



KUSH IN SIERRA LEONE

WEST AFRICA'S GROWING
SYNTHETIC DRUGS CHALLENGE

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GLOSSARY

Active ingredients in kush: The synthetic drugs that have a psychoactive impact, whether in the form of precursor, or composite drug.

Harm reduction: Policies, programmes and practices that aim primarily to reduce the adverse health, social and economic consequences of the use of licit and illicit drugs. It is based on a strong commitment to public health and human rights. Harm reduction helps to protect people from preventable diseases and death from overdose, and to connect marginalized people with social and health services.

Preprocessed kush: Kush where the active ingredients have already been synthesized and added to the leaf, so the drug is ready for consumption on retail markets.

PWUD: People who use drugs.

Synthetic cannabinoid: Synthetic cannabinoids refer to a class of lab-made substances that are chemically similar to chemicals found in the cannabis plant, though they often produce very different effects. Some synthetic cannabinoids have potential or current medical uses, but many are illicitly manufactured and sold.

Synthetic opioid: Substances that are made in a laboratory and that act on the same receptors in the brain as natural opioids (e.g., morphine and codeine) to produce analgesic (pain relief) effects.



EXECUTIVE SUMMARY

A synthetic drug known as 'kush'¹ emerged in Sierra Leone in the late 2010s and quickly spread across the subregion, including Liberia, Guinea, the Gambia, Guinea-Bissau and Senegal, with devastating effects. By April 2024, the presidents of Sierra Leone and Liberia had declared national emergencies over drug use, principally due to the unprecedented effects of kush on public health, including significant fatalities believed to be linked to the drug.

Key points

- Kush presents a pivotal milestone in the evolution of the drugs threat facing West Africa. The current scale of the kush market, the speed at which the market expanded in Sierra Leone and beyond, and its public health impacts are unparalleled. Kush is one of several synthetic drugs believed to be penetrating West African retail drug markets, a trend that is set to accelerate further.
- So significant were fatalities believed to be linked to kush, and resulting excessive pressure on mortuary systems, that group cremations were organized as emergency measures in 2022.² From 2022 onwards, bodies have been placed in the streets of Freetown by those who own large kush-use spaces, and picked up by the authorities early in the morning.
- The absence of publicly available results from conclusive chemical testing has allowed myths about the composition of kush to proliferate and made it difficult to identify effective responses to mitigate the risks and reduce the harms caused to people who use drugs (PWUD).
- Chemical testing conducted as part of this research concluded that kush in Sierra Leone is composed of nitazenes (specifically, a combination of protonitazene, metonitazene and protonitazepyne) and synthetic cannabinoids (specifically, MDMB-en-4-PINACA, common in European markets).
- Nitazenes are potent and often deadly synthetic opioids that have spread rapidly across global retail drug markets, including European countries, particularly since 2022. Illustratively, in 2023 in Estonia and Latvia, 48% and 28% of drug deaths, respectively, were attributable to nitazenes. One of the nitazenes detected in kush is 25 times more potent than fentanyl.
- The chemical composition of kush is believed to be similar across West Africa, meaning the testing results have regional significance and point to an escalating synthetic opioid and synthetic cannabinoid challenge across West Africa.
- Nitazenes and synthetic cannabinoids are imported through maritime routes and increasingly through postal courier services.

- Until 2022, the kush market was dominated by a few organized criminal groups who imported preprocessed kush. Presently, kush is largely synthesized locally. The market has six key roles: owners, 'locks' (intermediaries between owners and the rest of the market), 'cooks', distributors, retailers and drug users. Most profit is made by the owners, 'cooks' and some large distributors.
- Local synthesis, fragmentation of existing criminal groups and low barriers to entry have contributed to the fast expansion of the kush market and an influx of new entrants. This has resulted in a more fragmented criminal marketplace, which makes it increasingly difficult to develop responses that can disrupt and durably decrease the kush market.
- Sierra Leone's gangs – which have for years been engaged in violent territorial turf wars – play a key role in the kush market as distributors, retailers and drug users. Ongoing political marginalization of gangs and a kush market determined by the quality of the product have resulted in a reduction in turf wars and violence. For now, violence is considered 'bad for business'.
- The ongoing expansion of the kush market in Sierra Leone is underpinned by decentralized protection structures. This protection is crucial at points of entry, namely in the maritime port and the airport. Protection from law enforcement is particularly key for synthesis, distribution and retail.
- Although leads suggested protection of elements of the kush trade at a high political level, these were not sufficiently evidenced. One exception pertains to two major players working together in the kush market who are politically connected by family ties, which they seem to have leveraged to win market share, although they currently operate with a significant degree of independence.
- The chemical testing ties kush to international synthetic drug markets. China manufactures MDMB-en-4-PINACA and nitazenes, and is an exporter. Interviews indicated imports of active ingredients from Chinese suppliers via postal courier services. There are indications that the UK and the Netherlands operate as exporters of kush, although it is unclear whether this is only of synthetic-cannabinoid varieties or if these exports also contain nitazenes. Interviews attest that key players in the market are connected to the UK and the Netherlands. All three countries own part of the responsibility for the kush crisis and the harm to people in Sierra Leone, and West Africa more broadly.

Recommendations

Although responses are complicated by the kush market's fragmented nature, coordinated action is urgently required. This research has identified three pillars for an effective response, requiring action within Sierra Leone, across West Africa more broadly and along the kush supply chain:

- 1. Building an evidence-based response.** Kush is one of several synthetic drugs believed to be penetrating West African retail drug markets. There is a strong need for a regional response that:
 - Strengthens early warning, monitoring and information-sharing across West Africa.
 - Improves regional and international information-sharing on synthetic drug compounds to empower identification of lessons learned, solutions, new trends and underpin preventative action.
 - Grows West African capacities to identify, classify, seize and control synthetic substances, including through equipment provision and capacity building.
 - Enhances the evidence base on substances available on drug markets in line with regional priorities through research to complement medium-term strengthening of government monitoring mechanisms.

- 2. Disrupting the supply chain requires action across the supply chain.** To disrupt the supply chain of kush to Sierra Leone, a broad international response is needed to take urgent action. Key components should include:
- Enhanced scrutiny of maritime exports by European states, particularly identified points of origin, including reportedly the UK and the Netherlands.
 - Enhanced country of origin enforcement against manufacture and postal courier exports, particularly in China.
 - Enhanced private sector enforcement against postal courier exports that have been identified as key transport mechanisms for kush and other synthetic drugs.
 - Enhanced scrutiny at points of entry – namely the maritime port and international airport – by the government of Sierra Leone.
 - Updated legislation in West African countries to underpin law enforcement responses to synthetic drugs.
 - Prioritize countering kush over other – particularly political – interests.
- 3. Mitigating the harms of kush consumption.** Given the anticipated difficulties in durably countering kush use, a key pillar of the response should include efforts to mitigate the harms of kush consumption. This should include:
- Increase availability of and access to treatment and support programmes, including enhanced access to opiate substitution.
 - Increase access to naloxone, which works to reverse overdoses from opioids.
 - Amend legislation to establish alternatives to incarceration for PWUD, bringing law in line with practice and protecting PWUD.
 - Enhance training and educational for professionals treating PWUD to better meet demand for services.



INTRODUCTION

On 4 April 2024, President Julius Maada Bio of Sierra Leone declared a national emergency over drug use – principally due to the devastating impact on public health of the substance sold as 'kush' across the country. Kush entered retail drug markets in Sierra Leone around 2017; by 2020, it was the most widely consumed drug. Cheap, extremely addictive and increasingly deadly, kush's arrival marked a step change in the scale of domestic drug consumption, and consequently drug-related harms.

This has become an issue beyond Sierra Leone. Since 2021, kush has spread across retail drug markets in other countries in the subregion, including Liberia, Guinea, the Gambia and more recently Guinea-Bissau and Senegal. Kush is a fast-expanding regional phenomenon that presents a growing threat to West Africa.³

But kush is a symptom of a wider problem: new synthetic drugs that rapidly penetrate West African drug retail markets.⁴ The influx of cheap, addictive, harmful and locally mixed synthetic drugs are durably changing West Africa. New drug consumption markets are emerging, serious health risks are difficult to counter by a poorly prepared health system, and more and more youth in a growing West Africa will be affected across socio-economic demographics. In short, kush is likely to be just the beginning of a larger looming drugs problem in West Africa.

Lack of evidence dooms responses to failure

Despite a growing number of articles published on kush in Sierra Leone, a lack of concrete data on its chemical composition, supply chain and criminal market structure has posed a serious obstacle to evidence-based responses. Key questions about the kush market had long remained unanswered. What is kush? Where is it coming from? Who is trafficking it into Sierra Leone? Why have responses to date had limited impact on the scope and scale of the market?

In the absence of publicly available results from conclusive chemical testing, kush, although broadly believed to be a synthetic drug, has been thought to be a concoction of substances including fentanyl, acetone, formaldehyde, tramadol and human bones. This lack of clarity fuelled myths and rumours while posing a significant obstacle to effective responses that could mitigate kush's harms, identify entry points, and disrupt the criminal market and supply chain.

This research was designed in order to fill this gap, and provide a solid evidence base for a coordinated response to kush across West Africa and the transnational kush supply chain. In doing so, this research

seeks to support a more targeted response by authorities in Sierra Leone, West Africa and countries of origin and transit.

Specifically, the research considered: a) the chemical composition of kush; b) the evolution of Sierra Leone's kush market; c) the supply lines and international connections; d) the organization of the market, including the various roles that actors play, how much profit they make and their social background; and e) how the kush market is protected. The study provides unprecedented insights into the nature and evolution of the kush market.

The National Drug Law Enforcement Agency (NDLEA) in Sierra Leone, in liaison with and supported by other government agencies, requested this study. The Judicial Police in Guinea-Bissau authorized chemical testing conducted in Bissau. The results of this report – including chemical testing of kush – have been shared with Sierra Leonean authorities prior to publication. The research process was fully independent and authorities were informed about results after the research was completed.

This report is divided into six sections covering five questions. The first outlines the chemical testing results, unravelling the chemical composition of kush, and the local synthesis process. The second section maps the evolution of kush markets in Sierra Leone and their spread to other West African countries. The report then considers the supply lines of the active ingredients in kush and analyzes the main points of entry into Sierra Leone. Section four maps the key actors in Sierra Leone's kush markets, assesses profits across the value chain, and explores the role of gangs and competition in the market. Section five explores how the kush trade is protected, while the final section evaluates the current response and details a toolkit of entry points for responding to the kush trade.

Chemical testing

This research study draws on a mixed methods design. It combines chemical testing data, extensive qualitative data based on a longstanding relationship with key players, and survey data from PWUD. The methods were mutually reinforcing, allowing for better interpretation of results.

A novel research contribution was chemical testing of kush samples. The Global Initiative Against Transnational Organized Crime (GI-TOC) worked with Phoenix Mohawk Kellye, a drug-testing expert, and civil society partners to analyze retail drug samples in Freetown and Bissau.⁵ This method aimed at filling the key knowledge gap on what kush actually is. Freetown was chosen as the most affected city in Sierra Leone and likely the centre of local synthesis. Chemical testing was also done in Guinea-Bissau to assess whether kush elsewhere in West Africa shared the same chemical composition. Guinea-Bissau was among the countries that had most recently reported the emergence of kush in retail drug markets.



Kush samples being tested in Freetown, Sierra Leone. Photo: Supplied

Testing commenced early in the research process, as results could feed into the qualitative research on market development, supply lines and protection structures. Between 28 May and 3 June 2024, 39 samples of the drug believed to be kush were tested in Freetown. They included a subset of 'official samples' provided by Sierra Leone's Transnational Organized Crime Unit (TOCU). Official samples included substances seized from consignments imported through Queen Elizabeth II Quay and Freetown International Airport. Further details about the field-testing methodology and the simultaneous PWUD survey are outlined in Annex 1.

The NGOs Social Linkages for Youth Development and Child Link (SLYDCL) and the Institute for Drug Control and Human Security (IDCHS) supported in the collection of retail samples. Retail samples were collected from drug markets in the central, western and eastern districts of Freetown. The aim was to collect 10 samples from each of the three regions of Freetown, as this sample size was deemed to give a reliable indication of the chemical composition of a synthetic drug, even if there was significant chemical variation within it.⁶ In the results, the west was over-represented, and the eastern area was under-represented, as the PWUD engaged with in the central area had often purchased their samples in the west. However, composition consistency across the samples tested was high, mitigating the likelihood that entirely different compositions were present in the central districts.⁷

Partner civil society organizations, PWUD and government agencies in Sierra Leone were briefed on the preliminary findings before they were made public. Seventeen kush samples from Freetown were posted to Kykeon Analytics in Spain for confirmatory testing. Samples were selected to include each different variation of the chemical composition of kush identified by the FTIR spectrometer, each variant in the 'sold as' type of kush, each area of Freetown and all the official samples seized at ports of entry. For the analysis of the samples, Kykeon used an LC-MS/MS method with an Agilent 1260 infinity II coupled with an Agilent Ultivo QQQ G6465A mass spectrometer. Each sample was tested at least twice, once with a full scan in positive ionization mode ranging from 50 to 1 000 daltons, and a targeted dMRM method that included an extensive list of potential opioids, benzodiazepines, stimulants and synthetic cannabinoids that were suspected to potentially be present in the samples.

In addition, between 21 and 27 May 2024, the GI-TOC, working with a drug-testing expert and the Guinea Observatory of Drugs and Drug Addiction, used an FTIR spectrometer to test nine kush samples from retail markets in Bissau.⁸ This data has been used to support the analysis of kush as a regional phenomenon.⁹



Chemical testing of kush samples in Freetown, Sierra Leone.

Photo: Supplied

Key informant interviews and surveys

To provide context for the chemical testing, and probe in detail into how the kush market functions, qualitative interviews were conducted with more than 120 stakeholders in March and June 2024. Interviews were divided in two parts.

About 50 interviews concentrated primarily but not exclusively on the evolution of the kush market (section 2); the kush market, actors and value chain (section 4); and protection structures (section 5). These interviews were led by the Clingendael Institute, a Dutch think tank and academy on international relations. Clingendael's lead researcher collected key informant interviews in July 2024. In nearly all cases, the researcher had longstanding relationships with the interviewed (ex-combatants, former gangsters and dealers) or was introduced to new informants by longstanding sources. Where possible, research involved a form of ethnographic participatory observational research based on repeated interaction known as 'deep hanging out'.¹⁰ These interviews were supplemented with interview data from 2022 (50 key informant interviews and 300 house surveys in three communities in Freetown on safety and security perceptions) and 2023 (15 key informant interviews) on the market for violence and drugs in Sierra Leone.

Another 50 interviews concentrated primarily but not exclusively on understanding the composition and production of kush and its variants, and the effects of kush on PWUD (section 1); the evolution of the kush market (section 2); and international kush supply lines (section 3). They were conducted by the GI-TOC's lead researcher, with seven by SLYDCL and one by IDCHS. These semi-structured interviews were based on a participatory observational research approach. Additional research was done in Conakry in March 2024 (nine interviews and one focus group discussion), in Bissau in March and June 2024 (five interviews, one focus group discussion, five surveys with PWUD using kush), and in Monrovia in September 2024 (six interviews and two PWUD focus group discussions) to deepen regional comparisons.

Key informant interviews involved about 10 gangsters/former combatants with relevant knowledge of security dynamics; 10 kush dealers; about five kush 'cooks'; about 10 kush retailers; about 20 law enforcement officers (both within Sierra Leone, in neighbouring countries and in international law enforcement); about five civil society organizations; about five experts in specific drugs and drug flows in West Africa and Sierra Leone; about five medical experts, about five seaport and airport officials; and about 10 other sources including diplomats and politicians. The GI-TOC also conducted six focus group discussions with PWUD in Freetown. Fieldwork was complemented by remote interviews between February and October 2024. For security reasons, key informant interviews are largely anonymized (see Annex 2 for an overview).

Finally, while various interviews with PWUD were conducted alongside the key informant interviews, there was a strong need for a better evidence base on the experiences of PWUD. Therefore, the GI-TOC commissioned, designed and coordinated a large PWUD survey to understand the evolution of kush prices, user experiences from kush, the health effects of kush and social implications of the kush emergency. The PWUD survey was conducted with support from SLYDCL and the IDCHS in Sierra Leone. Ninety-four PWUD (20 females, 74 males) were surveyed in Aberdeen, Brookfields, Congo Cross, Eastern Police, Fourah Bay, Juba, Lumley and Murray Town in May and June 2024. Further detail regarding the survey is set out in Annex 1.



WHAT IS KUSH?

While kush first arrived in West Africa in the late 2010s, the absence of reliable testing data created ample space for myths about its composition to multiply. It has been rumoured to contain fentanyl, acetone, formaldehyde, meth, tramadol, rat poison and human bones. Further, it was seen as a Sierra Leonean domestic problem, with an ever-changing composition. This lack of evidence has hampered the response.¹¹

This section debunks a number of these harmful myths and adds clarity by setting out what kush is, according to reliable chemical testing processes. The results present a snapshot of the retail market as of June 2024, and testing of official samples provides insights into the market in previous years.

Components of kush

Kush contains two main psychoactive ingredients: nitazenes, powerful synthetic opioids that have expanded globally since late 2022; and MDMB-en-4-PINACA, a potent synthetic cannabinoid common across European and Indian Ocean markets, among other regions.¹² The vast majority of tested samples contained either nitazenes (53% of samples) or MDMB-en-4-PINACA (47% of samples) rather than both substances together.¹³

We believe kush is the first case of nitazenes penetrating West Africa's drug markets.¹⁴ This reflects global trends, which show nitazenes and associated fatalities surging globally since late 2022.¹⁵ These testing results link the threat posed by kush in Sierra Leone and the wider region to international drug market challenges, as explored later in this report.

Three nitazenes were present in the Freetown samples: in order of prevalence, protonitazene, metonitazene and protonitazepyne. This makes kush extremely potent, with potency relative to fentanyl set out in Figure 1 below. The nitazene-kush fell into three broad categories: protonitazene alone,¹⁶ protonitazene with metonitazene,¹⁷ and protonitazepyne alone.¹⁸

PSYCHOACTIVE INGREDIENT DETECTED IN KUSH	POTENCY OF SYNTHETIC OPIOID DETECTED RELATIVE TO FENTANYL	POTENCY OF SYNTHETIC CANNABINOID DETECTED RELATIVE TO DELTA-9 THC (PRIMARY ACTIVE INGREDIENT IN STANDARD CANNABIS)	FREQUENCY IN TESTED KUSH SAMPLES
Nitazenes			53%
Protonitazene	3 times more potent	N/A	47%
Metonitazene	Similar or greater potency	N/A	29%
Protonitazepyne	25 times more potent	N/A	18%
Synthetic cannabinoids			47%
MDMB-4en-PINACA	N/A	7.5-9 times more potent	47%
AB-CHMINACA ¹⁹	N/A	11-58 times more potent	6%
MDMB-4en-PINACA isomer ²⁰	N/A	7.5-9 times more potent	6%

FIGURE 1 Active ingredients found in kush samples collected in Freetown in May–June 2024 and tested in the laboratory in September 2024.

Kush in Freetown is typically sold as either ‘hard’ or ‘mild’, with subcategories also available. Most prominent among the subcategories are djagaban (also called ‘buga’, referring to a hard variety), TM and K2 (both reportedly broadly falling into the mild category). There was limited correlation between what kush was sold as at a retail level (e.g. ‘hard’ or ‘mild’), and its chemical composition.

Among the most harmful myths were claims that kush contains fentanyl, phencyclidine (PCP), methamphetamine and tramadol. None of these chemicals was detected in the kush samples tested in the laboratory, or in the larger number of samples tested with an FTIR spectrometer in Freetown. The laboratory testing methods used were capable of detecting even extremely small (concentrations of 0.5ng/ml or higher) quantities of tramadol,²¹ PCP and fentanyl.²² In practice, this means that none of these chemicals were present.

The second myth was that kush was fully fabricated in Sierra Leone, and with an ever-changing mix of chemicals. The testing shows that kush is strongly linked to international synthetic drug markets and has a highly consistent chemical composition.

Thirdly, Kush has been extensively rumoured to include human bones. The laboratory testing approaches used would not have detected the presence of substances found in human bones. However, ‘cooks’ interviewed did not cite human bones as part of the manufacturing process.²³



Over half of the kush samples from Freetown contained nitazenes, potent synthetic opioids comparable to, or stronger than fentanyl. *Photo: Supplied*

Local ‘cooking’ processes

‘Cooks’ and importers consulted for this research reported a high degree of consistency in key elements used in the local synthesis processes, colloquially referred to as ‘cooking’, as highlighted in Figure 2 below.²⁴

Cooks broadly reported that the steps in the synthesis process had also remained consistent since the beginning of the kush market, though some indicated the increased varieties. One cook said he originally made one type of kush and now made two.²⁵ Another reported being able to purchase ‘either a hard or mild [chemical you put on the marshmallow leaf]’.²⁶ These statements might point to different active ingredients in kush, as evidenced by the testing. This is not conclusive, however, as it could also refer to the same chemical at different concentrations.

Some marshmallow leaf – legally used to make herbal teas – is imported without psychoactive compounds already added, according to cooks and distributors.²⁷ The prices quoted by importers of marshmallow leaf also support this analysis.

The use of acetone, the main chemical in nail varnish remover, is in line with the process required to transform synthetic cannabinoids into retail-ready kush. Acetone, a common solvent, is used to dissolve synthetic cannabinoids and spray them onto organic matter because it evaporates quickly.

The use of formalin suggests that some of the MDMB-4en-PINACA is imported as disaggregated precursors and then synthesized in Sierra Leone (formalin is required as part of the synthesis process).²⁸ Importing MDMB-4en-PINACA in the form of precursors makes detection even more complicated. The synthesis process required to combine precursors into MDMB-4en-PINACA is not complex and does not require sophisticated equipment. In other drug markets where MDMB-4en-PINACA is common, such as Mauritius, imports are exclusively of precursors, in an effort to avoid detection.²⁹

Nitazenes can also be synthesized in a few steps from precursors.³⁰ The steps commonly used by cooks in retail markets to transform powdered nitazenes into a liquid that can be sprayed on leaves are less well known, as nitazenes have been prominent for less time. However, according to forensic scientists, formalin and acetone could be used to dissolve nitazenes and affix them to leaves, in a similar way to the process used for MDMB-4en-PINACA.³¹

	NAME OF COMPONENT	PURPOSE AS STATED BY COOKS	UNDERSTOOD PURPOSE WITHIN SYNTHESIS PROCESS	SOURCE
1	Marshmallow leaf	To enable smoking. Two cooks specifically noted the leaf did not contribute to the ‘high’	Enables smoking	Imported. Either purchased online and imported through courier service, or imported through the maritime port ³²
2	Nail varnish remover	Adds to the ‘high’ or ‘binds the components’	Acetone is used to dilute cannabinoids, and possibly nitazenes, and fix them to the leaf	Local shops
3	‘Chemical spray’/ powder	Main ingredient creating ‘high’	Believed to contain the synthetic cannabinoid precursor INACA or nitazenes	Purchased online and imported by courier services by air, or through the maritime port. Websites cited as points of purchase include Alibaba and madeinchina.com
4	Formalin	Gives the sweet taste	Part of synthesis process	From local hospitals/mortuaries

FIGURE 2 Core reported components of kush.

In addition to the components listed in Figure 2, some cooks reported using tramadol injections and antibiotic eye drops (reportedly composed of Chloramphenicol ophthalmic preparations, commonly used to treat eye infections). Both were reportedly procured from pharmacies or smuggled over the land border with Guinea. Neither the tramadol nor the eye drops were detected in the testing, and their purpose is unclear.

Variations in local synthesis processes have probably contributed to the harms of the kush market. Less experienced cooks, or cooks adapting to new psychoactive ingredients, are likely to make mistakes in the concentrations used, resulting in deadlier kush.³³ This explains why, when local synthesis of a new psychoactive substance begins in a new retail market, it typically triggers a spike in fatalities and broader health implications.³⁴ When the substance can easily result in fatal overdoses, as in the case of nitazenes, even small mistakes in concentrations can have deadly implications.

‘Brilliant students end up on my slab. Kush kills and deaths are on the increase.’

– SENIOR MEDICAL EXAMINER IN FREETOWN, JUNE 2024

Health effects of kush

Nitazenes and the synthetic cannabinoids in kush are extremely addictive, driving ever-greater consumption. PWUD widely reported needing to use increasing amounts of kush, particularly from 2022 onwards, and reported overdoses believed to be related to kush have significantly increased since 2022.³⁵

A senior medical examiner in Freetown reported conducting three to four autopsies a week since early 2023 on corpses demonstrating pathologies consistent with kush use.³⁶ These pathologies primarily consist of foaming at the nose and mouth,³⁷ aspiration of gastric contents (in some cases leading to asphyxiation and constituting the cause of death),³⁸ pulmonary oedema, and ulceration of the stomach and small intestine.³⁹ All pathologies are consistent with opioid overdoses,⁴⁰ although the lack of detailed toxicology data makes conclusive confirmation of cause of death difficult.⁴¹ It seems likely that nitazenes are the largest cause of overdoses, since cannabinoids such as MDMB-4en-PINACA more rarely lead to an overdose. A wide range of health complications associated with kush use include skin lesions, sores and significant limb swelling. These symptoms became widespread from 2022⁴² and escalated dramatically in 2023.⁴³ Most kush users will be unknowingly using nitazene and MDMB-4en-PINACA varieties, and fatalities may be triggered by a combination of psychoactive compounds and their effects. Many fatalities also appear indirectly linked to kush consumption, as PWUD stop eating and start experiencing health complications.

PWUD interviewed reported knowing, on average, between two and four individuals who they believed had died from kush use between December 2023 and June 2024. However, in some cases this figure was much higher, with PWUD reporting knowing 20–50 individuals who had died since March 2023.⁴⁴ From 2022 onwards, bodies have been placed in the street by those who own large kush-use places, and picked up by the authorities early in the morning.⁴⁵ At least two group cremations have occurred, pointing to excessive pressure on mortuary systems.⁴⁶ Fatalities related to kush are perceived to have decreased in the second quarter of 2024, although consumption remains high.⁴⁷ A drop in fatalities would mirror the evolution of many synthetic drugs markets, where deaths spike following the start of local synthesis and arrival of new chemical compounds (here likely nitazenes), as cooks make mistakes and PWUD are not used to the new composition of the drug. With time, as cooks become more experienced, and PWUD build tolerance to new chemical compositions, deaths decrease.⁴⁸



THE EVOLUTION OF WEST AFRICA'S KUSH MARKET

Drug use in Sierra Leone has long antecedents. During the presidency of Siaka Stevens in the 1970s and 1980s, the *potes* (youth hangout spaces) were prominent places of consumption of *poyo* (palm wine), *omoly* (a gin) and cannabis.⁴⁹ Previously, drug consumption played a role in Sierra Leone's secret societies in urban areas.⁵⁰ The 1991–2002 civil war, which was sparked by a separatist and agrarian revolutionary movement, became increasingly brutal and involved the large-scale distribution of drugs such as crack cocaine, cannabis and heroin to combatants.⁵¹

After the war, the most popular drug remained locally grown, low-potency cannabis. But one of the legacies of the conflict was a lasting role in society for new drugs.⁵² Crack cocaine remained popular among higher-level ex-combatants.⁵³ Additionally, wartime trade networks and a search for new livelihoods by ex-combatants, former Economic Community of West African States Monitoring Group commanders and political entrepreneurs spurred some to find employment as part of the trade in cocaine bound for Europe.

After the war, the illicit emergence of the painkiller tramadol in 2008 was a key milestone in Sierra Leone's drug markets. Tramadol quickly became popular with heroin users and individuals who were new to drugs. The strength and low price of tramadol shaped its popularity. In 2016, the Pharmacy Board of Sierra Leone declared tramadol abuse a national health emergency and regulation of the drug increased, as did law enforcement pressure.⁵⁴ Prices rose sharply and some tramadol users switched to kush, which was at the early stages of market penetration.⁵⁵ The new wave of synthetic drugs available on retail drug markets also included Ecstasy, amphetamines and methamphetamines.⁵⁶

Kush expands across Sierra Leone's drug markets

Reports of kush use and distribution date back to 2016–2017. Evidence of the first big actor comes from 2017, when a Nigerian (henceforth Mr OM) who had allegedly been deported from the UK started importing wholesale consignments that he distributed across Freetown.⁵⁷ Mr OM's main 'lock', known as Silver (now deceased), ran a team of mid-level dealers and distributors.⁵⁸ A number of these individuals are allegedly UK deportees.⁵⁹

Initially, the most common type of kush appears to have been K2, probably a synthetic cannabinoid⁶⁰ and one of the mild varieties.⁶¹ By 2019, more varieties were available, including what appear to have

been more potent variants.⁶² By 2019, some kush contained the synthetic cannabinoid MDMB-4en-PINACA, as evidenced by laboratory testing of a consignment seized at the airport. Between 2017 and 2019–2020, individuals involved in the market say demand was low, with distributors ‘pushing and pushing’ for customers.⁶³

During that time a second group started operating (referred to as ‘Group 2’ in this report) albeit potentially receiving kush from Mr OM.

The first change

In 2020, the kush market surged, and suddenly the country had a more popular drug than cannabis. Kush’s low price and highly addictive composition contributed to a rapid escalation in consumption. This fuelled growing public concern. At this time, it is likely that most kush was imported in preprocessed form (i.e., with the precursors already synthesized and added to the leaf). A sample of leaves believed to be kush seized in 2021 at the maritime port had synthetic cannabinoids (AB-CHMINACA and weaker traces of MDMB-4en-PINACA) already on the leaf.⁶⁴ Local synthesis was not widely reported at this time. In 2020–2021, two individuals working in partnership seized control of a group operating around Eastern Police (Freetown), established a network of mid-level distributors and dealers,⁶⁵ and strongly accelerated the growth of the operation and the broader market (the group led by this duo is termed here ‘Group 2’).⁶⁶ As the partnership had family ties to some politicians, the group had a degree of protection that allowed operations to grow.⁶⁷

A double change: local synthesis and the entry of nitazenes?

By late 2022 the kush market became bigger, more potent and deadlier. From that period, more deaths and serious health effects believed to be linked to kush were reported. PWUD and residents of Freetown, including those living on the streets, reported people dying on the street, bodies being picked up early in the morning in areas frequented by kush users, and an increase in sores and other health symptoms.⁶⁸ Admissions at the Kissy Psychiatric Hospital for PWUD soared.⁶⁹ PWUD appeared increasingly knocked out by kush, with ‘nodding’ (where PWUD appear almost asleep as they stand and nod their heads) becoming increasingly visible.⁷⁰

In addition, overdoses believed to be related to kush started being reported by civil society organizations working with PWUD⁷¹ and victims started to appear at medical facilities.⁷² A Freetown pathologist said autopsy findings believed to be kush-related were consistent with opioid overdoses, though the lack of detailed toxicology data means the causes of deaths remain unconfirmed.⁷³

There were two key reasons for this change. First, large-scale local synthesis started, bringing a new potency to the kush on the market.⁷⁴ Shifting towards imports of precursors – and not the synthesized retail-ready drug – is common in the evolution of synthetic drug markets. The surge in local production appears to have been spearheaded by Group 2, which started mixing the psychoactive substance with the leaves in country, likely because it increased profit margins and helped evade detection.

The evolving structure of Group 2 also played a role in fuelling fragmented local synthesis. Friction among the group’s many mid-level actors led to some breaking away and starting their own businesses, giving local production extra impetus.⁷⁵ Some started with local synthesis, facilitated by the substantial profits they had amassed, the procurement sources they had learnt of and/or their experience in mixing for Group 2.⁷⁶ Others started to procure from local chemists who had either worked for Group 2 or who could replicate its model.⁷⁷ This not only expanded local production but introduced several new

actors. The advent of large-scale local production probably led to harmful effects; new cooks often make mistakes, which mean their products have greater potency and more potential to cause harm.

The second key reason for the surge in deaths was probably the change in kush's composition as nitazenes were introduced.⁷⁸ The timing mirrors the material expansion of nitazenes to European retail markets.

On 4 April 2024, President Bio declared drug abuse a national emergency, mainly due to the devastating impacts of kush. A subsequent surge of law enforcement activity drove the kush market more underground and contributed to a (temporary) increase in retail prices.⁷⁹ However, the size of the market remained relatively stable, with imports, synthesis and consumption largely unaffected, and death rates continued to climb.⁸⁰

By late 2024, consumption of kush remained widespread. The scope, scale and impact of the kush market is unprecedented in Sierra Leone. While reliable comprehensive data on citizens' drug consumption is not available, key informant interviews and survey respondents unanimously report that kush consumption levels far exceed those of any other drug in the country's post-conflict history. Interviews with PWUD in Freetown indicate that many did not use drugs before using kush, supporting assessments that kush drove significant expansion of overall drug consumption.⁸¹ Fatalities linked to kush are perceived to have decreased since the second quarter of 2024, but the broader harms of the kush market remain extremely high.⁸²

Kush spreads across West Africa

Since 2021, kush has spread across the subregion into Liberia, Guinea, Guinea-Bissau, the Gambia and, to a lesser extent, Senegal and Ghana. The speed at which it has penetrated retail markets is indicative of the problems that are likely to beset countries across West Africa. The severity of kush's associated harms should serve as a wake-up call to governments.

The kush markets in Liberia, Guinea and the Gambia have evolved similarly to Sierra Leone's and become a national concern.⁸³ Kush (originally of only one variety) became widely consumed in Liberia and Guinea

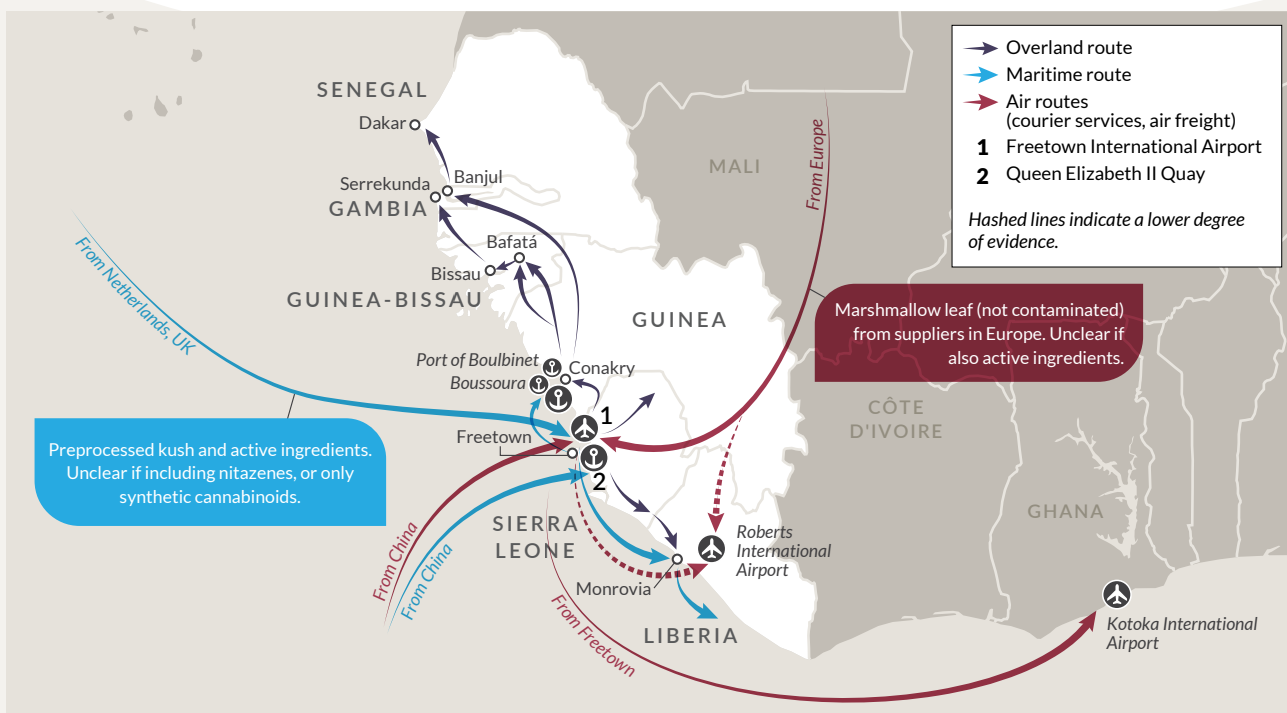


FIGURE 3 Regional trafficking routes for kush.

in 2021, a year after consumption surged in Sierra Leone.⁸⁴ By 2024, two varieties – hard ('flamme' in Guinea and 'hasty' in Liberia) and mild ('prod' in Guinea and 'trip' in Liberia) – were widely available.⁸⁵

In both countries, deaths related to kush started in 2022 and increased throughout 2023.⁸⁶ Deaths believed to be linked to kush use have also been widely reported in the Gambia. In Guinea-Bissau, kush consumption has remained more limited and deaths have not been widely reported.⁸⁷

Sierra Leone remains the centre of the kush trade. Across the subregion, kush is believed to be largely imported from Sierra Leone (by sea through informal wharves, and by land using official and unofficial border crossings).⁸⁸ Sometimes cannabis smuggling lines are transformed into kush lines.⁸⁹ Seizures of kush at Liberia's international airport point to the use of courier services in imports beyond Sierra Leone, and this is likely to be happening elsewhere in the subregion but going undetected.⁹⁰

Across the region, Sierra Leoneans are prominent as importers and dealers.⁹¹ Illustratively, two Sierra Leonean dealers interviewed for this study had set up distribution points in Liberia.⁹² Women, particularly Sierra Leoneans, are prominent in the cross-border kush trade (reflecting their large role generally in cross-border trade).⁹³ Their involvement includes importing kush overland and concealing kush consignments offloaded from boats at informal wharves amid licit wares.⁹⁴

While we are not aware of reliable laboratory testing data for kush outside Sierra Leone, many data points indicate that kush has a similar chemical composition across the subregion.⁹⁵ First, FTIR spectrometer test results for kush in Bissau – which included secondary testing of nitazenes with nitazene strips – mirror findings in Freetown.⁹⁶ Second, there is a strong overlap in market characteristics such as PWUD reports, pathologies reported in overdose deaths, evolution and impacts in markets, and reported links to Sierra Leone.

In short, the kush emergency is not just one country's problem. It is a fast-growing threat that already affects at least six other West African countries and is likely to spread further if urgent action is not taken. Nitazene-kush should also serve as a warning that the global challenge of deadly synthetic opioids has reached West Africa, and kush might be only one among a new generation of extremely potent synthetic opioids targeting consumers across the region.

Other types of drugs

Sierra Leone's cannabis market, once well-organized and protected, with its own distribution and retail networks, has shrunk significantly since the surge in kush use. Many cannabis users have turned to kush, which is more potent and does not smell as strong. Domestic cultivation has fallen sharply and the cannabis that remains is often exported. This decline has reportedly driven some former cannabis kingpins to move into the kush market.

Alongside kush, a growing variety of synthetic drugs are available. PWUD and actors in the market point to the increased availability of Ecstasy, amphetamines and methamphetamines. They also report the presence of PCP, although this was not detected by testing conducted for this research. Interceptions at the maritime port have reportedly seized these substances with kush, indicating some instances of crossover.

Sierra Leone is also an important transit point for cocaine cultivated in Latin America and trafficked towards consumption markets in Europe.

Over the last five years, in line with regional trends, increased volumes of cocaine have transited the country on their way from Latin America towards Europe. This is reflected in the easy availability on retail markets of cocaine in powder and crack form, even though it is expensive for many Sierra Leoneans. ■



KUSH SUPPLY LINES AND THE INTERNATIONAL CONNECTIONS

The active ingredients in kush – synthetic cannabinoids and nitazenes – are complex to manufacture and require specialized equipment.⁹⁷ Neither Sierra Leone nor other countries in West Africa have the capacity to produce these substances domestically. Therefore, the active ingredients in kush are probably imported into Sierra Leone.⁹⁸ But from where?

This research points to China, the UK and the Netherlands as the key exporters of kush and its active ingredients to Sierra Leone. Questions remain about how the distinct nitazene and MDMB-4en-PINACA supply chains work, and to what extent they are differentiated. However, the broad brush strokes of the market are clear.

Looking at Europe, exports of preprocessed kush and kush components, mostly by sea, are reportedly from the UK⁹⁹ and the Netherlands.¹⁰⁰ Interviews consistently identified the UK as the first major point of origin for kush. The role of Mr OM, allegedly a UK deportee, in establishing the market supports reported links to the UK (further detailed later in this report). This strongly indicates that the original kush – which was almost certainly synthetic cannabinoid-kush – was imported from the UK. The large seizure of kush from the Netherlands in 2024 supports reports of a significant inflow from that country. Testing data from this seizure detected preprocessed synthetic cannabinoid-kush, with MDMB-4en-PINACA already added to the leaves, as examined further below.¹⁰¹

While synthetic cannabinoid kush originates and/or transits from Europe, it is not clear whether nitazene-kush also originates or transits in European countries. Although one of the three port samples tested contained nitazenes, it may have been cross-contaminated during storage, casting doubt on the quality of testing evidence for maritime nitazene-kush imports.¹⁰² Interviews with higher-level actors in the kush market suggested different varieties of kush are imported from the UK through the Queen Elizabeth II Quay.

For example, one large-scale distributor reported regularly purchasing barrels of 'hard' and 'mild' preprocessed kush from an importer. He emphasized that the importer sold the kush without any need for local mixing processes. The two varieties referred to could align with nitazene-kush and synthetic cannabinoid-kush, although they could also refer to two preprocessed versions with the same baseline chemical, but at different concentrations. The distributor identified the import origin as the UK.¹⁰³ By contrast, the Netherlands has been identified as an exporting country for nitazenes in Mauritius,

supporting the hypothesis that the country may operate as a point of origin or transit for nitazenes.¹⁰⁴ The matching timelines of nitazene market evolution in Sierra Leone and Europe could also suggest supply chain links between the markets. Further research is required to conclusively prove whether nitazene imports from European countries are occurring.

Turning to China as a point of origin, importers and cooks repeatedly reported purchasing the active ingredients in kush via courier services from suppliers in China. These cooks reported making two varieties of kush.¹⁰⁵ This and the global context outlined below – which underscores the role of China as a major manufacturer of nitazenes and MDMB-4en-PINACA – indicates that significant amounts of the active ingredients in kush are sourced from China.



A container ship docked at Queen Elizabeth II Quay in Freetown, Sierra Leone's main commercial port, a key entry point for preprocessed kush and its ingredients. *Photo: Guy Peterson*

Nitazenes: the global landscape

Nitazenes stand out among the evolving landscape of synthetic drugs for their potency – up to 25 times stronger than fentanyl – and because they commonly contaminate other drug supply chains, such as heroin and occasionally cannabis products. This means PWUD do not know what they are consuming and how risky it is.

According to the European Union Drugs Agency (EUDA), the main producers of nitazenes are China and India, with Russia playing a lesser role.¹⁰⁶ In the UK and US, most nitazenes are believed to be purchased online from Chinese suppliers and imported via courier services.¹⁰⁷ Although a 2024 investigation in the Netherlands suggested possible manufacturing capacity in the UK,¹⁰⁸ British authorities say this is not the case.¹⁰⁹

Nitazenes started being linked to a material number of overdose deaths in the US, and were first detected by the EU early warning system in 2019.¹¹⁰ Since then, their presence has expanded to South America, Asia and Oceania, with global detections and overdose incidents rising sharply.¹¹¹

In Europe, including the UK,¹¹² overdose deaths linked to nitazenes surged in 2022 and 2023. Nitazenes became a priority drug in many countries and a leading cause of drug overdoses. For example, nitazenes were detected in 48% of drug deaths in Estonia and 29% in Latvia in 2023.¹¹³

The variety of nitazenes detected globally has increased rapidly, outpacing fentanyl analogues in Europe. Protonitazene, the main nitazene detected in Sierra Leone's kush, is common elsewhere, including the UK,¹¹⁴ the US¹¹⁵ and Canada.¹¹⁶ Metonitazene,¹¹⁷ the second most common nitazene found in kush, is less prominent but has also been detected elsewhere, including in the UK, the US, Canada and Mauritius.¹¹⁸ Some nitazenes are listed under the UN's 1961 Single Convention on Narcotic Drugs, but many newer formulations are not regulated.¹¹⁹ In Sierra Leone, no nitazenes are scheduled in national legislation.¹²⁰

MDMB-4en-PINACA: the global landscape

The synthetic cannabinoid found in kush – MDMB-4en-PINACA – is often sprayed onto leaves or impregnated into paper for smoking. Growing detections triggered global concern from 2020, and the following year it was scheduled under the UN's 1971 Convention on Psychotropic Substances, a move subsequently emulated by most European countries, the US and some African nations.¹²¹ MDMB-4en-PINACA remains unscheduled in Sierra Leone.¹²²

Since it was first detected in Europe in 2017, MDMB-4en-PINACA has surged in prevalence.¹²³ By 2021 it was the most identified synthetic cannabinoid in Europe¹²⁴ and prominent in the Netherlands and in the UK, where it is commonly known as 'spice' and has been linked to several deaths. MDMB-4en-PINACA is also prominent in some African markets. Since 2020 it has been detected in 'la chimique', the most widely consumed drug in the Indian Ocean islands, and by 2024 it was the active ingredient in all tested samples of the drug in Mauritius.¹²⁵

MDMB-4en-PINACA is believed to be imported via postal services from China, where it is widely manufactured.¹²⁶ Growing pressure on MDMB-4en-PINACA manufacture in China, as part of a wider crackdown on synthetic cannabinoids, has contributed to an uptick in the export of precursors (MDMB-INACA, potassium carbonate, 5-Bromo-1-pentene and N,N-Dimethylformamide) which can be easily mixed to form MDMB-4en-PINACA.¹²⁷

The kush supply chain to Sierra Leone: maritime and air routes

Kush and chemical components enter Sierra Leone by sea (mainly through the port) and by air. Queen Elizabeth II Quay is an important entry point for kush, particularly for preprocessed imports which require larger volumes.¹²⁸ Seizures at the quay peaked in 2021 and mostly involved consignments of organic matter (between two kilograms and 60 kilograms) concealed in personal possessions.¹²⁹ Larger shipments may have evaded detection due to better protection.

From 2021, predating the change in the market, seizures began of components suspected to be used in kush production, such as weighing scales and chemicals.¹³⁰ However, preprocessed imports continued, as shown by testing of leaf samples seized at the maritime port in 2022.¹³¹ A notable 2024 seizure at the port involved a March shipment from Rotterdam containing an estimated 300 kg of organic matter concealed among personal effects¹³² – far exceeding any previous seizures. As noted above, testing found a leaf sample reportedly from this seizure to contain MDMB-4en-PINACA. Several seized bags of organic matter were labelled as 'mullein leaves, Verbascum thapsus', a plant used for oils and teas, and bore the branding of a superfood company established in Greece.¹³³ There is no evidence of the company's involvement in illicit activities, suggesting professionalism and organization among the exporting network in replicating or being able to reseal packaging. Alongside these bags were plastic bottles labelled as flavours of 'slushsiroop' from a Dutch factory.



FIGURE 4 International trafficking routes of kush to Sierra Leone.

A second route, according to importers, cooks and other actors close to the kush market, is the airport. Kush components, notably the active ingredients and the marshmallow leaf, arrive there via international courier services.¹³⁴ Seizures at the airport, though limited, have been from courier services rather than passengers.¹³⁵ Active ingredients, and even more so their precursors, are harder to detect than preprocessed kush, and smaller quantities are required. A switch to importing disaggregated precursors is in line with the common evolution of synthetic drug markets, as it maximizes profits and complicates detection.¹³⁶

Importers said they bought marshmallow leaves mainly from suppliers who posted products from Europe, where the ingredient is commonly available from health food and tea companies with an online presence. By contrast, importers reported purchasing ‘chemical flavour spray’ – believed to contain the psychoactive ingredients – on Chinese websites, citing Alibaba and Made in China.¹³⁷

Importers and cooks were clear that the ‘chemical’ (reported as a spray and as a powder) was key to creating the ‘high’ in kush, supporting assessments that it includes the psychoactive ingredients.¹³⁸ Actors close to the market and involved in imports often cited the ‘chemical spray’ being sold as a type of mechanical lubricant – matching how MDMB-4en-PINACA precursors are being packaged for import into Mauritius via air postal courier deliveries from the same websites, most prominently Alibaba.¹³⁹ From these entry points, ingredients are sent to synthesis laboratories mainly in Freetown but also elsewhere in Sierra Leone, with retail-ready products distributed regionally via land and sea.¹⁴⁰



People using drugs in a coastal area of Freetown, May 2024. The rise of kush has deepened West Africa’s drug crisis, fuelling serious health concerns. *Photo: Guy Peterson*



MAPPING THE MARKET

The dual change in 2022 (mid-level distributors starting independent businesses and local synthesis) has fragmented the market, a process further advanced by the availability of kush's psychoactive ingredients on online platforms. This means the kush market has lower barriers to entry compared with traditional plant-based drug markets, a characteristic of synthetic drug markets elsewhere.¹⁴¹ The implication is that it will become increasingly difficult to dismantle the kush market because it requires more than going after large organized crime groups or closing specific supply lines.

At the same time, the steps between the owner of a kush business and the consumer point to bottlenecks that could constrain the market's expansion. These are principally access to capital and embeddedness within Sierra Leone's socio-political structures, including connections to localized forms of protection. The need for capital and connections has favoured a small number of large-scale operators, many of whom were established criminal groups. However, this has been complemented by a surge of smaller new players.

'A chain work'

Figure 5 provides a simplified view of the structure of Sierra Leone's kush market since 2022, focusing on six roles: owners, 'the lock', cooks, distributors, retailers and PWUD. Some of these roles can overlap. There are owners who also distribute, retailers who are also owners, and PWUD who are retailers and distributors (many people in the kush market are also PWUD).

The decentralized structure and the presence of old and established criminal players have led to significant variation in the share of the market captured by individuals in specific roles. Some have captured large market shares (e.g., an owner who is responsible for a large part of the national market) while others can be quite small (e.g., an owner who organizes a one-off shipment of a kilogram of kush). Despite such contrasts, the kush market seems to be well networked. As one distributor and former owner of a shipping and clearing company noted: 'You don't know who is behind who [...] kush business is a chain work.'¹⁴²

There is limited overlap between actors at the highest levels of the market – owners and importers – and with other drug markets. Indeed, some high-level cocaine importers report avoiding the kush market, viewing it not only as bad for business (because it attracts attention) but also as immoral.¹⁴³

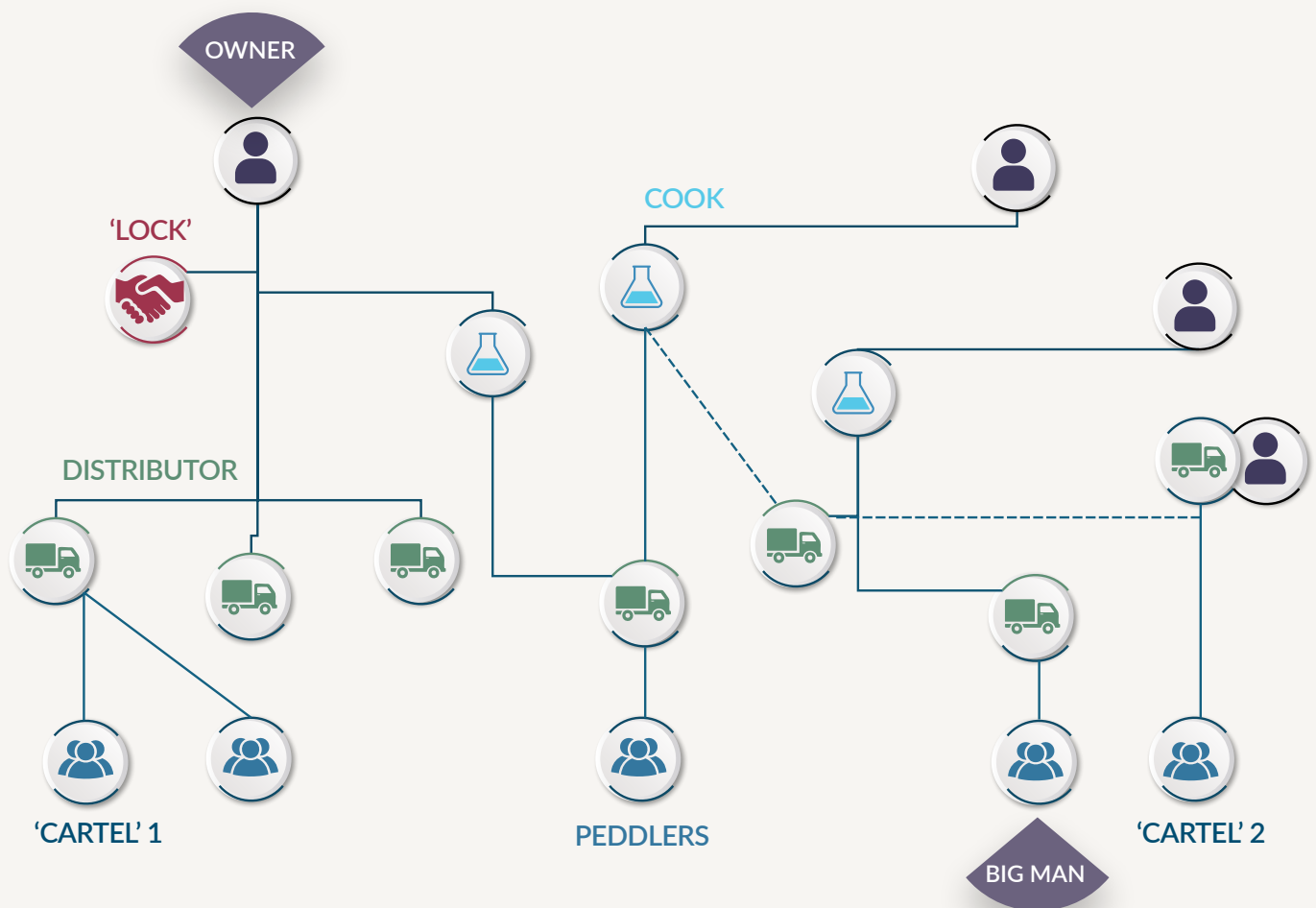


FIGURE 5 Schematic structure of Sierra Leone's kush market since 2022.

NOTE: In Sierra Leone, 'cartels' refer to the largest drug-using spaces, typically run by a specific actor or network.

Overlap increases at lower levels in the market, including distribution, with several longstanding drug wholesalers merely adding kush to their offering. However, as highlighted below, the kush market is also populated by new entrants at each step of the hierarchy, resulting in an overall expansion of the number of actors in Sierra Leone's drug markets.

The market is led by owners, who operate as financiers and often organize imports (even if they do not execute the process themselves). Owners typically have access to three types of resources:

- Finance to buy active ingredients or preprocessed kush. There are examples of multiple people who pool resources to buy chemicals to produce kush as a team, either in a one-off deal or as a stable consortium.¹⁴⁴
- An ability to ensure some form of protection, either at the local level to protect synthesis or at points of entry to safeguard imports.¹⁴⁵
- An international connection to import preprocessed kush. For those who import chemical components, such a connection is not needed as nothing is required other than a working internet connection, trust in those introducing websites and confidence in the website selling the active ingredients.

Depending on the size of the operation there is a 'lock', who is a shield between the owner and the day-to-day operation. A mid-level distributor explained that the lock (sometimes called 'interface') will usually

have a personal connection to the financier but will be under severe pressure to protect the owner's identity. All examples of larger groups emerging in this research involved only one lock per organization. The entry of new players to the market may mean some operate without a lock and organize procurement and import on their own.

The move to local synthesis has generated a new layer of actors, the cooks. Those connected to the larger operations tend to have basic chemical knowledge (an investigation of one cook found that he was a chemist who had received education abroad) but this is not always the case. Combining MDMB-4en-PINACA precursors and using acetone as a solvent are simple tasks not requiring specialist expertise or extensive equipment.

Reflecting this, many cooks report using basic materials in the synthesis process: a pot, a cloth, a mask, gloves, some plastic squeeze bottles (such as hand-soap dispensers) and an open window for ventilation.¹⁴⁶ Seized equipment believed by law enforcement to be used in the kush synthesis process would point to the existence of more sophisticated laboratories able to produce synthetic drugs in bulk (at least 50 kilograms per month). However, some of the equipment seized seemed more consistent with the manufacture of methamphetamine. Consequently, it remains unclear whether the equipment seized was used only for kush manufacturing.¹⁴⁷

Regardless of equipment used, cooks do require a knowledge of the required recipe and the steps. Cooks can, however, learn on the job. One noted: 'I was trained by my boss to make the substance.'¹⁴⁸ The process of transforming nitazenes into retail-ready kush is less clear than for PINACA-kush, but forensic laboratory experts say it does not appear to require specialist equipment or expertise and may be similar to that for producing PINACA-kush, using formalin and acetone.¹⁴⁹

The number of cooks is likely to be small and potentially a bottleneck in the market. One piece of evidence comes from the owner of one of the largest drug-using spaces (known locally as 'cartels', and referred to from here on as 'cartels') in western Freetown, who operated independently and bought directly from the cook, who said he knew of only 15 cooks in this part of the city.¹⁵⁰ In different parts of town the name of the same cook often came up. Across the research it proved hard to obtain names of cooks.¹⁵¹ However, others within the business pointed to far larger numbers – for example 50 in the west of Freetown alone.¹⁵² Smaller numbers may relate to more professionalized cooks working with larger networks and producing in bulk, in parallel to a larger group of smaller cooks.

Research also found many examples of people with money and operating in the business for some time claiming they tried to cook themselves but struggled with the recipe and decided to play different roles.¹⁵³ A final piece of evidence is that research was able to observe processes at all levels of the market except synthesis by cooks. Sources said their high earnings make cooks reluctant to risk detection or reveal their production sites, to protect their ingredients and recipes. Even for mid-level distributors, it is uncommon to set foot in cooking facilities or know the detailed chemical composition of kush.¹⁵⁴ This supports the understanding of the cook as a more consolidated node in the market, with fewer people having the required skills or – crucially – knowing the recipe.

It is at the level of distributors that the market becomes increasingly complex and crowded because of the larger numbers, the wide range in kush volumes handled and the complex interlinkages. There are an estimated 30–50 large distributors who regularly trade in quantities of 250 grams, 500 grams

and 1 kilogram – known as ‘quarters’, ‘halves’ and ‘one’.¹⁵⁵ They tend to sell to medium and small distributors who trade in anything between 250 grams and 28 grams (the latter being an ounce, sold as ‘balls’, and worth about SLL7.5 million or US\$265–US\$331). There are countless medium and small distributors for whom trade tends to happen in grams, and some carry a small scale.

A notable characteristic of the big distributors is their interlinked trade. Most know each other well and tend to trade with one another, presumably as kush supply lines are not fixed but depend on which cook has product and which lock or distributor has access to preprocessed kush. Hence, depending on personal connections and available cash, top distributors can buy in bulk at one moment but trade ‘quarters’ the next. An indicative example is one big distributor who ran out of supply during the research. Rather than actively looking for product, he simply ‘spread the word’ and waited. In the next two days, word came back that little kush in quantity was available on the market. Instead, various small samples were offered (and tested) until a larger quantity of quality kush was offered, putting business back on track.

Retailers cut the ‘ounces’ of kush (and even smaller packages for small retailers) with scissors into tiny pieces, each wrapped individually in a piece of paper before being sold for consumption. The retail market is crowded and disparate with ‘cartels’, peddlers and – for lack of a better term – ‘big men’.

At the top of the retail pyramid are owners of so-called ‘cartels’. As mentioned above, in Sierra Leone the word indicates large places where kush or other drugs can be taken. Some ‘cartels’ can host 50–100 users, some owners have many ‘cartels’, and some ‘cartels’ tend to have relatively fixed supply lines, ultimately working for one owner (e.g., some ‘cartels’ can be traced to the big networks referenced in this report). Several ‘cartel’ owners have been in the drug business for many years. ‘Cartels’ have a social function for marginalized people and are safe places for consumption because of local protection.



Kush users seek safe spaces to consume the drug, often in ‘cartels’ or makeshift shelters. *Photo: Guy Peterson*

Distribution can also take place through crews of peddlers who sell directly on the streets to PWUD, but in some instances peddler crews seem to operate as runners and distribute kush from large distributors to small consumption areas, in addition to making direct street sales.¹⁵⁶ Hence, some work directly for a top- or mid-level distributor while others operate independently. Peddler crews overlap with defunct gang structures.

The largest retail channel for kush encompasses the small, local consumption places owned by a 'big man'. These venues can host between five and 20 people, sometimes in a home, and there are hundreds in Freetown. Their owners tend to be people who hold a position in the community that they can leverage to ensure a degree of protection for PWUD and themselves. The 'big men' are a diverse group, including former gangsters, criminals, bodyguards to politicians, returned refugees, community elders, women who were previously running small restaurants or people with other small businesses. The key characteristics of this retail channel is that it is run by people deeply embedded in communities and with personal connections to those with power in the community to ensure protection.

Finally, there are the people who use kush. They represent all demographics but are most often young and male.¹⁵⁷ Most kush users report using as much as they can purchase in a day, averaging between two and six hits but going as high as 20. Expenditure on kush in a single day hovered around SLL30–SLL75 in June 2024 (when prices were higher due to the crackdown, meaning SLL15–SLL25 at previous prices), and far exceeded this in some cases. PWUD reported using growing amounts of kush over time and increasingly chasing a stronger high.¹⁵⁸

A significant insight is the codependent relationship between PWUD and retailers. PWUD need retailers who can ensure a degree of protection from law enforcement, but they also seek forms of social protection and care from retailers. Some 'cartel' owners take care of sick PWUD by providing medicine, paying for medical care or liaising with family members to support drug withdrawal treatment. In one instance, a 'cartel' owner was building a large structure to give PWUD – some of whom do not or cannot return home – a place to sleep. But retailers also depend on PWUD. Some refer to PWUD as 'fans'. The 'fans' provide a regular form of income, but the ability to influence them is also used as a point of leverage in negotiating with authorities, for example on reducing crime levels and keeping PWUD out of sight. In some instances, retailers use these networks to negotiate positions in the community, such as a position in (hybrid) governance bodies (for example transport regulatory bodies).¹⁵⁹

The kush value chain and profits

The low price of kush is a key driver of its fast expansion across consumer markets (alongside the addictive nature of the chemicals). As highlighted in Figure 6, the average price of a dose of kush (there are quality differences) remained stable at SLL5 (US\$0.2) between 2019 and 2021, increasing slightly from 2022 and significantly by January 2024 in response to the law enforcement crackdown, high inflation and the distance kush needs to be transported (e.g., kush is more expensive in the south of the country than in Freetown).¹⁶⁰ By July and November 2024, kush could be procured at the market at both low and high prices, suggesting increasing price differentials. It nevertheless remains cheaper than many other drugs on the market.¹⁶¹

Kush revenues can be significant. In 2022, sources said profits doubled at every step of the value chain, even at the small retail level, but data for this study suggests profit margins are smaller now.¹⁶²

Profits are concentrated towards the top of the hierarchy, at the levels of owners, cooks and large distributors. Small amounts of pure synthetic cannabinoid or nitazenes make large volumes of retail kush, meaning profits accumulate particularly at the nodes involved in converting active ingredients into retail-ready kush. Cooks sell kush for about SLL260 million (about US\$12 000) per kilogram to large distributors, but the costs of production and protection did not become clear through this research. One cook with a medium-sized operation reported making US\$12 000 a month in profit.¹⁶³

Importers are likely to achieve an even higher return on investment ratio, although it is equally difficult to establish. Importers reported purchasing the ‘chemical spray’ or powder believed to contain synthetic cannabinoids or their compounds, and potentially also nitazenes, for between US\$600 and US\$1 500 for a small bottle, US\$6 000 for 10 bottles (bottles are of unknown size) or between US\$11 000 to US\$13 000 for a litre.¹⁶⁴ One expert in synthetic cannabinoid markets noted that return on investment from converting synthetic cannabinoid precursors into retail products is often 10- to 15-fold, although margins vary.¹⁶⁵ Other GI-TOC research into synthetic cannabinoid markets found that return on investment at the conversion stage ranged between 20- and 40-fold.¹⁶⁶

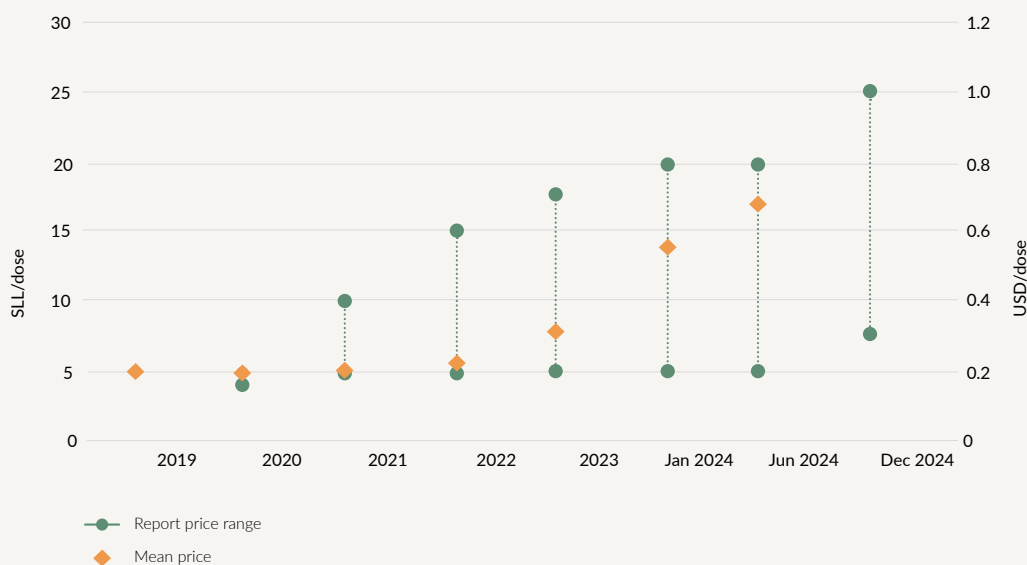


FIGURE 6 Retail price of kush in Sierra Leone, 2019–2024.

NOTE: The range of kush prices available on Freetown markets has significantly increased since June 2024. Prior to this, kush prices were so steady across the city that they appeared almost standardized. Growing variance in kush prices could be related to varying levels of protection across the market at different points in the hierarchy and fluctuating attempts to disrupt the market. By December 2024, the range was so significant that the authors did not have sufficient data points to include a representative average.

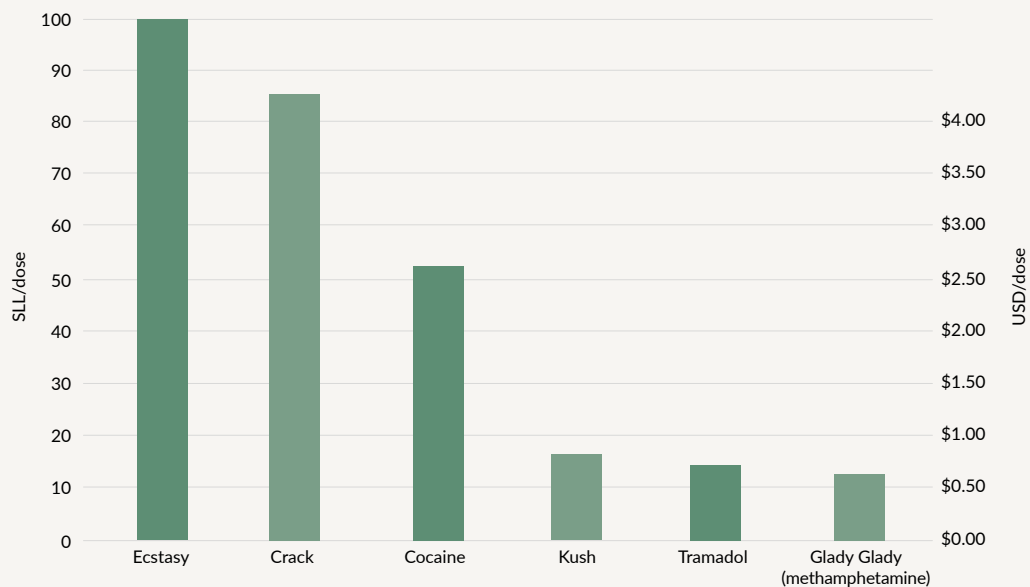


FIGURE 7 Retail drug prices in Freetown, June 2024.

NOTE: Price data was collected only on the drug that the PWUD was using at the time of collection, and for the drug sample submitted for testing. Testing verified that the drugs contained the chemical composition they were sold as. Some of the pricing is disparate to that reported by official sources and author experiences. Crack appearing to be more expensive is counterintuitive, given that it is typically of lower purity than cocaine. However, this has been noted in PWUD pricing obtained elsewhere in West Africa.

Among larger distributors, an individual consulted for this study made up to US\$50 000 a week in 2022, but profits went down in 2023 and 2024.¹⁶⁷ By late morning one day during the research, a large distributor had already made sales worth SLL65 million (US\$2 870).¹⁶⁸ A team of distributors pooling resources occasionally achieves a weekly turnover of US\$60 000.¹⁶⁹

At the lower levels, profit margins diminish. A small distributor said he sold about six ‘ounces’ a week leading to a profit of about US\$1 000 a month (vis-à-vis US\$100 per month for an unskilled but well-paid worker). Depending on connections (social proximity influences the price), an ounce costs SLL6 million–SLL7.5 million (US\$265–US\$331) and sells for about SLL9 million (US\$397).¹⁷⁰

Larger retailers and ‘cartel’ owners make higher profits but also have higher costs. One large ‘cartel’ owner made about US\$3 000 profit a week by turning over between one and two kilograms of kush that cost him about US\$12 000 per kilogram. From this amount he also had to pay staff (those who organize the ‘cartels’, on a regular monthly common salary of SLL1.2 million – or US\$50 – and provide food), distribute kush to associates and pay off police officers.¹⁷¹ A smaller ‘cartel’ owner said he made about US\$200 a week, while a smaller retailer said his weekly profit was only about US\$20. Overall, at these levels the price per gram (1 gram gives 50 shots) is between SLL200 000 and SLL250 000 (about US\$10).

The role of gangs in the kush market

The social background of owners and cooks is generally unconnected to the market for violence. Most are Sierra Leoneans from the diaspora, entrepreneurs, people with money and some form of education. Some actors have a criminal background, having been involved in the diamond and gold trades, robbing foreigners, producing cannabis and retailing drugs.¹⁷²

During the civil war, Sierra Leone had a 'shadow state' with an extractive economic system built on violence.¹⁷³ When peace came, many key gang commanders formed informal protective units, providing bodyguards and close protection to politicians and their parties.¹⁷⁴ Political parties also formed informal militias composed of low-ranking ex-combatants. During the 2010s, a gang scene emerged with three main groups (So So Black, Cent Coast Crips and Members of Blood).¹⁷⁵ What is the role of these actors, particularly the gangs, in the kush market?

Many distributors of all sizes have a connection to one of the three main gangs or 'cliques'. Some big distributors did not hold key positions in the cliques but were members, and their gang connections have been useful, particularly for protection. Among medium and small distributors, peddler crews and 'big man' retailers there is a high proportion of former gang leaders. For example, key big and medium distributors operating in Portee, Congo Water, Ojuku, Hastings, Aberdeen, Brookfields and Big Obassai hail from the cliques. Moreover, nearly all the well-known commanders in Freetown are involved in the kush trade.¹⁷⁶ One distributor and member of the largest 'hood' in the East said: 'The clique game brought us nothing. We were hustling, but now we found a new hustle that is paying off and generates real money. So many of us were killed. We don't do violence now, it is bad for business.'¹⁷⁷ Another argued that the kush business and the clique are not that different: 'The clique was ultimately about the money. Kush is the fastest business where money can be made.'¹⁷⁸

The retail level of the kush market also has a relationship with this market of violence. Most 'cartels' previously dealt in crack, cannabis and cocaine. Some are owned and run by ex-combatant commanders, while others employ ex-combatants and gang outfits for protection. In western Freetown, the largest 'cartels' are owned by a serial businessman but protected by a party militia leader. Some networks are directly owned by providers of violence; a large network in Aberdeen is owned by a notorious gangster from the diaspora. Two of the four main networks in the eastern city of Kenema are owned by individuals from the market for violence (one a former soldier, another a party militia leader).

'Big men', who own small consumption spaces, and peddler crews also have a connection to the market for violence. Various 'big men' are former clique members and some peddlers have a link with the gangs. Former gang leaders also play a role in mediating the market. For example, during our research, a low-level distributor from Regent was duped into buying kush with few psychoactive ingredients and damaging health effects. A gangster was then asked to 'convince' the seller to return his money.¹⁷⁹

A significant proportion of the lower echelons of the kush market therefore consists of actors central to the market for violence. To some extent, this has provided an alternative livelihood after political patronage subsided. While violence is not part of the kush business, the overlap with the market for violence is potentially dangerous.

'We don't do violence now, it is bad for business'

- KUSH DISTRIBUTOR, JULY 2024

Competition in the kush market: quality, quality and quality

The strong role of cliques in retail and distribution, and their previous territoriality, means there is a potential danger that competition between kush dealers will turn into turf battles.¹⁸⁰ Until 2020, Sierra Leonean gangs were strongly territorial and fought one another for turf.¹⁸¹

However, that does not seem to be the case. While there was one large violent conflict between party militia leaders in 2022 and 2023 that was in part over who could sell what type of drugs (one leader was against selling kush, while the wife of another owned a kush 'cartel'), there were various other problems underlying the tensions. Research in Freetown in 2022–2024 found no examples of territorial competition over kush.

Instead, competition in the kush market is determined by the quality of the product. Local production of kush (particularly of the variety known as 'TM kush') has created quality differences. This characteristic makes the quality of the product all-encompassing, as distributors and particularly retailers note.

Distributors fear buying kush of low potency and which makes PWUD sick. Hence, drug deals involve distributors testing kush when it is offered and delivered. Distributors' strategies include reaching deep into 'quarters' or the 'ball', smoking the kush themselves, or having people around them smoke it and observing the effects.

The importance of quality is also clear from an owner of three large 'cartels' in western Freetown. Expansion to his third 'cartel' meant locating to a new area and sending some 'boys' to buy product from a potential competitor. The kush was then compared in terms of quality with his own. When his kush was superior to his potential competitor's, he established a 'cartel' in the new area, undercut the rival's price and took control of the territory.¹⁸²

Perhaps the clearest evidence comes from smaller retailers, all with a history in the gangs. A leader of a peddler crew with a small 'cartel' said he would not mind if someone set up shop next door, as 'it is about product, the person with the best product is the one who will sell most'.¹⁸³ Another gang leader – a small peddler but more senior in the gang than some of the big distributors – said cliques and kush are a toxic mix because violence is bad for the kush business.¹⁸⁴ Instead, 'expansion is based on the kush you have. It is not about violence, it is about having better kush.'

Presently, quality concerns dominate competition. But this is a result of varying quality of kush. An open question is what will happen if local kush synthesis becomes more standardized and divergences in quality decrease. Could turf battles over kush between those who originally belonged to gangs re-emerge?



KUSH, POLITICS AND PROTECTION

Soon after the emergence of kush in Sierra Leone, it was rumoured that politicians were behind its import and distribution. The fact that the kush market appeared to keep growing without disruption or law enforcement activity fuelled widespread public accusations that it had political protection.

However, a key insight from this research is that most evidence points to predominantly local protection structures, concentrated around points of entry and spaces used for cooking, distribution and retail, rather than political protection at a national level.

There have been instances of local protection involving port officials, police, the judiciary and members of parliament (MPs). The analysis suggests a protection system reminiscent of the complex overlap between state and non-state interests common during and after the war.¹⁸⁵ This suggests that the structure of the political economy – the overlap between economic rents and political interests – in part facilitates the expanding kush market.

Decentralized protection: protection during import

Importers of kush benefit from localized protection and loopholes in screening and security systems. Queen Elizabeth II Quay has only one scanner, and it is operated by a private entity that charges the government for every scan. The scan is limited in what it can detect – often only the external shape of an object, not what might be concealed within it.¹⁸⁶ In some cases, additional screening of containers takes place manually. Capacity to physically screen containers is limited by resources, and manual processes often do not screen everything in a container. Overlapping mandates between bodies in charge of handling containers also create room for discrepancies in customs.¹⁸⁷

Imports of psychoactive components and marshmallow leaf through the airport largely rely on international postal courier services.¹⁸⁸ Airport authorities and private courier services report increasing scanning and screening procedures to detect kush, particularly since May 2023.¹⁸⁹ However, there were no reported kush seizures at the airport in 2024 (even though kush was seized on flights from Sierra Leone).¹⁹⁰ The way the screening system is organized and the loopholes that exist may leave room for imports without structured protection.

There is also, however, protection during imports, particularly for larger volumes imported by sea. Generally, the Freetown maritime port and the airport have a strong presence of people with political connections. Party loyalists or their family members hold key positions, and people from the informal security entourage of the ruling party were placed in the ports after the party came to power in 2018. This research found some evidence of local protection at different levels in the hierarchy of officials at the points of entry. For example, a senior maritime port official was reportedly paid in product to turn a blind eye to bulk kush imports. His family then helped distribute his payoff. This individual no longer works at the port.¹⁹¹

A kush shipment intercepted in 2024 also suggests senior levels of protection. During the research, the seized kush was offered via a middle man to top-level dealers for retail (with the warning that law enforcement would not restrain itself in subsequently seeking to catch the dealers).¹⁹² It is not clear if the protection came from authorities in and around the port or from law enforcement.

There are also instances of (private sector) individuals employed at ports of entry, or by companies importing or exporting through them, offering local protection or facilitation of the trade. Most commonly this included reported petty corruption in the form of bribes paid to longshoremen to turn a blind eye to the contents of particular containers, backpacks and suitcases.¹⁹³ However it can also include more senior employees. In one case, a shipping company employee was arrested because he traded chemical components and preprocessed kush (in quantity) from his desk.¹⁹⁴ In another instance, an employee from an international postal courier company was found selling chemical components from courier consignments arriving at the airport.¹⁹⁵

Decentralized protection: protection within law enforcement

Decentralized protection is clear in the synthesis, distribution and retail phases. It is provided by local law enforcement officers and may contribute to price variation across the city. The level at which local protection is offered remains unclear, with some evidence pointing to the involvement of higher-ranking law enforcement officers.

Given the vulnerability of cooking facilities to disruption, protection plays a key role here. For example, one cooking team operating in the Peninsula had to pay the police local unit commander for permission and protection to cook in the forested area.¹⁹⁶ Similarly, a cooking facility in western Freetown allegedly pays the local police commander for protection.¹⁹⁷ In the east of Freetown (around Portee), a cooking facility behind a police station was dismantled but later found to have been protected by an officer stationed there.¹⁹⁸ As someone from a cooking team said, 'Anybody doing this needs a connection with the police'.¹⁹⁹

Such protection also happens in distribution. Moving with a group of dealers for this research meant operating in the relative open. The dealers had a vehicle on standby, a group of neighbours on payroll for making available an area for parking the car, a group of boys surveying the entry points to the area from the main road, and a standing arrangement with the police that they would be tipped off before a raid.²⁰⁰

But decentralized protection is most obvious at the retail level. During the research, a peddler of one of the larger crews in the east was arrested. The boss (also a distributor) called the police

station, found out that the police 'did not know it was someone from X', negotiated the release price (SLL500–US\$25), sent the money through a random person to the mother of the arrested man, and within five minutes the peddler was released.²⁰¹ Similarly, a large 'cartel' in the city centre, owned by a renowned criminal, operates 100 metres from the police station without interference.²⁰² According to PWUD – and particularly fences of stolen goods who run the area – some local police officers profit from the business.²⁰³

During research in the west of the city, a large 'cartel' owner who was visited in his office by police and military personnel openly brushed off attempts at harassment by an Operations Support Division (OSD) police officer, drove to the police station while handing out cash to bystanders, was greeted by many officers when he entered, asked to see the local unit commander, and handed over an envelope.²⁰⁴ Afterwards, the owner claimed that some law enforcement officers were on his payroll. After the national emergency was declared in April 2024 and police raids became common, retailers were often tipped off before they took place.

Perhaps the most notable instance of collusion between law enforcement officials and kush retailers, distributors and owners is around competition over business. As explained above, competition in the kush market is primarily over the quality of the product and territorial violence is uncommon. Yet kush actors also supply information on business rivals to police after convincing them they 'can have things better with you' (known as the 'police set-up').²⁰⁵ In one instance, a police officer seeking to take over a business organized the 'set-up'; he posed as a buyer and fellow officers came in the moment the kush changed hands. The officer subsequently started his own peddler crew in the area of the arrested individual.

These examples of police contacts with kush distributors and retailers, however, should not be viewed as unique to the kush market. Engagement with gangs and criminal actors is a common localized law enforcement strategy. In the context of kush, PWUD contribute to petty crime linked to consumption, and retailers are tasked with playing a role in managing drug-related crime and violence. Nearly every retailer narrated how they would receive requests from law enforcement to keep PWUD in their using areas (and out of the public eye), keep crime levels low and assist with arrests of PWUD who go out stealing at night.²⁰⁶ As one retailer said, 'we do "lobbying" with the police. That's how we can survive.'²⁰⁷ Another small retailer (but prominent gangster) said: 'Sometimes the pusherman [kush retailers] are asked by the police to limit the stealing. You can be paid to keep the stealing down and have the crime rate go down.'²⁰⁸

Local protection at the main ports and in the ranks of the police is embedded in a wider political economy of protection of criminal markets. For example, a large distributor with her own cooking facilities flooded an area with kush. The area's MP and the local chairperson of a political party knew the distributor but deliberately did not act against her. 'During elections we cannot attack the kush business as many depend on it ... The plan is that after the elections they have a talk with that lady and try to force her to stop the production,' explained the MP.²⁰⁹

Such protection is also reported from the judiciary. For example, a top-level dealer was arrested on the border with Guinea in possession of two 'balls' of kush. After he had been in prison for months, the dealer had the girlfriend of the presiding judge approached, money was offered and the dealer was acquitted.²¹⁰ The dealer said: 'After a while I thought, I have all this money and it does not makes sense to do nothing with it.'²¹¹ Similarly, a prominent member of one of the law enforcement agencies was observed in a dealer location by one of the authors. A security expert

explained that these links tend to exist to ensure law enforcement agencies can help regulate the market; for example, by asking for fewer products to be sold.²¹²

High-level protection: the case of Group 2

While there is reportedly high-level political protection of the kush trade, this remains relatively opaque. This opacity is probably attributable to three key factors.

First, the reputationally toxic nature of links to the kush trade. As harms from the trade are high and domestically concentrated, connections to kush are more of a reputational risk than connections to other longstanding drug trades with more limited domestic impacts, such as cocaine. This not only makes kush links opaque but means political players are particularly wary of connections to the trade. Illustratively, according to politicians, if there are allegations of an individual politician's links to kush, 'the party will not come to your rescue, and if you mess up it's your own problem'.²¹³

Second, the fragmented kush marketplace shapes a more decentralized set of protection ecosystems. And third, likely to be less important than the previous two factors, trafficking in kush is not as profitable as cocaine trafficking, and takes place in a more localized market.

Amid this lack of clarity about higher-level protection structures, two individuals with a key role in the trade stand out: the partnership spearheading Group 2, both with family political connections. However, according to political sources, the family link is not strong and the partnership have mainly leveraged the name of their politically powerful family members rather than received direct protection.²¹⁴ One half of the partnership was allegedly deported from the Netherlands after being convicted of cocaine trafficking (Person A). Party sources argue that Person A is more important in the kush market than the other half (Person B), although the latter's alleged involvement has attracted more attention on social media.²¹⁵

Allegations about Person B's involvement in the kush trade started circulating on social media in 2022. By early 2024, they were so widespread that police raided Person B's house but reportedly found no evidence.²¹⁶ It is believed that Person B was tipped off.²¹⁷

Reports from within the party and social media are corroborated by many gangsters and kush distributors reporting personal connections to Person A and confirming Person A's involvement in the market.²¹⁸ Law enforcement sources point to the fact that OSD troopers protected Person B's compound.²¹⁹ A kush actor with ruling party connections described in detail how he worked with relatives of the partnership.²²⁰ Large dealers openly discussed Person B's recent market actions (for example, Person B threatened an Indian woman who had entered the kush business).²²¹ After the recent arrest of a distributor and cook (and one of Person B's key partners), the man's high-level police contact said this was 'beyond him' and told the distributor he had to 'apologize to [Person B]'. The apology was offered, Person B organized a lawyer and bail was paid.²²²

The case of Group 2 points to links between the kush trade and higher-level political actors who have probably helped the business grow in its early stages. The public action taken, and the distance between the partnership and high-level individuals with family ties, reflects the reputationally toxic nature of kush for politicians. Person A's (and previously Mr OM's) reported links with western European markets align with kush supply lines being traced to the UK and the Netherlands, and underscore the international connections that have contributed to the emergence and expansion of kush in Sierra Leone.



RESPONDING TO THE KUSH TRADE

The response to kush in Sierra Leone has been particularly noticeable since 2022 and hinges largely on law enforcement and investments in public health.

The public health response

Government services have struggled to respond to the widespread public health impact of surging kush use. For example, since 2020 the Sierra Leone Psychiatric Teaching Hospital (the country's only psychiatric hospital) has seen a 4 000% increase in people presenting with problematic drug use.²²³

The government has sought to increase access to treatment for PWUD by expanding the services of the Kissy Rehabilitation Centre and opening the National Rehabilitation Centre, a new in-patient rehabilitation centre in Hastings, on the outskirts of Freetown, among other measures.²²⁴ Limited resources, and a lack of medical professionals trained in treating problematic drug use, pose key obstacles to effective support, which in some instances does not meet internationally recognized standards for treatment of drug-use disorders, as outlined in the World Health Organization and UN Office on Drugs and Crime's 'International standards for the treatment of drug use disorders' (the 'Standards').²²⁵

For example, initially, PWUD treated at the National Rehabilitation Centre were informed that they were going to attend a short briefing and provided with lunch afterwards – not provided with information about treatment – before being transported to the centre. These PWUD were asked to consent in writing to in-patient treatment only after they had already been admitted to the centre, and were not allowed to leave.²²⁶ According to a stakeholder running psychosocial support sessions at the National Rehabilitation Centre, subsequent cohorts were provided with more information about the treatment process prior to admission.²²⁷

Establishing widely accessible treatment services that fully meet the Standards is resource-intensive and a process based on 'progressive quality improvement, with "evidence-based and ethical practice" as an objective.'²²⁸ The data set out in this report provides key evidence towards achieving the Standards' Principle 4, namely that 'treatment should be based on scientific evidence and respond to

the specific needs of individuals with drug use disorders.²²⁹ Additional internal government resource allocation, and external support, are required to enable the treatment provided to PWUD to meet the Standards. Harm reduction approaches are urgently required – as outlined in further detail below – to enhance the impact of services available.

The law enforcement response

The law enforcement response was particularly pronounced in 2024. There were many raids on distributors and retailers, and arrests of key distributors and owners, who are denied bail, although often it is later informally granted. According to the Minister of Internal Affairs, over 80 individuals were arrested weekly since the state of emergency. Simultaneously, there has been a push to restrict imports.²³⁰

The fragmented nature of the kush marketplace poses a challenge to effective law enforcement responses, as detained actors are quickly replaced. Several factors have further undermined the impact of the law enforcement response in disrupting the trade.

First, parts of the law enforcement response appeared more focused on reducing the visibility of the kush market than disrupting it, risking markets going underground. In 2022, ‘cartels’ were sometimes moved from visible places – along the street (e.g., former gang hangouts) or open areas (e.g., cemeteries) – to more secluded areas such as alleys and the backend of houses.²³¹ As the kush trade became less visible, some middle-class Sierra Leoneans believed kush use was decreasing.²³² After renewed law enforcement pressure in 2024, ‘cartel’ owners have started playing a role in diminishing the trade’s visibility, sometimes starting the day by lecturing PWUD to be neat and well-dressed in public places.²³³ Law enforcement approaches that target low-level dealers and PWUD typically drive drug markets underground, escalating harms without affecting the scale or profitability of the market.

Second, arrests of higher-level players appear to have been selective. Some involved individuals are rumoured to have links with the opposition while distributors with links to the regime were granted bail or avoided arrest altogether.²³⁴

Third, selective law enforcement is embedded in a political economy where political interests play a key role in shaping the kush response. One key interest was how to manage a security challenge when the government came to power: it feared that the opposition would seek to overthrow the



Law enforcement pressure was more effective in concealing the kush market than dismantling it, pushing it further underground and driving drug use into more marginalized spaces. *Photo: Guy Peterson*

government in a potentially violent way, and feared not only an opposition-leaning population but also the large number of gangs that were more closely tied to the opposition than to the government.

For this reason, there was a concerted effort to suppress gang structures. In 2020, the Office of National Security labelled gangs a 'national threat'. Soon after, public wearing of 'colour' (a muffler indicating gang membership) and gang-related characteristics such as visible tattoos and being openly muscled were met with zero-tolerance (for example, tattoos could have you kicked out from school).²³⁵ But the key moment that the gangs in Sierra Leone realized that they were facing serious repression was a prison riot in Pademba Road Prison in 2020. Notorious gangsters were killed in the riot under suspicious circumstances.²³⁶ From that moment on, many gang members realized they were at risk of being killed as part of the crackdown on gangs.

The expansion of the kush market coincided with these efforts to reduce the risks gangs posed. Many gangsters shifted from cannabis to kush consumption, which often left them without the energy to make trouble. 'The kush, it keeps you calm and without much to do,' a gangster said in 2022.²³⁷ Similarly, some gangs split over the consumption of kush, with drug-using gangsters chased away.²³⁸ No evidence was found for claims that kush distribution was a deliberate strategy to reduce the gang problem in Freetown but it is clear that those in security circles realized kush use could help to solve the security problem. In the words of one party member, 'kush killed the gang problem for us'.²³⁹

The 2023 elections also highlighted shortcomings in the law enforcement response to kush. During the campaign, government representatives often argued that kush would have to be tackled 'after the election'. Meanwhile, 'some politicians provide[d] hard drugs and other intoxicants to their supporters' during the 2023 election, as in preceding elections.²⁴⁰ In short, the absence of a strong law enforcement response until 2024 and the selectiveness with which the response is being executed has to be understood in the wider political economy of the country.



BUILDING AN EVIDENCE-BASED RESPONSE

The nature of the kush supply chain and market – as with many synthetic drugs²⁴¹ – makes it difficult to craft a response. Supply chains are diversifying, and the small volumes of active ingredients required to produce large quantities of retail-ready kush complicate enforcement at points of entry. The market’s fragmentation, relatively low barriers to entry, decentralized protection and the presence of political incentives are other factors that dilute the effectiveness of law enforcement efforts. Finally, structural factors – most prominently youth-related crises such as marginalization and unemployment – generate constant demand for drugs.

The difficulty of sustainably disrupting or shrinking established kush markets underscores the importance of early-warning systems and fast action by governments to prevent, or at least mitigate, entrenchment of the kush market in the first place. It also means harm-reduction approaches are a pivotal building block in a future response.

The consistent chemical make-up of kush, the deep links with international markets in China, the Netherlands and the UK, and the overlap with global synthetic drug challenges emphasize the need for harmonized responses across West Africa and more broadly.

The recommendations below seek to enhance the evidence base available for building responses, and identify entry points for targeting demand and supply of kush.

Early warning, monitoring and information-sharing

Key to enabling a response is early identification and action, preventing entrenchment of new synthetic substances – such as kush – in domestic markets, and tracking how chemical compositions evolve so health and law enforcement interventions can adapt.

Improve information-sharing on synthetic drug compounds

It is vital to enhance regional and international intelligence-sharing on synthetics markets in order to (i) empower states with well-established synthetics markets to identify common challenges and solutions, and share information on new trends and compounds; and (ii) ensure states where synthetic drugs have not yet become common are well positioned to act fast to prevent the market establishing

itself. Global information-sharing using existing platforms – such as the Global Coalition to Address Synthetic Drug Threats established by the US, and databases coordinated by the International Narcotics Control Board – is pivotal. Intelligence underpins effective responses at all levels.

Improve West African capacities to identify, classify, seize and control synthetic substances

Chemical testing equipment and laboratory drug-testing capabilities are urgently needed in Sierra Leone, and other countries in West Africa where these are currently unavailable. Provision of equipment should be accompanied by capacity building to ensure correct use. Without this, it is impossible for governments to accurately monitor illicit drug markets and develop dynamic evidence-based responses.

Building the capacity of front-line law enforcement should occur in parallel, to ensure synthetic drugs are being seized in the first place. Without this, many synthetic substances will never reach official laboratories for testing.

An interim step should include the purchase of immunoassay test strips for detection of a range of synthetic opioids, including fentanyl and nitazenes. These test strips are inexpensive and easy to use, and although sometimes giving false results, are more accurate than existing testing approaches. They should be available to law enforcement for testing seized consignments and to civil society organizations working with PWUD and providing health support.

Reliable chemical testing can also help track supply chains and identify appropriate opportunities for supply-side interventions.

Enhance the evidence base on substances available on drug markets in line with regional priorities

To complement medium-term strengthening of government monitoring and surveillance mechanisms and provide urgently needed snapshots of retail drug markets, further research – including chemical testing of illicit drugs – is key. This should speak to regional priorities, focusing on substances causing the greatest harms. It can guide equipment provision (identifying required reagents and testing strips) and provide a preliminary evidence base for regulatory and public health responses.

Disrupting the supply chain

A key challenge with new psychoactive substances is that they are cheap and affordable, even for those with limited financial means. Disrupting supply can be a way to pose additional obstacles to consumption. There are cases where law enforcement interventions have driven up operational costs for criminal networks, raising the price of drugs in the short term, which may make consumption less attainable.²⁴² This can happen in the countries of origin and transit, the private sector and West African countries.

Enhanced scrutiny of maritime exports by European states

Maritime ports, as pinch points in global supply chains of synthetic drugs and their precursors, can be strategic spaces for intervention. European ports – as with ports around the world – focus on preventing imports and domestic harm. As a result, exports get less attention.²⁴³ Identified points of origin for maritime imports – including reportedly the UK and the Netherlands – should increase

scrutiny of exports likely to include kush components (largely containers of personal possessions bound for Sierra Leone).

While screening capacity at maritime ports across the world falls far behind trade volumes, that which exists is concentrated on imports. As European countries increasingly become points of manufacture, transit and export for synthetic drugs, greater focus is required on exports. Dynamic intelligence from regions typically less well covered by European governments – such as West Africa – is key to underpin targeted screening.

The interests for the Netherlands and the UK to respond swiftly are threefold. Firstly, to ensure policy coherence and not undercut their own interest, both countries cannot with one hand seek to improve stability and health delivery in the region while with the other hand fail to disrupt an illicit system that brings instability and harms to large parts of the population. Failing to act will undercut soft power in the region. Second, these illicit networks fit a general trend where European organized crime takes up positions in West Africa. To undercut this, a policy of upstream disruption is needed to respond to the threat both countries face domestically. Third, nitazenes present a threat not only to West Africa, but also to PWUD in Europe, and the market requires concerted action.

Enhanced country of origin enforcement against manufacture and postal courier exports

Countries highlighted as likely points of manufacture for nitazenes and synthetic cannabinoids found in kush – notably China – should strengthen ongoing efforts to crack down on production of these compounds and their precursors. In parallel, since postal courier services have been consistently highlighted as a key trafficking method, enhanced export screening processes targeting them are key.

Enhanced private sector enforcement against postal courier exports

The volume of clients using postal courier services poses an obstacle to comprehensive screening. However, private sector operators – courier services and airlines – must intensify efforts at points of export and import to enhance screening for drugs, particularly new psychoactive substances. This should be done in partnership with state authorities.

Sierra Leone: enhanced scrutiny at points of entry

This research found loopholes in processes at Sierra Leone's port of entry. Some of these, such as overlapping mandates and unclear procedures, could be addressed by clarifying institutional mandates. Others require standard controls on incoming air postal deliveries (some of which are moved to the courier in Freetown without scrutiny) and mandatory clearing by postal services. There is also an urgent need for better algorithm-based scanning and detection systems to flag suspect shipments before arrival. This can be done in partnership with countries of origin and transit, which have an interest in reducing the impact of kush on Sierra Leonean society. While steps have already been taken to enhance screening of postal services by the private sector, further action is required.

Updated legislation in West African countries

While difficult and potentially slow, a flexible and dynamic legal architecture is still required to underpin law enforcement responses to synthetic drugs. As the chemical composition of substances can be quickly adapted, their make-up is dynamic, meaning legislation is often outdated as new substances pose a challenge to law enforcement action.

For countries with limited resources, a strong approach is the adoption of a naming system that schedules whole families of drugs rather than the specific core chemical structures, which can be expensive to identify.²⁴⁴ Sierra Leone and other West African states should scrutinize legislative frameworks to ensure they appropriately underpin action not just against the current composition of kush but the wider family of nitazenes and synthetic cannabinoids.

Harmonization of member state regulatory frameworks is also key to a regional response. The African Union's 2023 Continental Technical Experts' Consultation on Strengthening Synthetic Drug Supply Reduction has recognized this as a goal.²⁴⁵

Sierra Leone: prioritize countering kush over other interests

A key problem in Sierra Leone is that the response to kush is rooted in a system of interests that can render it ineffective, while the harm to the population warrants prioritizing the response over other interests. The line common in one political party should become the practice for the country: 'If you are involved in kush, the government will not come to your rescue.' Local protection for kush should be seen as undermining national values, leading to zero tolerance approaches to kush-linked corruption.

Mitigating the harms of kush consumption

The escalating challenges of problematic drug use in Sierra Leone and the prospect of a growing range of synthetics penetrating regional markets highlight the urgent need to dramatically enhance the scale and quality of treatment services available to PWUD.

Increase availability of and access to treatment and support programmes, including enhanced access to opiate substitution

There should be a serious attempt to offer opiate substitution therapy to PWUD using kush. Such therapy is relevant to nitazene-kush rather than synthetic cannabinoid-kush, but the use of poly-kush probably makes it relevant to most kush users. Legislative reform is required to provide the legal architecture for harm-reduction programming.

While some harm-reduction programming is already being implemented in Sierra Leone,²⁴⁶ legislation has not been updated to enable it. Harm-reduction programming is instead largely based on a memorandum of understanding between civil society implementers and the police.²⁴⁷ This means harm-reduction services – provision of opiate-substitution therapy and needle-exchange services – are criminalized by law.²⁴⁸ This gap between regulation and implementation in the sphere of harm reduction is a growing trend across West Africa, and leaves those providing such services vulnerable to detention.

Increase access to naloxone

Naloxone, a pharmaceutical opioid antagonist typically used to treat the effects of opioid overdoses, is reportedly effective in reversing nitazene overdoses. Large or multiple doses might be required for naloxone to be effective.²⁴⁹ Consequently, as part of the public health response to kush, there is an urgent need to increase the availability of naloxone through a free distribution programme in Freetown, including first-responder organizations (including civil society) and hospitals, and to train stakeholders in its use. The standard operating procedures for naloxone administration by civil society and government have already been developed by the government, and training on administration for community first responders and health professionals is underway, paving the

way for more widespread administration. The cost of naloxone varies depending on the purchase, however overall costs are decreasing amid a drive to enhance accessibility.²⁵⁰

There is no known antidote to poisoning caused by synthetic cannabinoids, although these are rarer than opioid overdoses.

Alternatives to incarceration for PWUD

States globally and across West Africa are rethinking approaches to regulating drug markets premised on prohibition and incarceration. Sierra Leone should prioritize introducing alternatives to incarceration for drug use. There is precedent in West Africa: in 2020, drug law reform in Ghana took an important first step towards achieving this.²⁵¹

Although in several countries – including Sierra Leone – law enforcement approaches in practice have moved away from incarceration, enshrining this in law would give PWUD more longstanding protection and provide clearer guidance to law enforcement. Legislation must distinguish appropriately between use, possession for use and possession with intent to deal, in a manner that avoids the penalization and imprisonment of PWUD for possessing small quantities of narcotics. Introducing civil penalties for drug use should also be avoided. In Sierra Leone, reform of the National Drugs Control Act of 2008 has long been a priority on the agenda of the National Drug Law Enforcement Agency – it is time to push forwards on this reform, and for it to be appropriately resourced.

Enhancing training and education for professionals treating PWUD

Demand far outstrips the number of health professionals qualified to treat PWUD in Sierra Leone. It is key to enhance access to professional training – outside the country in the short term, and within Sierra Leone in the medium term – to scale up the body of professionals able to support PWUD. Similarly, it is key that those that are trained, including a recent batch of graduates, are effectively deployed by the government.²⁵²



ANNEX 1: ADDITIONAL METHODOLOGY OF CHEMICAL TESTING

This research report features findings from testing of kush in Freetown, and to a lesser extent Bissau. However, the kush samples were collected as part of a broader exercise aiming to analyze all major drugs available on retail markets in both cities. They include methamphetamine, Ecstasy, cocaine, crack, tramadol and two previously unknown substances, 'Ghana dust' and 'snooth'. Findings on them will be published separately.

The drug sample collection methodology (including information to be provided for obtaining informed consent, and PWUD questionnaires) was developed by the GI-TOC in consultation with IDCHS, SLYDCL, the Guinea-Bissau Observatory of Drugs and Drug Addiction, and PWUD. Consultations on the methodology were held between the GI-TOC, each of the study partners, and PWUD between March and June 2024.

The key elements of the methodology were consistent across Freetown and Bissau to ensure comparability, but elements of the approach were tailored to the local contexts. The study sought to test samples from a wide range of neighbourhoods in each capital city, as agreed during consultations with civil society and PWUD. The GI-TOC and local partners held daily in-person meetings during testing to discuss and address challenges.

SLYDCL and IDCHS in Freetown, and the Observatory in Bissau, have longstanding relationships with PWUD communities they support. Each organization engaged with these communities in the weeks prior to the research being conducted to inform them about the purpose of the research, the methodology, and how the findings would be disseminated. PWUD interested in joining in the study were asked to be in the neighbourhood where the engagement was being conducted at an agreed date and time. In Freetown, SLYDCL asked PWUD interested in taking part in the study who lived near the SLYDCL office, which also operates as a drop-in centre, to be there at an agreed date and time.

On the agreed dates, the same representatives from SLYDCL/IDCHS/the Observatory returned to the data collection sites. The PWUD survey was conducted and samples were collected only from PWUD who gave their informed consent to taking part in the study.

The PWUD survey gathered data on the consumption patterns of the PWUD, trends in availability of drugs on the retail market, fatalities linked to kush, trends in drugs markets, user experiences, violence linked to the drugs market and pricing about the sample being shared for testing. The survey also enabled PWUD to share any other observations they felt were key to the purpose of the study.

Samples collected were predominantly equivalent to one dose on the retail market. Each was weighed and photographed before being tested with the FTIR spectrometer. All samples were labelled with a unique identifier that corresponded with the PWUD questionnaire administered by the research team to the relevant PWUD. No identifying information was collected from any PWUD interviewed. Each PWUD was asked where they purchased the sample they chose to share with the research team – this location was marked as the location of the sample in the data recorded.

After the testing in each country was completed, the samples were divided into those to be posted to Kykeon Analytics for confirmatory testing and those to be destroyed. All samples were then handed over to the relevant law enforcement agency (the NDLEA in Sierra Leone and the Judicial Police in Guinea-Bissau) for posting or destruction. Each agency was also provided with a biodegradable destruction pack to enable the safe destruction of the samples on site.

The government of Sierra Leone coordinated the posting of the selected samples to Kykeon Analytics in Spain.



ANNEX 2: INTERVIEW OVERVIEW

GENERAL DESCRIPTION	IDENTIFIER	DATE
C: 'fences' of all trades, 'Belgium', Freetown	C1 (o)	17-7-2024
C: 'fences' of all trades, 'Belgium', Freetown	C2 (o)	18-7-2024
C: 'fences' of all trades, 'Belgium', Freetown	C2 (o)	19-7-2024
C: drug dealers, Conakry (Guinea)	C22 (d)	3-12-2024
C: drugs dealer, Conakry (Guinea)	C21 (d)	14-3-2024
C: drugs distributor, Freetown	C15 (d)	1-6-2024
C: kush cook and distributor, Freetown	C18 (c, d)	2-6-2024
C: kush dealers, eastern, Freetown	C3 (r)	18-7-2024
C: kush dealers, Kenema	C4 (d)	29-7-2024
C: kush distributor, eastern, Freetown	C5 (r)	20-7-2024
C: kush manufacturer in Freetown	C13 (c)	6-6-2024
C: kush manufacturer, Freetown	C16 (c)	10-6-2024
C: kush manufacturer, Freetown	C17 (c)	1-6-2024
C: kush peddlers, Eastern, Freetown	C6 (r)	20-7-2024
C: land grabber, western, Freetown	C7 (r)	24-7-2024
C: large 'crack' dealer, western, Freetown	C8 (r)	26-7-2024
C: large 'crack' dealer, western, Freetown	C8 (r)	24-7-2024
C: large 'crack dealer, western, Freetown	C8 (r)	25-7-2024
C: large 'kush' distributor, western, Freetown	C9 (r)	24-7-2024
C: large 'kush' distributor, western, Freetown	C9 (r)	25-7-2024
C: large coke dealer, Freetown	C10 (d)	26-7-2024
C: large crack and kush dealer, Freetown	C8B (r)	1-6-2024
C: large drugs distributor (including kush and cocaine), Freetown	C14 (d)	30-5-2024
C: large kush dealer, Hastings, Freetown	C13 (d)	23-7-2024
C: large kush dealers, Hastings, Freetown	C11 (d)	20-7-2024
C: large kush dealers, Hastings, Freetown	C11 (d)	23-7-2024
C: large kush dealers, Hastings, Freetown	C11 (d)	26-7-2024
C: large kush dealers, Hastings, Freetown	C11 (d)	29-7-2024

GENERAL DESCRIPTION	IDENTIFIER	DATE
C: small dealer, Central, Freetown	C19 (d)	12-3-2024
C: small dealer, Central, Freetown	C20 (d)	12-3-2024
C: small dealer, Central, Freetown	C21 (c)	6-5-2024
C: smuggler of all trade, Lumley, Freetown	C12 (o)	23-7-2024
CS: representative of CSO working with PWUD	CS1	7-6-2024
CS: representative of CSO working with PWUD, Conakry (Guinea)	CS7	14-3-2024
CS: representative of CSO working with PWUD, Freetown	CS2	12-7-2024
CS: representative of CSO working with PWUD	CS4	1-3-24–31-11-24
CS: representative of CSO working with PWUD, Conakry (Guinea)	CS5	11-3-2024
CS: representative of CSO working with PWUD	CS6	14-3-2024
E: international expert on drugs and Sierra Leone	E1	18-7-2024
E: international expert, security and crime in the Gambia	E3	12-5-2024
E: journalist from the Netherlands	E5	1-10-2024
E: Kykeon laboratories, Madrid	E4	21-10-2024
E: National expert on drugs, Freetown	E2	22-7-2024
LE: airport security representative	LE13	28-10-2024
LE: customs official, Elizabeth II Quay, Freetown	LE9	13-3-2024
LE: international law enforcement officer	LE16	1-9-2024
LE: international law enforcement officer	LE17	1-9-2024
LE: international law enforcement officer	LE18	1-10-2024
LE: international law enforcement officer	LE19	17-7-2024
LE: international law enforcement, Accra (Ghana)	LE10	21-10-2024
LE: international law enforcement, Accra (Ghana)	LE11	12-4-2024
LE: international police officer	LE1	17-7-2024
LE: international police officer	LE4	13-7-2024
LE: law enforcement, Elizabeth II Quay, Freetown	LE12	13-3-2024
LE: national law enforcement officer, Freetown	LE2	23-7-2024
LE: national law enforcement officer, Freetown	LE3	26-7-2024
LE: national law enforcement officer, Freetown	LE3B	15-10-2024
LE: national law enforcement officer, Freetown	LE3C	13-3-2024
LE: NDLEA representative, Freetown	LE2B	12-3-2024
LE: NDLEA representative, Freetown	LE6	1-3-2024
LE: representative of Office Central Anti Drogue (OCAD), Conakry (Guinea)	LE20	30-11-2024
LE: representative of Services spéciaux de lutte contre la drogue et le crime organisé, Conakry (Guinea)	LE21	8-3-2024
LE: round table with senior security officials, Freetown	LE7	12-3-2024
LE: senior OCAD representative, Conakry (Guinea)	LE22	11-3-2024
LE: UK law enforcement official	LE14	23-8-2024
MP: expert in conducting autopsies, Freetown	MP1	6-6-2024
MP: forensic laboratory analyst, TOCU, Freetown	MP3	5-10-2024

GENERAL DESCRIPTION	IDENTIFIER	DATE
MP: forensic laboratory analyst, TOCU, Freetown	MP3B	1-3-2024
MP: international forensic laboratory expert	MP6	31-10-2024
MP: mental health professional, Kissy Hospital, Freetown	MP2	12-6-2024
MP: pharmacy Board representative, Freetown	MP4	6-3-2024
MP: social workers at in-patient rehabilitation centre, Peace Mission Training Centre, Freetown	MP5	14-3-2024
O: community member, Aberdeen, Freetown	O1	14-7-2024
O: other (diplomat)	O7	17-7-2024
O: other (diplomat)	O8	17-7-2024
P: customs representative stationed at scanner, Elizabeth II Quay Port	P4	13-3-2024
P: politician, national	O2	15-7-2024
P: politician, national	O3	15-7-2024
P: politician, national	O4	22-7-2024
P: port and harbour authority, Elizabeth II Maritime Quay, Freetown	P2	13-3-2024
PWUD: Hasting, Freetown	PWUD1	26-7-2024
P: representative of airport authorities, Freetown	P5	13-6-2024
P: Sierra Leone maritime administration	P1	12-3-2024
P: Sierra Leone maritime administration	P3	12-3-2024
P: three longshoremen working at Elizabeth II Quay, Freetown	PS3	1-3-2024
P: former employee of port and airport courier service, Freetown	O6	28-10-2024
P: Private company operating at Elizabeth II Quay	O5	13-3-2024
PWUD: focus group discussion at in-patient rehabilitation centre, Freetown	PWUD FGD3	1-3-2024
PWUD: focus group discussion, Freetown	PWUD FGD1	7-7-2024
PWUD: focus group discussion, Freetown	PWUD FGD2	14-3-2024
PWUD: focus group discussion, Monrovia	PWUD FGD4	5-9-2024
PWUD: focus group discussion, Monrovia	PWUD FGD5	8-9-2024
SP: gang remnant (Members of Blood), Aberdeen, Freetown	SP1	15-7-2024
SP: gang (Black), eastern, Freetown	SP2	20-7-2024
SP: gang (Black), eastern, Freetown	SP2	19-7-2024
SP: gang (Black), eastern, Freetown	SP2	23-7-2024
SP: Member of party militia, Freetown	SP3	19-7-2024
SP: Member of party militia, Freetown	SP3	21-7-2024
SP: Member of party militia, Freetown	SP3	24-7-2024
SP: Member of party militia, Freetown	SP3	25-7-2024
SP: Member of party militia, Freetown	SP3B	3-6-2024
SP: former combatant, national, Sierra Leone	SP4	14-7-2024
SP: former combatant, national, Sierra Leone	SP4	18-7-2024
SP: former combatant, national, Sierra Leone	SP4	22-7-2024



NOTES

- 1 This term is used to refer to the drug throughout the report.
- 2 BBC, Africa Eye, Kush: Into the made world, 7 February 2022, <https://www.bbc.co.uk/programmes/p0bm894g>.
- 3 PWUD reported the presence of kush in retail drug markets in Guinea-Bissau and Senegal; PWUD, government authorities and local media have reported the presence of kush in the Gambia, Liberia and Guinea.
- 4 Jason Eligh, Global synthetic drug markets: The present and future, GI-TOC, March 2024, <https://globalinitiative.net/analysis/global-synthetic-drug-market-the-present-and-future/>.
- 5 Fourier Transform Infrared Spectroscopy is an analytical technique used to identify organic, polymeric and inorganic materials. FTIR analysis uses infrared light to scan test samples and observe chemical properties. This technology has been adopted worldwide to analyze illicit and unregulated substances. The technology identifies potentially harmful additives and impurities, promoting safer drug consumption by providing information about components.
- 6 The figure was agreed in consultation with the drug testing expert working on this study, Phoenix Mohawk Kellye.
- 7 Nine samples were collected from districts identified as east by the SLYDC and IDCHS; 22 samples were tested from west; and one sample was tested from central.
- 8 Kush samples were collected from retail drug markets in the following areas of Bissau: Bairro de Cuntum Madina, Bairro de Santa Luzia; Bairro de Tchada; the Chão de Papel/Varela neighbourhood, and the area known as Praça (the central district).
- 9 The Bissau samples have not yet been through confirmatory testing at a laboratory due to difficulties in exporting them.
- 10 Clifford Geertz, Deep Hanging Out, The New York Review, 22 October 1998, <https://www.nybooks.com/articles/1998/10/22/deep-hanging-out/>.
- 11 See statement by the US Centers for Disease Control and Prevention: Kemo Cham, A synthetic drug ravages youth in Sierra Leone. There's little help, and some people are chained, AP News, 27 May 2024: .
- 12 Two samples contained an additional synthetic cannabinoid, AB-CHMINACA, and MDMB-4en-PINACA isomer. All retail kush samples containing synthetic cannabinoids were procured by PWUD in the west of Freetown.
- 13 The single sample containing both these substances was provided by the TOCU. Testing by international partners of TOCU-supplied samples also detected protonitazene and a synthetic cannabinoid in kush samples. This could be evidence of a kush strain that contained both nitazenes and synthetic cannabinoids in 2022, the date of the samples tested under this research. However, it could also be a result of cross-contamination of samples during storage. From a user experience perspective, there would be little logic in including both active ingredients in a single drug
- 14 The authors know of only one other instance of nitazenes penetrating retail drug markets in Africa. Nitazenes (specifically metonitazene) appeared in Mauritius in late 2023 but remain rare. Laboratory testing data identified nitazenes in April 2024. However, forensic testing experts calculate there is a six-month lag between substances emerging on retail drug markets and being reflected in official testing data. Interview, MP6.
- 15 US Department of Health and Human Services/Centers for Disease Control and Prevention, Nitazene-related deaths – Tennessee, 2019–2021, Morbidity and Mortality Weekly Report, September 2022, Vol. 71, No. 37, <https://www.cdc.gov/mmwr/volumes/71/wr/pdfs/mm7137a5-h.pdf>; Adam Holland et al, Nitazenes—heralding a second wave for the UK drug-related death crisis? The Lancet, 2024, [https://www.thelancet.com/pdfs/journals/lanpub/PIIS2468-2667\(24\)00001-X.pdf](https://www.thelancet.com/pdfs/journals/lanpub/PIIS2468-2667(24)00001-X.pdf); European Monitoring Centre for Drugs and Drug Addiction, Drug-induced deaths – the current situation in Europe, European Drug Report 2023, https://www.emcdda.europa.eu/sites/default/files/pdf/31087_en.pdf?82341.
- 16 Kush containing protonitazene alone was procured only in the west of Freetown. Laboratory testing by international partners of kush samples provided by Sierra Leone authorities detected protonitazene and a synthetic cannabinoid in three of five samples. The other samples contained no active ingredient.

- 17 Prevalent in the samples collected in districts classified by civil society supporting in sample collection as east and central areas of Freetown.
- 18 All samples containing protonitazepyne – by far the most potent of the three nitazenes – were obtained in the west of Freetown.
- 19 Occurred alongside MDMB-4en-PINACA only.
- 20 Occurred alongside MDMB-4en-PINACA only.
- 21 Notably, tramadol has not been seized at police raids of premises of cooks or importers. Round table with government stakeholders, 12 December 2024, Freetown, Sierra Leone.
- 22 This means these substances were not present in the samples tested. Nor were these ingredients detected in the wider sampling of other drugs available in Freetown.
- 23 Notably, human bones have no psychoactive effects, and were not cited as components within the manufacturing process by the cooks interviewed.
- 24 Interview, C2 (0), 18 July 2024, Freetown; Interview, C17 (C), 1 June 2024, Freetown; Interview, C18, (C), 2 June 2024, Freetown; Interview, C13, C, 2 June 2024, Freetown; Interview, C16, (C), 2 June 2024, Freetown.
- 25 Interview, C13, Freetown.
- 26 Interview, C18, Freetown.
- 27 Other leaves are harvested locally. The leaves give kush its colour. Interview, C2 (0), 19 July 2024, Freetown; Interview, SP2, 19 July 2024, Freetown.
- 28 Formalin is commonly combined with MDMB-INACA – the main precursor – in the synthesis process for retail-ready PINACA. Three additional precursors – potassium carbonate, 5-Bromo-1-pentene and N,N-Dimethylformamide – are also required. Of these precursors, only MDMB-INACA is widely scheduled as a restricted substance. The ease of synthesis of widely available precursors into retail-ready narcotic is believed to be one of the properties that has made MDMB-4en-PINACA prevalent across global synthetic cannabinoid markets.
- 29 Interview, MP6.
- 30 UK Government, Advisory Council on the Misuse of Drugs, ACMD advice on 2-benzyl benzimidazole and piperidine benzimidazolone opioids (accessible version), updated 8 November 2024, <https://www.gov.uk/government/publications/acmd-advice-on-2-benzyl-benzimidazole-and-piperidine-benzimidazolone-opioids/acmd-advice-on-2-benzyl-benzimidazole-and-piperidine-benzimidazolone-opioids-accessible-version>.
- 31 Interview, MP6.
- 32 Replaced by locally available leaves – butterleaf or kumbujara – if scarce.
- 33 Interview, C10 (d), July 26, 2024, Freetown; Interview, C2 (0), July 18 2024, Freetown.
- 34 Lucia Bird et al, Changing tides: The evolving illicit drug trade in the western Indian Ocean, GI-TOC, 2021, <https://globalinitiative.net/analysis/drug-trade-indian-ocean/>.
- 35 Interview, MP1, Freetown.
- 36 Interview, MP1, Freetown.
- 37 Known as the formation of a ‘foam cone’ and a clear indication of an opioid overdose.
- 38 Evidenced by food particles found in the trachea. Opioids can cause aspiration of stomach contents in overdose settings.
- 39 Cameron Dezfulian et al., Opioid-associated out-of-hospital cardiac arrest: Distinctive clinical features and implications for health care and public responses: a scientific statement from the American Heart Association, *Circulation*, 143, 16 (2021), <https://doi.org/10.1161/CIR.0000000000000958>.
Circulation} 143, no. 16 (20 April 2021).
- 40 Daniel Morgan, Opioid drug death investigations, *Academic Forensic Pathology* 7, 1 (March 2017), <https://doi.org/10.23907/2017.006>.
- 41 Lorenzo Gitto et al, MDMB-4en-PINACA-related deaths in Cook County jail, *The American Journal of Forensic Medicine and Pathology*, 28 June 2024, https://journals.lww.com/amjforensicmedicine/abstract/9900/mdmb_4en_pinaca_related_deaths_in_cook_county.199.aspx.
- 42 Interview, MP1, Freetown; PWUD surveys, Freetown, May–June 2024.
- 43 PWUD surveys, Freetown, May–June 2024.
- 44 PWUD surveys, Freetown, May–June 2024; Interview, C1(0), 17 July 2024, Freetown.
- 45 Interview, member party militia, June 2023, Freetown.
- 46 West Africa Democracy Radio, Sierra Leone’s govt holds mass burial for victims of illicit drugs (Kush), 15 March 2024, <https://wadr.org/sierra-leones-govt-holds-mass-burial-for-victims-of-illicit-drugs-kush/>; Star, Mass burial for unidentified drug victims in Sierra Leone, 15 March 2024, <https://www.the-star.co.ke/news/2024-03-15-mass-burial-for-unidentified-drug-victims-in-sierra-leone>; Round table with Sierra Leonean government stakeholders, 12 December 2024.
- 47 Round table with Sierra Leonean government stakeholders, 12 December 2024.
- 48 See, for example, the similar trends in the Indian Ocean islands around the emergence of synthetic cannabinoids: Lucia Bird, Changing tides: The evolving illicit drug trade in the western Indian Ocean, 2021, GI-TOC, <https://globalinitiative.net/analysis/drug-trade-indian-ocean/>.
- 49 Ibrahim Abdullah and Patrick K Muana, The Revolutionary United Front of Sierra Leone: A revolt of the Lumpenproletariat’, in Christopher Clapham (ed) *African Guerrillas*. Oxford: James Currey, 1998; Ibrahim Abdullah, Youth culture and rebellion: Understanding Sierra Leone’s wasted decade, *Critical Arts*, 16, 2 (2002); Paul Richards, *Fighting for the Rain Forest: War, Youth & Resources in Sierra Leone*. Portsmouth, N.H.: Heinemann, 1996.
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- 54 Cooper Inveen, Opioids: Sierra Leone's newest public health emergency, Al Jazeera, 13 February 2017, <https://www.aljazeera.com/features/2017/2/13/opioids-sierra-leones-newest-public-health-emergency>.
- 55 Lucia Bird et al, The challenge of responding to synthetic drug markets, through the lens of tramadol in West Africa, GI-TOC, 2023, <https://globalinitiative.net/analysis/responding-to-synthetic-drug-markets-tramadol-west-africa/>.
- 56 Author observations (2022–2024); Interview, C3(R), 18 July 2024, Freetown; see also Bill Weinberg, "Kush" scare hits West Africa, Project CBD, 23 February 2022, <https://projectcbd.org/safety/west-africa/>.
- 57 Interview C5 (R), July 2024, Freetown; Interview SP2, July 2024, Freetown; Interview C2(o), July 2024, Freetown.
- 58 Interview SP2, July 2024, Freetown
- 59 Interview C5 (R), July 2024, Freetown
- 60 Notably 'K2' was an early brand name for synthetic cannabinoids produced in China. Written feedback by Jason Eligh, thematic lead on drugs, GI-TOC, 9 January 2025.
- 61 K2 is a common street name for synthetic cannabinoids in several retail drug markets globally; Interview SP2, July 2024, Freetown; Interviews, including PWUD FGD1, Freetown.
- 62 Variants may involve different concentrations of the same active ingredient, and not necessarily contain distinct active ingredients. PWUD survey data; author observations.
- 63 Interview C13(d), July 2024, Freetown; Interview C5 (R), July 2024, Freetown.
- 64 This is the only synthetic cannabinoid sample that contained a significant amount of a cannabinoid other than MDMB-4en-PINACA. It could indicate that the synthetic cannabinoid present in kush changed over time, or that more than one synthetic cannabinoid variant was present simultaneously in the kush market, leading to kush of different strengths being available.
- 65 Interview C5 (R), July 2024, Freetown; Interview SP2, July 2024, Freetown; Interview C2(o), July 2024, Freetown; Interview C12(o), July 2024, Freetown.
- 66 Group 2 seems to not have had a lock between the partners and their middle men. There are some indications that the leaders of Group 2 may have worked for someone else and were themselves the lock; Interview C5 (R), July 2024, Freetown; Interview SP2, July 2024, Freetown.
- 67 Interview E2, July 2024, Freetown/Accra (by phone); undisclosed interview June 2023, Freetown.
- 68 Interviews, MP2; MP1; CS4; Interview, member party militia, June 2023, Freetown; Interview, C1(O), July 2024, Freetown.
- 69 Data shared by Kissy Psychiatric Hospital.
- 70 Round table with government stakeholders, including the National Public Health Agency, NDLEA, and Office of National Security, 12 December 2024, Freetown.
- 71 Interview, representatives of IDCHS and SLYDCL, 18 October 2024, by telephone.
- 72 Interview, MP1, Freetown.
- 73 Interview, MP1, Freetown.
- 74 This period is triangulated by analysis of major players, reports by kush manufacturers and interviews with close observers of the kush market. Solvent seizures in 2021 support the existence of some small-scale manufacture before this point, but not on the scale that followed. Members of Mr OM's group say he started to import separate chemicals via a postal courier service also in this period and may have started local mixture as well; Interview C5 (R), July 2024, Freetown; Interview C13 (d), July 2024, Freetown.
- 75 Interview C9 (R), July 2024, Freetown; Interview C11(d), July 2024, Freetown.
- 76 Interview C9 (R), July 2024, Freetown
- 77 Interview C2 (o), July 2024, Freetown.
- 78 Testing conducted by the French government reportedly first detected nitazenes in West Africa's drugs market in 2023. These findings are not publicly available. Interview, LE11. Also shared by the International Narcotics Control Board during the UNODC Commission on Narcotic Drugs, 12 November 2024.
- 79 Some distribution and consumption shifted to mangroves, which pose an obstacle to easy law enforcement access, or to more hidden areas around streets, including spaces under gutters.
- 80 Interviews including: PWUD FGD1, 2, Interview, MP1, Freetown.
- 81 PWUD FGD1, 2.
- 82 Round table with government stakeholders, including the National Public Health Agency, NDLEA, and Office of National Security, 12 December 2024.
- 83 Drug Taskforce reveals "kush" claims 11 people's lives in 113 cases, The Point, 27 June 2024, <https://thepoint.gm/africa/gambia/headlines/drug-taskforce-reveals-kush-claims-11-peoples-lives-in-113-cases>; Voice of America, Liberia's president declares drug abuse a 'public health emergency', 30 January 2024, <https://www.voaafrica.com/a/>

- liberia-s-president-declares-drug-abuse-a-public-health-emergency-/7462153.html.
- 84 While some stakeholders say kush arrived in Guinea in 2019, most say it was available from 2021. Interview, CS4, Conakry, Guinea.
- 85 PWUD FGD4, PWUD FGD5, Monrovia, Liberia.
- 86 Some stakeholders in both countries reported a decrease in kush-related fatalities in 2024. However, this was not corroborated by all stakeholders and is difficult to triangulate in the absence of data on fatalities.
- 87 It is unclear why, but a smaller existing drug consumption market and widespread social media coverage of kush impacts elsewhere may be relevant factors.
- 88 Interview, CS4, Conakry, Guinea; interviews with Sierra Leonean kush transporters.
- 89 Interview, long-time smuggler family, 30 July 2022, Freetown.
- 90 Documents provided by the Liberia Drug Enforcement Agency regarding a seizure of organic matter believed to be kush on 24 June 2024 at Roberts International Airport in Monrovia.
- 91 There have been arrests of Sierra Leonean nationals in connection with kush seizures, including as far away as Ghana in early 2024; Interview, security officer, July 2024, Accra.
- 92 Interview, C9(R) July 2024, Freetown; Interview, SP4, July 2024, Freetown.
- 93 Interview, long-timer smuggler family, 30 July 2022, Freetown.
- 94 Interview, C21, Conakry, Guinea.
- 95 Guinea, Guinea-Bissau, Liberia and the Gambia do not have mass spectrometry laboratory chemical testing facilities, and instead use a range of different reagent kits. These cannot reliably detect synthetic cannabinoids or nitazenes.
- 96 While laboratory testing data is not available for kush samples collected in Guinea-Bissau, FTIR spectrometer findings – which have largely been confirmed by laboratory testing in Freetown – indicate that kush sold in Bissau has a similar chemical composition to that in Freetown, with synthetic cannabinoids and nitazenes detected. While the research cannot confirm which nitazenes and synthetic cannabinoids are present, it seems likely these reflect those prominent in Sierra Leone's markets. All FTIR spectrometer detections of nitazenes in Guinea-Bissau were checked using nitazene immunoassay testing strips.
- 97 See EUDA, EU Drug Market: New psychoactive substances – distribution and supply in Europe: Synthetic cannabinoids, https://www.euda.europa.eu/publications/eu-drug-markets/new-psychoactive-substances/distribution-and-supply/synthetic-cannabinoids_en.
- 98 Local cooks always identified the import of some of the elements used in the synthesis process.
- 99 Stakeholders reporting links to the UK include Sierra Leonean law enforcement, maritime port employees (at varying levels in the hierarchy) and actors in the kush market Including: LE7, GA2, O9, LE3C, LE2B, MP3, C14. No documentary evidence – such as bills of lading – was provided linking consignments to the UK.
- 100 Stakeholders reporting links to the Netherlands included Sierra Leonean law enforcement and operators in the market. The role of the Netherlands was underscored with a large kush seizure on 31 March 2024. The size of the consignment indicates this was unlikely to be a one-off. The links to the Netherlands of some major kush players – most prominently Person A within Group 2, further supports the Netherlands' role as exporter. Person A is only one of a number of individuals publicly named by Sierra Leonean authorities. The Calabash Newspaper, Vice president vows tough stance: No bail for kush offenders, Magistrates Assigned, 5 April 2024, <https://thecalabashnewspaper.com/vice-president-vows-tough-stance-no-bail-for-kush-offenders-magistrates-assigned/>.
- 101 This was not only highlighted in interviews but through the provision of the bill of lading for the consignment seized on 31 March 2024.
- 102 The tested sample also included other ingredients not seen in any other sample of kush tested, including cocaine, supporting analysis that identifies possible cross-contamination.
- 103 Interview, C14.
- 104 Encrypted messenger communications, MP6, 22 November 2024.
- 105 Interviews C16, C17, C13.
- 106 See EUDA, EU Drug market: heroin and other opioids – in-depth analysis, https://www.euda.europa.eu/publications/eu-drug-markets/heroin-and-other-opioids/retail-markets_en.
- 107 Journalistic investigations identified thousands of adverts for nitazenes on the surface web, on platforms including X and Soundcloud. Established organized crime groups with longstanding operations in UK drug markets are believed to be the main importers of nitazenes into the country. A 2024 investigation into synthetic opioids in the US detected several US-based traffickers importing nitazenes – specifically protonitazene, the most commonly identified nitazene in Sierra Leone's kush samples – by post from China, where they are produced by chemical companies. US DEA, South Florida man pleads guilty to participating in a conspiracy to distribute protonitazene from China, 2024, <https://www.dea.gov/press-releases/2024/01/12/south-florida-man-pleads-guilty-participating-conspiracy-distribute>. The Guardian, Synthetic opioids previously linked to UK deaths are being 'advertised for sale on social media', 22 April 2024, <https://www.theguardian.com/society/2024/apr/22/synthetic-opioids-nitazenes-advertised-for-sale-on-social-media-uk-deaths>.
- 108 Interview, LE19, July 2024, by phone.
- 109 Interview, LE14.

- 110 See EUDA, EU drug market: new psychoactive substances – distribution and supply in Europe: synthetic cannabinoids, https://www.euda.europa.eu/publications/eu-drug-markets/new-psychoactive-substances/distribution-and-supply/synthetic-cannabinoids_en.
- 111 Inter-American Drug Abuse Control Commission, The emergence of nitazenes in the Americas, September 2024, <https://www.oas.org/ext/DesktopModules/MVC/OASDnnModules/Views/Item/Download.aspx?type=1&id=1045&lang=1>; National Centre for Clinical Research on Emerging Drugs, 2024, <https://nccred.org.au/wp-content/uploads/2024/04/Nitazenes-Emerging-Drug-Briefing.pdf>.
- 112 Two of the three nitazenes detected in Scotland (metonitazene, and protonitazene) are among those detected in Sierra Leone. Metonitazene was repeatedly detected alongside synthetic cannabinoids. See <https://www.gov.scot/binaries/content/documents/govscot/publications/foi-eir-release/2024/05/foi-202300390936/documents/foi-202300390936---information-released---annex/foi-202300390936---information-released---annex/govscot%3Adocument/FOI%2B202300390936%2B-%2BInformation%2BReleased%2B-%2BAnnex.pdf>.
- 113 UNODC World Drugs Report 2024, https://www.unodc.org/documents/data-and-analysis/WDR_2024/WDR24_Contemporary_issues.pdf.
- 114 See <https://phw.nhs.wales/publications/publications1/wedinos-philtre-april-2023-march-2024/>.
- 115 As evidenced on US drug tracing website drugs data: https://www.drugsdata.org/results.php?search_field=all&s=metodesnitazene.
- 116 Matthew Bonn April, Protonitazepyne and Medetomidine? More unfamiliar drugs in our supply, *Filter*, 9 April 2024, <https://filtermag.org/protonitazepyne-medetomidine-drug-supply/>.
- 117 Metonitazenes were first identified in street drug supplies in early 2020. Metonitazene in the US-Forensic toxicology assessment of a potent new synthetic opioid using liquid chromatography mass spectrometry, Krotulski AJ, Papsun DM, Walton SE, Logan BK. *Drug Test Anal.* 2021;13:1697–1711. doi: 10.1002/dta.3115.
- 118 Interview, MP6.
- 119 Inter-American Drug Abuse Control Commission, The emergence of Nitazenes in the Americas, September 2024, <https://www.oas.org/ext/DesktopModules/MVC/OASDnnModules/Views/Item/Download.aspx?type=1&id=1045&lang=1>.
- 120 Round table with government stakeholders, including the National Public Health Agency, NDLEA, and Office of National Security, 12 December 2024, Freetown.
- 121 Recommended by the WHO for scheduling in 2020, and by EUDA in 2021. By 2021, MDMB-4en-PINACA was already scheduled in some countries in Africa, including Egypt. WHO: World Health Organization recommends 8 NPS for scheduling, <https://www.unodc.org/LSS/Announcement/Details/Od68dc5f-a17e-4edc-83f0-6705aca1e5b3>; EUDA, European Commission proposes to control two harmful new psychoactive substances, 12 March 2021, https://www.euda.europa.eu/news/2021/1/european-commission-proposes-control-two-harmful-new-psychoactive-substances_en; Changes in the scope of control of substances: proposed scheduling recommendations by the World Health Organization, 6 April 2021, https://www.unodc.org/documents/commissions/CND/CND_Sessions/CND_64/CRPs_NGO_papers/ECN72021_CRP5_V2102196.pdf; Europe’s Response to New Psychoactive Substances, 12 March 2024, https://www.euda.europa.eu/news/2021/1/european-commission-proposes-control-two-harmful-new-psychoactive-substances_en.
- 122 Round table with government stakeholders, including the National Public Health Agency, NDLEA, and Office of National Security, 12 December 2024, Freetown.
- 123 On 10 July 2020, EUDA issued a public health advisory highlighting an increase in the number of identifications of MDMB-4en-PINACA in Europe and the potential risks posed by this. <https://www.drugsandalcohol.ie/33289/1/emcdda-initial-report-MDMB-4en-PINACA.pdf>.
- 124 This expansion closely followed the decision to internationally control two closely related synthetic cannabinoids (4F-MDMB-BINACA and 5F-MDMB-PICA), and could be yet another example of a commonly tracked trend of increasingly diverse synthetic cannabinoids being manufactured to avoid regulation. <https://www.drugsandalcohol.ie/33289/1/emcdda-initial-report-MDMB-4en-PINACA.pdf>.
- 125 Interview, MP6.
- 126 EUDA, Risk Assessment Report on a new psychoactive substance: methyl 3,3-dimethyl-2-[[1-(pent-4-en-1-yl)-1H-indazole-3-car-bonyl]amino]butanoate (MDMB-4en-PINACA) in accordance with Article 5c of Regulation (EC) No 1920/2006 (as amended), 2020, https://www.drugsandalcohol.ie/33912/1/emcdda-RAR-MDMB-4en-PINACA_NEW.pdf.
- 127 Interview, MP6.
- 128 Interview, port worker, 15 February 2022, Phone.; Politico SL, 'Kush Paraphernalia Discovered at Sierra Leone Port |', accessed 16 February 2022, <https://politicosl.com/articles/kush-paraphernalia-discovered-sierra-leone-port>.
- 129 Interview, LE3C.
- 130 Materials seized include dried leaves and liquids.
- 131 Only one of the port samples – reportedly seized in 2022 – contained nitazenes. However, the composition of this sample is an outlier from other samples tested: nitazenes were present only in small traces alongside greater concentration of synthetic cannabinoid and a number of other adulterants not identified in any other samples, including cocaine. Consequently, it is likely that this sample was cross-contaminated in storage and the original sample

- was synthetic cannabinoid (which remained the stronger presence). The laboratory findings of this 2022 sample are as follows: cocaine (major); MDMB-4en-PINACA (major); protonitazene (minor); norcocaine (minor); cinnamoylcocaine (traces); ecgonine (traces); benzoylecgonine (traces); tropacocaine (traces).
- 132 Bills of lading shared with the authors reported the 31 March 2024 seizure of organic matter, liquids and seeds believed to be linked to kush production. No documentation was provided to prove the reported link between the official sample provided for testing and the 31 March 2024 consignment. This information was shared orally by TOCU representatives.
- 133 The same company packaging was identified in seizures of leaves believed to be kush at Roberts International Airport in Monrovia, Liberia.
- 134 See statement from Sierra Leones former Inspector General Fayia Sellu in: Bill Weinberg, "Kush" Scare Hits West Africa | Project CBD, 23 February 2022, <https://projectcbd.org/safety/west-africa/>; Interviews C16, C17, C13.
- 135 Interview, LE13.
- 136 GI-TOC monitoring and analysis of drug markets internationally. See, for example: Lucia Bird, Changing tides: The evolving illicit drug trade in the western Indian Ocean, GI-TOC, 2021, <https://globalinitiative.net/analysis/drug-trade-indian-ocean/>.
- 137 Made in China provides a platform for global buyers to purchase a wide range of goods from Chinese suppliers. Alibaba hosts a wider range of suppliers from several countries in Asia. Interviews C16, C17, C13.
- 138 The same company packaging was identified in seizures of leaves believed to be kush at Monrovia Roberts International Airport; Interviews C16, C17, C13.
- 139 Interview, MP6.
- 140 Although some kush is synthesized locally, a lot of 'retail-ready' kush is mixed in Freetown then distributed to other regions of Sierra Leone. Interview, C18; Interview, member party militia, 22 May 2023, Freetown.
- 141 For example, the market for 'la chimique', a synthetic cannabinoid which quickly became the most prevalent drug in Mauritius and Mayotte: Lucia Bird et al, Changing tides: The evolving illicit drug trade in the western Indian Ocean, GI-TOC, 2021, <https://globalinitiative.net/analysis/drug-trade-indian-ocean/>.
- 142 Interview, C11, 23 July 2024, Freetown.
- 143 Interview C10 (d), 26 July 2024, Freetown; Interview, O3, 15 July 2024.
- 144 Interview, C11, 20 July 2024, Freetown.
- 145 In theory, some could bank on non-detection during screening, though the value of kush might limit appetite for such gambles.
- 146 Interview, C23, 12 December 2024, Freetown.
- 147 The equipment seized included a vacuum pump, which could be used to remove residues of water or other solvents in the process of synthesising precursors into retail-ready synthetic drugs. The equipment was for high volume production, of at least 50kg of pure synthetic drug per month. However, it also included an explosion proof bioreactor and a mini reactor, both more consistent with methamphetamine production. Images of equipment seized in Freetown in November 2024, circulated widely.
- 148 Interview, C13, Freetown.
- 149 Interview, MP6.
- 150 However, cooking also takes place in eastern Freetown. Another example involved a lab in Makeni, in northern Sierra Leone. Interview C10 (d), 26 July 2024,
- 151 Interview C5 (R), 20 July 2024.
- 152 Interview, C23, 12 December 2024, Freetown.
- 153 Interview, C11, 26 July 2024, Freetown
- 154 Because cooking is very profitable, there have been many cooking attempts by those operating at lower levels in the market (e.g. peddlers), citizens hoping to hit the jackpot by mixing anything they can get their hands on, and people who buy locally-produced or imported kush and experiment with own additions (e.g. flavouring, though rat poison has also been reported) Interview, C9 (R), July 25 202024, Freetown; Interview C10 (d), 26 July 2024.
- 155 Some have been around for a long time and can be traced back to Mr OM.
- 156 Interview, C13(d), 23 July 2024, Freetown.
- 157 Gender disaggregated statistics are not available, however all interviewed stakeholders agreed that consumption of kush was more prominent among men. This was held up by observation of both authors in drug using areas.
- 158 PWUD Surveys, Freetown. PWUD FGD, 1.
- 159 Mats Utas, Introduction: Bigmanity and Network Governance in African Conflicts, in *African Conflicts and Informal Power: Big Men and Networks* (Zed Books, 2012), 1–31.
- 160 Interview 4 (d), July 29 2024, Kenema.
- 161 The price of a single dose of kush was remarkably consistent within markets and across the capitals of Freetown, Monrovia and Conakry. It is significantly more expensive in Bissau.
- 162 Interviews, various cliques in Portee, 1 August 2022, Freetown; 'Kush is making a lot of profit. When you buy 150k Kush you make 100 to 150 profit on it'. Interview RUF-P elder, 27 July 2022, Freetown; Interview, cliques (gangs) in Eastern, 3 August 2022.
- 163 Interview, C13, Freetown.
- 164 Interviews C16, C17, C18. Interview, C11 (d), July 26, 2024, Freetown.
- 165 Interview, MP6.
- 166 Lucia Bird et al, Changing tides: The evolving illicit drug trade in the western Indian Ocean, GI-TOC, 2021, <https://globalinitiative.net/analysis/drug-trade-indian-ocean/> .
- 167 Interview, C13 (d), 23 July 2024, Freetown.
- 168 Interview, C13 (d), 29 July 2024, Freetown.
- 169 Interview, C11 (d), 20 July 2024, Freetown.

- 170 Interview, C5 (R), 20 July 2024, Freetown. Interview, SP2, July 19, 2024, Freetown.
- 171 Interview C9 (R), 24 July 2024, Freetown.
- 172 Interview SP3, 25 July 2024, Freetown.
- 173 William Reno, *Corruption and State Politics in Sierra Leone*, 1. publ. (Cambridge [u.a.]: Cambridge Univ. Press, 1995).
- 174 Mats Utas and Magnus Jörgel, 'The West Side Boys: Military Navigation in the Sierra Leone Civil War', *Journal of Modern African Studies* 46, no. 3 (2008): 487–511; M. M. Christensen and M. Utas, 'Mercenaries of Democracy: The "Politricks" of Remobilized Combatants in the 2007 General Elections, Sierra Leone', *African Affairs* 107, no. 429 (18 August 2008): 515–39, <https://doi.org/10.1093/afraf/adn057>; Utas and Christensen, 'The Gift of Violence: Ex-Militias and Ambiguous Debt Relations during Post-War Elections in Sierra Leone', *African Conflict and Peacebuilding Review* 6, no. 2 (2016): 23, <https://doi.org/10.2979/africonfpeacrevi.6.2.02>.
- 175 Kars De Bruijne, Are Sierra Leone's gangs a new phenomenon?, *Mats Utas* (blog), 13 July 2019, <http://matsutas.com/crime/are-sierra-leones-gangs-a-new-phenomenon-by-kars-de-bruijne/>; Kars De Bruijne, The making of a market: Politicizing gangs in Sierra Leone, *Mats Utas* (blog), 31 July 2019, <http://matsutas.com/big-men/the-making-of-a-market-politicizing-gangs-in-sierra-leone-by-kars-de-bruijne/>; Kieran Mitton, "A Game of Pain": Youth marginalisation and the gangs of Freetown, *The Journal of Modern African Studies*, 60, no. 1 (March 2022): 45–64, <https://doi.org/10.1017/S0022278X21000410>.
- 176 Author observations.
- 177 Interview, C13 (d), 23 July 2024, Freetown.
- 178 Interview, SP2, 23 July 2024, Freetown.
- 179 While the CO (Commanding Officer, a gang and party militia title for the leader) intervened, he negotiated exchanging the bad kush for better product as 'in a drug deal you don't get your money back'.
- 180 The cannabis market required well-organized manual labour in the Freetown hills (and in places such as Mile 91), and therefore strong control by owners of the production process. As a result, cannabis distribution and retail was previously often not run by the gangs but by individuals loyal and attached to the cannabis production chain.
- 181 Kieran Mitton, "A Game of Pain": Youth marginalisation and the gangs of Freetown, *The Journal of Modern African Studies*, 60, no. 1 (March 2022): 45–64, <https://doi.org/10.1017/S0022278X21000410>.
- 182 Competition over price is less common, as price is also determined by the local protection structure. Another owner of a small 'cartel' said he would rather sell better kush to another retailer operating in a territory than enter the territory and start selling.
- 183 Interview C5 (R), 20 July 2024, Freetown.
- 184 Interview SP2, 19 July 2024, Freetown; Interview C2(o), 19 July 2024, Freetown.
- 185 David Keen, *Conflict & Collusion in Sierra Leone*. Oxford: James Currey, 2004.
- 186 Interviews with individuals responsible for security or screening processes at Queen Elizabeth II Quay, including LE12, PS1, LE9, LE7.
- 187 Interview, LE 3, 27 July 2024, Freetown. In one instance, a suspected container first had to be cleared. Because there is high-level protection for other types of trade, there is room for individuals to help with moving kush on the side.
- 188 Interviews including: C14 (D), C15, C13. Several seizures have been reported from courier services using air freight. Interview, LE13.
- 189 Interview, LE13.
- 190 Interview, LE13. Interview, security officer, 13 July 2024, Accra (Ghana).
- 191 Interview, CS1. Similar examples were shared by other interviewees.
- 192 Revealed by, SP2, 20 July 2024, Freetown. Author observations, confirmed by interview C11 (d), 26 July 2024, Freetown.
- 193 Interview PS3, Freetown.
- 194 Interview, LE7, 12 March 2024, Freetown.
- 195 Interview, LE3, 26 July 2024, Freetown.
- 196 Interview, C2 (o) 18 July 2024, Freetown. Name of local unit commander known by author, payments facilitated through a middle man.
- 197 Interview, C9 (R) 25 July 2024, Freetown.
- 198 Interview, LE3, 26 July 2024, Freetown.
- 199 Interview, C2 (o) July 18 2024, Freetown.
- 200 Interview, C11(d), 23 July 2024, Freetown.
- 201 Interview, C11(d), 23 July 2024, Freetown; Interview, C11(d), 27 July 2024, Freetown; Interview, C13(d), 23 July 2024, Freetown. The amount of 500 New Leones seems high. Yet, in these deals, the seized kush is handed back to the peddler (in this case one ounce worth about US\$300). A few days later, the same peddler was arrested again. The price rose to 1 300 New Leones, but after negotiation came down to 600 New Leones. Similar instances of quick payments ensuring the release of connected peddlers were experienced throughout the research.
- 202 Some police officers know the name of the dealer.
- 203 Interview, C1(o), 17 July 2024, Freetown; Interview, 18 July 2024 C2 (o).
- 204 Interview C9 (R), 25 July 2024, Freetown; Interview/spending day C9 (R), July 24 2024, Freetown.
- 205 Interview SP2, 19 July 2024, Freetown.
- 206 When PWUD broke into the house of one of the authors, it was a cartel leader who arrested them.
- 207 Interview C5 (R), 20 July 2024, Freetown.
- 208 Interview, SP2, 26 July 2024, Freetown.
- 209 Interview, zonal chair person unnamed political party, 3 July 2023, Freetown.
- 210 Interview, SP2, 20 July 2024, Freetown.

- 211 Interview, C13(d), 23 July 2024, Freetown.
- 212 Interview, E2, 22 July 2024, Freetown; Interview, O4, 20 July 2024, Freetown (phone).
- 213 Interview, O3, 15 July 2024, Freetown.
- 214 Interview, O3, 15 July 2024, Freetown.
- 215 Interview C10 (d), 26 July 2024.
- 216 The search was widely covered in local press. Reports that the search was leaked prior to occurring were repeated by interviewees in Freetown.
- 217 Interview, O8, 17 July 2024, Freetown. Interview CS4, CS2.
- 218 Interview, SP2, 19 July 2024, Freetown; Interview, C2(o), 19 July 2024, Freetown, Interview, C1(o), 17-7-2024, Freetown.
- 219 Interview, LE2, 23 July 2024, Freetown.
- 220 Interview C9 (R), 25 July 2024, Freetown ; Interview/spending day C9 (R), July 24 2024, Freetown.
- 221 Interview C11 (d), 23 July 2024, Freetown.
- 222 Interview, SP2, 19 July 2024, Freetown.
- 223 Data shared by Sierra Leone Psychiatric Teaching Hospital.
- 224 Interview, MP2; MP7, PWUD FGD3.
- 225 For example, initial treatment approaches at the new in-patient centre – in place in March 2024 – were concerning. For example, PWUD had not received comprehensive information about the proposed treatment before being asked to consent to treatment. Efforts have been made to strengthen the standard of treatment. Interviews, MP5, PWUD FGD3. UNODC, WHO, International standards for the treatment of drug use disorders, Revised edition 2020, https://www.unodc.org/documents/drug-prevention-and-treatment/UNODC-WHO_International_Standards_Treatment_Drug_Use_Disorders_April_2020.pdf
- 226 Interviews with PWUD at the National Rehabilitation Centre (PWUD FGD3), Freetown, MP5, Freetown.
- 227 Encrypted messenger exchange, CS4, 9 December 2024.
- 228 UNODC, WHO, International standards for the treatment of drug use disorders. Revised edition 2020, https://www.unodc.org/documents/drug-prevention-and-treatment/UNODC-WHO_International_Standards_Treatment_Drug_Use_Disorders_April_2020.pdf
- 229 Ibid.
- 230 Sierra Leone Salone, Two containers intercepted at the quay with substance used for Kush., Facebook, 2 April 2024, <https://www.facebook.com/SierraNetworkSalone/videos/two-containers-intercepted-at-the-quay-with-substance-used-for-kush-umaru-kargbo/3286614438314662/>.
- 231 Interview, member party militia, 1 June 2023, Freetown; Interview/spending day with militia members, 26 July 2022, Freetown. Author observations.
- 232 Interview, Director undisclosed CSO, 1 August 2022, Freetown.
- 233 Interview C9 (R), July 25 2024, Freetown. Privately retailer suggested that this is done at request of 'authorities.'
- 234 Names and cases known, not disclosed.
- 235 Interview, Office of National Security, 3 August 2022, Freetown. Interview, PorteeHood Clique, 1 August 2022, Freetown.
- 236 Awoko, 1 dead after fire, gunshots at Pademba Road Correctional Centre, 30 April 2020, <https://awokonewspaper.sl/1-dead-after-fire-gunshots-at-pademba-road-correctional-centre/>.
- 237 Interviews, Members of Blood Aberdeen, 8 July 2022, Freetown.
- 238 Monrovia (Liberia) also has a problem with street gangs, initially composed largely of ex-combatants, some with ties to political actors, and later increasingly involved in petty crime. Emergence of kush use similarly contributed to disintegrating gang structures, reducing levels of coordination and hierarchy.
- 239 Interview, politician, 6 June 2023, Freetown.
- 240 The Integrated Elections Security Planning Committee, Office of National Security, Freetown; National Elections Threat Assessment/District Risk Mapping for the 2023 General Elections, https://ons.gov.sl/wp-content/uploads/2024/03/Election-Security-Threat_Assessment-Report-for_2023_V02.pdf. Recognizing this, civil society, supported by the Political Parties Regulation Commission, requested political parties to sign a commitment not to distribute drugs to supporters in the runup to the 2023 elections. Only four minor parties signed.
- 241 See, for example: Lucia Bird et al, The challenge of responding to synthetic drug markets, through the lens of tramadol in West Africa, GI-TOC, 2023, <https://globalinitiative.net/analysis/responding-to-synthetic-drug-markets-tramadol-west-africa/>.
- 242 The evidence base for establishing causality between enhanced law enforcement and illicit commodity price increases is mixed. See: Harold Pollack and Peter Reuter, Does tougher enforcement make drugs more expensive?, *Addiction*, 109, no. 12 (2014); Jonathan P Caulkins, Diminishing returns and great potential: a comment on Pollack's & Reuter's review on tougher drug enforcement and prices, *Addiction*, 109, no. 12 (2014).
- 243 Interview LE18, 17 July 2024, by phone.
- 244 For example, 'synthetic cannabinoids, its chemical diversities, its analogues, including...' a non-exhaustive list of names.
- 245 AU Continental Technical Experts' Consultation on Strengthening Synthetic Drug Supply Reduction, July 2023, <https://au.int/en/pressreleases/20230731/au-continental-technical-experts-consultation-strengthening-synthetic-drug>.
- 246 There are a number of civil society led harm reduction initiatives, largely supported by the Global Fund, in Sierra Leone, including provision of needle and syringes, and opiate substitution programmes for heroin users.
- 247 Round table with government stakeholders, including the National Public Health Agency, NDLEA, and Office of National Security, 12 December 2024, Freetown, Sierra Leone.

- 248 Currently, Sierra Leone's National Drugs Control Act 2008 provides for mandatory minimum imprisonment terms of five years for any individual caught purchasing, selling, using or administering illicit drugs. The provisions of the law would capture individuals administering opiate substitution therapy.
- 249 US Department of Health and Human Services/Centers for Disease Control and Prevention, Nitazene-related deaths – Tennessee, 2019–2021, September 16, 2022, Vol. 71, No. 37, <https://www.cdc.gov/mmwr/volumes/71/wr/pdfs/mm7137a5-h.pdf>.
- 250 U.S. Department of Justice, Bureau of Justice Assistance, What are the typical costs of a law enforcement overdose response program?, <https://bjatta.bja.ojp.gov/naloxone/what-are-typical-costs-law-enforcement-overdose-response-program>; JAMA, Trends in Out-of-Pocket Costs for and Characteristics of Pharmacy-Dispensed Naloxone by Payer Type, 2024, <https://jamanetwork.com/journals/jama/fullarticle/2814611>.
- 251 Lyes Tagziria et al, New approaches to regulating drugs in West Africa: Exploring the impact of Ghana's drug policy reform, 2023, OCWART, <https://globalinitiative.net/analysis/regulating-drugs-west-africa-ghana-drug-policy-reform/>.
- 252 A number of recent graduates from the Colombo plan reportedly continue to await deployment. Round table with government stakeholders, 12 December, Freetown, Sierra Leone.



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