Emerging HIV risk in Papua New Guinea

Two assessments:

- Alcohol and injecting and other drug use and HIV risk
- HIV risk, prevention, treatment and care in closed settings

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TABLE OF CONTENTS

INTRODUCTION

Since 1987 when the first person in the Pacific Island nation of Papua New Guinea (PNG) was diagnosed as HIV-positive the epidemic has spread with people diagnosed in all of the nation's provinces. As the virus has spread our knowledge of the epidemic has evolved. It had long been suggested that PNG was experiencing an expanding generalized heterosexual epidemic with adult HIV prevalence rates in the order of 2%. Following the scale-up of sentinel antenatal HIV surveillance sites in PNG, more precise estimates of national prevalence became available in late 2010 suggesting for the first time that the national HIV epidemic was concentrated in certain populations rather than generalised, with an estimated national adult HIV prevalence of less than 1% (0.9%).

PNG's HIV epidemic is predominately driven through heterosexual transmission. That said, other modes of transmission observed include vertical transmission and male-to-male sex. A few sporadic cases of HIV have been diagnosed whereby the mode of transmission has been reported as tattooing and injecting drug use. The data on those who have been diagnosed with HIV as a result of injecting drug use is sparse. It is unclear for example if such people are indeed ethnic Papua New Guineans or if in the case of expatriates the virus was contracted via injecting drug use practices outside of PNG. There have been other anecdotal, but unverified, reports of injecting drug use occurring in PNG and concern has been raised over this being a possible route of transmission that with the potential of contributing to the epidemic. Closed settings have also been identified as possible spaces for HIV risk, particularly in relation to forced and or consensual male-to-male sex.

Background to this assessment

Under Strategic Objective 2, the National HIV and AIDS Strategy 2011-2015 identifies a number of new key areas for attention in the prevention of HIV. These include the development of a national policy on harm reduction for both alcohol and other drugs, modification of legislative barriers to harm reduction and a focus on HIV prevention in prisons.

This report is the outcome of a commissioned assessment by the United Nations Office of Drugs and Crime funded by UNAIDS PNG. The assessment was designed to inform HIV policy and programming over the next four years in relation to HIV risk in two understudied areas – alcohol and drug use, particularly injecting drug use, and people being detained in closed settings (prisons and police cells). In relation to this, the current assessment had the following aims:

To develop better understanding of the situation of drug use and alcohol (including injecting drug use) in PNG in relation to HIV risk and clarification of the priority areas of focus;

To examine the situation of HIV risk behaviours and access to HIV services inside correctional services and other holding facilities and clarification of the priority areas of focus.

Scope and limitations of the assessment

This assessment is an attempt to gain a picture of emerging HIV risks in PNG as they relate to closed settings and alcohol and other drugs, particularly illicit drug use and the injection of such drugs in Papua New Guinea. The purpose was to provide sufficient information to be able to recommend appropriate responses to these issues of concern. It is not an attempt to precisely estimate the HIV risk or to estimate the prevalence of illicit drug use, including injecting drug use, in PNG. This assessment was designed in such a way that it was only intended as an exploratory exercise to inform future and ongoing investigations and thus had related limitations on time and resources. Due to the illicit and secretive nature of injecting drug use and other practices more time was necessary to build up trust in expatriate communities and gain people's trust to expose and discuss their drug use practices.

METHODOLOGY

This rapid assessment involved both a desk review of available material and fieldwork.

Community consultation and the Research Advisor Group

Three community and stakeholder meetings were held prior to the start of the study to consolidate local-level interest and support. One was held each with the Department of Correctional Services and the Royal Papua New Guinea Constabulary (RPNGC). A third meeting was held and involved the formation of the Research Advisory Group which drew members from key stakeholders appropriate to the parameters of this assessment.

Review of literature, print media and existing material

A desk review was undertaken prior to fieldwork and the outcome of the desk review was presented at the Research Advisory Group. The desk review examined published data on HIV related to alcohol and other drug use and HIV risk in closed settings including prisons and police cells. The outcome of the desk review helped inform the development of the interview guides for the assessment.

Field sites

This assessment was conducted in four PNG provinces, representing three of the four regions: the National Capital District, West Sepik Province, Western Highlands Province and Morobe Province.

Participant recruitment

Key informants from a variety of organisations were identified by UNAIDS, UNODC and the Research Advisory Group were directly approached by the researchers. All other participants were approached by a third party. Prisoners and detainees in police holding cells were provided with a general *tok save* on the nature of the study by Correctional Service Officers and members of the RPNGC. Under no condition did a researcher directly approach a prisoner or detainee in a police holding cell. In the community, people who use drugs and alcohol and if possible had injected or who currently injected drugs were recruited using a snow balling technique. Staff at Provincial AIDS Councils Secretariats and HIV treatment and prevention services, as well as representatives of at risk populations (such as MSM and sex workers groups) were asked to invite people who use drugs and alcohol into the study and provide the potential participant with the contact details of the researchers.

Semi-structured Interviews

Eighty-two semi-structured interviews (SSIs) lasting approximately 45 minutes each were undertaken. Three different groups of informants were recruited: people who use drugs or drink alcohol; people who are currently in a closed setting (prison or police holding cell) or who have served time in prison; and key informants. Key informants included staff from the Department of Correctional Services, the RPNGC, non-government and faith based organizations, National and Provincial Departments of Health, the PNG National AIDS Council Secretariat (NACS) and its programs, international donor agencies, development practitioners, researchers and others. For a breakdown of the participants by sex and informant type see Table 1.

Focus Group Discussions

Seventeen focus group discussions (FGDs) lasting up to 90 minutes were undertaken. Three different groups of informants were recruited: people who use drugs and/or report misuse of alcohol and key informants. Key informants who participated in FGDs included staff from the Department of Correctional Services, the RPNGC and non-government and faith based organizations. For a breakdown of the participants by sex and informant type see Table 1.

Table 1: Informant type by sex

Type of informant	Male	Female	Total
Prisoners*	35	21	56
People in the community who drink alcohol and or use drugs	22	7	29
Key Informants	36	24	60
Total	93	52	145

*Included here are also detainees in Police holding cells and former prisoners. In total there were only 4 ex-prisoners, of which one was a female. Two of these ex-prisoners served time in West Papua for drug trafficking.

Data management and analyses

Semi-structured interviews and focus group discussions were recorded using a digital recorder, transcribed and where necessary translated from Tok Pisin into English from the original digital recordings. Qualitative data was analyzed using NVIVO 9 (QSR International, Australia). All data was securely stored on a password-protected computer at the PNG IMR in Goroka.

Ethical considerations and informed consent

All research was carried out in accordance with national and international ethical requirements. Approval was obtained from the PNG IMR Institutional Review Board, the PNG Medical Research Advisory Committee, the PNG National AIDS Council Research Advisory Committee and the Human Research Ethics Committee at the University of New South Wales (UNSW), Australia.

All participants in individual semi-structured interviews or focus group discussion were provided with either English or Tok Pisin Participant Information and Consent forms. All participants were asked to sign that they have read and understood the nature of the study, any possible risks and that they understand their right to withdraw at any time without any penalty. In the one situation where a participant was not able to read and write a nominated person signed on their behalf. Prisoners, detainees in police holding cells and members of the community who participated were provided with refreshments.

No names are used to identify participants in this assessment. Although we identify the province of informants for community members, health care workers and others we have purposely not identified provinces of informants currently serving time in a PNG prison, being held in a PNG Police cell or Correctional Services staff. We have done this in order to protect the privacy of informants as much as possible.

PART 1

HIV risk in relation to alcohol and other drug use, particularly injecting

1.1. LITERATURE REVIEW: ALCOHOL AND OTHER DRUG USE

The published peer-reviewed literature describing drug and alcohol use and impact in PNG is limited. This limited body of knowledge is complemented by a small number of research reports and previous rapid assessments and reviews. Evidence from these previous reviews that is available investigating drug and alcohol use in PNG findings are broadly consistent.[1, 2]

As noted by Baldwin et al in their 2007 review "The harms associated with drugs and alcohol in Papua New Guinea have been discussed for many decades. However, and despite the open acknowledgement of these harms, surprisingly little research has been conducted that explores these issues in more depth."[1]

Five years later this lack of in-depth research into drug use persists as do efforts to respond to drug and alcohol use in a coordinated and evidence informed manner. There is little systematic research on drug use other than cannabis, and much of this research is anthropological in nature.[3] Most research is confined to small, non-representative population groups.[2] Behavioural research studies, usually in the context of HIV and sexual behaviour research, often ask some questions about drug and alcohol use but examination of these domains is limited. There are no available data with which to reliably estimate the prevalence of drug use in PNG.[2] Furthermore there are no formal surveillance systems for monitoring alcohol and drug use and related impact and harm. As a result PNG lacks an evidence base with which to develop an evidence informed response.[1]

The literature search methodology used in this desk review is described in *Appendix 1.*

History of alcohol and other drug use in PNG

Compared to most other societies globally, the use of psychoactive substances is a relatively recent phenomenon in PNG. Prior to European contact in the nineteenth century, alcohol was unknown in the country.[4] For almost the entire colonial period, under German, British and Australian rule, alcohol was available to non-Papua New Guineans only, and not to indigenous Papua New Guineans.[4] The anti-colonialism movement for self-governance and independence acknowledged the racist implications of the restrictions on alcohol use by indigenous people and fought against this prejudiced law. Legislation was introduced in 1962 giving Papua New Guineans the right to legally drink.[4] Within a decade of this de-prohibition PNG had its first commission of inquiry into Alcohol and its effect on PNG.[5] Marshall (1999) later also suggests that "these historical events surrounding access to alcoholic beverages continue to influence that ways such drinks are used and symbolised today."[4]

Similarly, cannabis plant species are not indigenous to PNG, and accordingly the use of cannabis is not customary.[6] It is reported that cannabis was first introduced into PNG following World War II.[7] Initially its use was confined to the expatriate community.[2] During the 1970s and 1980s its use is believed to have spread to the indigenous population, particular among young people in urban areas and eventually more broadly throughout the country.[3] Historical accounts of other types of substance use were not located in this review.

The extent of alcohol and other drug use in PNG

Some commentators have characterised PNG as having developed what they describe as a "culture of intoxication",[8] evidenced by the way in which alcohol and other drugs are often consumed in large quantities in order to become significantly intoxicated.

Estimates of the prevalence of drug and alcohol use in the general population are lacking.[2] The absence of consistently measured or comparable data collected over time prevents the monitoring of changes in patterns of drug and alcohol use. There are currently no routine data collection processes that are able to monitor levels or trends in drug and alcohol use, directly or indirectly, nor of related harms and consequences.[2] The extent and nature of drug and alcohol use has only been measured in mostly small study populations. While these studies have provided important information about key groups, often at higher risk of HIV, patterns of drug and alcohol use may not be representative of the broader population; a summary of recent findings from such studies is presented in *Table 2.*

Alcohol use

Alcohol is widely available and used throughout PNG, but there may be variation in patterns of use. The most commonly consumed alcohol appears to be local commercially produced lager,[4] with other beverages

including imported beer, 'homebrew' and sprits also commonly consumed (see later discussion on production and availability of alcohol).[9-11, 13]

Rates of alcohol consumption are typically greater among men compared to women.[9, 10, 13, 14]

Among those who do drink alcohol binge drinking of large amounts of alcohol appears to be common. In many of the small samples studied, participants reported consuming large quantities of alcohol in a single session.[4, 9, 14] It should be noted that in studies where participants reported drinking homemade alcohol accurately determining the amount of alcohol consumed is difficult as the alcohol content of these beverages is unknown and the volume consumed not easily quantified (i.e. standard drink volumes are not able to be reported). The consumption of methylated spirits, or other liquids containing methanol, is reported to occur in PNG, particularly in coastal and lowland areas.[4] Methanol is highly toxic, and can cause blindness or even death. Marshall et al suggest that consumption of these potentially harmful substances is a result of people not knowing that not all types of alcohol are safe to drink.[4]

Betel nut use

The chewing of the fruit of the plant *Areca catechu,* betel nut palm, is common in PNG. The nut is chewed with betel pepper (commonly referred to as 'mustard sticks') and lime made from burning coral. The active constituents, arecoline and arecaidine, are alkaloids that act on the cholinergic neurotransmitter system. Various subjective effects are described in the literature and include reports of both stimulant and depressant effects.[15] One small study (N=28) on the effect of betel nut consumption revealed no significant impact on reaction time, concentration, short-term memory and hand-eye coordination.[15] It is estimated that as many as 2,000 people die per year due to betelnut related conditions.[8] A ban on the sale of betel nuts in plastic bags was instigated in 2009; the stated aims were motivated by environmental concerns, but wider health benefits have been claimed as a result of this measure making the sale of betel nut slightly more difficult.[8]

Kava use

The use of kava, a drink made from the roots of the *Piper methysticum plant,* with sedative and anaesthetic properties, is common in the Pacific region. While kava use has been reported in PNG, it is not an indigenous or traditional beverage, and consumption is understood to be lower than in other Pacific Island countries and territories, or compared to use of other substances in PNG.[8]

Cannabis use

Evidence from a number of studies, typically involving non-probability sampling, suggests that cannabis remains the most commonly consumed illicit substance in PNG. It has been contended that cannabis use has to a certain extent been "integrated into community life".[7] Levels of consumption of other illicit drugs appear to be practically negligible by comparison.

There are reports in the media as well as from law enforcement and government sources that levels of cannabis use are increasing,[8] but there has been little in the way of systematically collected data to verify these claims.

Findings from multiple studies suggest the cannabis use is far more common among males than females in PNG.[1, 7, 9, 11, 13, 14, 16] Cannabis is reported to be increasingly the drug of choice among young men in preference to more expensive commercially produced alcohol.[6]

Few of the studies reviewed here examined in any great detail the frequency or level of cannabis consumption among users. Among young cannabis users from a 2006 study, most reported using cannabis weekly or daily.[11] In a study of young men in Morobe province, 27% of cannabis users smoked the drug at least once a week.[6]

The extent of cannabis use is further illustrated by the increasing number of people admitted to mental health services who are diagnosed with cannabis-related psychosis.[7, 8]

Cannabis is typically smoked in rolled joints (cigarettes); the use of pipes fashioned from bamboo has been observed in rural areas, but reports of the use of 'bongs' (water pipes) are not present in the literature.[2, 7] There have also been recent reports of a potent homemade alcohol being brewed using marijuana leaves.[17]

Notably cannabis is typically very cheap compared to commercially available alcohol, and even sometimes less expensive than betel nut.[2]

Investigating the social context and drivers of cannabis use in PNG Halvaksz proposes that smoking cannabis builds "collective solidarity and increase in trust among people."[18] He observes that similar to practices around other substances such as "betel nut (discussed below) and tobacco, which are individually consumed, but often willingly shared among like-minded consumers to facilitate sociality."[19] In interviews with drug users as part of a 2007 rapid assessment cannabis use emerged as an important part of social identity and belonging, and there was little shame expressed about initiation others to drug use.[1] From this study researchers also concluded that the culture of intoxication was less apparent for cannabis consumption.[1]

A number reasons for using cannabis have been reported by participants in various studies, these include: as a "labour enhancer" to give the user energy and motivation; for relaxation; to enhance one's imagination.[1, 19]

Amphetamine type stimulants, ecstasy and cocaine use

There has been concern expressed by authorities in PNG, and by the United Nations Office on Drugs and Crime (UNODC) that the use of methamphetamine could become an issue;[3, 20] little in the way of evidence is provided by these sources that might be verify these claims.

In a number of studies of non-probability drawn samples (detailed in *Table 2* below) a small number of individuals report having tried various stimulant drugs including 'ecstasy', 'ice' (crystalline methamphetamine) and 'cocaine'.[10, 11, 13, 14] Most of these studies where stimulant use has been reported have not explored the nature of this drug use in significant depth, and consequently there is very little information in the reports describing these studies with which to evaluate the reliability of the data in these reports. It remains uncertain whether or not the substances reported to have been taken are in fact what the respondents report or believe they have consumed. In one study a respondent who reported having taken cocaine described the subjective effects of the drug she believed to be cocaine as follows: "The feel of it was stronger than how I felt when I took marijuana. This affected my vision and mental stability. When I looked at things, they looked upside down."[10] This account of the effects of cocaine is somewhat atypical, but it should be noted that subjective experiences of drug effects may differ and can be influenced by multiple factors including cultural context and an individual's expectation of what the effects might be. Ambiguous findings from studies such as these highlight the need for more in depth research to better characterise drug use, and to identify they types of drugs that are being consumed in PNG.

In the first BSS conducted in PNG the levels of ecstasy use reported among a non-probability recruited sample of men and women was high; 30% of married men and 50% of married women reported having used ecstasy.[11] These rates seem unlikely to be accurate given that they exceed *many* times over the levels of ecstasy use among adults in countries where well established ecstasy markets are known to exist and have been well documented; by way of comparison it is relevant to note that the prevalence of ecstasy use globally is estimated to be between 0.2% and 0.6%.[21]

It has been claimed that substances sold as ecstasy and amphetamines are available at significant events, such as new year's eve celebrations.[1]

In a 2006 rapid assessment Baldwin et al concluded that use of these drugs is rare and "probably limited to expatriates and wealthy locals, and has little relevance to public health in PNG"[1]

Heroin and other opioid use

In only one study located for this review was heroin use reported. In the 2006 Behavioural Surveillance Survey (BSS) within high risk settings 5% of the 415 sex workers in the sample who were not based on the highlands highway reported having used heroin in the preceding 12 months.[11] Such a high prevalence of heroin use has not been observed in samples from other reported studies since. The BSS report does not provide any further detail on this heroin use; it is not noted whether or not the drug was injected or consumed via some other route of administration.

Solvent use

While reports of intoxication through the inhalation of solvents have been recorded, this practice does not appear to be common in PNG. Solvents are relatively easily available, and some researchers have warned of the potential for solvent use to spread in PNG.[1]

Hallucinogenic substance use

There are reports of the consumption of plants, including trumpet flowers (possibly of the Datura genus) and of mushrooms with psychoactive properties;[1] the extent of use of these hallucinogenic plants is not known.

An outbreak of 'mushroom madness' in the Western Highlands Province originally thought to be due to the ingestion of hallucinogenic mushrooms was later understood to be instead due to a form of collective hysteria. Later still, evidence was uncovered suggesting that the phenomena might have in fact been the result of acute nicotine poisoning from ingesting toxic quantities of tobacco.[22]

Injecting drug use

From the currently available information, there remains considerable uncertainty around precise extent and nature of injecting drug use practices in PNG.

Injecting drug use has been reported as mode of transmission in the national HIV case reporting system: 2 cases in 2003; 8 cases in 2007; 3 cases in 2008; and 4 cases in 2010.[23] Additional information regarding transmission category is not recorded on the case reporting forms. Concerns have been raised previously about the accuracy and completeness of the case reporting mechanism; and it has been suggested that these cases may in fact be among migrants who became injected outside of PNG.[24, 25]

Injecting drug use has been reported, albeit as an infrequent practice, in two of studies located in this review. In a 2008 sample of oil company workers from a rural economic enclave in the Southern Highlands Province, an area with high prevalence of HIV, three of the 463 participants reported having injected a drug, which had not been prescribed to them by a doctor, in the preceding 12 months.[14] Of these, one reported using injecting equipment that had been used previously by someone else.[14] In a 2008 study of people attending an STI clinic in Lae one participant reported having injected drugs; this participant also reported having engaged in transactional sex.[13] In reports describing both of these behavioural studies there is only very limited information provided on how these questions around injecting drug use were asked, including whether or not they were asked in Tok Pisin, nor is it apparent if more information to clarify details around these injecting practices was sought.

In number of other studies reviewed here, no respondents reported having injected drugs when it was asked about.[1, 9-11]

Factors influencing alcohol and drug use

A limited amount of previous work described in the literature has explored factors contributing to drug and alcohol use.

Various factors in young peoples' lives may influence their drug and alcohol use. Naemon suggests that the disempowerment felt by young people is implicated in drug and alcohol use.[10]

In a number of the studies reviewed, participants reported various reasons for using drugs, these included: modelling drug use after significant others, including family and friends;[1] experimentation;[1] pressure from peers to do so;[1, 10] to alleviate boredom;[1] "to get high";[2] for fun/recreation;[10] as a response to frustration and disappointment in their lives;[2, 10] to boost self-confidence.[2]

Young people report being introduced to drug use by their friends or family.[2] In one study males were more likely than females to have reported seeking out cannabis for themselves to try it for the first time.[1, 2]

Community attitudes may impact upon levels of drug and alcohol use. In a 2006 study of young people undertaken by Save the Children Youth Outreach Project in four locations where the project operates (Goroka, Megabo, Kainantu and Madang), markedly lower levels of drug and alcohol use were reported by those young people in Megabo, a remote village, compared to those in the other locations which are more urbanised areas.[16] The researchers suggest that this may reflect the influence of the Seventh Day Adventist Church, the dominant religious congregation in the area of Megabo in Upper Bena, which strongly prohibits drug and alcohol use and which many of the young people have exposure to.[16] It should be noted that the sample of young people in this study were not randomly recruited.

A 2008 mixed-methods study of people receiving antiretroviral therapy ART for HIV revealed many had reduced their alcohol intake, some ceasing to drink alcohol altogether.[26] These reductions were attributed to the perception among those receiving ART that drinking would harm their health and the importance placed by them on the need to adopt healthy behaviours in the presence of their illness.[26]

Table 2: Summary of key behavioural studies examining alcohol and drug use in PNG

Study population	Alcohol use	Other drug use	HIV related risk
Female sex workers[27] *Port Moresby* *Year: 2003* *N = 79* *Aged 14 years and over*	• 44% (95%CI 33-56) had used alcohol in the last week	• 54% (95%CI 43-66) had used cannabis in the last week	-
Female sex workers[28] *Port Moresby* *Year: 2003* *N = 128* *Aged 18 years and over*	-	-	• 83% (95%CI 77-89) of participants reported at baseline having ever had sex while under the influence of drugs or alcohol
Drug users[2] *Year: 2005*	-	• Some participants reported signs of psychological dependence on cannabis • Reasons for use: "to get high"; to boost self-confidence; to assist in coping with personal problems • Most introduced to cannabis through friends or schoolmates	-
Truck drivers, military personnel, sugar workers & port workers[11] *Year: 2006* *N = 1,358*	• Alcohol use common among all age groups; more common among men than women; lowest among unmarried women, 54% of whom reported drinking	• Cannabis use common; rates higher among men than women. • Among young people reporting cannabis use, frequency of use was typically weekly or daily • Use of ecstasy reported by many (30% of married men and 50% of married women)	-
Women who sell sex[11] *Year: 2006*	• Alcohol consumption is common • Commercially produced beer is the most commonly consumed, followed by homebrew	• 40% had smoked cannabis • 5% of non-highway based sex workers in sample reported taking heroin in the preceding 12 months • 4% of non-highway based sex workers in sample reported using cocaine in the preceding 12 months	-
Nightclub patrons, people at bus stations and market places, settlements or plantations[1] *Year: 2007* *N = 615*	• 90% had tried alcohol • 64% had tried homebrew • Among drinkers 64% had done so in the last 2 weeks	• Males more likely than females to have ever tried cannabis • Of those who had tried cannabis 65% reported consuming the drug in the preceding 2 weeks • 90% had tried betel nut • Initiation to drug use through provision by friends most common; males more likely to report seeking out drug themselves • Reasons for staring drug use: modelling use after significant others; experimentation; peer influence; to alleviate boredom. • Family/friend/wantok networks used to obtain drugs	-

Study population	Alcohol use	Other drug use	HIV related risk
Young Biangai men[6] *Morobe Province* *Year: 2007* *N = 52*	-	• 65% had tried cannabis • 27% used it at least once per week • Most spent time away from their communities for work or education	-
STI clinic attendees[13] *Lae* *Year: 2008* *N = 300*	• 71% of men and 39% of women reported drinking alcohol • 94% drank beer and only 5% spirits • On days when drinking volume of alcohol consumed is high – 7 or more units	• 44% or men and 15% of women reported having consumed drugs other than alcohol in the last 12 months • Of those who reported drug use approximately 50% reported having used cannabis. • 4 people reported having used "ice"; no further information on other drugs used • 1 woman reported having injected drugs – type of drug injected uncertain.	• The one participant who reported having injected drugs also reported having had transactional sex
Young women, out of school and unemployed[10] *Gerehu, Port Moresby* *Year: 2008* *N = 63*	• 40% drank alcohol • Of those who drink 80% drank beer, 28% homebrew, 35% homemade steam, 25% spirits	• Few reported cannabis use • >75% chew betel nut • 2 reported cocaine use (the effects described however do not necessarily sound like cocaine "the feel of it was stronger than how I felt when I took marijuana. This affected my vision and mental stability, When I looked at things, they looked upside down") • Reasons for drug use included: for recreation/fun; as a response to frustration and disappointment in their lives; peer pressure	-
Rural enclave – plantation workers[9] *Western Highlands Province* *Year: 2008* *N=460*	• 15% of women and 51% of men drank alcohol • Among those who drank drinking beer was most common (89%) followed by homebrew (26%), and spirits (13%). • On days when drinking volume of alcohol consumed is high – 10 or more units of alcohol for 64% of male drinkers and 30% of female drinkers; 46% of female drinkers report consuming 4 drinks or less	• 19% of men and 12% of women report having used a drug other than alcohol in the last 12 months • Of those who report drug use 87% report having used cannabis • No details provided on other drugs used • No reports of injecting drug use	• Participants report that men on the plantation take drugs and then rape women
People receiving ART26 *Year: 2008*	• Approximately 80% did not drink alcohol • 15% reported drinking only occasionally • 40% of those who did not drink reported having done so previously, but had given up for reasons relate to their HIV status or treatment • Those who continued to drink reported a reduction in the amount consumed	-	-

Study population	Alcohol use	Other drug use	HIV related risk
Rural enclave – Oil Search Ltd. workers14 *Southern Highlands and Gulf Provinces* *Year: 2009* *N = 463*	• 73% report drinking alcohol (men 74%; women 48%) • Beer more popular than other types of alcohol • On days when drinking volume of alcohol consumed is high – 10 or more units of alcohol	• 81% of men reported use of a drug other than alcohol • Cannabis the most commonly reported drug used; use of "ice", "ecstasy" and cocaine also reported • 3 men reported having injected a drug in the last year, not further information provided.	• In qualitative interviews links made between alcohol decreasing inhibitions, increased sexual desire, sexual violence, and physical violence to both people and property • One of the men reporting having injected reported using used injecting equipment • Women mentioned selling sex for drugs and drugs being associated with sex work
People who sell sex29 *Port Moresby* *Year: 2010*	-	-	• 78% overall (female 76%; male 39%; transgender 91%) report having sex with clients while being under the influence of alcohol or drugs in the preceding 6 months • 13% female, 21% transgender and 39% male workers report having sex with clients while being under the influence of drugs. • Being under the influence of drugs or alcohol was the second most common reason for not having used a condom.
Out of school young people16 *Goroka, Kainantu, Megabo&Madang* *N = 240* *Aged 15-25 years*	• 46% (95%CI: 39.5-53.5%) reported drinking store-bought alcohol • 32.5% (95% CI: 26 – 39%) reported drinking home-made alcohol • Females reported lower rates of alcohol use • Shortage of money – more inclined to drink homemade alcohol	• 24% (95% CI: 17.6 – 29.4%) reported smoking marijuana • Females reported lower rates of drug use	• Participants reported their perception that alcohol and cannabis use stimulates sexual desire, leading young people to seek sex including forced sex.

Impact of drug and alcohol use

Alcohol and cannabis use in PNG has been implicated as contributing to a range of negative outcomes ranging from motor vehicle accidents, physical and sexual violence, tribal fighting, and sexual risk behaviours. Due to a lack of data however, it remains impossible to quantify the burden of disease due to drug and alcohol use at the population level in PNG.

Sex related behaviours + drug and alcohol use

Drug and alcohol use is commonly associated with risky sexual behaviour. It is important to note however, that while this association is strong, this relationship is not necessarily causal; the nature of the association is complex, and involves the intersection of multiple factors and process. Alcohol and cannabis can decrease social and sexual inhibitions, and associated with this increased sexual risk taking which may result in unplanned, unwanted or unprotected sex.[1, 30, 31]

The association between sex and substance use is recognised in PNG and may even form an important part of identity or experience of one's community or surroundings: "For many young people, the city represents sexual partners, alcohol and cannabis." [31]

In a sample of 460 workers from WR Carpenters, a rural agricultural growing, manufacturing and processing company in the WHP, 12% of men and 3% of women reported having been so drunk or stoned that had had sex without a condom. Reports gathered through qualitative interviews also suggested a link between alcohol use and not using a condom, as well as associations with rape, violence, threats and physical abuse, disturbances and destruction of property.[9]

In a sample of 463 workers employed by the company Oil Search nearly 20% of those workers who reported drinking or taking drugs admitted to having, on some occasion, been so intoxicated that they had not used a condom.[14] During breaks from work, workers often spent time overnight in urban centres such as Port Moresby, Lae or Mt Hagen. It was commonly reported that when spending time in these towns they would drink heavily and experience increased sexual desire. Some also reported drinking with sex workers or extra-marital partners during these times, as well as engaging in group sex.[14]

In the 2007 rapid assessment by Baldwin et al, 51% or those interviewed reported that drugs or alcohol were involved in their last sexual encounter; 25% reported that both they and their partner were intoxicated at this time, most commonly under the influence of alcohol. It was also reported by both men and women, that it was common in bars for men to buy a woman drinks, but with the expectation that she will "repay" him with sex.[1]

Sex work + drug and alcohol use

Drug and alcohol use is common among people engaging in transactional sex in PNG.[11, 27-29] While cannabis is the most commonly reported drug (other than alcohol) used, the use of heroin and cocaine by women who sell sex has been reported;[11] as discussed above, however, detailed and clear information on the use of these other drugs is lacking.

While data are only available from small non-randomly selected samples and as such comparing results across different studies should be done so cautiously, the prevalence of drug use among women who sell sex[10, 22-24] does consistently appear to be considerably greater than among women who are not engaged in sex work.[1, 9, 10, 13, 16]

Substance use is associated with risky sexual practices among sex workers. Across studies, sex workers have reported having had sex while under the influence of alcohol or drugs. In a 2003 study in Port Moresby (N=128), 83%of women who sell sex reported ever having had sex while intoxicated.28 Gender differences were observed in a 2010 study among people selling sex in Port Moresby with 76% of women, 39% of male and 91% of transgender people who sold sex reporting having sold sex in the preceding six months while intoxicated.29 In the latter study being under the influence of *drugs specifically was reported more frequently by men who sell sex (39%) than transgender people (21%) or women (13%) who sell sex*.[29] The qualitative component of this study also identified the occurrence of sell seeling sex while intoxicated.[29]

An individual's decision-making or capacity to negotiate safe sex and condom use may be compromised when intoxicated. Being under the influence of drugs or alcohol has also been reported as a common reason for not having used condoms when having sex, both with clients and non-paying partners.[29]

Violence + drug and alcohol use

The UN defines gender-based violence against women as any act of violence that "results in or is likely to result in physical, sexual or mental harm or suffering to women, including threats of such acts [and] coercion…whether occurring in public or in private life". Marijuana and alcohol consumption are implicated as a contributing factor in gender based violence against women in PNG.[1, 8, 9, 16, 32]

In a 1995 survey of women 71% reported that they considered alcohol abuse as a major cause of marital problems; among this sample 26% of women who had been the victims of physical abuse by their spouse reported that alcohol had been involved in these violent incidents.[8]

In the 2007 rapid assessment by Baldwin et al, a large proportion of women reported having been forced to have sex in the preceding six months and of these 80% reported that drugs and or alcohol were involved in these incidents. Sixty per cent of these women reported that the perpetrator was under the influence of alcohol and a significant number reported that they themselves had used alcohol (59%) or cannabis (17%) at the time of the sexual assault.[1]

In focus group discussions with young people, as part of a study undertaken by Save the Children, participants describe their understanding of the association between drug and alcohol use and sexual violence. The participants perceived cannabis and alcohol increases sexual desire and self-confidence and leads people to seek sex, including forced sex and multiple rape; they believed that heavy substance use makes sexual violence more likely.[16]

It is reported that when women present to health services for treatment of injuries from violence, drugs or alcohol are commonly identified as having been a trigger for the violent act.[8]

While gender based violence is acknowledged as being widespread, policy and interventions to address this issue remain inadequate.[8]

Economic development + drug and alcohol use

The negative impacts of drug and alcohol use are not limited to heath and crime. High levels of alcohol and cannabis consumption have been identified as threat to the viability of utilising local labour on large-scale commercial development projects in some areas.[8] The economic and broader impacts of such limitations are considerable, consequently impeding development, employment and prosperity, which in turn may play a potential role in driving the HIV epidemic.

Crime + drug and alcohol use

Firearms are commonly seized during drug operations,[8] and reports in the media have linked PNG's illegal drug culture with local gun running syndicates and other organised criminal activities.[18] Others have rebutted the nature of this association as being causal, suggesting that the links between crime and marijuana use is perhaps exaggerated and may instead represent "the activity of a criminal who happens to smoke cannabis".[8]

Production and cultivation of alcohol and other drugs

Alcohol production

Imported and local commercially produced alcohol became available during the colonial era. It is understood that distilled and fermented homemade alcoholic beverages began to be produced soon after the introduction of commercially produced alcohol.[2]

Currently the largest commercial producer of alcoholic beverages in PNG is South Pacific Brewery, producer of SP brand lager beer, manufactured in Port Moresby and Lae.

There are many different types of homemade alcoholic beverages produced in PNG, and various names used for these, some are produced through fermentation and some are distilled. Baldwin et al reported the following variations[1]:

"Stim"– From the Tok Pisin word for 'steam' is produced by a process of fermentation and distillation

"Kofi kandi" – Is produced by using yeast to ferment cooled coffee and can be made in only 8 hours

"Baket" – From the Tok Pisin for bucket, refers to a drink made by fermenting fruit in a bucket and can be produced in only a few days

"Trampet" – Is made by fermenting 'trumpet' flowers

"Yawa" – Made from fermenting banana leaves, and is often also distilled, is made in coastal areas.

"Mari-brew" – homebrewed alcohol made with cannabis leaves, alcohol and yeast.[17]

Homebrew produced by small scale operators may be sold to others, but typically no more than 30 or so customers.[1] It is reported that in some villages, there are specific areas, usually on the outskirts of the settlement, where the sale and consumption of homemade alcohol, and sometimes cannabis, takes place.[1] The introduction of local alcohol bans in some provinces and districts has resulted in illicit production and smuggling of alcohol into these areas.

Cannabis cultivation

Prior to the introduction of cannabis in the 20th century PNG was not a cannabis producing country.[8] Cannabis proved easy to grow and cultivation had become widespread by the mid-1980s.[6]

Notably the plant now grows wild in many areas of PNG, being particularly well suited to the fertile soil and high altitude of the highlands.[7]

Locally cultivated cannabis is reported to have a high content of *tetra-hydro-cannabinol, the primary psychoactive constituent of cannabis*.[3] A potent strain known as 'Niugini Gold' is commonly cultivated; Thomas[7] provides the following botanical description:

"This strain of cannabis can be identified by its red stem, compact golden-yellow inflorescences ('buds') up to 15 cm long and a characteristic pungent smell. The term 'Niugini Gold' refers exclusively to the inflorescences of female cannabis plants that are harvested before they are fertilized and produce seeds. 'Niugini Gold' is without seeds and is similar to cannabis preparations known as 'sinsemilla'".[7]

The areas where the most significant cultivation is reported to occur are inland valleys and costal port communities.[19] The true extent of cannabis cultivation in PNG is, however, unknown.[6] Halvaksz reports that the initial motivation for the cultivation of cannabis in the Highland provinces of PNG has been to raise funds for the purchase of firearms and ammunition used in inter-tribal warfare.[6, 19] The cannabis cultivated in these areas enters the local market or is sent to other areas, in particular urban centres, for distribution and sale.[19] Media accounts and some law enforcement authorities have claimed that large-scale cultivation and distribution is encouraged and controlled by large drug cartels based in Australia and Asia.[18, 19] Some have also reported that cannabis produced in PNG is exported to Australia,[2, 20] but this is disputed by the Australian Federal Police.[18] Halvaksz contends that "*production and consumption of cannabis in PNG is overstated in terms of the degree to which it is trafficked across international borders. But local consumption practices are often overlooked and poorly understood.*"[19] Further it may be the case that a large proportion of cannabis grown in PNG is not associated with large scale production or organised crime, but is rather cultivated for personal use or local distribution.[19]

Most cultivated cannabis that is not for personal use, is produced as a smallholder cash crop.[18, 19] This small-scale production and sale is not uncommon; in a 2007 rapid assessment 75% or of those who reported growing cannabis also sold some of their crop to others.[1] In many instances this small scale cultivation and sale of cannabis can be an important source of income.[1, 6] Further, cannabis cultivation of this kind can have wider social and economic significance. From an in depth study of cannabis production in a rural village setting in Morobe province, Halvaksz describes cannabis consumers and gardeners as forming a hidden economy, with cannabis integrated into community life.[6] For some young men, the potential to cultivate cannabis as a cash crop represents a potential means by which to achieve not just financial independence, but is also motivated by aspirations of achieving status and recognition through transformation in relation to the use and control of land; it is noted that in some PNG societies there are complex conditions and cultural significance relating to land holdings and to the cultivation or plants and gardens, and this is relevant to cannabis also.[6]

Distribution networks typically involve the selling of cannabis on behalf of relatives in exchange for a share of the profits.[18, 19] Baldwin describes the following distribution trail:

"From the highlands the farmers sell it to drug sellers called "dealer men" who put them in kaukau and potato bags and ship them from Lae to Port Moresby. From the Gulf and Goilala, cannabis is transported by PMV and trucks to Moresby. Dealer men pay about K500.00 for a 10kg rice bag (estimated to hold about 2-3kg) of dried cannabis. The cannabis is then broken down and sold in smaller and smaller packets. At each stage in the market the deals become smaller and more expensive. Cannabis is commonly sold in a "five pack" which costs K5.00 and is about 50grms, "one pack" about 3 grams or a half roll about 1 gram which sells for about 50 toia. Thus sellers make about a 100 percent return on the resale of cannabis at each stage in the market."[1]

Significantly these distribution networks are said to be very similar in structure and nature to those described for betel nut distribution (but with betel nut cultivation more commonly occurring in coastal areas).[1]

Manufacture of other illicit substances

There was no evidence located for this review of the cultivation or manufacture of other illicit drugs in PNG. However, the United Nations Office on Drugs and Crime (UNODC) have suggested that because PNG is not a party to the *1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances it remains vulnerable to the illicit manufacture of amphetamine-type substances*.[33]

Drug trafficking and seizures

The porous nature of PNG's maritime borders, and that of neighbouring countries establishes a significant risk for the drug trafficking.[20] The capacity of authorities in PNG responsible for border control to detect the trafficking of illicit substances is limited. In 2007 it was reported that Customs authorities lacked equipment to aid in the detection of drugs, and relied instead on undertaking searches of cargo. As such, and also with the presence of organised crime groups in the region and believed to be operating in the country, Australian Customs considers PNG to be an emerging risk for the transhipment of illicit drugs and goods en route to Australia.[8] Currently Australia provides support to PNG to assist in controlling illegal trafficking.[8]

A number of reports of seizures of illicit drugs other than cannabis were noted in the literature, these include:

- 2009 reports in the media of seizure of white powdered substance suspected to be methamphetamine or cocaine.[8]
- In 2007 2.3kg of cocaine were detected in air freight between Central America and PNG.[20]
- In 2002, 12 tons of methamphetamine precursors were prevented from being imported into PNG; this included ephedrine originating in India and pseudoephedrine from China.[20]
- In 2009 UNODC reported that PNG is a transit country for heroin trafficking;[20] however, no reference was provided for the source of this information.[20]
- In 2012 A American student was arrested in Australia with possession of 2 kg of methamphetamine having arrived off an international flight from PNG; no reference was made to where she purchased the drugs.[34]
- In 2012 Two Malaysian men and one PNG man were arrested with conspiracy to import 50kg of methamphetamine with a street value of 15million Kina. PNG was believed to be the supply point for Australia and New Zealand.[35]

Seizures of cannabis are often reported in the media. More than 170kg of cannabis was reported to have been confiscated by the PNG Ports Corporation Ltd. in total nationally during 2011.[36] There are numerous accounts in the press of the interception of drugs being transported between mainland PNG and the islands, and from rural to urban areas in the country. In 2008, 58kg of cannabis seized by police in EHP in two operations; believed to be possibly destined for Madang or overseas. The 24 people detained were believed by police to be part of a major marijuana syndicate and came from a variety of regions, believed to indicate the broad reach of the activity.[8]

Attitudes to drug and alcohol use

Drug use is understood to be strongly condemned across all levels of government in PNG (reflected in policy and legislative responses discussed in further detail below), by elders and chiefs, and by influential church leaders.[1, 6, 18] Commentary in the media is also typically ardent in its condemnation of drug production, trafficking and use, with some media commentators calling for the introduction of capital punishment for drug related crimes.[6] Cannabis use in particular is often framed as a major problem impacting significantly upon the community.[18] Halvaksz observes that policy discussions on drug use in PNG is primarily constrained to a discourse on 'law and order'.[6] In many communities marijuana use is seen as an example of the breakdown of law and order and by even some community members as reflecting societal moral failure "as punishment from god and the ancestors for the youth's uncontrolled desires and for their own failure to teach and discipline their children".[18]

Drug users can face stigma and discrimination. The term "drug bodies" is often used pejoratively to refer to people who use drugs. Drug users may be excluded from community events, and even be physically punished.[1]

While the dominant attitudes towards drug use are commonly presented as disapproving of cannabis use, the relationship individuals and communities have with cannabis may be more complex, with the drug taking on various cultural and social meanings and interpretations.[18, 37] For example cannabis can be seen as a way of understanding and connecting with ancestral stories, of working without tiring, or of "drying out the blood" of those who use it.[18] In addition, as discussed below, cultivating cannabis is seen by some as a lucrative cash crop, and for those in positions of limited social mobility, may be seen as a safer way of making money compared to other illegal activities such as robbery.[18] Further, in the 2007 rapid assessment by Baldwin et al., a significant theme to emerge from focus group discussions was the importance felt at the community level to address the harms associated with drug and alcohol use rather than isolating and punishing people who use drugs.[1] Baldwin et al. report that community members recognised the need for professional and effective services to address drug use.[1]

Responses to alcohol and other drugs

National policy on alcohol and other drugs

The response to drug and alcohol use in PNG can be seen as still very much in development. Approaches have essentially been punitive, focussing on drug supply and demand reduction.[8]

A comprehensive, evidence-based national strategy on drug and alcohol issues is lacking.[1, 2] Previous commentators have called for the development of such a strategy, but this is yet to occur.[2] As others have suggested in order for any national strategy to be effective it should be multi-sectorial in approach and be culturally and contextually appropriate; approaches will likely differ in different areas across the country.[8, 31] Halvaksz proposes that in addition to continuing law enforcement efforts to control large scale production of cannabis strategies that reduce demand through education and community involvement should be prioritised, as well as efforts to improve education and development opportunities.[19]

A National Working Group on Alcohol was formed under the direction of the Chief Secretary following the country's first National Alcohol Symposium held in Port Moresby and two regional workshops held in Mt Hagen and Lae. The group comprises representatives from the public, private and non-government sectors, including: Departments of Justice and Health, University of PNG, the National Research Institute, the Royal PNG Constabulary, Church Representatives and the SP Brewery Company.[38] Information on progress made by this group was difficult to obtain. At the time of finalizing this report a draft report of Alcohol Abuse in PNG was obtained.[39] The report is still in draft form and not publically available. It does however list the following broad recommendations:

1. Review of Liquor Laws
2. Enforcement of Liquor Laws
3. Development of a National Alcohol Policy
4. Educate Students on Alcohol Abuse
5. Conduct Public Awareness
6. Introduce Behavior Change Programs
7. Maintain information Database and Research
8. Network with Key Stakeholders
9. Focus on Youth
10. Protect Women and Girls

Regional initiatives

To address the complex transnational nature of drugs and crime efforts have been made at the regional level to devise a common all of government approach across the Pacific involving navy, defence, police and customs sectors.[3] Regional working groups such as the South Pacific Chiefs of Police and the Oceania Customs Organisation have made recommendations for the strengthening of legislation related to illicit drugs.[3]

Attempts by countries in the region to work in cooperation on these issues have been impeded by national level capacity limitations, specifically due to a lack of training and resources, ineffective legislation constraining the ability of police, customs and other authorities from performing effectively as drug enforcement agents.[3]

Cooperative research approaches have also been initiated. The Pacific Drug Research Network (PDRN) was established to advance applied research in the region in an effort to develop an evidence base to inform policy and interventions to reduce drug and alcohol use and related harms, including those related to HIV.[3]

International Treaty obligations

PNG has ratified the *1961 UN Convention on Narcotic Drugs and the 1971 Convention on Psychotropic Substances.*[1] While it is understood that the Government of PNG by be considering ratifying the *1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances*, currently the country is not a party to this treaty. It has been suggested that because it is not a party to this treaty that PNG may remain vulnerable to the illicit manufacture of amphetamine-type substances.[33]

Legislation and administrative approaches addressing alcohol and other drugs

Several acts of parliament relate directly to production or cultivation, trafficking, sale, possession and use of particular substances, these include: the *1952 Dangerous Drugs Act, the 1976 Summary Offences Act, the 1992 National Narcotics Control Board Act.*

The 1992 National Narcotics Control Board Act established the National Narcotics Control Board (NNCB) and the National Narcotics Bureau (NNB). The NNCB is responsible for initiating and coordinating policies on drug abuse and for regulating the legal importation of drugs for medical and research use. The Board comprises eleven members appointed by the Minister of Justice on recommendation of church leaders and heads of government departments.[1]

The NNB, the Royal PNG Constabulary (RPNGC), Customs, and the Department of Health each have responsibilities in enforcing drug laws. The enforcement of these laws, however, is reported to be poorly coordinated and the legislation rarely enforced.[1, 8]

Both the NNB and the NNCB have been said to lack necessary authority with which to implement the regulations they are responsible for. A proposed revision to the Act in 1994 would have increased the powers of the Board, but failed to pass through parliament due to lack of political support.[1] There have been reports of significant corruption within the NNB, including financial improbity, and involvement in illegal activities including participation in the trade of firearms and drugs.[2, 8]The shortcomings of the NNB have been said to have contributed to the failure of a national drug strategy from being developed.[2]

Currently the legal system in PNG does not differentiate between different types of illicit substances, as is commonly the case in other countries. Possession, trafficking, or sale of illicit substances attracts the same penalty regardless of the drug type and furthermore the offences of trafficking and possession also carries the same punishment; judges have little in the way of latitude when determining sentences.[6, 18]

There is no national body in PNG responsible for addressing alcohol consumption and related harm.8 Limited legislative controls relating to alcohol use and production do exist. The advertising of alcohol is subject to restrictions and is not permitted in newspapers, other print media, radio or television.[4] Offences relating drunkenness, including those for violence or property damage are targeted by clauses in the legislation.[8] It is reported that there is, however, a lack of enforcement of existing laws relating to alcohol, including a lack of effective regulation governing the production, price and strength and availability of homemade alcohol.[28]A number of commentators have noted that the importance of considering the history of alcohol prohibition in PNG and a culture of defiance against alcohol related restrictions.[8, 40]

At the provincial, district and village levels local communities may implement firm prohibitionist measures to reduce alcohol related problems; these include imposing temporary liquor bans lasting from a few days to as long as several months.[4, 8] It should be noted that these approaches are rarely evaluated and it has been suggested that may in fact result in an increase in the consumption of unregulated homemade alcohol, and in some cases even the consumption of 'non-beverage alcohol' such as cologne.[8]

Drug and alcohol related arrests and convictions

During this review few data on drug and alcohol offences were able to be located. The limited data available are described below.

Between 1999 and 2004, the Drugs and Vice Squad made 307 arrests for drug related offences. Of these 60% resulted in convictions; 23% absconded while on bail; 10% were dismissed for lack of evidence; and the remainder were released on good behaviour bonds.[8]

Between January and September 2006, in Central Province there were 30 arrests on charges relating to cannabis, 46 made in relation to alcohol, and 48 in relation to homebrew; over the same time period in the National Capital District, 208 arrests on drug related charges were made.[1]

Limited information was available from justice records on drug and alcohol related charges brought against young people. Goroka Juvenile Court records for 2011 include mention of five charges of drinking in public places, all of which were not pursued.[41] Of the four convictions for possession of a dangerous drug, three received sentences for community service, and the fourth was discharged with a caution following a period of three weeks spent in remand in an adult police cell.[41] In 2010 eight juveniles were charged with being in possession dangerous drugs, and eight for drinking or being drunk in a public place;[42] only eight of these cases went to court, of these four cases were dismissed, one received a custodial sentence and three sentenced to community work.[42]

The health sector response to drug and alcohol use

PNG currently lacks specialist drug and alcohol treatment services. Individuals with substance use issues received care from non-specialist general and mental health services as well as non-government and faith-based organisations.[1, 8] These services typically have only very limited experience in providing substance dependence treatment options.[7]

Counselling and rehabilitation

The City Mission, The Salvation Army, Lifeline and the Catholic Church provide counselling type services for people who use drugs and alcohol. Drug and alcohol related issues are dealt with as part of "life counselling" or other general programmes; these programmes typically have a strong abstinence focus.[1] Inpatient "re-education" services are also provided, and again are strongly abstinence based with a focus on spiritual counselling but also include drug and alcohol awareness and education components.[1]

Mental health services

Psychiatry services such the National Psychiatric Hospital at Laloki and Port Moresby General Hospital often treat patients for drug and alcohol related issues. Between 2000 and 2004 nearly half of all patients admitted to Laloki were diagnosed with cannabis induced psychosis.[1] Reports from other facilities similarly attributed cannabis as the cause of mental illness among a large proportion of patients.18 In 2006 it was reported that increased numbers of patients with drug-induced psychosis were being seen at regional and provincial psychiatric units and at Laloki Psychiatric Hospital.[1] Baldwin et al highlighted the limited specialist training in dual diagnosis among clinicians at these facilities, as well as the poor screening procedures.[1]

Public health interventions

The AusAID funded *Tingim Laip HIV prevention project* has delivered programs addressing HIV risk associated with substance use including the successful piloting of small scale alcohol focused interventions which have included community workshops, coffee nights, role modelling, surveys and peer education.[8, 31] Evaluation of these interventions found community support and benefit to the targeted populations.[31]

Community and civil society responses to drug and alcohol use

There are examples in literature describing efforts by community and church leaders to address drug and alcohol use in their communities.

Community members have been known to vigorously chastise those involved in the cannabis trade and those who use the drug and to try and persuade them into "good thinking".[5] Interventions include encouraging cannabis growers and distributors to hand over crops and encouraging individuals to sign formal statements promising to never grow, sell or use cannabis again in return for acceptance and status in their communities.[6, 19, 43] Those caught using of trading cannabis again may be threatened with being turned over to the police.[5] It has been suggested that these efforts may serve to push the cannabis trade further underground, and to reduce public use or admission of use, and that the extent of behavioural change these interventions seek to achieve remains unknown.[19] Some of those who have signed such pledges have complained that the community leaders who encouraged them have not listened to or addressed their concerns or problems, and many do return to using the drug.[5]

Other community actions include large-scale public demonstrations denouncing cannabis and alcohol use. Stokes describes a 2008 protest in Chimbu province, attended by 10,000 people including police and correction officers, schoolchildren, public servants, hospital patients, prisoners, women and youth, against cannabis and homebrew producers and calling for the removal of these substances from the community with the aim of solving law and order problems.[8]

There are also reports of private sector involvement in actions to address drug use. On case described involves the financial support of law enforcement initiatives by a private company involving the funding of phone lines manned 24 hours a day for the public to report information that may result in arrest of drug offenders.[8]

Education and public information and communication

Print media and radio programs have been used to raise public awareness around issues related to drug and alcohol use. Education campaigns in communities and in schools run by Education and Health departments are reported to be conducted, but not on a regular basis.[1] The success of these programs does not appear to have been rigorously evaluated.

Some reports indicate a lack of accurate knowledge in the community about the effects and health consequences of drug use, indicating a need for education.[19] It has been suggested that simplistic abstinence messages may be of little value in PNG where the drug is readily available, inexpensive, and used without apparent adverse consequences by young peoples' trusted friends.[2] The Foundation for Law, Order and Justice in PNG has highlighted the importance of stressing the health consequences of drug use, rather than focussing on legal implications, and the need to provide education on the harmful effects of both legal and illegal drugs as widely as possible." [19]

1.2. KEY FINDINGS FROM FIELDWORK: ALCOHOL AND OTHER DRUG USE

The use of controlled as well as illicit drugs occurs in Papua New Guinea. By far the most commonly used drugs are the legal substance of alcohol and the illegal substances of homebrew and marijuana. There is evidence of other illicit drug use and some injection of illicit drug but it is sparse and largely anecdotal.

Alcohol and marijuana use

The use of alcohol (both legal and illegal) and other drugs (marijuana) in the community was seen as a major and indeed severely neglected area. Like previous assessments the use of alcohol, in particular homebrew was widespread and seen as a major health and social issue facing PNG society. Similarly marijuana was repeatedly raised as the most common drug other than alcohol. Alcohol and marijuana were almost always reported together, as indeed they are often consumed simultaneously.

The phrase a "culture of intoxication" continues to reflect the extreme nature of alcohol consumption and use of marijuana with informants stating that their communities were filled with drug and alcohol problems ('Drugs na alcohol em pulup long komuniti'). So widespread is the use of marijuana and alcohol that one informant referred to the ordinariness of their consumption as like "sitting around like drinking coffee or milo". Similarly there appeared to be no enforcement of bars and restaurants to serve alcohol responsibly with people continuing to serve alcohol to patrons clearly intoxicated.

Negative social impacts resulting from the misuse of these substances were extensive and constantly raised through the field sites. Examples provided by informants in this study included: rape, physical and verbal violence, robbery and other petty crimes. Other social impacts included the breakdown of relationships and families. One senior provincial administrator cried during his interview when he reflected on the impacts of drug use in his own family, highlighting the emotional cost of addiction. It was reported by one informant that people had gone blind as a result of drinking homebrew that was not distilled properly. The distilling of homebrew provided some people with a means of making an income, as was exemplified in the Mt Hagen example of a widow making homebrew in order to pay school fees for her children. Homebrew was deemed a 'quick and easy way to make money'.

The connection between marijuana and violence was widely reported. A number of informants referred to the different grades of marijuana. . Marijuana in PNG was understood by expatriate informants to be a very different type to that which they had observed overseas where users were more likely to be relaxed, mellow and hungry rather than violent. This is not to say that marijuana use is not associated with psychiatric morbidity in developed countries as well.

It's very frightening because of the drugs and people are killing each other. Everyone is moving around with a one meter knife all of the time…It's becoming very dangerous. So if you see anybody with drugs intoxicated and he's already out of his mind and he's holding a knife you have to really stay away from him…It's now every weekend you find somebody in the hospital dead just because of alcohol and drugs. *District Employee, Vanimo*

Now we hear of people killing their own lives, killing their own mothers, raping their sisters because of marijuana. *Faith Based Organisation, Port Moresby*

Rape is increasing in the community and it's because of this homebrew and beer. They rape when they are under the influence of drugs. Police don't come and help this. *Community member, Mt Hagen*

Marijuana, they smoke it in the toilets and they come out and they don't care what they are doing. They don't care because they are not scared and it's affecting them and they don't care. They go with six or seven men when they are taking drugs and they don't care if they get raped.
Community member, Port Moresby

When I get up in the morning the first thing I look for and I want, I must go and find some drugs to smoke. *Community member, Port Moresby*

Like after smoking, like, you know, he would want to have sex and all these things and be violent. Like he wants to do something extraordinary like something, which, kind of sex work, you know, kind of things husbands and wives don't do. Like sometimes he would tell me he wants to have sex from my anus and when I refuse that he belts me. So sometimes I gave in, I was scared. *Female prisoner*

They make cocktails of drugs, alcohol and steam together. So they take drugs and alcohol at the same time and the effect of it, it's not like normal drug or alcohol effects, its much greater.
Community member, Mt Hagen

HIV risk, alcohol and marijuana

The most commonly reported risk for HIV as a result of drinking alcohol and taking marijuana was unprotected sexual intercourse, both consensual and violent. The only informants who provided a counter narrative to this were a small number of female sex workers and a man who has sex with other men in Port Moresby. They reported always using a condom during sex, irrespective of whether they were under the influence of drugs, alcohol or neither. There were two reports about women under the influence of cocaine and being subjected to sexual abuse.

Although not a common response from informants, it was acknowledged by a few informants who are involved in PNG's high level programmatic and policy response that part of the risks associated with alcohol and marijuana are not just the effects of the substances on an ability to have planned and safe sex. Rather for a number of people sex is exchanged for alcohol and marijuana and presumably other drugs.

> I think there are high risk of HIV spread as we know when we take too much of the alcohol and drug we forget about the preventative measures and we do what we do without being responsible so I think there's a high risk and you know spread of HIV through intake of so much alcohol. *Project Officer NGO Health Clinic, Port Moresby*
>
> I think, to be honest when I'm drunk I always use condoms but I don't get myself that drunk when the client wants me to go out with him so I drink a little, go out with the client, and then after going out I come back and then continue drinking. I make sure that I'm practicing safe sex with the clients and that's when I'm still under the first or second bottle, not when I'm really drunk. *Female sex worker, Port Moresby*
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> We have a whole lot of people sitting around with not a lot to do, but with reasonably easy access to alcohol be it either commercial alcohol or homemade alcohol. And for that matter in the highlands a considerable amount of marijuana. And so what you'll see is an increase of sexual transaction and generally in an unprotected and unplanned way. *International AID Organisation, Port Moresby*
>
> It's not just purchase the alcohol, they buy it on credit and often the credit is exchanged for sex. *Community HIV prevention program, Madang/Port Moresby*
>
> Alcohol and drugs, especially marijuana is the biggest cause of HIV. I have seen cases where boys from the village came from a club. They got drunk up there and there were plenty of HIV-positive women there and they were like sex workers…And then they brought them back to the community at about 2 or 3 in the morning after their drinking session. I asked eight boys if they used protection and they said 'No'. *Community member, Mt Hagen*

Other non-injectable drugs

Although homebrew and other alcohol and marijuana were by far the most dominant forms of drugs discussed by informants in this assessment there were ample examples of other drugs, although it was difficult to obtain first person accounts.

There was very strong evidence of illicit psychoactive drugs being imported into PNG through expatriates of varying ethnic backgrounds, often but not always Australians and "Asians". There was no mention of the manufacturing of illicit psychoactive drugs in PNG, although it cannot be ruled out. One participant reported that due to the dearth of skill in the police force it would not be difficult to conceal the manufacturing of drugs so therefore would not rule it out as a possibility. From a number of different and unconnected informants involved in this study it appears that some Australian men are involved in the importation and sale of ecstasy and cocaine in area/s dominated by the expatriate population in Port Moresby. More often than not it was Asian men who were also identified as importers and distributors of psychoactive drugs, particularly cocaine. However one senior informant advised that there were a number of long term expatriate men in Port Moresby who were not of Asian descent who were known to the authorities as importers of cocaine using shipment containers. A number of locations were identified by multiple sources including but not limited to specific nightclubs in Port Moresby, Lae and logging camp areas where the drug is being consumed by Papua New Guineans as well as expatriates. We were unable to quantify the scale of such imports, only that they were occurring.

Numerous reports were obtained during the assessment about the "sniffing" of drugs, particularly in nightclubs frequented by expatriate men. People reported that the drug was cocaine and that the effects of its use including feeling confident to approach men for sex and with people reporting feeling strong and able to work hard. In most cases the term cocaine was used. In a few cases, cocaine was also reported as part of the sexual culture of expatriate men and local PNG males. According to a highly trained and experienced advisor in an international AID organization with expertise in drugs, there was a well-established cocaine market (both trading and use of) in PNG, particularly amongst single men who were engaged in work in PNG on a fly in fly out basis.

Particular mention was made that the cocaine market increased substantially in the past few years as the LNG project was being scaled up. This was not a reflection on the company but rather the nature of the work, who was employed (single men) and the large sums of disposable cash. Due to the nature of illicit drug use and the short fieldwork period we were unable to gain access to the expatriate communities where these drugs are being traded and used therefore we are reliant on second hand accounts of its presence in PNG. We were however told by a former Australian Police Officer than the Australian Federal Police were aware of the involvement of some Australian men in the importation of cocaine and in its sale and that they were investigating.

There is now a large market of incoming expats who are looking for opportunities. Probably 2008, 2009 as LNG started to ramp up [that cocaine started to come into PNG]. It's about the money and it's about the bigger market, the growing market of single men. Male, International AID Organisation, Port Moresby

> They sniff it. They sniff cocaine that's what I heard, it a white powder or something. That was back in 2000, early 2000. What they say is that they take it to go into group sex and all these. They have partner exchanges. *Female, sex worker, Port Moresby*

A number of participants also reported on the role of PNG students attending school and university overseas in PNG's emerging drug culture. Students, according to some informants, were returning to PNG addicted to the drugs (drug names were never specified) that they were being exposed to abroad, with some bringing them back into the country.

There were a few reports of women in particular having their drinks spiked in nightclubs and other licensed premises. The purpose was not always clear but in at least Vanimo the purpose appeared to be related to being able to sexually assault women without them being aware. In Vanimo the drug was called "Spanish Fly" but the makeup of the drug is not clear. In Lae references were made to spiking drinks with chloroquine and in Port Moresby no name was provided for the drugs used to spike drinks.

> I've seen it done to others and that makes me feel more cautious of my drinks when actually going out on my days off to party and drink. I normally make sure that I drink my glass, my glass is finished before I go dancing or I go somewhere else. I don't leave it and come back…While you're gone its easy for other people to put things in your drink and from my experience in the [hospitality] industry watching a lot of people's drinks being spiked I'm more careful with my drinks. *Male, member of community, Lae*

There were a couple of references to petrol sniffing occurring in a number of communities including Port Moresby and in areas near the South Fly in Western Province.

Injecting practices and HIV risk

Four different types of injection identified were through analysis of the data collected:

1. 'Injecting for physical body modification': Injection of a legal substance for the penile enlargement
2. 'Medically prescribed – self-administered injecting of a pharmaceutical': Injection of pharmaceutical medicines prescribed by a clinician, dispensed by a pharmacy and injected by the patient him/herself or by some other non-medically trained person;
3. 'Non-medicated – self-administered injecting of a pharmaceutical': Injection of a pharmaceutical medicine obtained illegally from a pharmacy without a prescription or on the black market and injected by the individual themselves or by some other non-medically trained person for a non-medical reason. This may be considered as diversion of pharmaceuticals.
4. 'Injection of an illicit drug': Injection of a prohibited substance or a controlled substance diverted to the black market.

Injection types 2 and 3 above might be described as 'illicit injecting drug use'. Most information was obtained about injection type 1 followed by type 4.

1. Injecting for physical body modification'

Injecting penile practices have been reported in all part of the country, particularly the border province of West Sepik . However, while previous studies have shown the widespread nature of penile modification in the form of penile injection of silicon paste in Vanimo, the practice, according to informants in this assessment, was "dying out". This was reported by a number of important sources including health care workers, police officers, provincial administration personnel and men who have undergone such modifications in the past. Reasons identified for why the once popular practice of penile enlargement was no longer as common as it once was included greater awareness about the negative physiological impacts of excessive use of silicon paste as well as the negative sexual impacts of an oversized penis. On numerous occasions we heard stories about women refusing to have sex with their husbands because their penis was now too large, with some wives taking their husbands to court. It appears that from the informants who participated in this assessment that penile modification while dying out in Vanimo is growing in other locations, such as Lae. Substances used for enlargement varied from place to place.

It was reported by one informant that in 2011 the Health Secretary sent out a Circular addressing the concern that male health care workers and retired health care workers were reported to be injecting men's penises and that such practices should not be occurring.

Those working in the area of HIV and sexual health have attempted to raise awareness about the risk of acquiring HIV using shared needles and syringes during penile modification practices and about the necessity for the safe disposal of used needles. Of those who do inject their penis and who have family and friends at the Provincial hospital or in medical supplies and who have access to clean needles and syringes at pharmacies the sharing of needles seemed to be less of a concern. Those without such connections and access appeared to be at greater risk of sharing a needles and or syringe with another person. In Lae it appears that people were not re-using either syringes or needles while in Vanimo there were a few references to the re-using of syringes. While most, albeit limited, concern has been afforded to preventing the transmission of HIV and other blood borne viruses through sharing of needles and syringes, there is a real concern about the safe disposal of them after being used. Although a health care worker in Vanimo spoke about telling men to dispose of needles and syringes in old tins and bury them in the earth, other informants from Vanimo and Lae who had injected their penis reported that they and others simply throw them away and cover them up with soil.

When we enquired about the practice of injecting the penis for enlargement an important difference from other types of injecting was evident. Men spoke at length about the need to ensure that when injecting the penis the veins are moved to the side to create a vein fee area to inject. It would appear that because men were not injecting intravenously they were not drawing blood back into the needle and syringe as is standard practice with the injection of illicit drugs, a practice that increases the risk of blood-to-blood contamination.

Other issues of concern include that some men with the artificially enlarged penis have forced sexual intercourse on their wives or other female partners causing vaginal trauma. This obviously increases the risks of STIs including HIV.

2. Medically prescribed – self-administered injecting of a pharmaceutical

There was one report from the RPNGC of an Australian who had developed an addiction to morphine and was going to the different private doctors and hospital in Port Moresby and obtaining prescriptions for morphine. The person involved was charged with the misuse of morphine. The case never came to court and a conviction made as he was deported prior to his court appearance for violation of his visa.

3. Non-medicated – self-administered injecting of a pharmaceutical

A district health advisor reported that he suspended two PNG health care workers for illegally obtaining morphine from the health facility supplies and self-administering an injection of it for non-medical purposes.

4. Injection of an illicit drug

Despite the widespread fear of a growing culture of injecting illicit drug use we were unable to obtain first hand evidence (excluding one woman who reported injecting marijuana) and a few anecdotal examples. That is not to say that it is not present in PNG, in fact we have strong reports that it is, but simply that is may be confined to certain regions of the country and to particular populations, at least for the meantime.

The most recent case of injecting of an illicit drug was reported by a Police Officer who detailed a complaint her received just three weeks prior to our visit. This case involved a PNG woman who worked as a hostess at a Port Moresby nightclub who made a complaint against her "Asian boyfriend" who she claims repeatedly injected her against her will. According to the informant involved in this case the young woman presented with noticeable track marks on her arm, which indicated repeated intravenous drug use. She reported that after being injected she felt high, wide-awake and desired sex. From the woman's account it also appeared that she had developed an addiction to the substance as she reported craving the drug and felt pain when she withdrew. It also appeared that this woman was not alone as she reported to the police offers there were lots of women in the same situation as her, suggesting that the practice is more widespread, at least in the nightclubs.

> The key factor that she mentioned was that she craved for it, means she wanted that injection to, when the wearing of that, she feels that she is in pain, serious pain and that she looks for the man to have an injection. I presume morphine because I can't think of another one that can be easily available here but then that morphine that can be stored in a bottle, that injection bottle. Cocaine is solid and it has to be heated up but which is not something that has been done. I asked her that and she said, no it was from a bottle. It's a liquid form so that made me rule out heroin or cocaine or ecstasy tabs or ice. From my experiences, would be mostly likely to be heated up to make it liquid before it's injected so it would be morphine, most likely. Morphine is a form of heroin and is also addictive. *RPNGC, Port Moresby*

Another informant working in a faith based community education program also reported stories of PNG women who work in nightclubs being injected with drugs by Asian men. Other informants spoke of injecting illegal substances in intimate sexual relationships with other expatriate men. Several men who have sex with men and a female sex worker made reference to seeing and hearing of their friends injecting with expatriate men. It is claimed that they were injecting heroin but it is unclear if it was heroin they were injecting because a clear description of the effects were not provided. While the drug in these scenarios was not always clear one informant reported that when she saw an expatriate man inject drugs his eyes went red and he became very violent. Excluding a few cases, all other reports of injecting involved PNG women with expatriate men of one ethnic group or another. One senior police officer reported on rumours about the importation of 'ice' and this was corroborated by one other informant who conducts research in PNG.

During fieldwork we were informed that there were a number of nightclubs that had VIP rooms that acted as sites for the injection of illicit drug use and for the sale of them. Despite our attempts to gain accesses to these venues we were unable to obtain any further information.

Other reports of injecting illicit drugs including a liquid associated with marijuana. There have been stories about this for some time, all of which have been received with scepticism. This is especially since marijuana is not soluble, although it would be possible to extract active compounds that might be. The most detailed report of this drug use came from a woman in prison who was currently serving time for dealing in drugs. She identified the part of her arm where her male expatriate drug-buying client had injected here with the substance he claims was derived from the processing of marijuana. The woman said that she would sell him the marijuana and that as a pilot he would then export the drug overseas returning it in a small bottle with a greenish brown liquid. For her the effects were feeling tired and heavy in her body and that after the effects took hold she slept for an extended period. When asked how often she injected the liquid she reported that she tried it only once and that she feared it was dangerous. Other second hand reports of injecting a liquid derived from marijuana appear to be the bong water. The nature of the substance this woman injected is unclear and not as straightforward as other reports.

> From our work there were a couple of reports of injecting marijuana. These are reports first and second hand but I want to know more about what the substance really is. *Female, Community based HIV prevention program*

Safe disposal of needles

Not surprisingly we could not identify a venue where people could either safely dispose of used syringes and needles or obtain free ones (outside of the health facility). When we asked in Vanimo about how the provision of a safe location for the disposal of used needles and syringes would be viewed in the community, it was received with great hesitation and concern. In the same way that some believe distributing condoms encourages sex, people in Vanimo appeared to share the same view about providing a safe and secure space for the distribution of clean needles in exchange for used ones. Similarly a senior HIV advisor was concerned that, because he was not certain that synthetic drugs were available in PNG, that if awareness was conducted about illicit psychoactive drugs, including injecting drugs, it could encourage people to use them.

Health sector and civil society approaches to drugs and alcohol

Despite the widespread and long term acknowledgement about the negative social and health impacts of these substances on the lives of individuals, families and communities, surprisingly little was being done to address the reasons for addiction or indeed the addiction itself. There are no drug treatment services in PNG and there appears to be no clear evidence-informed approach to drug and alcohol addiction.

At the time of this assessment a campaign against the misuse use of alcohol was underway in Port Moresby that employed the slogan of 'The war against alcohol abuse'. There was no evidence of this campaign outside of the country's capital. Exactly how alcohol abuse was to be addressed by this campaign remains elusive. We were unable to connect with anyone involved in the parliamentary committee overseeing this campaign at the time of the assessment. A couple of young people reported that they felt that the campaign which wages a war against alcohol abuse in fact encourages young people to drink alcohol, although it was unclear exactly how. Advertisements for alcohol are prolific throughout the country with major manufacturers of alcohol sponsoring major events including those associated with sports. We were unable to speak with anyone involved in the National Alcohol Abuse Symposium held in 2011 in Port Moresby. It was reported by an informant from a community based HIV prevention program that there was a person in the Department of Health who was trying to drive a response to the misuse of alcohol but we were unable to identify that person.

Again, despite the long-term acknowledgement of the need to address the misuse of alcohol and other drugs there was little evidence of harm reduction approaches being implemented. This is despite the strong evidence of the need for a coordinated harm reduction approach to alcohol and other drugs, and indeed an expressed desire by many informants on their struggle to address their addiction. Others reported a need for a community based rehabilitation and treatment program. Part of the issue however is the limited skill set of Papua New Guineans in the field of drugs and alcohol, including counselling, and furthermore, access to adequate drug treatment programs.

I think we need a care centre for rehabilitation because at the moment we don't have one. When a person is drink and is drug addicted and he is mentally ill, they send him out to Laloki. Then what? We need a care centre, they should have a counsellor, they should have someone who has worked with drug addicts and maybe the best person to have would be a [former] drug addict himself because he knows better, he knows what his friends are going through. *Faith based service, Port Moresby*

In my community we have no programs to help boys cut down on marijuana and alcohol, this we don't have. *Community member, Port Moresby*

Alcohol and drugs are bad, but how do you [address it?]. It needs to be something more than just talk. *Faith based service, Port Moresby*

Look I'd be honest and say to you I don't particularly think that there has been any strong programmatic response to alcohol and drugs…How effective is, you know, when they're doing youth awareness you know when they are telling you about alcohol. But you know, we all know, that it doesn't change behavior. You can talk until you are blue in the face and it won't make any difference. *International AIDS organization, Port Moresby*

One of the earliest programs conducted in PNG identified through the assessment was conducted by the Catholic Church and was for religious men who had developed an addiction to alcohol. Run in Wewak by a Priest who was a former alcoholic, the program is no longer operational but did involve a retreat like rehabilitation for priests. Other examples of programs that address alcohol and other drug misuse were identified and each with very different target populations and strategies, not all of which take a harm reduction approach. Programs identified included Tingim Laip, the Salvation Army, Socay and a Caritas-run program in Mingende, Chimbu Province. It is worth addressing each of these in order to identify the approaches of each.

Tingim Laip

Tingim Laip is Papua New Guinea's largest community based HIV prevention program. It is currently in its second phase and is in operation in more than thirty sites throughout the country. Tingim Laip has always been implemented and managed by organisations committed to a harm reduction approach. In the first phase of Tingim Laip, capacity building training workshops were run with members of Tingim Laip communities as evident by their training manual. Responding to requests for more information and support on drugs and alcohol Tingim Laip more recently hired a consultant who specialized in drugs and alcohol to design a program for volunteers. The approach of Tingim Laip is to work with the volunteers in relation to their drug and alcohol issues prior to asking them to address such matters with the people who engage in their activities. Through this work an alcohol harm reduction tool kit was created and is currently being piloted amongst volunteers.

We have put together a discussion guide so that we can help our staff and volunteers have time to discuss alcohol and also help explore their own use and what impact that might have on their decision making, their families and their relationships. To help them think a bit more critically about their own alcohol use and also what they can do to drink responsibly and what impact alcohol might have on their decisions. *Community based HIV prevention, Madang/Port Moresby*

Salvation Army

The Salvation Army in Papua New Guinea has a social services arm to its organisation. As part of its social services it has programs in a number of areas including feeding the poor, health services, HIV and AIDS, education and water sanitation. At present the Salvation Army runs a drug and alcohol awareness program in several primary and secondary schools. The program is based on exposing students to the ill effects of drugs and alcohol with increasing depth of information provided the older the students. The Salvation Army has interest in establishing a Drug and Alcohol Treatment Centre in PNG, a replica of their program in Tonga. The hope would be to have it as a community based program run by a Papua New Guinean skilled in drug and alcohol rehabilitation.

The approach is showing the children graphic pictures of what drugs and alcohol do to the body and also explaining through verbal conversation… I personally would like to see this program further

develop into a treatment program but that depends on our leadership and it depends on our funding that is available because these treatment programs are not cheap. I was instrumental in being in-charge of a treatment program when I served in Tonga over two years ago and the effectiveness of that program was because we had Tongans teaching Tongans…And so it's important for any treatment program in Papua New Guinea to have Papua New Guineans trained to be able to present this program. *Faith based organization, Port Moresby*

Socay (Save our children and youth)

Socay is a program run in Hohola, Port Moresby under the auspices of the Sacred Heart Brothers. It is described as a second chance educational program for young people, particularly those with criminal records and drug and alcohol addiction. The program provides skills training and also drug and alcohol awareness. The program builds on the work of Fr Liebert and is based on a harm reduction approach within a Christian framework. The students are trained in life and vocational skills while at the same time undergo interactive training on HIV and drugs and alcohol. While the curriculum on drug awareness is very detailed and addressed the active compounds of different drugs, the international trade of drugs and the effects on the body, the program aims to have the students discuss the impacts of drugs sand alcohol on their own lives. The principal of the school and students who participated in this assessment reported that people have been able to transform their lives, stop taking drugs and alcohol or as the case for some of the current students they have been able to slowly reduce the amount they drink and smoke marijuana. Students reported that without the spiritual aspect of the program, the impacts of the program would not be as significant.

We are trying to get through to the young people because we knew that some of them that did [take drugs and drink alcohol] that their lives were no longer valuable anymore to them…It's not about stopping them but we do try to get them to see the danger that it can cause their lives and that impact that it will have in the community around them…I tell them you know it's hard to withdraw from drugs, you don't take it out quickly, at least cut it down until finally you have the last one and you can say good-bye to it. *Faith based service, Port Moresby*

Now I have reduced how much marijuana I smoke. Now I only smoke one roll [joint] a day, before I smoked lots. *Community member, Port Moresby*

Caritas

Caritas Papua New Guinea works in partnership with Caritas New Zealand and Caritas Australia. It conducts programs in a range of areas including but not limited to community development, HIV and AIDS and gender equality. As a result of the work of Caritas PNG through the PNG Australian Sexual Health Improvement Program (PASHIP) significant changes have been made to traditional mourning practices in the Mingende area. In order to reduce the issues with drugs and alcohol and as a consequence unsafe sexual practices under the influence of these substances, community leaders have reduced the time that the body of the deceased is held in the family home prior to burial.

Now they are doing it with funerals, they don't want to have the body there overnight, they just want the body to come and put it in the ground so people don't come and congregate. So they are changing aspects of you know traditional ways of doing things. Gathering would mean alcohol, but it also means people hook up and have sex with you know whoever is around and catches their eyes. *Faith based service, Port Moresby*

Although not a harm reduction approach, a district administrator from one of the provinces was so concerned about the poor work performance of staff as a result of alcohol that he has implemented a no alcohol policy and purposely recruits people who he assesses as not having a drinking problem. This same informant believed passionately about the need to provide support to parents in coping with children affected by drug addiction. Particular attention needed to focus, he believed, on supporting parents to respond to their children's addiction rather than react. He also stated that parents needed to take greater responsibility in preventing their child's addiction rather than blaming youth.

Law enforcement and the legal and policy response to illicit drugs

It was a commonly held view by the community and key informants (other than police and correction officers) that Police were not allies in the response to the use and misuse of drugs and alcohol in the community. Members of the Police force were identified as corrupt and as consumers of marijuana and possibly other drugs and therefore had no vested interest in cracking down ("no drive and eagerness to find out more") on the growing, sale and exportation of marijuana and of the importation and sale of others. One participant was so critical of the Police force that he described it as a user pays system where if you want a law enforcement response to matters in the community you must first provide money to buy petrol and then if you want them to travel into the districts you need to provide accommodation and travel allowances, particularly in areas where there is no full time police presence. Others reiterated the same issues with engendering a response from Police.

> At times the Police are also involved. Police are also the main consumers [of marijuana] as well and they take part in this so it's really difficult to maintain law and order…It's really frightening.
> *District Employee, Vanimo*

It was common knowledge amongst participants (key informants and members of the community) that people were exchanging marijuana for a number of products including guns, computers, other drugs and electrical appliances such as TVs and stereos. While it was largely anecdotal evidence interviews with key informants in the RPNGC suggested that there was confirmed intelligence about the exchange of guns for marijuana, including an Australian who was arrested and served a sentence here in a PNG prison for trying to exchange two pump action guns.

> What comes back is like they deal marijuana for laptops, all these boom box music things and TV screens, very high quality mobile phones but mostly its arms dealing they these fire arms like these guns they pump it up and they use high powered ones like M16 and pistols. *Provincial Hospital, Vanimo*
>
> The buyers are some of the buyers are based in Australia. They are Torres Strait Islanders and some Australians as well. And they have these fishing trawlers so they cover up by using the fishing trawlers to go out fishing and they negotiate, they exchange numbers when they meet with some of the boys from Daru the local boys. They exchange numbers and they tell them that this is what we want and we'll give you this amount or anything. Even when they exchange marijuana for cash you can also tell them that you want a banana boat a dinghy and an engine besides or a set of radio or anything to do with household. As long as it's expensive.
> *Male prisoner*

The ability to easily import and export illegal drugs into and out of PNG was repeatedly identified and attributed to the porous border with Indonesia, the close proximity to the Torres Strait and a dearth of workers, including skilled personnel, to monitor the ports and international airports. Although there are drug testing kits supposedly available at Jacksons Airport it was unclear if they are ever used. That said, it was reported that customs had identified PNG students returning from aboard with ecstasy tablets but the nature of the tablets were never confirmed.

> I think you know at a policy level we need to, you know, start thinking about the issues and what we are going to do. I think this is the time to drive the agenda but what are the strategies we are going to use? One of the first ones might actually be strengthening the border. That might be a useful beginning.
> *International AID organization, Port Moresby*

Several senior officers and advisors to the RPNGC identified that the force was poorly resourced and skilled to be suspicious of a synthetic drugs market and lead investigations into the importation, manufacturing and sale of these more "sophisticated" drugs (ie. not marijuana). There are only a handful of men who are adequately trained in the detection of psychoactive drugs in all of PNG. Furthermore, because the use of synthetic drugs is largely contained to expatriate men and some local women (and men) who socialize with them, it is very difficult for PNG police officers to gain access to the locations where these drugs are sold and consumed and as a result their understanding is very limited and thus their ability to respond as a law enforcement officer.

> The police do not have the experience to identify or be suspicious about those more sophisticated drugs. They don't have the experience and the exposure to generate and to motivate and to stimulate an investigation, or the notion that something is wrong. They don't access expatriate parties and other sorts of events where people might go and consume so their understanding is very low. You could expose them to a higher body of training but they wouldn't' be able to access and observe it in reality and gain the experience to go with that new knowledge. There's a gap in being able to respond.
> *International AID Organization, Port Moresby*

Papua New Guinea's Drug Act was passed in 1954 and has not been revised in more than half a century since it was first enacted. In it there is no distinction between different types of drugs nor is there a distinction made about the quantity of drugs. To highlight the limitation of the Drugs Act a law enforcement officer said that a person charged with possession of 500grams of marijuana is likely to serve the same sentence as someone in possession of 5kg. Nor is there a distinction between being charged with marijuana or synthetic drugs such as heroin, cocaine or ecstasy. This leads to sentences, which do not reflect the nature of the crime. It was reported by a number of informants that there had been attempts to review the act but each time it never gets passed. This was identified as a major barrier for the RPNGC to respond to marijuana and the emerging synthetic drug market.

Overall, the ability of the law and the law enforcement agencies to address issues related to alcohol and other drugs was questioned. This not only pertained to the police and customs but included the court system. It was noted that court hearings and sentencing takes too long and are by and large not effective.

> We need to be able to bring our Drug Act to conform to the 21st Century. RPNGC, Port Moresby
>
> The legislation is very much out if date, very narrow in providing a tool for the constabulary to use. *International AID organisation, Port Moresby*

Prohibition

Since the consumption of alcohol by Papua New Guineans was legalized in the early 1960s, prohibition has been periodically introduced in various part of the country for varying periods of time and for different reasons including during national elections and the Christmas holiday period. Prohibition in PNG Prohibition in PNG generally refers to the selling of alcohol on the street and in shops. Alcohol can be continued to be consumed in hotels and guesthouses, usually but not always with food. While the idea of prohibition can appear attractive, and a straightforward punitive approach on the surface, it frequently leads to other complications in the community. For example, where prohibition lasts for more than a few weeks the cost of drinking alcohol in licensed premises results in, according to participants in this assessment, one of two things. The first and most obvious is the demand for homebrew increases with the alcohol content remaining non-regulated. The other outcome is that people who decide to spend the money required to drink in a licensed premise sometimes begin to mix their drinks and or drink alcohol with higher alcohol content in order to reach the same effects faster and without spending large sums of money: 'Liklik moni, bikpela spak' ('little money, big effects').

> They can't get their beverages from the supermarket or from the normal bottle shop with cheaper prices and the hotel price is fairly high and so are the guesthouses and other licensed clubs. But people are still going to the hotels to buy it or like other licensed bars and guesthouses and with that come a lot of issues. They tend to drink a lot more stronger drinks or they tend to mix their drinks so that they can get drunk quickly…Another thing that it has created is people are now starting to brew more homebrew, more steam, and there's been a lot of selling of steam happening…so young people in the community are buying steam because they can't afford to buy alcohol from the bars, clubs and the hotels. *Male, member of community, Lae*

PART 2

HIV risk in prisons and access to prevention, treatment and care

2.1. LITERATURE REVIEW: CLOSED SETTINGS AND HIV RISK

Prisons in PNG

PNG Correctional Service (PNGCS) is responsible for the administration of the PNG prison system. There are currently 19 Correctional Institutions in PNG, each varying considerably in size.[44] In addition provincial and local level governments administer small 'rural lockups'. Further, police cells hold a significant population of detainees, some on a long term basis.[45] A large proportion of those held in prison are there on remand awaiting trial. Time before trial can be as long as 24 months or more due to delays in court proceedings.[45]

The total national prisoner population was determined to be 3,682 at the end of 2003; this figure includes detainees on remand, convicted, juvenile, both male and female and non-nationals.[44] Ninety six per cent of all detainees are male.[45] Four per cent of the prisoner population were reported to be juvenile detainees; juvenile detainees are commonly held in the same facilities as adult prisoners, despite the law stipulating that they should be housed in separate facilities.[45] This is unlikely to reflect current numbers with some suggestions that the number of prisoners is more likely to be 5-6,000 with around 14,000 people moving through the system annually (J.Robinson, UNAIDS, Papua New Guinea, personal communication, 2012).

Dinnen notes that the PNGCS was the most neglected of PNG's Law and Justice agencies, and that a "lack of government support, overcrowded, outdated and poorly maintained facilities and sub-standard staff accommodation have contributed to low [staff] moral".[45]

Maintaining security and preventing inmates from escaping has proved an ongoing challenge to the PNGCS. A number of high profile mass escapes have occurred in the last several years damaging confidence in the Corrections Service and in 2010 leading the then Prime Minister Sir Michael Somare to declare the system in crisis and announcing his intent to personally take charge of the situation.[45] It has been claimed that large scale escapes are enabled by prison staff, often associated with industrial disputes; the widespread use of mobile phones by prisoners has also been implicated in facilitating escapes from prison.[45]

Significant overcrowding is common and conditions within prison facilities are typically poor.[45, 46] It is reported that health authorities have deemed both prisoner and staff accommodation facilities at some prisons as "unfit for human habitation".[45] Of serious concern for prisoner health, the capacity of ablution blocks is generally inadequate, and there are reports of sewerage overflowing from septic systems.[45] Poor shower and hand-washing facilities, a lack of clean water for washing and drinking and poor food handling practices have also been noted.[47]

Infectious disease outbreaks are not uncommon, with an outbreak of cholera occurring in 2009 and an outbreak of TB in 2012.[45] Clinicians providing healthcare to prisoners have reported high rates of sexually transmitted infections, including acute infections among long term prisoners, suggesting transmission through sexual activity within prison.[45]

HIV in prison

Sex related risk

There has been very little research undertaken investigating the health of prisoners in PNG. The prevalence of HIV among prisoners remains unknown; approval and funding has been granted, however, to conduct a cohort study of prison entrants at Bomana prison, NCD, to commence in 2012, which will measure both the prevalence and incidence of HIV, other blood borne viruses, TB and sexually transmitted infections (personal communication, A. Vallely, PNG Institute of Medical Research, 2012).

To date only a single study has been undertaken examining HIV related risk behaviours among prisoners. In a 2005 cross-sectional behavioural survey, Pantumari et al interviewed 391 inmates (out of a total of 701 inmates incarcerated at the time) in Bomana prison, NCD; mean age of the sample was 29 years, and 94% were male.[46] A small percentage (6%) reported that they had engaging in transactional sex in the 12 months preceding their incarceration; it was not reported whether this referred to paying of sex or being paid for sex. Eleven per cent of prisoners in the sample reported having had a sexual partner during their period of incarceration. It was also reported that minimum security inmates are able to leave the prison on weekend leave, and the researchers suggested that many of those reporting have had sex during their incarceration may have done so during these periods of leave; the proportion of those with weekend leave rights was not reported.[46] In a separate question prisoners were asked if they had a sexual partner within

prison – 2% reported that they did.[46] Some prisoners admitted to forcing others inmates to have sex. Two per cent of prisoners surveyed reported having been sexually assaulted in prison; some reported that condoms were used at the time of the sexual assault.[46] Nine per cent reported having a urethral discharge or genital ulcers in the last 12 months.[46] Knowledge of HIV was not assessed.

While this 2005 study did not reveal evidence suggesting high rates of sex within prisons, other commentators have reported that both anal and oral intercourse between male prisoners does occur and that this may take place between two or even by groups of prisoners.[45] Both consensual and forced sexual activity involving female prisoners has been documented.[45] Sexual assault within prison involving male as well as female prisoners have also been reported, including by the press media.[45]

Body modification practices

Tattooing and skin cutting, including penile modification,[48-50] are practiced in the community and in prisons in PNG.[45] The lack of supervision within prisons allows for these practices to occur easily even though they may be prohibited.[45]

In prisons tattooing involves making cuts or perforations in the skin using a razor, needles or thorns; soot, often from the base of cooking vessels is applied to these wounds as a pigment.[45]

Skin cutting may also be performed for the purpose of decorative or ritual scarification on the trunk or limbs, using razors or other available implements. Performing such cutting in prison may result in punishment if detected.[45]

A variety of penile modification practices are common in PNG and include cutting of the foreskin, its partial or total removal, and the insertion of foreign bodies or other substances beneath the skin of the penis; these practices are well described in recent publications.[48-50] These practices are also understood to be common amongst prisoners. It is reported that prisoners without some form of penile modification may be ridiculed by other prisoners, and may feel pressured to undergo such a procedure in order to be accepted by fellow inmates.[45]

All of these practices which involve the cutting of skin pose a risk for blood borne virus transmission. This risk is substantially elevated in the prison environment where cutting or piercing implements are scarce and consequently shared between inmates; cleaning between uses may not occur, and if it does is likely to involve only rinsing in water or wiping on a cloth.[45]

Physical and sexual violence against women and children in custody

Women detainees face risk of sexual violence by prison staff and male detainees.[32] In addition to the substantial physical and emotional damage directly caused by this abuse, victims of this sexual abuse are exposed to sexually transmitted infections, including HIV.

Police are also reported to be perpetrators of sexual abuse of women and girls in custody. In some cases women are forced to have sex in return for their release. Such abuse is rarely reported by these women for fear of retribution, but has been documented in government reports.[51] Women are often detained, raped and released, and in many cases are not even taken to a police station.[51]

As noted above, children in detention, including some as young as thirteen years of age, are frequently held in cells with adults. Even though some prisons do have enough cells to enable children and adults to be separated this is not done routinely.[52] This places them at high risk of rape and other forms of violence and criminal socialization.[51, 52] In 2006 Human Rights Watch reported the occurrence of abuse of detained children: "*offices at Buimo prison in Lae beat and sexually abused boys by forcing them to have anal sex with each other in the institutions reception centre".* [52] These reports were believed to be an example of widespread violence against children in custody and Human Rights Watch contend that this represents a failure to punish prison officials responsible.[52]

Addressing HIV in closed settings

Health services currently provided to those detained in prison in PNG are extremely limited. While obligations to ensure the health and welfare of all prisoners are articulated in the Constitution of PNG and in the 1995 Correctional Services Act and Regulation,[53, 54] there is no formal policy regarding the provision of healthcare to prisoners.[47] While the 2011-2020 PNG National Health Plan does not include any mention of prisoners or prison health services specifically,[47] the current National HIV Strategy does mention prisoners as a most at risk population along with others such as people involved in sex work and transactional sex, men who have sex with men and enclave workers for example.

The PNG Correctional Service (PNGCS) is currently responsible for health services in prisons, and at each prison there is a small *aid post to provide such services. The 1995 Act and Regulation require that a medical officer be appointed for each correctional institution, or in the absence of such an appointee, that a visiting medical officer be engaged. A medical officer in this context*

may be considered: a nurse registered by the National Nursing Council; a health extension officer registered by the National Medical Board; or a medical practitioner, also registered by the National Medical Board.[47] These medical staff typically provide basic health care to prisoners, the prisons staff and their families and, in some cases, to the members of the surrounding community. It is reported that these Correctional Service health staff have little contact or support from the provincial or national level Department of Health., and there are few formal links with non-government health service organisations.[47] Currently no prison has an onsite doctor and only four (Bomana, Buimo, Beon and Bundiara) have registered nurse or assistant nurse. Community Health Workers are present at all but one correctional facility where there is currently no nurse engaged (Vanimo).[47]

In 2011 PNGCS created a position, Director of Health, responsible for overseeing the provision of health services and occupational health and safety measures within the corrections system in an effort to address the poor health outcomes of prisoners, and the lack of progress made in improving these.[47]

The longstanding lack of strong, broader prison health services has direct implications for addressing HIV in the prison environment in PNG. PNGCS has acknowledged that prison is a high risk setting for the spread of HIV.[45, 55]The organisation first developed an 'HIV/AIDS and Infectious Disease Control Strategy' in 2002, and since 1989 reports to have conducted HIV/AIDS awareness programs for both officers and detainees.[55]

The 1995 Correctional Service Act outlines the responsibilities of a medical officer if he or she believes, or suspects, a prisoner is suffering from an infectious disease, such as HIV or TB.[53] The medical officer is required to notify Correctional Service authorities and to take measures necessary to prevent the spread of the disease to others; providing treatment and care for the infected prisoner is not mentioned specifically in the Act. However, the Act does state that a "A detainee has a right to reasonable medical care and treatment consistent with community standards and necessary for the preservation of health including, with the approval of the Departmental Head of the Department responsible for health matters but at the expense of the detainee, a private medical practitioner."[53] The Act also states that inmates should undergo medical examination as soon as possible after reception of the detainee and before discharge from a corrective institution; it is noted that these examinations occur only very rarely, or never, due to a lack of trained medical personnel.[45, 53]

PNGCS reports to have undertaken "peer educator training for staff and detainees, education and awareness programs in and around the prisons, counselling training for staff and VCT programs for detainees under welfare rehabilitation, and training for managers and supervisors through Mandatory Annual Refresher Training (MART) program."[55]

The stated aims of the 2008 PNGCS Workplace HIV and AIDS Policy and Management Procedures are to:

"a) Increase HIV and AIDS education and awareness for staff and their dependants, the detainees and the surrounding communities,

b) Ensure a consistent and equitable approach to the prevention of HIV among staff, immediate dependants and detainees,

c) Manage the impact of HIV and AIDS, among staff, immediate dependants and detainees,

d) Foster a workplace culture that encourages CS personnel and detainees to voluntarily seek Voluntary Counselling and Testing (VCT), treatment for sexually transmitted infections (STI) and opportunistic infections, and provide care and support for colleagues, and personalized prevention efforts in the Institution.

While HIV prevention is the mainstay of this policy, CS recognizes that in adopting good practices (such as promoting access to VCT, treatment and care services), the Correctional Service can assist its HIV positive staff and detainees alike to continue being productive and effective members of the Institution."[55]

Critically, it has been reported that while this workplace policy and management procedure document has been endorsed by PNGCS, it is yet to be disseminated and there has been very little progress made to implement it.[47]

This policy and procedure document further states PNGCS's commitment to ensuring the prevention of discrimination on the basis of HIV-status or gender, that testing should not mandatory, and that confidentiality with regards to HIV serostatus should be maintained. It appears, however, due to a lack of qualified staff or necessary resources that HIV testing and counselling is rarely performed in prison settings, despite many prisoners apparent willingness to be tested.[45] A recent audit revealed that out of 17 prison facilities 13 did not have the capacity to provide voluntary counselling and testing, three sites (Biru, Barawigi and Manus) had staff who had been trained in VCT but were not yet accredited, and only one prison (Bomana) had been accredited; HIV tests are reported to have been provided in one site only (Barawigi) despite the staff at this facility not having been accredited.[47]

The PNGCS also commits to "*endeavour to provide referral for medical treatment and other support services" for any member of staff or detainee who discloses their HIV positive status to CS management*.[55] HIV treatment is supposed to be available from provincial hospitals and designated treatment sites for those prisoners for whom it is clinically indicated. In the case of Bomana Prison in NCD, HIV positive prisoners receive treatment through Heduru Clinic at Port Moresby General Hospital. At present, two female inmates at Bomana correctly receive ART from Hederu Clinic. (Sr Napina personal communication). It is reported that prisoners in facilities at Biru, Barawagi and Manus are similarly able to access treatment through local health services.[47] It is understood that access to treatment at other facilities is unlikely, given the testing is not available at these sites.[47]

PNGCS also seeks to promote the safety and wellbeing of correctional staff and reducing their risk of exposure to HIV, including those risks related to the working environment, such as staff often being away from their home, partner(s) and family and "*being tempted into having unsafe sexual relations because of extra allowances or alcohol."*[55]

Notably the PNGCS HIV/AIDS policy and management procedures highlight the need to promote safe sex among both corrections staff and detainees, and recommends that "*condoms and education about their use is available in prison cells"*.[55] In the 2005 prison study by Pantumari et al prison staff reported that they were not distributing condoms to prisoners; interestingly some inmates reported that condoms were provided to them in prison, while other claimed that they were not.[46] In their 2010 commentary on prisons and HIV, Law and Dinnen describe the tension around the provision of condoms in prison, with reluctance on the part of PNGCS to make condoms available to male prisoners given the illegality of sodomy (namely anal sex between men) and other "unnatural" sexual practices in PNG and fearing that providing condoms would condone such practices between male inmates;[45] a later assessment reiterates this explanation.[47]

It is uncertain, however, to what extent the PNGCS has been able to implement comprehensive HIV prevention and care measures. It is understood that these HIV related policy documents have not been rolled out to correctional facilities and despite mention of HIV related aims and actions in annual plans, resources are not allocated and responsibilities for overseeing their implementation are not assigned.[47] Given these limitations on resources, staffing capacity and other structural pressures the organisation's capacity to address HIV is significantly constrained.[45]

The police force also has a role to play in addressing HIV. As noted above a significant number of detainees are held in police cells.[45] Authors of the 'Human rights needs assessment of the Royal Papua New Guinea Constabulary (RPNGC)' highlighted the importance of the RPNGC to ensure it protects the human rights of vulnerable groups, including those affected by HIV.[56] Addressing gender issues and HIV is also a feature of the *PNG-Australia Policing Partnership*.[56] RPNGC has a number of policies that address HIV including their HIV policy, occupational health and safety policy and operational policy. While these policies do mention the importance of protecting against HIV risk, however this pertains only to police officers and does not mention detainees in custody.

2.2. KEY FINDINGS FROM FIELDWORK: CLOSED SETTINGS AND HIV RISK

Closed settings included in this assessment were prisons and police holding cells. The risks for HIV while similar were also different so they will be reported separately.

Police holding cells

Police holding cells were readily acknowledged as being unsafe, unhygienic and conducive to the transmission of many infections, not just HIV. Indeed the greatest concern in these closed settings was hygiene and sanitation. Our observation of the cells confers with these assessments.

> If I take you down to the cell and you'll see the state and the condition it's in. It's not good, you wouldn't want to go and stay there. If I'd take you there and maybe kept you there for an hour, you'd be screaming at me to take you out of the cells; so that's the picture you can take. It's not safe.
> *RPNGC, Port Moresby*

Sexual transmission of HIV

Police holding cells pose risk for HIV in a number of ways, especially in overcrowded ones. There were numerous reports of rape and sexual assault in the holding cells. It was acknowledged that most cases are never formally reported making it difficult to know exactly how many have occurred but also difficult to investigate and press charges. Such acts of violence were reported between prisoners and between Police officers, guards and prisoners.

Part of the issue with Police holding cells is the paucity of personnel. This results in inadequate supervision and periods of time when one male guard is left in attendance alone, creating an opportunity for sexual violence. There are also no female guards in any of the holding cells visited. In at least one of the prisons, women were not kept separate at night from the Police guards. The lack of female guards and the inadequate security for female detainees was acknowledged as a problem, especially in Port Moresby: 'It's easy to get access to any women'.

> Few cases of rape in holding cells are formally reported. A senior police officer suggested that in the case of juvenile boys being raped or sexually assaulted it would be unlikely for them to report the crime, especially as many are repeat offenders and would be back in the holding cell. Rape of women in holding cells was reported in a number of locations. In some cases women are bribed to have sex with Police Officers in order to have their bail money paid, what was referred to by one female prisoner as 'snake bail', an informal form of bail given in exchange for sex. One rape case that was formally reported to the Police and widely reported in the media involved a Police Officer and a female detainee. Although the woman involved in the case never formally reported the incident to the police out of fear for her family's safety, the case was widely reported by informants, including the woman herself who was raped and conceived as a consequence. The woman reported in her interview that fellow inmates refer to women from a particular Police holding cell as acting like dogs (prostitutes) who get pregnant with bastard children (conceived out of wedlock in promiscuous relationships).We have only two guards on duty in the cells whilst two are on the duty counter and if one of them goes out to relieve himself or goes on break, he leaves one person alone and that allows that [rape] to occur.
> *RPNGC, Port Moresby*

> I stayed in there and during that time, an inspector who was in custody for rape and murder decided that he would also question me…He kept coming and he kept approaching and then there was one instance there, one evening where nobody else was around and things just got out of control. He pulled me into the finger print office, he wanted to talk and when I refused he threatened to hit me. And I said, I don't know, I've already done my interview and I'm just waiting for trial and that's it and I don't want to do this. He approached me, he decided to touch me and I said, 'No', and he said, 'No, it's alright, I'm just being friendly towards you. You must understand that I'm on your side'. Yeah, okay that's fine but you don't need to touch me and then he kissed me on the head and I was like okay this is not right. I said, 'You need to move away and you need to leave me alone. You need to stop'. But he was adamant, he wasn't going to stop. By this stage we were locked inside, I was locked inside the finger print room. Then he kissed me on the mouth to which I said 'No'. But then he basically held me on the neck so I decided okay there is no point screaming because I'm going to die. So I just let him do whatever he wanted to do but all

the time he was raping me I kept saying, 'No' and I did keep saying 'No, no, no'. ..That didn't happen just one, it was a repeated thing, night after night for about three weeks. I thought when I came here, I thought maybe it might it would just end, it would be over. And then I found that I was pregnant. *Female prisoner*

One male prisoner reported that he had consensual sex on numerous occasions with a female Police Officer when he was held in the local police holding cell.

Access to condoms

Condoms are not provided to detainees in Police holding cells. It was reported that in the past they were supplied in the Boroko Police Cell at least but that as a result of people repeatedly misusing them to block toilets they are no longer issued. Others reported that condoms in police holding cells would only encourage sex. Condoms, however, are routinely provided to Police officers.

Other risk for HIV and other blood borne viruses

Although the risk associated with blood is widely known gloves are not routinely issued and used with bleeding detainees. Razor blades are not routinely issued in Police holding cells. However, some detainees accessed them via family members who visited, with detainees often sharing them. Although not a risk for HIV other items that are routinely shared in holding cells are toothbrushes, soap and towels.

Treatment of people with HIV in holding cells

No informants reported that they had ever known if a detainee in a police holding cell had HIV. When asked if a person with HIV would be provided access to treatment and care while being held, all Police Officers said that they would indeed have access to such services and treatment. However, it was noted that it would be up to the detainee himself or herself to report their status and have a family member bring in their treatment.

Prisons

In PNG male and female prisoners are contained in separate facilities within the prison and their risk for HIV is remarkably different. Risk for HIV and other blood borne viruses in prison appears confined to the following: unprotected anal intercourse between men and the sharing of razor blades. We were unable to identify any injecting practices that occurred inside the prison whether it is for penile modification or related to recreational illicit drug use.

Sexual transmission of HIV

Almost all women reported that it was not possible for female prisoners to have sex when being detained as no men were allowed into the cells, only female wardens worked in the women's block and even during drives to the police station for a court appearance or for a medical assessment female wardens always accompanied a female detainee. A few informants however reported on sex between male officers and female prisoners, both consensual and forced. We heard of a former female prisoner who was raped by Correctional Officers when she visited her partner who was serving time. This same woman reported having sex with her partner in the prison where he was provided with separate low risk accommodation.

There is one case that was widely reported in the media where a male prisoner and a female Correctional Officer had sex. This was also reported by a number of the informants in the assessment.

One ex-female prisoner reported that while in prison she engaged in sex with other women but that sex did not occur when she or the other women were menstruating. This was the only case of female-to-female sex occurring in prison that was reported during this assessment.

There are no men within the female wing sector so it's only the female officers. The only time we interact with the male officers is when we mix with the male prisoners as well and its for when there is a big gathering in the main compound we go in a big group and we come back. No one stays any length of time, yeah so we are pretty safe when female officers are here but police, it's when you get down to the police cell, how will I say it, that's open market. *Female prisoner*

I don't know about before but within the three years that I came and stayed in prison, I'm confident that it's not a practice in here. There is no such practice in here. We are always closely monitored with our bosses so there is no chance for such kinds of things. *Female prisoner*

If a woman escapes and they find her in the garden, they bring her back and rape her all night. I saw this one time. And when women go and clean the offices of the wardens they have sex with them in there. *Female prisoner*

The presence of male-to-male sex in prisons has long been recognized globally (and to a lesser extent in PNG) as an important risk factor for the transmission of HIV and other sexually transmitted infections. The practice is diverse and ranges from consensual long-term relationships between prisoners (referred to as "married couples") to violent acts of anal penetration, sometimes, but not always, by groups of men. Sometimes sex was in exchange for goods or food or as punishment for their crime. It was reported by one warden and a prisoner that there had been a riot and ongoing conflict in the prison as a result of an incident forced sex some time previously. Male-to-male sex was reported in all of the prisons visited for this assessment, however some senior staff did not believe such practices occurred in their prison.

There are some big guys here and they've been here for a while and they are big guys in the compound and so maybe he comes and says, 'Oh mate here'. He got his biscuit in the morning but he says 'Ah alright you got another biscuit' then he gets that biscuit and then he tells him 'I'll see you tonight, take you out tonight'. And then if he refuses he's a dead man. So he says, 'biscuit igo, ass ikam' [you get a biscuit and I get your arse]. Correctional Officer

Some are forced, especially under age persons are being forced by mature people into having sex with them offering favours like giving them a smoke or what is needed by that person is given to them [and] in return they have sex. *Correctional Officer*

The reason [for raping a man] is if he causes trouble outside and comes into jail he will be punished because of the wrong he did outside. *Male prisoner*

In my prison it doesn't, yes it happens [in other prisons] but in my prison I haven't heard of it. Previously back in the 1990s it happened because some prisoners from [region of PNG] who were transferred here were trying these sorts of things out here but things were brought to light, But currently at the moment, nothing. *Commander*

Well I think sex is known in the prison the long terms prisoners and because of the kind of feelings that we have. A prisoner can be vulnerable because they share rooms it's open space or you know the more you keep a woman away from a man or a man away from a woman, there is a likelihood; I mean for a long time prisoner sex is always there. *Regional Commander*

There was agreement amongst almost all of the informants we spoke to that that sex between men occurred in prison but for many it was reported that such activities were historical and not occurring in the present day. This is what most prisoners reported. When informants were prompted to reflect on why these things no longer occurred it was said that the prisons now offered religious fellowship program for inmates. This had resulted in new 'lotu pasin' (religious person). One suggestion from a prisoner was that the availability of pornography in prisons also reduced the need for male-to-male sex. Mobile phones were readably available in prison and these mobile phone devices often had internet access and so it was easy to obtain and view pornography. One participant also reported that Correctional Services staff would bring in an SD card with pornography already downloaded.

This was not the interpretation of prison life given by others, including a few prisoners.

The wardens provided a very vivid account of violent male-to-male sex in one of the country's larger prisons. In that prison dominant men would "fight for his ass". One male prisoner who requested to talk with us told us that he had been 'sodomised' in prison. He said that he had reported the case but nothing had come of it. Despite agreeing to come and interview him formally the next day, we were unable to follow up with him due to a riot in the prison. A Correctional Officer who provided health care to the prisoners reported that male-to-male sex in prison was common. Even when prisoners did not report such acts to her, or to the Commander in cases of rape, she herself could identify such men by the way they walked, walking as if their bone was broken.

They're doing it because of the anal opening; scores. I see a lot of it. The new ones, maybe the long termers are using these new ones like 'Ah', they'll say, 'That's a nice fleshy one coming in so that's mine'. I mean that's what I believe because the new ones they can't say anything. They are hopeless. New ones think that's the rule of the prison so you have to do what I say. They find it very hard [to report]. They won't talk. Sometimes they don't walk properly and I say you stop. You come here. Is your bone broken or what? He says, 'No, my arse is sore. 'Why is your arse sore? I then tell the nurse in the clinic to check his buttocks. And then sometimes we succeed and sometimes we don't. And then the nurse comes back and tells me and then I say 'Ok, put him on antibiotics

and ask him who he had sex with'. He won't tell. *Correctional Officer*

It was generally understood that men who were raped in prison could not report such crimes, as they would be a "dead man". One young prisoner reported having walked in on two men having oral and anal sex in the shower. He reported he was told to go away because he was too young and should not be seeing what was happening. He said that rather than reporting the incident and risking being bashed up he just walked away. This reinforced his need and his belief that you need someone in prison like a big brother to look out for you.

After all that fucking in the night you don't tell the officer, you are dead. So he's been raped in the night but he can't open his mouth. The moment he does he will be a dead man. *Correctional Officer*

It was viewed as normal for people to desire sex and therefore when that is not possible with a woman due to incarceration some men turn to other men to satisfy their desires. A number of different times of the day were identified as opportune for engaging in consensual male-to- male sex, including during meal times and when cells are not as crowded such as when prisoners go out for community service. Spaces for sex included the toilet, the shower room and cells themselves.

Yes, in the cell I'm living in [men have sex with men]. Ok its like this cell is confined to us men only and this natural desire for us to be with women is not available. Men living away from women for a long time and the desire for men such as satisfying themselves is strong. He wants to have pleasure of being with a woman but it's not available and so he must go to a man…They wait until there is a chance like dinner time in the evening. When everyone else is eating they go to the toilets and do it. Sometimes men take their plates to the rooms after diner to out away and they use bed sheets in the room to cover and hide themselves like when we sleep and this is when things happen [have sex]. *Male prisoner*

No not usually night because we all bunk up together. But it's during the day time that others went out for work and the prison is free then that's the time when these things happen. *Male prisoner*

Other HIV risks

Unlike male prisoners who are issued clean individual razor blades in most of the prisons visited on a weekly basis women are not afforded the same access. This results in women sharing razor blades that are brought in illegally via family accesses visits. Women reported sharing razor blades with other female inmates in order to refine and accentuate their hairline and to remove unwanted facial hair down the sides of their faces. For women this was about keeping tidy and clean. Other less common reasons included cutting of the skin for tattooing. Men on the other hand were expected to be clean-shaven every day. When senior staff from the Department of Correctional Services were asked about why there was a discrepancy between inmates on the grounds of sex we were informed that women only required razors to make themselves beautiful (ie. shave the legs) whereas the men needed them to remain clean. This appeared to be a contradiction and a deeply gender biased understanding of what it means for women to be clean. Although the sharing of razor blades poses a small theoretical risk for HIV, it poses a far greater risk for other blood borne viruses such as Hepatitis B and C.

Like I give it [my razor] to someone that I know I can trust, like in here, the people know that all of us are negative because we did the [HIV] test together. The convicted ones that we are here, like for myself I am a convicted, and for the those on remand I don't know because they come in and go out…Clean ones they can provide us. Several times we have been asking them to give us razor blades, clean ones so we can use and after using we can dispose it but they haven't done it. *Female prisoner*

Men on the other hand mostly reported that they did not share razor blades for shaving. However, there were a few male prisoners who reported seeing others share razor blades. One male prisoner who had served time in a number of prisons reported that sharing of razor blades was more common in some prisons than others. A number of male prisoners who said they did not share their blades reported that they stored them in the trunk of tress (banana trees). Being stored in this manner means that it is possible for others to use and return a blade without others knowing. Therefore we cannot conclude that there was no sharing of razor blades amongst these men. For penile cutting and scarification there were no reports of sharing razor blades. Overall the sharing of razor blades seems less common than for women. It is likely that their access to a regular supply of clean razors meant that they are not required to share in the same way that women are.

HIV awareness

All prisons were exposed to HIV awareness programs of different kinds with most awareness being conducted by church groups or faith based health services. It was however noted that others including visits from university students had provided such education. The awareness is using very brief, didactic and one off. No long-term work is being conducted in prisons on HIV.

HIV testing

Voluntary counseling and testing (VCT) was available to varying degrees in each of the four prisons visited and this reflected the access to overall health care at the settings. For example, in one prison that provided no health care services within the prison itself was stationed right next door to the Provincial Hospital so the need to be self-reliant and have their own health care workers trained in VCT was not the same as other more isolated prisons. In other prisons faith based health services come and visit and provide VCT for prisoners. Although Baisu prison had a health facility, albeit in a poor state, Bomana prison was the only prison with its own standalone accredited VCT centre. It was reported by a health care worker within the correctional services that between 2006 and 2008 4 prisoners tested HIV-positive as did 2 Correctional Officers, both of whom have now died. Of the prisoners who tested HIV-positive one was a woman and the remainder were men. Data from other years was not available.

When prisoners were asked if they could access HIV testing they all agreed that if they asked their request would be respected. Numerous prisoners reported that they had indeed undergone VCT in prison. We were able to speak with one female prisoner living with HIV. At another prison a woman with HIV had recently been let out on parole so we were unable to talk with her about her experiences however other female inmates reflected on her and her experience. There were no reported cases of mandatory or provider initiated HIV testing in the prisons. That said, one Commander stated that they are meant to be testing people for HIV upon entry but that such a service is not yet in place in his health facility. There also appeared to be no public disclosure of a person's HIV status in most of the prisons. However one warden did report that the health care works shared information about prisoners HIV status with them.

There was a need identified by several correctional officers to have more correctional health care workers trained as VCT counsellors in order that testing could be done within the prison setting and that such staff could conduct HIV awareness among inmates.

> No [the results are not given back to the officers in charge] because the client, the prisoner has to consent for his result before we disclose the result to the officers. *Health care worker, Vanimo*
>
> In the prison we are supposed to be doing that [HIV testing], any admission coming from outside they are supposed to go through this sort of test first so that before they are entered into the institution or cells we will have to know whether this fellow is infected or not. Those are some of the things that we don't have in place. *Commander*

Access to condoms

Condoms are the cornerstone of the Government of Papua New Guinea's approach to HIV prevention, yet in only one of the PNG government run correctional facilities visited were condoms made available to prisoners. One was a prison where the Commander was a member of the Provincial AIDS Council and he provided prisoners with condoms when going out on weekend release. It was the belief of most correctional staff that condoms would encourage sex and that they did not want to do that. One warden reported that although they do not distribute condoms they do come across used condoms in the cells.

> We don't give them condoms. And we will restrict condoms going in there because when we give them condoms we are telling them to continue. And then when they are allowed to do that there will be more riots and more death. *Correctional Officer*
>
> I've actually not sighted any condoms whether it's been given openly to prisoners… no because if you provide condoms make them available then you for what purpose you see? You are allowing men to men sex. This is an illegal activity so we don't want to promote condoms…for staff and dependents it's ok but not for prisoners. *Regional Commander*
>
> Well we don't want to because it's an unlawful act in the prison environment it's not accepted, no it's not accepted. We will prevent that. There are laws that govern the detainees' health and hygiene. Ok for HIV and AIDS anal sex is not allowed in the institution. The Correctional Service Act does not specifically say it. It talks about health and hygiene prisoners must maintain a clean and tidy environment and also looking after themselves. So because it's silent in the legislation it's also regarded as not acceptable behaviour, conduct. *Regional Commander*

When prisoners go out doing weekend leave we provide them with condoms, we don't know if they are using condoms or they are using flesh to flesh we don't know, but we do provide condoms when they go for weekend leave…We discourage [condoms] because we might encourage a lot of that activity to take place in prison. From my perception its encouraging them to have homosexual [sex] so we avoid from giving them condoms. *Commander*

A minority of correctional staff and correctional advisors believed that prisoners should be afforded the same means of HIV prevention as other citizens. This was an approach that was overwhelmingly posited by the other key informants, including those from faith based services.

Management don't approve of it but if we want to prevent STIs and HIV and all of this somehow they'll have to introduce it…We talk about it saying they'll introduce it and all this but it doesn't happen. We're giving it [condoms] out to public, staff and dependent, not inmates. Fir myself I strong recommend that they have to have it inside because HIV is growing rapidly in PNG. And if STIs is about then HIV is not far. *Correctional Officer*

They [the prisons] are a government facility; as such they should be available. People can make a choice and sometimes I think that we treat them as if they are children; we have to make choices for them you know as the service providers. But we should teach them that they make a responsible decision themselves…It's a government institution and the government is promoting so much on condoms and if they don't provide them and people don't have a choice I'm not sure how we will ever succeed in condom promotion if there is simply no choice. *Faith based health service, Port Moresby*

Treatment of people living with HIV

People living with HIV were identified in two of the four prisons visited for the assessment. In one prison all of the people who had tested HIV-positive were now either released or on parole. In the other prison one woman remained who was positive. All prisoners had tested HIV-positive while incarcerated.

Generally, it appeared from the interviews that people with HIV were treated well in the prison and taken regularly for medical and treatment reviews. There was one fellow inmate who reported that this was not the case and that her friend often missed her appointments. Examples of special care afforded to positive inmates included for in one prison, being exempt from gardening if unwell and having access to more nutritional food. The woman with HIV interviewed for this study however noted that she does not have access to the kinds of food she requires to compliment her use of antiretroviral therapy, particularly fruit. As she states herself 'I'm living on the medication alone.' Men on the other hand do when they have weekend release. However, examples of improper treatment included a warden stating that they would separate HIV-positive prisoners from others. Others did not corroborate this claim.

She never told us. Some ladies told me so I just heard it. I didn't feel anything negative or bad about it. We loved her. We treated her as normal as. We shared food together, ate from the same plate, same spoon, same cup. We stayed like sisters. *Female prisoner*

She takes it [ART] and when it finishes she tells the female correctional officers and says my drug is finished and I have to get a new one or my appointment is on this date. They come to us to make a LOA [leave of absence] for them. The correctional officers take her to the clinic to get her medication or to be seen by a doctor and come back. We don't deny it. *Correctional Officer*

Just now they put me on drugs, last month. Rice, tinned fish, tinned meat is what we eat. The day after yesterday I fainted and they took me to Hagen hospital and they brought me back. Right now I am not feeling very well. My family do not come and visit me or like that. And I stay and I worry a lot for this. For men they have this weekend leave thing where they go outside and have a break and they come back. For us women they don't do that they just let us stay in here. And because of this I find it hard to get fruits or like that. And the fruits that we try to bring them in they will say no. And because of this I'm living on the medication alone. I came in here and I found out about my status…there no other foods, fruits and such to help us or like that. *HIV-positive female prisoner*

Believing that people with HIV would get preferential treatment and let out on parole early for fear of HIV transmission in the prison, there was one informant who reported that there were people who claimed to be HIV-positive in the hope that they would be released. When the informant would probe the inmates about their HIV status and risk for transmission of HIV she would enquire if they were having anal intercourse in prison. The inmates would say they were not having male-to-male sex and the Officer would then say they were not in need of preferential treatment: 'you can walk freely with other

inmates'. No person, who ever tried to be released as a result of HIV, had ever tested HIV-positive when tested by the informant.

Alcohol, marijuana and other drugs in prison

Alcohol, particularly homebrew and marijuana were evident in all of the prisons, particularly male compounds. These substances were "smuggled" in by prisoners and by the Correctional Officers themselves: 'We have a system of how it comes inside'. The only other form of drug reported was by one prisoner who shared that that a fellow inmate would sniff a powder of some kind, supplied by his family during visits. The prisoner reported that after sniffing the drug the inmate would just sit and become talkative and all of a sudden laugh and get hysterical. Without taking the drug, the prisoner reported that the inmate was 'longlong' (mentally ill).

Other health issues in prison

Although HIV was the primary health issue of this assessment it would be remiss of the authors not to highlight the overall paucity of prisoner health generally. It was repeatedly noted that prisoners are not routinely screened on entry into prison for infectious diseases such as TB and hepatitis, or for mental health problems. Such measures may have helped prevent recent prison-associated TB outbreaks. Mental health of prisoners appeared poor although in some settings there was access to, albeit limited, to psychiatric support. A few prisoners (both male and female) reported having attempted suicide. At least one prisoner said that she had requested psychiatric support but that it was not forthcoming. It was noted by some informants that there was resistance with the Department of Correctional Services that the health of prisoners was an issue of concern for correctional staff. There were a few exceptions to this by people who believed that the overall spiritual and physical care and rehabilitation of inmates was their duty.

There has been a lot of health issues but management have not been taking this seriously until last year…We don't do proper health assessments at reception. I think we'd identify a lot of them like TB and HIV and all these but its not done, it's not done at all…We need qualified health workers who will act like nurses and not like wardens so that they can treat these inmates like human beings just like community health services are treating patients outside. *Correctional Officer*

I've asked, I don't know how many months I've asked to see a psychologist because I know there is something wrong because I get irritated very quickly when someone else upsets me…I know there is something wrong…I ask them if a psychologist comes to the prison, 'Please, I need to speak with whoever'. I keep asking because apparently they come every Tuesday and no one seems to be interested in taking me down. I committed suicide; I tried to over dose here so from there, now they are just petrified of me touching medicine or me getting help. *Female prisoner*

For my Region it's the lack of trained people that we have. You know like it's a requirement that when a prisoner is brought into custody they must be interviewed and medically checked before they are admitted into the prison compound. But they are not officially checked. It's supposed to be but it's not because we don't have trained officers to attend to this… So as a result of this we cannot identify who's got what sort of sickness. .. That's for all the jails in the region. *Regional Commander*

In my region it's the same. There's no medical check prior to entry into the institution and also there is no regular visits by health authorities or provincial health department. And most of the institutions don't have medical facilities so we rely on transporting them to the general hospitals…Yes and also the lack of proper trained medical officers is lacking throughout the whole region. *Regional Commander*

CONCLUSION

Drugs and alcohol

The purpose of this assessment, commissioned by the United Nations Office of Drugs and Crime, was to ascertain what role the use of drugs (particularly injecting drugs) and alcohol currently plays in PNG's HIV epidemic and what role they may play in the future. The assessment was not intended to estimate prevalence of drug use and related HIV risk behaviours.

The findings of this assessment (literature review and key findings) are consistent with previous reports detailing the widespread use and misuse of drugs in PNG, including alcohol. While drug use was clearly evident throughout PNG, with usage of particular drugs more in certain geographical areas and socio-cultural groups, we were unable to obtain extensive data on injecting drug use. We only identified one person who had injected drugs while all other accounts were second hand. We are therefore unable to reliably indicate from this assessment if HIV risk due to the sharing of needles is a major concern in PNG, but as evident in the review there is some behavioural research to indicate there is sharing. We could however identify relatively easy access to clean needles and syringes through family and friends working in health care facilities and by purchasing them in pharmacies. This is a positive finding. Although injecting practices associated with penile modification are widespread, there appears to be a reduction in the number of people undertaking such practices in Vanimo as a result of physical as well as social implications. From the accounts documented in this assessment people appeared to share – if they were to share – syringes rather than needles. Since penile modification does not include intravenous injection, it is less likely that blood would be found in syringes than during the injecting of drugs. Therefore the sharing of syringes while posing a threat for HIV does not appear great. Unprotected sex under the influence of drugs and alcohol appears to pose the greatest risk for the transmission of HIV in the area of drugs and alcohol. This includes both sex which is consensual and non-consensual sex, the latter possibly posing the greatest risk.

It is clear from this assessment that the focus of HIV risk in relation to drugs and alcohol needs to be primarily focused on alcohol (both commercially produced and homebrew) and marijuana. This however, should not be at the exclusion of injecting drugs and other injecting practices such as penile modification. Education on the role of sharing needles and syringes and the safe disposal of them should be incorporated into all training on HIV and other blood borne viruses.

Despite the long-term recognition of the negative consequences at the macro and micro levels, little action has been taken to address or stem the health, social and legal consequences of their misuse. At present PNG is hampered from providing an effective and timely response to these issues. Reasons for this include limited financial and human resource capacity both in government and civil society. For example, there are no trained PNG drug and alcohol counsellors, nor few clinicians specialised in the treatment of people with drug dependency. Law enforcement remains the primary focus of the PNG government's response and yet this is also severely constrained by an absence of skilled personnel and the infrastructure required for effective and transparent law enforcement. While the government's need to improve law enforcement in this area is noted it is important to acknowledge that such an approach on its own will not and cannot adequately address the complex causes and consequences of drug and alcohol misuse.

The legislative frameworks that inform PNG response to drug and alcohol misuse do not respond to current and emerging trends in particular the developing market for drugs other than cannabis. Currently it appears that the use of these other drugs is confined to expatriate men and their PNG associates (both male and female). PNG is poorly resourced to respond to the health needs of its own people let alone expatriates who are long time residences or who fly in and fly out on a regular basis for work. That said, the intersection between this group of men and Papua New Guineans suggests that PNG needs to be prepared to deal with the health issues which such drug use may pose for its own citizens now and in the coming years. Furthermore, with increased access to money (and or the absence of it), it is likely that the drug trajectory of PNG's local drug use market will change. Preparation is needed.

In terms of future research, well considered in-depth ethnographic work is required within expatriate communities and their PNG associates to ascertain a better picture of the nature and extent of drug use, particularly injecting drug use and the risk associated with HIV. This is particularly the case with expatriate men from countries where injecting drug use is common and where such behaviour is highly associated with HIV.

Priorities for action by UN agencies in Papua New Guinea – Drugs and alcohol

- Support the development of evidence based campaigns that address the misuse of alcohol and drugs.
- Advocate for the incorporation of harm reduction approaches for the use of alcohol and drugs in all HIV prevention programs
- Advocate for and assist through technical assistance any measures necessary to eliminate sexual violence and HIV risk
- Advocate for an investment in the strengthening of human resource capacity in a diverse range of fields including human services in areas such as counselling and drug treatment.
- Assist in the development of an evidence informed and human rights based national drug strategy
- Advocate for a revision of the legal framework that governs PNG's response to drugs
- Provide normative guidance for a law enforcement response that ensures such frameworks are protective of human rights and promote public health.
- Provide technical assistance in creating networks of practitioners, members of affected communities, government bodies, civil society and researchers together to discuss current and future needs for addressing and minimising HIV risk in relation to drugs and alcohol and closed settings

Closed settings

There are many issues that face detainees in prisons and police holding cells, including hygiene, mental health and communicable diseases including TB. HIV is only one health issue amongst others. Until the health of Papua New Guineans in both forms of closed settings are seen as a responsibility of the governing bodies, efforts by a few people from within the services to prevent the spread of HIV and improve the treatment and care of those with HIV will be limited.

The greatest risk for HIV in either of the closed settings examined in this assessment is the sexual transmission of HIV. Although a number of detainees have been diagnosed with HIV while incarcerated there is no data on HIV transmission with these settings. Of those diagnosed while in prison, it is not clear where or when these infections occurred. This is a consequence of poor health screening of inmates as they enter and leave prison. Therefore we are unable to report with any authority to the precise role that closed settings play in PNG's HIV epidemic. It is not possible to ascertain what proportions of people diagnosed with HIV have served time in prison. That said there are a number of features of the sexual culture of life in closed settings in PNG that would suggest HIV is indeed being spread within these institutions.

There is widespread sexual violence in closed settings. The abuse of power by both male detainees and law enforcement officers is key to this. Such abuse poses a significant risk for HIV and other sexually transmitted infections. This is addition to the physical and emotional trauma suffered. The failure to stem such violence poses a significant obstacle to the prevention of HIV in closed settings,

Consensual male-to-male sex in closed settings occurs but is not widely acknowledged. As a highly stigmatised and currently still illegal practice there was widespread belief that as law enforcement institutions they could be seen to support such illegal behaviours through the provision of condoms. This approach is in stark contrast to the HIV prevention approach endorsed by the Government of PNG and the PNG National AIDS Council, which advocates for the use of condoms for the prevention of HIV and which identifies the prevention of HIV in prisons a key national priority area for prevention. The greatest obstacle for the prevention of HIV, and other sexually transmitted infections, in consensual relationships is the failure to provide condoms.

It is important that HIV treatment and care is provided for those in closed settings and as this assessment has shown it is possible to do this in a non-discriminatory

fashion. However, care needs to be taken to ensure that access to additional food and services is maintained for people, especially those on antiretroviral therapies. As a key step in such provision testing remains an important element and should continue to be made available and where required scaled up. Although HIV education was reported in all prisons, it appeared to be very limited, ad hoc and did not involve people living with HIV themselves. It is important that the approaches employed for HIV education are meaningful and not didactic. It is likely that this will not be possible while groups and individuals volunteer in an ad hoc fashion. Prisoners would be better served if HIV education was provided by agencies that adhered to principals of evidence informed programing.

In terms of future research, it is important that clinical, behavioural and social research is conducted in the area of HIV and sexual behaviour. One small study is already approved to be undertaken in the largest prison in PNG in this area and this is likely to add further weight to the findings of this assessment.

Priorities for action by UN agencies in Papua New Guinea – Closed settings

- Advocate for the illumination of sexual violence including coerced or forced sex in closed settings.
- Advocate for the improved protection of female detainees in police holding cells including separate holding cells and provision of security by female police guards only
- Provide technical assistance and advocate for the decriminalisation of male-to-male sex as a necessity for HIV prevention.
- Advocate for the right to health of all detainees in closed settings in PNG and ensure that they have access to HIV prevention through the distribution of condoms.
- Advocate for and provide technical assistance if necessary for the development of gender and HIV training for all staff employed in closed settings
- Provide technical assistance in creating networks of practitioners, members of affected communities, government bodies, civil society and researchers together to discuss current and future needs for addressing and minimising HIV risk in relation to drugs and alcohol and closed settings

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APPENDIX 1: LITERATURE REVIEW METHODOLOGY

Peer review literature search

Medline was used to search for relevant peer-reviewed papers. The search strategy and results are detailed in *Table A*. Two hundred citations resulted from this search. Titles and abstracts were reviewed; from this, twenty-four articles were retained and full-texts sought. Additional papers were also identified through had searches of bibliographies of material gathered.

Search string:		Results
1	Papua New Guinea.mp. or exp *Papua New Guinea/	3,742
2	HIV.mp or exp *HIV/	233,698
3	prison.mp. or exp *Prisons/	10,346
4	drug abuse.mp. or exp *Substance-Related Disorders/	344,012
5	exp *Harm Reduction/ or exp *Substance Abuse, Intravenous/ or inject* drug.mp.	12,367
6	1 AND (2 OR 3 OR 4 OR 5)	250

News media search

Print media archives for the years 2011-2012 were searched for articles relating to drug and alcohol use and HIV in prisons. The archives searched contained articles from *"The National"* and *"The Post Courier"*.

Grey literature /Users/angelakelly/Library/Containers/com.apple.Preview/Data/Desktop/KELLY ET AL 2012 - EMERGING HIV RISK IN PNG .3.pdf

Non-peer reviewed material (so called 'grey literature', including reports produced by research institutes, government and non-government organisations) was gathered through approaches by the researchers to organisations and key individuals in PNG and searches of relevant websites.

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UNAIDS