each hotspot, availability of and access to health services as well as services targeting PWUD, demographic characteristics of PWUD in each hotspot, and community responses (including those of police) to PWUD. The 2 types of key informants (primary and secondary) were asked a similar series of questions in order to triangulate findings and provide a clear picture of non-injection and injection drug use in the target regions. Before the second round of data



Primary key informants receiving IEC materials following interviews.

collection, the team added probes to the data collection instruments based on data from the first round, in order to further investigate important themes and to collect the richest possible data. Following the interview, primary key informants received incentives in the form of a hygiene kit (toothpaste, toothbrush, soap, and T-shirt) as well as IEC materials.

In-field data collection and first-round analysis: Upon completion of each interview, team members debriefed together, resulting in expanded field notes of the interview. For the second round, the summary process was improved via the completion of daily summary sheets based on important study themes. This allowed the field team to carry out a rolling analysis, identifying conflicting data and determining which themes required further investigation in subsequent interviews. At the completion of data collection activities in each region, the data were collated and synthesised, resulting in a second set of regional field notes.

Qualitative data analysis: The study team and external qualitative experts conducted an analysis following each complete round of data collection. The same individuals conducted all of the interviews throughout the study, as well as participated in the subsequent analyses, allowing for consistency from start to finish. The expanded field notes were synthesised into Microsoft Excel documents and reviewed by several teams of analysts to pick out key themes that were in accordance with the study objectives: general description of the drug problem, PWUD characteristics, drugs used, cost of drugs, modes of administering drugs, services available, services needed, and population size.

Prior to analysing the second round of data collected, the analysts acknowledged any personal subjectivities or biases related to the first round of data collection and analysis. Being aware of and acknowledging subjectivities during qualitative data analysis is an important step in reducing confirmation bias (inadvertently focusing on data that confirms previously held beliefs).

Population size estimate activities: The study team estimated population sizes by using a multipronged approach: wisdom of the crowd, mapping and enumeration, and a modified Delphi approach. Wisdom of the crowd was employed by considering the key informants to be experts of their locality, then using their knowledge to obtain a basic understanding of how many PWUD were present by polling them, finding means and medians for individual hotspots, and then summing estimates for regions. This method may underrepresent the true

number of a populationⁱⁱⁱ because their perception is constrained to visible PWUD in identified hotspots and interpretation of the question. Mapping and enumeration (i.e., observation and counting) were carried out by the field team that went to each hotspot, recorded geographical coordinates, and counted PWUD. This method may also underestimate the actual number of PWUD (we assumed by almost 3-fold based on comparison of estimates and other studies) because it is one snapshot of a time and day, which likely does not capture PWUD not present at the time, PWUD not visiting hotspots, and PWUD at missed hotspots. A third method, modified Delphi, was used to augment and triangulate the other 2 methods. The Delphi approach uses a panel of experts to iteratively offer estimates, interpret and synthesize new data, and arrive at a consensus estimate through repeated rounds. For the first round of data collection, a Delphi was carried out once during the preliminary analysis workshop and again during the report writing workshop, when more stakeholders were present. A second panel revisited the results of the first Delphi, considered various limitations and biases, and produced a second estimate. Furthermore, the team carried out a Delphi in the field after completing each region during the second round, while the data were still fresh in mind. These results were aggregated by region, summarized, reviewed by stakeholders for consensus and are presented as such.

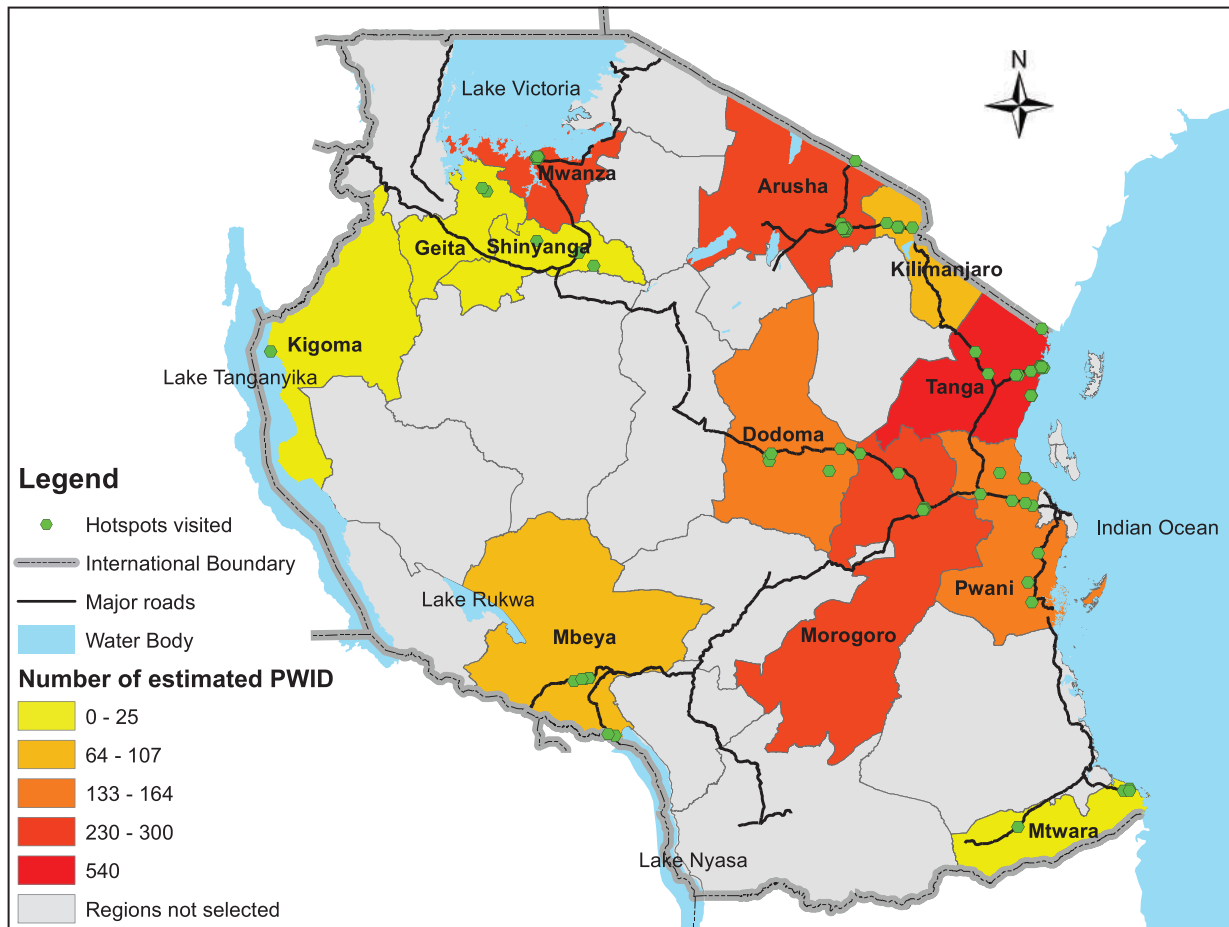
Geographic data/hotspot mapping: GPS coordinates were collected from every hotspot visited by the study team, using a handheld device in order to map where PWUD congregate in order to inform targeted interventions. The maps were created at a scale that protected the confidentiality of specific locations, while providing an overall picture of the dispersion and intensity of drug use areas in each region of the study.

3.0 RESULTS

3.1 Geographical areas

Overall, 47 towns (Mtwara-2, Dodoma-3, Morogoro-5, Pwani-8, Kilimanjaro-6, Tanga-6, Arusha-2, Mbeya-6, Mwanza-2, Geita-1, Shinyanga-3, and Kigoma-3) were visited. Hotspots were found along major highways (the southern highway running from Dar es Salaam to Lindi and Mtwara, the central major highway of Dar es Salaam to Dodoma via Chalinze and Morogoro, and the northern highway from Dar es Salaam to Arusha via Pwani, Tanga, and Kilimanjaro) and in the streets of residential areas. Hotspots were more likely to be located in low-income communities.

Figure 2: Regions where the study was conducted, estimated numbers of PWID, and hotspots visited by the study team



3.2 Key informants

A total of 436 interviews were conducted, of which 329 (75%) were primary key informants and the remaining 107 (25%) were secondary key informants. Males accounted for 87% of all key informants and were the majority among primary key informants, which indicates that males were more visible than females at the identified hotspots. Very few primary key informants were female (n=36). Mwanza and Arusha were the regions with the most female primary key informants with 8 and 7 respectively, followed by Dodoma and Tanga. Two of the women interviewed in Tanga were found at their residence and not at a hotspot. These women associated with men in areas where drug use was taking place or were commercial sex workers. There were no female primary key informants in Mtwara, Geita, and Kigoma.

Table 1: Number of primary and secondary key informants, by region and sex

Region	Primary		Subtotal	Secondary		Subtotal	Total
	Female	Male		Female	Male		
Pwani	1	46	47	2	6	8	55
Dodoma	5	28	33	2	8	10	43
Morogoro	1	32	33	2	11	13	46
Kilimanjaro	3	19	22	0	5	5	27
Mtwara	0	7	7	1	7	8	15
Tanga	5	39	44	4	12	16	60
Mwanza	8	34	42	4	9	13	55
Mbeya	4	27	31	1	10	11	42
Arusha	7	23	30	5	5	10	40
Shinyanga	2	25	27	0	5	5	32
Geita	0	9	9	1	3	4	13
Kigoma	0	4	4	0	4	4	8
Total	36	293	329	22	85	107	436

Description of secondary and primary key informants

Of the 107 secondary key informants, 39 were police officers, 40 health workers, 15 community service providers, 15 NGO staff, and the remainder were categorised as “other,” indicating hotel workers, peer educators, traders, sober-house managers, researchers, a community (ten cell) leader, and the dean of students at a university.

We conducted a total of 329 primary key informant interviews. Of these, only 36 were female and the remainder (n=293) were male. The minimum age was 18 years, and the maximum was 54 years; the mean and median ages were 30 years and 29 years, respectively. This suggests drug use was concentrated among youth and young adults of working age. The ages for the sample of women were between 19 and 42 years.

Of the primary key informants, almost half (48%) had completed primary education, and just 16% had completed secondary education (Table 2). Approximately a quarter (28%) had started but not completed their schooling (i.e., dropped out of either primary or secondary). The majority of primary key informants in Kilimanjaro, Geita, and Kigoma had education above primary level, compared with smaller proportions of primary key informants in the other regions.

Unemployment or lack of a steady job characterised the life of most primary key informants; almost all did not report holding a steady job. Instead, many were involved in the public transport industry as taxi/bus drivers and bus touts or agents (28%); Pwani had the most

primary key informants who worked in these jobs, perhaps because all roads from Dar es Salaam pass through Pwani, thus there is heightened economic opportunity in transportation. The next most common occupations were casual labourer in markets (15%), petty trader (11%), and illegal activities such as sex work and stealing (6%). Seventeen-percent of primary key informants said they were in other occupations—including tour guide, and security guard—while 20% reported they were not employed. Pwani, Morogoro, and Mbeya had many key informants who worked as bus touts—a likely reflection of improved road networks within these regions. In a few interviews, stealing was mentioned as an alternative income-generating activity.

Sociodemographic characteristics of primary key informants

Table 2: Education, occupation, and age of primary key informants, by region and sex

Characteristics	Dodoma		Kilimanjaro		Morogoro		Mtwara	Pwani		Geita	Kigoma
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Male</i>	<i>Male</i>
Age											
18-24	3	5		2		8	2		6	2	1
25-29	2	7	3	4	1	11		1	14		3
30-34		8		6		9	1		10	3	
35-40		4		7		4	3		10	4	
41+		4					1		6		
Education											
No school		1		1		3			5		
Some primary		4		1		4	2	1	7		
Completed primary	1	13	1	6	1	21	2		25	2	1
Some secondary	1	3	1	9		1	1		3	3	2
Completed secondary	3	6	1	2		3	2		5	4	1
More than secondary		1							1		
Occupation											
Taxi/bus driver/ conductor		3		3		3			1		
Bus tout or agent		5		1		10	1		22		
Illegal activities, incl. selling drugs			2		1	1			1		
Casual labourer		3		5		10			13	2	1
Trader	1	9	1			4	1		2	2	
Unemployed	4	8		5		4	4	1	1	3	
Other				5			1		6	2	3

Sociodemographic characteristics of primary key informants

Table 2 continued: Education, occupation, and age of primary key informants, by region and sex

Characteristics	Arusha		Mbeya		Mwanza		Shinyanga		Tanga		Total all 12 regions	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Total	%
Age												
18-24	1	4	2	10	6	10	1	9	1	1	74	22.5
25-29	2	6	1	9	2	11	1	5		9	92	28
30-34	2	7	1	4		8		6	3	10	78	23.7
35-40	1	4		4		4		4	1	14	64	19.5
41+	1	2				1		1		5	21	6.4
Education												
No school					1	4				2	17	5.2
Some primary		3	2	2	1	4	1	1	2	4	39	11.9
Completed primary	7	11	2	15	3	13	1	12	1	21	159	48.3
Some secondary		4		5	2	7		5		7	54	16.4
Completed secondary		4		5		6		6	2	4	54	16.4
More than secondary		1			1			1		1	6	1.8
Occupation												
Taxi/bus driver/ conductor		3				5		2		1	21	6.4
Bus tout or agent		7		16		2		2		5	71	21.6
Illegal activities, incl. selling drugs	4	3	1		4	1			2		20	6.1
Casual labourer		3		2		7				5	51	15.5
Trader		2		1	1	6		3		5	38	11.6
Unemployed	2	5	3	3	2	9	2	5	2	4	67	20.4
Other	1			5	1	4		13	1	19	61	18.5

3.3 Estimated number of people who use drugs

The estimated number of PWUD differed from region to region (see Table 3). Mtwara had the lowest estimated number of non-cannabis (heroin/cocaine) male PWUD; Tanga had the highest, followed by Mwanza, which also had the highest estimated number of female PWUD.

Similarly, the trend among non-cannabis female PWUD differs in magnitude across the 12 regions. Kigoma and Mtwara had no identified females, and Geita and Shinyanga had the next lowest estimated numbers of non-cannabis female PWUD. Mwanza, Morogoro, and Arusha had the highest estimated numbers of female PWUD, with Tanga and Dodoma following close behind.

Tanga, Mwanza, and Morogoro had the highest numbers of total PWID (males and females). As it was for PWUD, Tanga had the most male PWID, followed in order by Morogoro and Mwanza. Tanga, Arusha, and Mwanza had the highest numbers of female PWID. There were no identified male or female PWID in Kigoma, and in Geita there were only a few identified male PWID and no identified females.

Table 3: Estimated number of people who use drugs (PWUD), people who inject drugs (PWID), male-to-female ratio of PWID, and number of PWID per 100,000 adults, by region and sex, Tanzania, 2013-2014

Region	PWUD		PWID			
	Male	Female	Male	Female	M:F ratio	PWID per 100,000 adults*
Tanga	5,000 (3,000-7,000)	190 (120-400)	475 (300-600)	65 (40-100)	7:1	47
Mwanza	2,800 (1,500-4,000)	500 (300-800)	250 (180-400)	50 (30-80)	5:1	20
Arusha	2,500 (1,000-5,000)	200 (70-300)	175 (80-300)	55 (30-110)	3:1	23
Pwani	1,475 (1,000-2,700)	64 (43-117)	150 (50-250)	14 (5-23)	11:1	25
Morogoro	1,250 (750-1,800)	250 (150-360)	260 (180-500)	37 (26-71)	7:1	23
Dodoma	913 (460-1,600)	183 (92-320)	100 (50-130)	33 (17-43)	3:1	12
Mbeya	775 (500-1,200)	45 (30-60)	55 (40-70)	9 (5-15)	6:1	4
Kilimanjaro	450 (200-650)	113 (50-163)	80 (55-125)	27 (18-42)	3:1	10
Shinyanga	308 (140-410)	11 (6-30)	25 (12-35)	0 (0-0)	-	3
Kigoma	100 (50-150)	0 (0-0)	0 (0-0)	0 (0-0)	-	0
Geita	95 (50-120)	13 (5-20)	3 (0-10)	0 (0-0)	-	0
Mtwara	65 (35-150)	0 (0-1)	7 (2-10)	0 (0-0)	-	1

*Adults = regional population of males and females older than 15 years.

3.4 General scope of illicit drug use in the 12 study regions

Interviews with all primary and secondary key informants indicate that the number of people who use illicit drugs (heroin/cocaine) was increasing within the 12 study regions and among both males and females. Kigoma and Mtwara were the exception with no female PWUD identified or reported. Key informants reported that most PWUD are in their 20s and 30s and are either “wapiga debe” (bus touts), casual workers, daladala conductors, porters, fishermen (predominantly in the coastal regions), miners or former miners (in Shinyanga and Geita), petty business owners, traders, or they steal to survive or to support their habit. Others were said—though not confirmed—to be students (especially at secondary schools and higher higher-learning institutions), people in uniform (military, police, and prison personnel), and people with formal employment in offices.

Drugs were reported to be readily available and easily accessible, more so than in the past. In many regions, the visibility of drugs was reported to have also increased: “Users are increasing,” said a primary key informant. “Even a 10-year-old now knows how to grind [the heroin] on a tile and suck it up into the cigarette [to prepare a cocktail]. The ones who teach them are us—those who have used for a long time.”

While the number of females who used heroin/cocaine remained small compared with males, several key informants in many of the regions observed a recent increase in the number of females using drugs. The team did not identify any heroin/cocaine female PWUD in 3 regions, possibly because drug use was still nascent. Key informants also said that women were typically introduced to drug use by their sexual partners or male peers. The majority of key informants said that the female PWUD they know are engaged in sex work or work in salons, sell second-hand clothing, or work in other small businesses. Some are beggars and/or thieves. In Kilimanjaro, Arusha, and Tanga, women were also reported to be selling drugs.

In some regions, there were reports of dealers allowing PWUD to sleep in their home, purchase and use drugs within their home, and even inviting PWUD for large meals during big celebrations such as Eid. Building these strong networks appeared to be a strategy to entice and retain customers.

The study team grouped the regions into 3 categories according to the scale of drug use: (1) Nascent: drug use is just coming into existence and beginning to display signs of taking root; (2) Established: drug use has existed for some time; and (3) Pervasive: drug use is spreading into new subgroups or areas.

Brief regional findings

Tanga – pervasive

Of all the regions studied, Tanga appeared to have the most drug pushers. It was said by key informants that, in some areas of Tanga City a pusher is on every street corner. Drug use had spread to small towns and villages outside of the regional capital. Female PWUD were present but a hidden population; 2 of the female primary key informants were interviewed at their residence rather than at a hotspot. Drug use was also common among fishermen in hotspots near the ocean. PWID were a visible population.

Mwanza – pervasive

Drug use was increasing and concentrated in the regional capital (Mwanza City). Drugs were easily available to those seeking them, and key informants said that the illicit drug business is no longer secret or underground. One key informant commented, “Here, there are drugs as if it is made here.” Female PWUD were visible.

Arusha – pervasive

Khat and non-cannabis (heroin and cocaine) drug use was concentrated in Arusha City. Heroin and cocaine were being distributed by both men and women, but the majority of khat sellers were said to be women. Drugs were said to be supplied from Dar es Salaam, Tanga, and Zanzibar. Inhalation of substances such as glue and petrol by street children was thought to be a major entry point to illicit drug use. PWID were visible in many hotspots. The study team observed a very large quantity of drugs seized in Arusha, indicating a police force active in combatting the problem, which was corroborated by key informants.

Pwani – pervasive

Both primary and secondary key informants agreed that PWUD had been in Pwani for several years and were increasing in number. Pwani was said to have many towns where drugs were being used in addition to the regional capital, perhaps due to the region's geographical location: all major roads from Dar es Salaam to all regions of Tanzania—south, west, and north—pass through here.

Dodoma – pervasive

Although drug use had been occurring in Dodoma for some time, key informants attributed the increase among young people to the emergence of various academic institutions in the region. Drug use was also found in small towns outside the regional capital.

Morogoro – established

Drug use was increasing in the regional capital as well as in small towns along the Dar es Salaam-Dodoma Highways via Morogoro. The increase was thought to be a result of activities near the roadways; many PWUD are involved in bus touting at the stands in Morogoro municipalities and along the highway from Dar es Salaam to Morogoro and onward to Dodoma and Iringa.

Mbeya – established

Drug use was increasing and has limited spread in towns along the road near the borders of Malawi and Zambia but also in Kyela, which is not a border town but situated on Lake Nyasa. The number of users and those who sell drugs was said to be increasing throughout the region. Cannabis was common, especially in Kyela, mostly because it is locally grown.

Kilimanjaro – established

The number of people who use illicit drugs was increasing, but was said to be lower compared with the neighbouring region of Arusha. Drug use was found only in the regional capital, Moshi municipality; no visible PWUD were found in the other towns visited.

Shinyanga – established

Drug use could be found in Shinyanga municipality and in towns outside of the regional capital, namely Kahama and Kakola, which have more economic opportunity due to mining activities. Both the people who sell drugs and those who use drugs were said to have increased in number during the preceding few years. The increase was said to be caused by the movement of people from other regions because of mining activities in the area.

Geita – nascent

Drug use was concentrated in the regional capital, with limited spread to areas where there is mining. The problem was said to be increasing; access to drugs had been a challenge previously, so the small number of drug users would send someone to Mwanza to retrieve drugs for them. Key informants said there were now a handful of pushers in Geita who provide a regular supply. According to one key informant: “Users are increasing fast. Before there was no pusher. We used to go to Mwanza to get the drug. That was 2006. In 2008, one pusher started. June 2009, another was added. In 2010, a third pusher came. And in 2011, the fourth came in. Since May to today, I have seen 6 new people.” Female PWUD were reported, but not visible, at the hotspots.

Kigoma – nascent

Drug use was concentrated only in the regional capital, with no established hotspots. No female PWUD were identified. Key informants noted that the recent arrest of a pusher had made the supply of heroin/cocaine unreliable. Petrol was being inhaled in areas such as Kibirizi and other fishing camps. “Ugoro” (local snuff/chewing tobacco) was reported to be more widely used because the price of “kuberi” (industrially processed chewing tobacco) had risen. A pusher who was interviewed said he was eager to entice many more people to become addicted to heroin.

Mtwara – nascent

Heroin had recently become more available in the region, especially Mtwara municipality, and was reportedly available in Masasi town. During the preceding 3 years, heroin use in Mtwara had steadily increased. This was posited to be a result of

improved roads and a change in bus operations, whereby direct service from Dar es Salaam was running more frequently and reliably. However, the proportion of PWUD who use heroin was still relatively small. No female PWUD were identified.

Table 4: Most common drugs, modes of administration, general description, estimated number of people who use heroin/cocaine (unga), and specific services available, by region, Tanzania, 2013-2014

Region	Most common drugs	Modes of administration	General description of non-cannabis drug use*	Number of heroin/cocaine (unga) PWUD	Availability of targeted services for PWUD
Tanga	<ul style="list-style-type: none"> • Cannabis • Khat • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Khat – chewing • Heroin – injecting, sniffing, or smoking cocktail** 	<p>Drug use was pervasive and increasing, and had spread to small towns and villages outside the regional capital. It was also common among fishermen in hotspots near the ocean. PWID were a visible population. Female PWUD are present but not visible. Tanga appeared to have the most pushers.</p>	<p style="text-align: center;"><u>PWUD</u></p> <p>~5000 male (estimated between 3000 and 7000)</p> <p>~190 female (estimated between 120 and 400)</p> <p style="text-align: center;"><u>PWID</u></p> <p>~475 male (estimated between 300 and 600)</p> <p>~65 female (estimated between 40 and 100)</p>	<p>(1) A sober house (run by a CBO called Tanga Drug Free) offered an abstinence-based recovery programme. (2) Mental health services, including addiction counselling, were available for the general population.</p> <p>(3) TAYODEA, an NGO, reportedly provided education and harm reduction services.</p>
Mwanza	<ul style="list-style-type: none"> • Cannabis • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Heroin – injecting, sniffing, or smoking cocktail** 	<p>Drug use was pervasive, increasing, and concentrated in the regional capital. Female PWUD were visible, and many were considered to be sex workers. Users ranged in age and included students and people with steady jobs.</p>	<p style="text-align: center;"><u>PWUD</u></p> <p>~2800 male (estimated between 1500 and 4000)</p> <p>~500 female (estimated between 300 and 800)</p> <p style="text-align: center;"><u>PWID</u></p> <p>~250 male (estimated between 180 and 400)</p> <p>~50 female (estimated between 30 and 80)</p>	<p>(1) ICAP provided health education and harm reduction tools such as bleach and swab. It also provided escorted referrals to health services such as HIV testing. (2) A private sober house, run by Pili Misana Foundation, offered an abstinence-based recovery programme. (3) Mental health services, including addiction counselling, were available for the general population through Bugando Referral Hospital and the regional hospital. (4) Adilisha provides education, health, and moral instruction. It had a hospital dedicated to youth. (5) Another organisation targeting drug users was Rafiki Family.</p>

<p>Arusha</p>	<ul style="list-style-type: none"> • Cannabis • Khat • Heroin • Cocaine 	<ul style="list-style-type: none"> • Cannabis – smoking • Khat – chewing • Heroin – injecting, sniffing, or smoking cocktail** • Cocaine – sniffing 	<p>Drug use was pervasive and increasing, and the epidemic was concentrated in the regional capital. Female PWUD were visible.</p>	<p><u>PWUD</u> ~2500 male (estimated between 1000 and 5000) ~200 female (estimated between 70 and 300) <u>PWID</u> ~175 male (estimated between 80 and 300) ~55 female (estimated between 30 and 110)</p>	<p>(1) Mental health services, including addiction counselling, were available for the general population. (2) Club Darasa was an individual initiative that offered a meeting place and various types of support for PWUD, including education and health assistance. (3) Some NGOs, such as WOCHIVI (Women and Child Vision), have recently added PWUD to their mandate, and others give counselling and spiritual services to drug users.</p>
<p>Pwani</p>	<ul style="list-style-type: none"> • Cannabis • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Heroin – injecting, sniffing, or smoking cocktail** 	<p>Drug use was pervasive and increasing, and found more in small towns compared with other regions visited. Possible drivers were proximity to Dar es Salaam, location along major transit corridors connecting Dar es Salaam to the rest of the country, tourism, and the presence of formal and informal ports.</p>	<p><u>PWUD</u> ~1475 male (estimated between 1000 and 2700) ~64 female (estimated between 43 and 117) <u>PWID</u> ~150 male (estimated between 50 and 250) ~14 female (estimated between 5 and 23)</p>	<p>(1) A private sober house, run by Filbert Bay Institute, offered an abstinence-based recovery programme. (2) Mental health services, including addiction counselling, were available for the general population.</p>

<p>Dodoma</p>	<ul style="list-style-type: none"> • Cannabis • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Heroin – injecting, sniffing, or smoking cocktail** 	<p>Drug use was pervasive and increasing among both men and women, as well as among youth. Possible driver was recent influx of people, largely due to institutions of higher learning and parliamentary sessions. In addition, Dodoma lies on a popular and recently improved international transit corridor.</p>	<p><u>PWUD</u> ~913 male (estimated between 460 and 1600) ~183 female (estimated between 92 and 320) <u>PWID</u> ~100 male (estimated between 50 and 130) ~33 female (estimated between 17 and 43)</p>	<p>(1) SAADA: a self-help group run by recovering PWUD and supported by the police (providing a venue, health services, and milk to infants of female PWUD). (2) Mental health services, including addiction counselling, were available for the general population. Dodoma is home to the national referral hospital for mental health.</p>
<p>Morogoro</p>	<ul style="list-style-type: none"> • Cannabis • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Heroin – injecting, sniffing, or smoking cocktail** 	<p>Drug use was established and increasing among both men and women, as well as among youth. Possible drivers were that Morogoro is a major highway intersection and is near Dar es Salaam.</p>	<p><u>PWUD</u> ~1250 male (estimated between 750 and 1800) ~250 female (estimated between 150 and 360) <u>PWID</u> ~260 male (estimated between 180 and 500) ~37 female (estimated between 26 and 71)</p>	<p>(1) Faraja Trust Fund, an organisation serving orphans and focused on HIV, started providing education and outreach to PWUD. (2) Mental health services, including addiction counselling, were available for the general population.</p>
<p>Mbeya</p>	<ul style="list-style-type: none"> • Cannabis • Khat • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Khat – chewing • Heroin – injecting, sniffing, or smoking cocktail** 	<p>Drug use was established, with limited spread in towns along the road throughout the border region.</p>	<p><u>PWUD</u> ~775 male (estimated between 500 and 1200) ~45 female (estimated between 30 and 60) <u>PWID</u> ~55 male (estimated between 40 and 70) ~9 female (estimated between 5 and 15)</p>	<p>(1) NGOs such as SHDEPHA+, KIHUMBE, and KIWOHEDE provided counselling services to drug users. (2) There was no sober house in Mbeya; a rehabilitation village owned by MoHSW, under Mbeya Referral Hospital, was currently not in operation. (3) Mental health services, including addiction counselling, were available for the general population.</p>

Kilimanjaro	<ul style="list-style-type: none"> • Cannabis • Khat • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Khat – chewing • Heroin – injecting or smoking cocktail** 	<p>Drug use was established and increasing. Most users were young men in Moshi municipality. Possible drivers were a booming tourist economy, location along a transit corridor, and khat cultivation in Kilimanjaro and importation from neighbouring Kenya.</p>	<p><u>PWUD</u> ~450 male (estimated between 200 and 650) ~113 female (estimated between 50 and 163) <u>PWID</u> ~80 male (estimated between 55 and 125) ~27 female (estimated between 18 and 42)</p>	<p>(1) There were no services provided specifically for PWUD. (2) Mental health services, including addiction counselling, are available for the general population.</p>
Shinyanga	<ul style="list-style-type: none"> • Cannabis • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Heroin – injecting or smoking cocktail** 	<p>Drug use was established and found in towns outside the regional capital, where there was heightened economic opportunity from mining activity.</p>	<p><u>PWUD</u> ~308 male (estimated between 140 and 410) ~11 female (estimated between 6 and 30) <u>PWID</u> ~25 male (estimated between 12 and 35) -No estimated female</p>	<p>(1) There were no services provided specifically for PWUD. (2) Mental health services, including addiction counselling, were available for the general population.</p>
Geita	<ul style="list-style-type: none"> • Cannabis • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Heroin – injecting or smoking cocktail** 	<p>Drug use was nascent and concentrated in the regional capital, with limited spread to areas near mining activity.</p>	<p><u>PWUD</u> ~95 male (estimated between 50 and 120) ~13 female (estimated between 5 and 20) <u>PWID</u> ~3 male (estimated between 0 and 10) -No estimated female</p>	<p>(1) There were no services provided specifically for PWUD, and no regional hospital.</p>

Kigoma	<ul style="list-style-type: none"> • Cannabis • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Heroin – smoking cocktail** 	Drug use was nascent and concentrated only in the regional capital, with no established hotspots. No female PWUD were identified.	<p><u>PWUD</u> ~100 male (estimated between 50 and 150) -No identified female</p> <p><u>PWID</u> -No estimated male -No estimated female</p>	(1) There were no services provided specifically for PWUD. (2) Mental health services, including addiction counselling, are available for the general population.
Mtwara	<ul style="list-style-type: none"> • Cannabis • Heroin 	<ul style="list-style-type: none"> • Cannabis – smoking • Heroin – injecting or smoking cocktail** 	Drug use was nascent and increasing; concentrated in Mtwara municipality. Possible driver includes recent increase in economic activity related to roads and natural gas. No female PWUD were identified.	<p><u>PWUD</u> ~65 male (estimated between 35 and 150) -No identified female</p> <p><u>PWID</u> ~7 male (estimated between 2 and 10) -No estimated female</p>	(1) No specific services targeting PWUD were available. (2) Mental health services, including addiction counselling, were available for the general population.

*Cannabis was widely used, available in all regions, and not a focus of this report.

**Cocktail was described as a mixture (combination) of heroin, cannabis dust, and cigarette tobacco that was smoked.

3.5 Drug use patterns

Hotspots

Hotspots varied depending on the region with three main types. For regions along the coastal transit corridor or major roadways (Morogoro, Dodoma, Tanga, and Pwani), many PWUD congregated around local bus stops as well as at intercity bus stands within the municipalities and along the main roads.¹ For coastal regions such

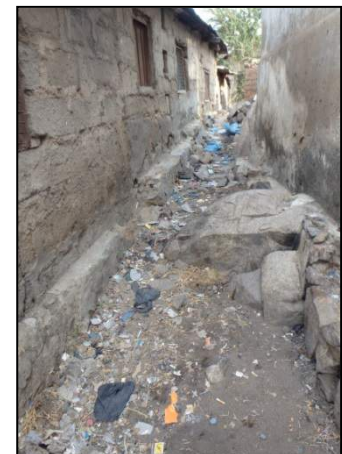


as Tanga and Pwani, fish markets and fishing camps along the Indian Ocean constituted major hotspots. Most other regions—particularly Arusha, Shinyanga, and Geita—had hotspots in abandoned or unfinished buildings and in low-income residential areas. Less common but still serving as hotspots were areas nearby or within markets (Shinyanga), cemeteries (Mwanza and Shinyanga), and guesthouses (Geita and Shinyanga).

The roadway system acted as a conduit for moving drugs from Dar es Salaam to southern,

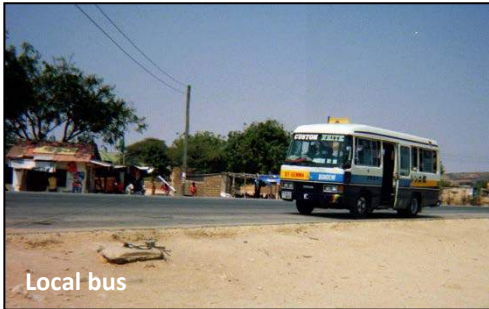
central, and northern regions. This appeared to have resulted in the presence of hotspots in small towns that lie along major roads.

PWUD did not spend all of their time at these venues, as they also needed to move around to find work and/or money. Many key informants noted that several hotspots were within close proximity to drug suppliers. Because many PWUD worked as casual labourers and bus attendants, the bus stop played a critical role: providing a place where drugs were brought, a site where



¹Photos from top to bottom: bus stand where bus touts congregate; fishing camp along the Indian Ocean; unfinished building where a dead body from drug overdose was found days before; deserted alleyway with drug debris

drug dealers could sell them, and an area where many individuals could both work and use drugs. In the major municipalities of Dodoma, Morogoro, Kilimanjaro, Tanga, Arusha, and Mwanza, PWUD moved from one hotspot to another, depending on where drugs—or quality



drugs—were available. For small towns in Pwani along the Dar es Salaam-Chalinze highway, the Morogoro-Dodoma highway, and the Dar es Salaam-Mtwara highway, suppliers usually came from Dar es Salaam and distributed at known hotspots, then returned to Dar es Salaam. Similarly, in small towns

along the Tanga-Segera highway, suppliers were reported to travel back and forth along this route. There were no stationary pushers reported in these small towns, rather Dar es Salaam served Pwani, and Tanga City served the small cities along the Tanga-Segera highway.

Types of illicit drugs being used

Cannabis was identified as the most common drug used in the regions. Cannabis was grown in many parts of these regions, making it widely available. Furthermore, many key informants did not view cannabis smoking as a serious drug issue, like heroin smoking. When prompted, a few suggested that this cultural perspective could explain the widespread use of cannabis by both genders and a variety of age groups. Heroin was the second most common drug used in the regions (except in Arusha and Tanga, where khat predominates), and key informants noted an increase in the number of people who use heroin during the preceding 3-5 years. Cocaine use appeared to be very low due to lack of availability and high price.

Additionally, inhalants (e.g., petrol, shoe polish, glue) and Valium (diazepam) were being misused. Khat was being abused in some regions—such as Arusha, Tanga, Kilimanjaro, and Dodoma—more than in others. When prompted during interviews, several primary and secondary key informants could not distinguish heroin from cocaine by name, but instead referred to both as “unga,” a slang term that describes white, brown, or khaki-coloured drugs in powder form.



At the time of the study, heroin was found to be available in 2 forms: powder and crystals. Powdered heroin was primarily available in Kilimanjaro, Morogoro, and Mtwara, while in the remaining regions crystal heroin was more available.

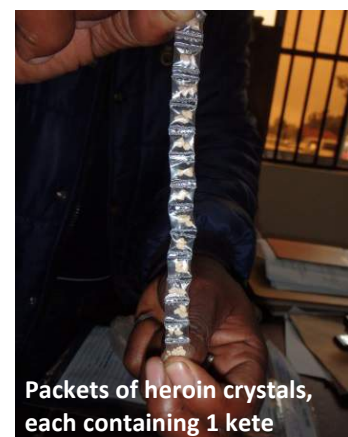
Both primary and secondary key informants noted that unga is often adulterated with Ashton, aspirin, Valium, baking powder, horse pills, or other substances. “What they mix, we are not aware,” said an informant. “Some say it is mixed with Ashton; we don’t know.” Key informants were unsure if adulteration takes place before or after unga arrives in a region. For major towns, it was reported that the suppliers have venues called “maabara” (underground laboratories), which are used as a parking place for drugs; adulteration of supplies could also be happening there. Nonetheless, adulteration took place prior to purchase and consumption, likely a strategy for dealers to make more money while selling smaller quantities of a pure drug. Primary key informants reported a great number of side effects due to adulteration, including stomach pain, boils and other skin conditions, difficulty urinating, diarrhoea, chest pain, and reduced stimulation from the drugs.

Modes of administration of illicit drugs

Most primary key informants reported smoking “cocktail,” which is a combination of cannabis dust, tobacco, and heroin. Another way of using heroin is via inhalation, or “chasing the dragon” (i.e., “kupiga bati” or “chasing the cockroach”). PWID were identified by the study team in all regions—except Mtwara, Kigoma, and Geita, where very few (or no) individuals were believed to inject any illicit drugs. In the regions where PWID were identified they represented only a small proportion of the larger PWUD population. Other drugs reported included Khat that was chewed, and where it was used, cocaine that was typically inhaled nasally (sniffed). The team did not find evidence of PWUD injecting cocaine.

Cost of drugs

Although not the primary objective of the study, key informant interviews did uncover information regarding the price of drugs. Based on these reports we found that the price of heroin varied across regions, and sometimes within a single region. Key informants speculated that this was due to fluctuating drug availability and quality. The cost of 1 kete of heroin (a pack weighing approximately 1/24 gram) ranged from 600 Tanzania shillings (Kilimanjaro) to 7,000 Tanzania shillings (Dodoma). Within most regions, the cost was typically between 1,000 to 2,000 Tanzania shillings. Several primary key informants in Dodoma mentioned prices as high as 10,000



Tanzania shillings per kete, but the team was not able to verify this. The price of a “busta”² of heroin was reported to be lowest in Kilimanjaro, and the highest price was reported in Dodoma. Generally prices were lower in areas where powdered heroin was available, compared with areas where the crystal form predominated, because powdered heroin is more easily adulterated. The measurement and price of khat varied depending on location and source. Key informants noted that cocaine was more expensive than heroin and that PWUD could not afford it, hence it was not widely available or used. Very few key informants mentioned cocaine and its price; those who did said it sells for between 2,000 and 50,000 Tanzania shillings per kete. On average, primary key informants reported spending between 20,000 and 50,000 Tanzania shillings per day for drugs (heroin), but commented that they use whatever money they acquire that day. Cannabis was said to sell for 100 to 500 Tanzania shillings, depending on the amount purchased. The typical quantity was approximately the size of a cigarette.

3.6 Law enforcement responses to the drug-use problem

Key informants identified a range of responses from law enforcement to the drug situation in their region. Many primary and secondary key informants said that police were conducting operations, with the support of informers, to ambush, arrest, and bring users and dealers to court. Secondary key informants in Pwani mentioned a recently formed task force that includes government and NGO workers collaborating with police. In Arusha, a secondary key informant cited the arrival of a new commander as a major deterrent to the sale and use of drugs. Police were also said to be providing prevention education through community policing and drug awareness campaigns, although this was reported mostly by secondary key informants.

Some key informants, including police officers themselves, commented that preventive education efforts should be carried out by agencies other than law enforcement:

We also educate them through community policing about criminal offences, but for those dealing with this business, the uptake of this education has not been very successful, as we are seen as enemies to their business, which is more profitable to them than any business they can possibly do.

Police, the community at large, and even primary key informants think more could or should be done to enforce existing laws that target traffickers and drug suppliers.

² A pack of heroin approximately 1 gram in weight (20-24 kete).

I still don't understand why they are still operating their business, because all the dealers are known by everyone, including government authorities. But whenever they are arrested, they get away with the charges.

The practice of releasing people who have been arrested for drug involvement, especially dealers, was reported in every region. Many key informants felt that dealers were more likely than PWUD to be released because dealers have cash, and police collect money from them. Bribery was mentioned in the majority of interviews, especially with primary key informants, and it was corroborated by secondary key informants across all regions. Several methods were described: (1) releasing dealers and users from jail after a bribe is paid, (2) collecting money on the spot instead of arresting and detaining, and (3) taking a cut from dealers in return for warning them in advance of upcoming police raids. One dealer reported, “If you are arrested by these general police, you pay 200,000 [Tanzania shillings]. If you are arrested by the antidrug police, you will pay 1 million [Tanzania shillings].” “Wanawapooza,”³ collecting “posho,”⁴ “mchango wa vocha,”⁵ or seizing possessions such as cell phones were some of the ways key informants described the transaction. In one region, it was reported that police officers engage in sexual intercourse with female PWUD who are arrested, in exchange for releasing them. A first-hand account said this was a common occurrence.

Some police officers were reported to be using drugs or selling the drugs they had seized, and an officer even mentioned that “some police officers are escorting drugs.” There were mixed reports as to whether lower-ranking officers or senior officials are more implicated in colluding with drug traffickers. It is important to understand the political, social, and financial contexts that allow this type of corruption to occur, and to take these contexts into account when addressing the challenge of illicit drug use.

3.7 Perceptions of drug use and of those who use drugs

Community perception of PWUD

Individuals who are believed to use drugs are often stigmatised within their communities. In this study, we found that PWUD were perceived negatively, resulting in isolation from their community and very often their own family. Health care providers (such as mental health providers) or NGO workers who often interface with PWUD and their families said a family's desperation can grow to the point where they disown a child. A poignant quote from

³ Calming them down.

⁴ Allowance.

⁵ Contribution for phone voucher.

the father of a PWUD: “It is a heavy cross—tests without answers. If your relative dies, you have pain that has an end, but this is endless pain.” Several key informants said that some families are reluctant to seek support because of the shame or humiliation they would feel if the community finds out their child is a drug addict. Key informants said community members generally do not trust drug-using individuals and often refer to them with derogatory terms such as “teja” (addict). There was also an overall perception among both primary and secondary key informants that the majority of women who use drugs are also trading sex.

In many cases, the community perceived PWUD as criminals and thieves, and many primary key informants admitted that their habit of stealing in the streets and/or in homes makes the community view them as bad people who should be avoided. Said one key informant: “Communities perceive us negatively because we don’t produce anything and we like shortcuts in life, like stealing or getting money through use of lies.” Other primary key informants echoed the sentiment that community members are correct in not trusting them: “A big percentage [of drug users] do crime. Out of 100, only 5 may not be criminals.” Still others felt such treatment is not always justified:

The community perceives us negatively. I stopped for 4 months, the community did not accept me; they went on isolating me. I decided to start using drugs again. They see us as bad people without any reason; you have done nothing to someone, yet he hates you. Even when something is stolen, they say it is the drug user regardless whether you did it or not. Now it has become enmity between us and them because we even wonder why these people are like this.

Perception among PWUD of people who inject drugs

A common theme for some key informants was the segregation of PWID from other non-injecting individuals. Primary key informants’ opinions varied from “Users like each other, and we are united” to “Even among ourselves, we have contempt for someone who injects. An injector can’t sit with someone who smokes teli [cocktail]... We see them as worse, they are more lost.” Several key informants observed that PWID tend to isolate themselves from other PWUD, and there were reports of PWUD stigmatising PWID by chasing them away or even stoning them, thereby increasing their isolation. It was reported that those who do not want to associate with PWID believe that if a PWID dies while in their company, they will be implicated in the forthcoming police case.

Smoking drugs was considered a more acceptable behaviour than injecting, as indicated by key informants who said PWUD who smoke typically do so in public in vijiwes, whereas those who inject do so in private. In rare instances, it was reported that being a PWID carries a higher, more extreme status that is actually admired. Several primary key informants mentioned that many PWUD in their community are afraid to begin injecting drugs. When prompted on where the fear comes from, key informants mentioned incidents of death among PWID. “Yes, I was injecting 2 years ago,” said one primary key informant. “I quit because I had 2 friends who were also injecting, and all of them died as a result of this practice.” Said another: “We consider injectors as a dead body because [he] can die at any time.” Key informants speculated that the causes of death were the fluctuating purity of heroin, overdose, or falling asleep with a needle still inserted in a vein. Some believed that poor injection practices (e.g., missing a vein and injecting into the lymphatic system) could also lead to death. Furthermore, others thought that injecting increases the risk of HIV infection, hence they did not want to associate with PWID.

3.8 Available services for people who use drugs

Access among PWUD to general health services

There were a variety of responses to whether PWUD use regular health services. One primary key informant said, “I go to hospitals like any other,” while some key informants reported that they do not access services because they feel stigmatised. The PWUD population appeared to experience many of the same barriers to receiving health services as the general population: financial difficulties, low awareness and health-seeking behaviour, lack of medicines at facilities, and poor treatment by health workers. Some key informants suggested that poor treatment may be worsened by discrimination against PWUD due to their often “dirty” appearance and the community’s common perception that they are thieves. “Not every dispensary is friendly to drug users,” said an informant. “Some health workers think drug users are responsible for their problem, and hence are unable to offer quality services to them.” Some secondary key informants believe that the perception of discrimination could be compounded by shame and self-stigmatisation. Furthermore, primary and secondary key informants commented that securing drugs and getting high is a greater priority than seeking health care services. “I must find means to get money to get drugs before I can think of anything else,” said one primary key informant. Several others echoed the sentiment that after

illicit drugs are used, “every illness goes away” or “Drugs sort of hide illnesses, as when I use drugs I feel very fine.”

In regard to health care services, seeking HIV testing and counselling (HTC) and seeking treatment for tuberculosis were most commonly mentioned by primary key informants. Addiction counselling is supposed to be offered in mental health units at hospitals and health centres, but such services were not always available nor were all providers adequately trained. Primary key informants did not mention addiction counselling when asked about available services.

Services targeted specifically to the drug-using population

Generally, in all regions, there were limited or no targeted services being offered to PWUD. The study team found that a number of NGOs did not target PWUD primarily but included them as a secondary target group. In many cases, there was little knowledge among service providers within the government structure about the drug-use situation in their respective regions.

Regions with no identified services

There was no mention of services specifically targeting the drug-using population in Mtwara, Kilimanjaro, Morogoro, and Shinyanga. Key informants spoke of traveling to other regions in order to access treatment. Like other regions, Morogoro had an organisation (Faraja Trust Fund) providing primary prevention and awareness about the harms of drugs; however, no actual services for PWUD were identified.

Regions with existing, but not widely known or accessed, services

In Dodoma, a self-help group called SAADA was being run by recovering PWUD and supported by the regional police department, which provided a venue, health care, and milk for infants of female PWUD. There seemed to be wide awareness of SAADA, but access of its services appeared to be low among PWUD because the programme was in its early stages. Dodoma also houses the national referral hospital for mental health.

In Pwani, there was a sober house for men (privately owned by Filbert Bay Institute) that aims to provide rehabilitation programmes for those who want to quit using drugs.

In Mbeya, many key informants reported that there were no organisations serving PWUD, while a handful mentioned 3 CSOs. These organisations were reported to provide education, HTC, and needle/syringe services to a small number of PWUD. Regarding one of these organisations, a primary key informant said, “We reduced the amount of drugs we smoked. When they closed the office, they confused us and we went back to the streets.” Others echoed this account, saying they had quit but returned to drugs due to influence from their social circles. Additionally, Mbeya had a rehabilitation village, owned by the MoHSW, under Mbeya Referral Hospital, that was vacant and not in operation.

In Geita, the study team found 1 organisation that reportedly provides psychological support and small income-generating activities, but no other key informant, primary or secondary, mentioned it.

In several regions, including Kigoma, the study team found an organisation working on community issues, such as supporting street youth, that had added PWUD as a target population but without any measurable action. Activities mentioned include engaging in primary prevention campaigns in schools or with youth in vijiwe.

In Arusha, the major resource cited by primary and secondary key informants was health facilities, specifically Mt. Meru Hospital as well as Hydom Hospital in neighbouring Manyara region, which reportedly provides detoxification services. Karatu Hospital was mentioned by a key informant as having rehabilitation services. One organisation reported that it provides support to PWUD, but it was not mentioned in any other interviews.

Regions with substantial existing services

Tanga was found to contain a private sober house for men only, which was owned by the Tanga Drug Free CBO and run independently by individuals recovering from drug addiction. The house received support not from government or institutions but from fees paid by its residents. The house was widely known among key informants as well as within the larger community. Another organisation, TAYODEA, provided education and harm reduction services, but it was mentioned only by secondary key informants.

Mwanza also had a sober house for men only, and it too was being funded by fees from PWUD seeking rehabilitation services. ICAP was offering harm reduction services through IEC, deterring syringe sharing, and providing bleach and swabs. ICAP was also reportedly providing family integration support, HTC, and escorted referral to health services. Rafiki Family, another NGO, appeared to be less active, but in the past it reportedly provided detoxification counselling, behaviour change communication, and family integration support. Mwanza also had an inactive rehabilitation village, owned by MoHSW and operated by Sekou Toure Hospital. Lastly, there were mental health and detoxification services available at Bugando Hospital and Sekou Toure Hospital.

Hospital services for mental health

In multiple regions, the higher-level hospitals or health centres, typically those with mental health units, were reported to provide various medicines “to make you quit” or to reduce withdrawal symptoms. One key informant commented that the drugs make a person “become like a fool.” Several hospitals confirmed that they administer medications such as CPZ (chlorpromazine) as an antipsychotic to calm PWUD, or they provide painkillers. One health care provider said Valium is not given because it is a commonly misused drug. Some primary key informants received counselling when they sought services or were admitted. They expressed reluctance at being grouped with patients who are mentally ill, which carries a lot of stigma, because they did not see themselves as having “mental problems.” One nurse at a mental-health inpatient unit said parents request that their child remain in the unit because the sober house is expensive; such requests pose a risk of overburdening hospital inpatient facilities, which are not intended for long-term care.

Desire for harm reduction or other services

Both primary and secondary key informants expressed a strong desire for harm reduction and rehabilitation services, including sober houses and methadone treatment to help heroin users stop using. These were mentioned frequently by key informants in regions that already contain sober houses (Tanga, Mwanza, and Pwani). More broadly, across all regions, a large majority were aware of the availability of methadone treatment in Dar es Salaam, as well as the sober houses in Dar es Salaam and Unguja, and a great many of them expressed the need for such rehabilitation programmes in their own communities:

We should be provided with [sober house] services like that of Unguja or Kigamboni because we have seen some of us getting better after attending those services.

Any treatment that comes, I will be the first [to go].

Some health centres in the study regions—or in other, distant places—were rumoured to provide methadone services, even if they did not (such as Mt. Meru Hospital). Methadone was often associated with Ray C, a celebrity who used it to recover from heroin addiction while in the public gaze. Methadone was mentioned anecdotally, most often in Mbeya, and primary key informants held a mixture of positive and negative beliefs. According to one informant: “I have a friend who went in Dar [for methadone treatment] and now he has quit; he only smokes marijuana for the past 2 months.” But another said: “Majority of drug users here understand that if you take methadone, you die [if you relapse].”

Barriers to services

Some key informants mentioned that cost was a barrier to accessing rehabilitation services. Said one: “I want to quit, but I don’t have money to go to the sober house. There is a need for free sober houses. If there are many, it will help because many drug users want to quit.” Key informants said PWUD need vocational skills that will enable them to engage in income-generating activities, obtain loans, and find employment opportunities. Primary key informants also wished for support to be removed from vijiwes and placed in isolated areas away from their drug-using peers. Provision of education and counselling on drug use and its effects was also considered very important in helping to stop drug-use behaviour.

A secondary key informant discussed the importance of developing a rapport: “[Users], they like being respected. If you abuse them, they disappear.”



3.9 HIV risk behaviour and perceptions of risk

Findings of this study show a risk of HIV infection among PWID. Except for Mtwara, Geita, and Kigoma, where the numbers of PWID were small or not detectable, the study regions had the potential for a rise in HIV infection because users tended to share their

needles. Many primary key informants said that sharing of syringes and injection equipment occurs. Sharing seemed most common at night, when pharmacies are closed and individuals become desperate to inject. Many primary key informants who inject expressed feelings of pity or empathy for anyone in that situation, which made them more likely to share. Finding and using a dirty syringe out of desperation was common when purchasing a new one was not an option. “Sharing is a problem,” said a primary key informant, “but if someone has withdrawal, [there is] no choice.” While some PWID walk with a syringe on their person at all times, others hide it in a secret place so that they may reuse it later. One PWID reported:

I buy syringe from [the pharmacy]; they don't deny selling to us. If I don't have a syringe, I go to a place where we use drugs and pick any and use. If your friend does not have syringe, you share. We wash with the water we use to mix the drug; we can use 1 syringe up to 4 times. We throw syringe anywhere; I can keep even on the top of the house. This month I shared syringe with 1 person.

Primary key informants reported being concerned that they may have used a dirty syringe, based on suspicions that other people could have stolen their syringe from its hiding spot, used it, and returned it later, without their knowledge. Most PWID said they are able to purchase syringes at a pharmacy; however, they sometimes have to pay an elevated price for them. Some PWID sent children or other non-PWUD to purchase on their behalf.

Aside from injection practices, sexual behaviours among PWUD were another identified risk factor that could increase the risk of HIV infection. Key informants noted that some individuals, both males and females, exchange sex for money. Female primary key informants agreed that most females who use drugs are also sex workers. Some male PWUD were said to be MSM who sell sex for money or had been approached by MSM (not necessarily PWUD) who paid them to have sex. It was also reported that there are women (usually not drug users) who solicit a PWUD to have sex with them, and in exchange the woman pays him or buys him drugs. With all this said, condom use among PWUD appeared to be very low. Although some primary key informants reported using condoms, in many cases condom use seemed to be irregular or non-existent, depending on the situation or the partner. For regular partners or long-time partners, primary key informants most often reported no condom use. For sex workers, other factors were the preference of their partner and the amount of money being paid. And although we did not collect biological data, it was reported by female primary key informants in Kilimanjaro that all females who use drugs in Moshi town knew each other and were sex workers with an alarmingly high rate of HIV

infection, yet they still sometimes engaged in sex without a condom, thereby posing a high risk of HIV infection to their clients.

4.0 LIMITATIONS

Given the observational nature of these data, the following limitations should be considered when interpreting findings. Qualitative research methods utilise sampling strategies aimed at purposeful rather than representative samples, which limits the ability of findings to be generalizable. Qualitative interviews and population estimates relied on PWUD visible in public places, thus possibly missing groups of PWUD who congregate in non-public locations or during times outside of field study activities. Furthermore, such sampling bias may have resulted in identifying fewer female participants (due to the limited number who hang out at hotspots), may have favoured individuals who were willing to engage with authorities, and may have missed mobile populations. Nonetheless, our strategy for initiating study activities in each region, with secondary informant interviews and fieldwork observation, helped increase our engagement with knowledgeable primary key informants. Researchers made considerable effort to find female users, and male users corroborated that female users were, in fact, scarce. Because this was a rapid assessment study—aimed at gathering first line data on the scope and magnitude of drug use across multiple regions—study teams were limited in both time and resources. The limited data collection period (5 to 10 days per region), mobility of participants, and timing of research activities may have resulted in skewed population estimates, potentially missing more hidden groups of PWUD. We bolstered our methods of sample size estimation by using a multipronged approach, combining wisdom of the crowd (key informants), mapping and enumeration (observation and counting), and the Delphi method.

Efforts were made to limit measurement bias by standardising the definitions of key terms (e.g., hotspot, drug user) across study personnel. However, because qualitative data relies on subjective information, we are unable to know how key informants interpreted such terms, or how recall periods may have varied across individuals. This may have resulted in under- or over-counting during wisdom of the crowd activities. However, we believe that the large number of primary and secondary key informants and the ability of the study staff to follow up with probing questions helped reduce bias and improve data quality. Many key informants did not differentiate between cocaine and heroin in reporting types of drugs; however, researchers were able to probe further, based on their knowledge of the drugs' effects, to

decipher which drug was being discussed. Drug use is highly stigmatised and illegal, thus key informants may have provided incomplete or inaccurate answers to appear more desirable to the interviewer. Study members attempted to mitigate this reporting bias by stressing the confidentiality of information shared during the informed consent process, conducting interviews in private locations, and building rapport and trust with key informants while treating them in a respectful and non-judgemental manner.

All qualitative researchers carry their own internal biases. The research team members were trained in how to identify and reduce their own internal biases, and the team worked collaboratively to reflect on findings while in the field and during analysis. Finally, audio recording of interviews was not possible, as researchers were unsure of how this would be accepted by the participants. However, detailed notes and daily summaries were created during debrief to reflect on findings in an ongoing, timely manner.

Nevertheless, this is the first study of its kind in these locations, and despite the limitations, we believe our data provide a strong foundation for understanding the nature of illicit drug use in these 12 regions of Tanzania and will inform future studies that may expand upon the results.

5.0 CONCLUSION

This study, which describes the scope of non-injection and injection drug use across 12 regions in Tanzania, serves as a foundation for understanding the nature of the drug-use epidemic. It is crucial that the planning of interventions targeting people who use drugs be evidence based, and these findings establish a basis for quantifying and characterising the epidemic in mainland Tanzania outside of Dar es Salaam. These results can inform geographical targeting of HIV prevention and care interventions for PWUD, identify resources and existing opportunities for rolling out or scaling up interventions, and indicate potential directions for future studies on the topic. Additionally, the population size estimates in this study may be triangulated with existing national estimates to arrive at updated figures for the country. Results indicate that drug use was increasing in all 12 regions, which highlights the need to develop more targeted services for PWUD in a timely manner, especially because limited and sometimes no targeted services were identified by the study team. PWUD interact with the community at large and therefore can serve as a bridge for the sexual transmission of HIV.

6.0 RECOMMENDATIONS

Our panel of experts⁶ makes the following recommendations based on the study findings, evidence in the literature, and national and international guidelines for drug use and HIV prevention. We recognise that resource availability will influence decisions about next steps in each region. Below we recommend evidence-based strategies, drawn from the International Standards for Drug Use Prevention^{iv}, and tailored for the specific stages of the drug-use epidemic in the regions covered in this report. Additionally, PEPFAR guidance^v outlines 10 core interventions of a comprehensive HIV prevention package for people who inject drugs, which should be adapted for regional needs depending on resource availability and the particular stage and context of the epidemic in each region. These interventions include (1) community-based outreach; (2) needle and syringe programmes; (3) opioid substitution therapy and other drug-dependence treatment; (4) HIV counselling and testing; (5) antiretroviral therapy for PWID living with HIV; (6) prevention and treatment of sexually transmitted infections; (7) condom programmes for PWID and their sexual partners; (8) targeted information, education, and communication for PWID and their sexual partners; (9) vaccination, diagnosis, and treatment of viral hepatitis; and (10) prevention, diagnosis, and treatment of tuberculosis.

Tanzania's national response to the HIV epidemic may need to increasingly consider greater attention to key populations at highest risk for infection. As programs achieve success in the general population (e.g., increased testing, linkage to care, and treatment) there may be a widening disparity for populations such as PWUD who may not access services due to stigma. In addition to bearing a disproportionate burden of infection, key populations such as PWUD may account for a greater proportion of onward transmission to their partners and beyond. Special attention may be needed to ensure PWUD are not missing opportunities for prevention being scaled-up at present (e.g., male circumcision) or possible in the near future (e.g., "test and treat" or PrEP).

⁶ The panel of experts is a combination of the study team and other stakeholders, and comprises drug policy professionals, doctors, pharmacists, chemists, behaviour-change communication specialists, epidemiologists, and public health professionals, as well as HIV prevention and key-population specialists.

1. *Finding: Drug use was reported to be increasing across all study regions.*

Across all regions:

- Primary prevention initiatives to reduce the onset of drug use should be a focus in all regions, independent of the level of drug use. Provide universal and selective⁷ primary drug use and HIV risk prevention programmes, including youth, young adults, parents, and transportation workers. Explore opportunities for instilling primary prevention messages that target young people (e.g., primary/secondary school curricula). Recognizing that alcohol and tobacco use predisposes young people to drug use^{vi}, policies designed to decrease the availability of tobacco and alcohol to young people should be pursued.

In regions with nascent epidemics:

- A package of programs should have a greater focus on preventing the onset of drug use among those who are at risk for experimenting, and on populations that are exposed to drug use. Early identification and brief interventions should be part and parcel of strategies to prevent and reduce drug use in this population.

In regions with established or pervasive epidemics:

- The prevention package should have greater focus on harm reduction among identified high-risk groups and providing a range of services targeting PWUD, including treatment and rehabilitation services, to be accessible via outreach and drop-in modalities. Examples include: improving knowledge of safe drug-using practices, educating to reduce/prevent drug-related overdoses, and mitigating withdrawal symptoms. HIV prevention strategies could focus on unsafe injecting and high-risk sexual practices.

2. *Finding: Many key informants perceived stigma at the community and health care facility levels. Utilisation of health services by people who use drugs was variable.*

Across all regions:

- Carry out advocacy and sensitisation activities at regional and municipal levels to reduce stigma and to support PWUD services. Activities targeting communities in and around hotspots, service providers, and police authorities are of particular value.
- Increase capacity (i.e., knowledge, attitudes, and skills) among service providers to serve PWUD and increase the visibility of existing health services within the community. Doing so can strengthen linkages to existing services for PWUD who currently do not access care.
- Improve current providers' ability to serve PWUD by developing and improving pre-service training and curricula for social workers, health care providers, and community development officers.

⁷ **Universal** prevention strategies aim to reach large populations, regardless of individual risk factors, whereas **selective** prevention strategies are intended for subgroups of the general population that are considered to be at risk for substance abuse.

3. *Finding: There was a serious shortage or complete lack of programmes for PWUD in all 12 study regions. PWUD reported that they were not being reached by support services.*

Across all regions:

- Strengthen coordination and governance of community and government resources for the support of drug-use interventions/programmes at the national and regional levels.

In regions with nascent epidemics:

- Build upon existing health and community services addressing medical and social needs of the general community to allow for early identification and brief intervention for people at risk or those experimenting with drugs.

In regions with established or pervasive epidemics:

- Strengthen collaboration and linkages among existing drug and HIV programmes across all relevant sectors (i.e., education, health, community development, local government, and law enforcement agencies).
- Scale up and/or build upon existing structures/services with additional services, including drug addiction treatment and harm reduction.

4. *Finding: There was insufficient knowledge on adulteration practices as well as the types of drugs being used (e.g., key informants did not differentiate between cocaine and heroin). This study was unable to quantify high-risk practices; however, many key informants reported high-risk injection practices and exchanging sex for money.*

Across all regions:

- Carry out additional studies, particularly quantitative epidemiological studies to measure the prevalence of HIV and associated risk behaviours among PWUD, and mixed methods studies in order to provide more information about drug use, drug types used, adulteration practices and their health effects.
- Provide more information and education on types of drugs as well as their effects and consequences.

In regions with nascent epidemics:

- Focus studies on identifying risk factors that result in the initiation of drug use, as well as protective factors for stopping drug use, and for consistently using condoms.

In regions with established or pervasive epidemics:

- Focus quantitative studies on the prevalence of high-risk behaviours and associated comorbidities (e.g., HIV, mental health disorders) among drug-using populations. Furthermore, conduct studies to identify risk factors that result in the initiation of drug use, as well as protective factors for stopping drug use, avoiding injection drug use, and for consistently using clean needles and condoms.
- Leverage existing data that is being collected through police seizures to identify or corroborate the primary drug being used.

Appendix 1

Key Informant Interview Guide

Mapping of Drug Use and Injecting Drug Users in Tanzania

Interview ID: _____

Introduction

Thank you for agreeing to participate in this interview. Remember that your answers will be kept confidential and that you can stop the interview at any time.

ASK ALL INFORMANTS

1. Please tell me about drug use (dawa za kulevya) in _____ (name of region/town/venue). *If not specifically mentioned, probe about injection drug use.*
2. Where in the region/town (wards, etc.) is drug activity use taking place? *If not specifically mentioned, probe about injection drug use.*
3. Please tell me about all the different drugs being used here and the different ways people use them.
Note: Distinguish between cocaine and heroin if only cocaine is mentioned. If not specifically mentioned, probe about injection drug use.
4. Is there a difference by ward in terms of type of use or type of drug and the way it is used (e.g., smokers in a part of ward, IDUs in another)? Please explain.
5. Do women hang out at the maskani/vijiweni? Why or why not? If none or few do, ask: Where do women usually use heroin?
6. What is the price these days for a kete?
7. What is heroin being adulterated with nowadays? Is anyone getting sick because of recent adulterations or overdosing?
8. Now I'd like your help making a list of each of the maskani/vijiweni by ward. [Create 5-column table, with maskani area/names in first column.]
 1. What sort of venues are each of these maskani/vijiweni in these different wards? [Populate 2nd column with location/type: by market, behind church at street corner, bus stand, abandoned building, near cemetery, pusher's house, etc. This helps locate the types of places and the spatial distances from them.]

2. Please tell me how many drug users – male and female – you would estimate hang out in each of these sites you just mentioned on a typical day. [Populate third column.]
 - Please tell me how many heroin and cocaine users you would estimate hang out in each of these sites you just mentioned on a typical day. And how many of these are women? [Populate fourth column.]
 - What number of those using heroin and cocaine would you estimate are injecting drug users and how many of those would you estimate are female? [Populate fifth column.]

1	2	3		4		5	
Ward	Venue location/type	# of all users		# heroin/ cocaine users		# of drug injectors	
		M	F	M	F	M	F

9. How do the police in this town respond to drug use? (e.g., regular drop-ins several times a day (Arusha), cruise by maskani and periodically harass (Tanga), demand bribes (prices?), arrests, get paid off by pusher, etc.)
10. What do you think users need in terms of help so they can reduce their drug use?
11. Please tell me about drug use in the rest of the region. What are the other towns/villages where there is drug use activity? What are they using there? How do they use it? [Go there and start the questions again.]

ASK NGOs/SERVICE PROVIDERS

12. Please describe the interaction your organization has with drug users – what services do you provide users, if any?
13. How many individual drug users access your services each month?
14. How do you reach drug users?
15. What do you think the barriers are for drug users to access health services?

16. Are you aware of any other organizations offering health or other services to drug users?
17. What health services are drug users most in need of?

ASK PRIMARY KEY INFORMANTS WHO ARE IDU

18. What services for drug users are you aware of in this area? Probe: HIV testing, hepatitis testing/vaccination, methadone, needle exchange, drug treatment, legal services.
19. Do you use those services? Which ones? How often? Are you able to get clean syringes/needles when you need them? If not, why not? If so, where?
20. What types of services do you think are lacking/needed?
21. What do you think the barriers are for you to access health services?
22. How are drug users treated by people in this town? Probe: How are injection drug users treated in this town/area?
23. Have you ever used a needle which has previously been used by someone else?
24. In the past one month when you injected, did you use a needle previously used by someone else?
25. During the past one month when you injected, how often did you use needles/syringes that had previously been used by someone else?
26. During the past one month, how often did you clean syringes and needles that had previously been used by someone else before you used again?
27. How many male sex partners have you had in the last one month?
28. How many female sex partners have you had in the last one month?
29. The last time you had sex, did you use a condom?
30. Do you exchange sex for money or drugs?
31. If yes, in the last one month, how many times did you exchange sex for money or drugs?

DEMOGRAPHIC INFORMATION – ASK ALL PARTICIPANTS

Interview ID: _____

Type of interview:

1. Primary
2. Secondary

No.	Question	Response	
1	What is your age?	_____	
2	Sex	Male Female	1 2
3	What is the highest level of schooling that you have attended or completed?	No school..... Some primary..... Completed primary..... Some secondary..... Completed secondary..... More than secondary..... DO NOT READ Don't know/don't recall..... Refused to say.....	<input type="checkbox"/> 01 <input type="checkbox"/> 02 <input type="checkbox"/> 03 <input type="checkbox"/> 04 <input type="checkbox"/> 05 <input type="checkbox"/> 06 <input type="checkbox"/> 88 <input type="checkbox"/> 99
4	What kind of work do you do most of your time?	DO NOT READ RESPONSE CATEGORIES ALOUD Health worker..... Pharmacist/drugs store staff..... NGO staff Community service provider Soldier, policeman..... Venue owner..... Taxi driver..... Illegal activities..... Selling drugs..... Casual labourer..... Trader..... Unemployed..... Other (specify)_____	<input type="checkbox"/> 01 <input type="checkbox"/> 02 <input type="checkbox"/> 03 <input type="checkbox"/> 04 <input type="checkbox"/> 05 <input type="checkbox"/> 06 <input type="checkbox"/> 07 <input type="checkbox"/> 08 <input type="checkbox"/> 09 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 88 <input type="checkbox"/> 99

References

ⁱ United Nations Office on Drugs and Crime, World Drug Report 2014 (United Nations publication, Sales No. E.14.XI.7).

ⁱⁱ Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, . . . Injecting Drug, Use. (2008). Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet*, 372(9651), 1733-1745. doi: 10.1016/S0140-6736(08)61311-2.

ⁱⁱⁱ Zanzibar AIDS Control Programme, Ministry of Health (2013). *Integrated Behavioral and Biological Surveillance Survey among Key Populations at Risk in Zanzibar, 2011-2012*. **Unpublished report.**

^{iv} UNODC, (2013) International Standards for Drug Use Prevention.
http://www.unodc.org/documents/prevention/prevention_standards.pdf

^v PEPFAR (2010). Comprehensive HIV Prevention for People Who Inject Drugs, Revised Guidance.
<http://www.pepfar.gov/documents/organization/144970.pdf>.

^{vi} UNODC, (2013) International Standards for Drug Use Prevention.
http://www.unodc.org/documents/prevention/prevention_standards.pdf

This research has been supported by the President's Emergency Plan for AIDS Relief (PEPFAR) through the U.S. Centers for Disease Control and Prevention (CDC), implemented by the Drug Control Commission (DCC), with technical assistance from the University of California, San Francisco (UCSF).

