Report

December 2025

PATHWAY TO POLICY

Firearms Trafficking and Public Health in the Caribbean

IMPACS — Implementation Agency for Crime and Security

CARPHA — Caribbean Public Health Agency

UWI

small arms survey

A joint Report by the Caribbean Community Implementation Agency for Crime and Security, the Caribbean Public Health Agency, the George Alleyne Chronic Disease Research Centre at The University of the West Indies, and the Small Arms Survey, with financial support from the German Federal Foreign Office

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Cover photo: A resident with a bullet casing in his hand during an anti-gang operation in the Kenscoff district of Port-au-Prince, Haiti, 3 February 2025. Source: Louis Guerinault/Reuters

About the 'Pathway to Policy' project

The project 'Pathway to Policy: Integrating Security and Public Health Responses to Firearms Trafficking and Violence in the Caribbean' aims to improve the quality and availability of relevant data and analysis on matters related to firearms proliferation and misuse in the Caribbean. Building on partnerships with leading regional and international institutions, the project engages with regional security, public health, and research stakeholders through knowledge sharing and policy prioritization. This project is implemented by the Caribbean Community Implementation Agency for Crime and Security, the Caribbean Public Health Agency, the George Alleyne Chronic Disease Centre at The University of the West Indies, and the Small Arms Survey.

For more information, please visit:
www.smallarmssurvey.org/project/pathway-to-policy-caribbean-project.

About the Small Arms Survey

The Small Arms Survey is a centre for applied knowledge dedicated to preventing and reducing illicit small arms proliferation and armed violence. The Survey informs policy and practice through a combination of data, evidence-based knowledge, authoritative resources and tools, and tailored expert advice and training, and by bringing together practitioners and policymakers.

The Survey is an associated programme of the Geneva Graduate Institute, located in Switzerland, and has an international staff with expertise in security studies, political science, law, economics, development studies, sociology, criminology, and database and programme management. It collaborates with a network of researchers, practitioners, partner institutions, non-governmental organizations, and governments in more than 50 countries.

The Survey's activities and outputs are made possible through core support as well as project funding. A full list of current donors and projects can be accessed via the Small Arms Survey website: www.smallarmssurvey.org.

About CARICOM IMPACS

The Caribbean Community (CARICOM) Implementation Agency for Crime and Security (IMPACS) is CARICOM's specialized body for coordinating and implementing its crime and security agenda. Established by the Conference of Heads of Government in July 2006, in Bird Rock, St Kitts and Nevis, CARICOM IMPACS is the operational centrepiece of the region's multilateral security architecture. Its membership spans 15 CARICOM Member States and six Associate Member States. Headquartered in Port of Spain, Trinidad and Tobago, the Agency comprises two sub-agencies: the Joint Regional Communications Centre (JRCC) and the Regional Intelligence Fusion Centre (RIFC).

It serves as the principal forum within CARICOM for crime and security cooperation and acts as a trusted advocate for the Caribbean region's security interests with international organizations, partners, academia, and civil society—translating evidence into coordinated action across borders, sectors, and disciplines. CARICOM IMPACS functions as the Caribbean's integrated hub for security data, intelligence, and operations, and operates the world's only multilateral Advance Passenger Information System (APIS) for real-time screening of persons of security interest. The Agency develops and strengthens regional policies, strategies, and legal and normative tools to address priority threats, and delivers intelligence and information integration and operations and investigative support to enhance cross-border information sharing and coordinated enforcement. Through capacity-building, institutional strengthening, and research, along with the sharing of expertise, CARICOM IMPACS equips officials with the skills, systems, and analytics needed for contemporary challenges—promoting evidence-informed approaches that protect people, uphold the rule of law, and strengthen institutional resilience across the Caribbean community.

For more information, please visit: www.caricomimpacs.org.

About CARPHA

The Caribbean Public Health Agency (CARPHA) is the single regional public health agency for the Caribbean. It was legally established in July 2011 by an Inter-Governmental Agreement signed by CARICOM member states and began operations in January 2013. CARPHA rationalizes public health arrangements in the region by combining the functions of five Caribbean regional health institutes into a single agency and addressing the following key regional issues under a public health umbrella: emergency responses to disasters (hurricanes, earthquakes, flooding); the surveillance and management of non-communicable diseases; the surveillance and management of communicable diseases; the surveillance and prevention of injuries, violence, and job-related illnesses; and contributions to global health agreements and compliance with international health regulations. CARPHA is the Caribbean region's collective response to strengthening and reorienting a health system approach so that the region is equipped to address the changing nature of public health challenges. The approach is people-centred and evidence-based.

For more information, please visit: https://carpha.org.

About the GA-CDRC at The University of the West Indies

The George Alleyne Chronic Disease Research Centre (GA-CDRC), located in Barbados, is a unit of the Caribbean Institute for Health Research (CAIHR). It was established initially as the 'research arm' of the Faculty of Medical Sciences at the Cave Hill Campus of The University of the West Indies in 1999. In 2000, it joined the Tropical Medicine Research Institute (TMRI)—an amalgamation of two existing research units, the Sickle Cell Unit and the Tropical Metabolism Research Unit—and a new unit, the Epidemiology Research Unit, all based on The UWI Mona Campus in Jamaica. TMRI was renamed CAIHR on 1 August 2016. The GA-CDRC conducts innovative research that provides evidence for improving the health and well-being of individuals in the Caribbean and globally. The GA-CDRC has a strong track record of research excellence, with an increasing emphasis on developing and evaluating effective health interventions.

For more information, please visit: https://uwi.edu/caihr/about/pg-gacdrc.php.

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Prefaces

CARICOM IMPACS

The Caribbean Community (CARICOM) Implementation Agency for Crime and Security (IMPACS) is honoured to join the Small Arms Survey, the Caribbean Public Health Agency (CARPHA), and the George Alleyne Chronic Disease Research Centre (GACDRC) at The University of the West Indies (The UWI) in advancing a rigorous, regionally produced evidence base on illicit firearms and the public health burden of gun violence. Building on our 2023 *Caribbean Firearms Study*, this new Report strengthens the foundations for policy and operations by closing information gaps, sharpening our understanding of trafficking dynamics, and quantifying the health and productivity costs that weigh on our societies. Together, these insights help move the region from problem diagnosis to system-wide, results-oriented action.

The findings reaffirm what our practitioners experience daily: firearms trafficking is a transnational enterprise that exploits maritime, air, courier, and digital pathways; violence clusters in vulnerable communities; and health systems are compelled to absorb complex, resource-intensive trauma care. Confronting this requires an integrated response—one that couples targeted interdiction with prevention, protects health facilities and workers, and invests in robust, harmonized data systems that enable timely action and accountability across sectors. CARICOM IMPACS will continue to operationalize this integration and deepen partnerships that translate analysis into joint operations and sustained prevention.

This Report is both a benchmark and a call to action. I commend the experts, law enforcement partners, health professionals, statisticians, and community stakeholders whose contributions made it possible. I urge member states and partners to use these findings to strengthen programmes and operations against trafficking, to expand multisectoral prevention—especially for children and youth—and to institutionalize the data systems and safeguards that uphold human rights, equity, and resilience.

With coordinated effort and shared accountability, the Caribbean can reduce firearm-related harm and protect the well-being and prosperity of our people.

Lt. Col. Michael Jones
Executive Director
CARICOM IMPACS

CARPHA

This joint publication between CARPHA, CARICOM IMPACS, the GA-CDRC, and the Small Arms Survey highlights the urgent need to address firearm violence as both a public health and a security challenge in the Caribbean. By combining health surveillance with firearm data and crime statistics to produce policy analysis, the study provides timely evidence to inform decision-making and strengthen regional action. Importantly, the focus on the economic costs of firearm-related injuries also provides additional impetus for greater investment in injury surveillance at both the national and regional levels, helping to contextualize and quantify the broader costs of violence in the Caribbean.

The findings and policy recommendations call for a coordinated, multisectoral response that links the health, security, and development sectors to reduce the burden of firearm-related injuries and deaths. This work demonstrates the value of partnerships in generating knowledge that supports policy, fosters accountability, and advances the region's commitment to building safer, healthier societies.

Dr Lisa Indar
Executive Director
CARPHA

The GA-CDRC at The UWI

The issue of firearm-related violence in the Caribbean has become an increasing public health concern, not only impacting public safety but also placing a significant economic burden on countries. This Report presents compelling evidence of the substantial financial toll that firearm injuries continue to impose on national economies, along with the strain on healthcare systems. In 2024, the estimated productivity losses from both fatal and non-fatal injuries amounted to USD 72 million in The Bahamas, USD 19 million in Barbados, and USD 135 million in Jamaica. Additionally, direct medical costs for treating non-fatal injuries reached USD 1.6 million in The Bahamas, USD 227,810 in Barbados, and USD 2 million in Jamaica. These figures represent an increase compared to the previous Report published in 2023 (the *Caribbean Firearms Study*), which examined data from 2019. These significant costs directly affect a country's competitiveness in global markets, which, in turn, impacts the cost of living for

its citizens. While the findings show a worsening trend, they also show an improvement in access to data and methodology, making the cost assessments more robust than those in the previous study. The Report underscores the contribution of firearm injuries to increased disability, prolonged inactivity, and long-term societal costs for the victims. The intersecting issues of injuries from interpersonal conflict, public health challenges, and socio-economic harm highlight the urgent need to address underlying societal issues. This work, with its various stakeholders and partners, represents a deliberate effort to develop a robust, data-driven methodology informed by international best practices for tracking and assessing the actual costs of violence. The goal is to strengthen the region's progress in addressing this critical public health crisis.

Prof. Simon Anderson
Director
GA-CDRC

The Small Arms Survey

Firearms lie at the heart of violence in the Caribbean. Across the region, the proliferation and misuse of firearms—particularly handguns trafficked from external sources—drive up homicide rates, destabilize communities, and strain already fragile public health systems. The circulation of illicit weapons not only fuels gang activities and youth recruitment into violent networks, but also directly threatens hospitals, schools, and other vital social spaces. This Report underscores how pervasive access to firearms in the Caribbean has transformed patterns of violence, and reveals that gun-related injuries now consume a disproportionate share of national health budgets and divert resources from development and prevention.

Yet the Report also affirms that this challenge, while severe, is not insurmountable. The findings highlight the urgent need for coordinated, multisectoral action—uniting law enforcement, public health, education, and community actors—to curb firearms trafficking, reduce demand, and address the social roots of violence. Building on regional commitments such as the Caribbean Firearms Roadmap and recent declarations by the CARICOM heads of government, the pathway forward requires harmonized data, shared accountability, and a firm commitment to treating gun violence as both a security and a public health priority. Only through such integrated and sustained measures can the Caribbean reverse the tide of firearm-related harm and safeguard its collective future.

Dr Mark Downes
Director
Small Arms Survey

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List of abbreviations and acronyms

ATF	Bureau of Alcohol, Tobacco, Firearms and Explosives
BSAP	Brigade de Sécurité des Aires Protégées (Protected Area Security Brigade)
CARICOM	Caribbean Community
CARPHA	Caribbean Public Health Agency
CBP	Customs and Border Protection
CDC	Centers for Disease Control and Prevention
DHS	Department of Homeland Security
FOIA	Freedom of Information Act
GA-CDRC	George Alleyne Chronic Disease Research Centre
GDP	Gross domestic product
GSF	Gang Suppression Force
HCW	Healthcare workers
HEU	Centre for Health Economics
iARMS	Illicit Arms Records and tracing Management System
IMPACS	Implementation Agency for Crime and Security
INTERPOL	International Criminal Police Organization
JCF	Jamaica Constabulary Force
JISS	Jamaica Injury Surveillance System
MSS	Multinational Security Support

OCG	Organized crime group
OHCHR	Office of the High Commissioner for Human Rights
PAHO	Pan American Health Organization
PMF	Privately made firearm
USD	United States dollar
UWI	University of the West Indies
WCO	World Customs Organization
WHO	World Health Organization
YLD	Years lived with disability

Executive summary

This Report deepens our understanding of the complex issues underpinning firearm-related violence and trafficking in the Caribbean, and provides data-driven benchmarks to support the design and monitoring of policies and interventions. It examines regional trends in the nature and scope of violence and in firearms trafficking and presents updated estimates of the costs of firearm-related injuries.

The Caribbean region continues to suffer from high levels of firearm-related violence, mostly committed by young men (Chapter 1). Firearms were involved in an estimated 86% of homicides reported by Caribbean Community (CARICOM) member states and associate members in 2023–24. Other worrying developments include the recruitment of children and adolescents into armed gangs in several jurisdictions, shootings spilling over into hospitals, and a surge in gang violence—notably in Haiti, which remains the most affected country.

Illicit supply of firearms remains dominated by handguns (pistols), with a modest rise in AR- and AK-pattern rifles and trafficking in large-capacity magazines (Chapter 2). Seizure and trace data confirms that maritime consignments from the United States are a primary vector for illicit trafficking, with procurement clustered in small areas of southern coastal states—notably Florida.

The impacts of gun violence on national health systems are substantial (Chapter 3). In 2024, average direct medical costs per gunshot patient exceeded annual per capita health expenditure by 5:1 in The Bahamas, 3:1 in Barbados, and 8:1 in Jamaica. Estimated productivity losses amounted to USD 72 million in The Bahamas, USD 19 million in Barbados, and USD 135 million in Jamaica. These costs divert already scarce resources from violence prevention, education, and development.

The Report also sets out policy observations to address firearms trafficking and violence as a public health issue, in line with declarations made by CARICOM heads of government. The primary challenge identified is the need to formalize intra- and extra-regional cooperation to counter firearms trafficking by strengthening and institutionalizing standing joint operations, information-sharing arrangements, and cooperation instruments with partner jurisdictions.

In parallel, health system resilience is both a security and economic imperative. The scale of firearm-injury costs and incidents affecting hospitals requires the mainstreaming of public health measures—such as hospital security toolkits, armed assailant preparedness drills, and survivor support pathways—into national security strategies. The Report finally recommends establishing a Caribbean Integrated Violence Surveillance System—coordinated by the CARICOM Implementation Agency for Crime and Security (IMPACS) and the Caribbean Public Health Agency (CARPHA), with appropriate data-protection safeguards—to strengthen prevention, efficient resource allocation, and accountability through harmonized, near real-time data.

Key findings

- **Trends in violence and firearm homicides:** The aggregate regional homicide rate has more than doubled in the CARICOM region in 2023–24 compared with the period 2016–19, though some countries—such as Belize and Jamaica—experienced more positive developments. The proportion of homicides perpetrated with firearms increased substantially to reach 86% in 2023–24, partly due to the deteriorating conditions in Haiti.
- **Healthcare system burden:** In 2024, the average medical expenditure for treating a single patient with firearm-related injuries was five times higher than the annual public health spending per person in The Bahamas, three times higher in Barbados, and eight times higher in Jamaica. In the same year, total productivity losses due to fatal and non-fatal firearm injuries were estimated at USD 72 million in The Bahamas, USD 19 million in Barbados, and USD 135 million in Jamaica.
- **Non-fatal injury patterns:** While comprehensive data on non-fatal firearm injuries is crucially lacking, case study research reveals worrying patterns in some countries—such as patients sustaining multiple gunshot wounds, victims returning to the hospital with new gunshot wounds after being discharged, and shootings occurring in medical facilities as assailants attempt to kill injured patients. Some doctors also highlighted an increase in deaths upon arrival at the hospital.
- **Actors and demographics:** Gangs play a central role in firearm-related violence in the region, most notably in Haiti, where they control large swaths of territory in the capital and beyond. Some other states report that gang violence accounts for 33 to 70% of all homicides. The decreasing age of perpetrators of firearm-related violence in parts of the region further underscores this troubling trend.
- **Weapon types:** Handguns continue to account for the vast majority of illicit firearms seized or traced in the Caribbean, with pistols predominating. Seizures of rifles—especially AR- and AK-pattern models—have risen modestly in recent years, but still comprise a small percentage of all seized firearms.
- **Trafficking vectors:** The vast majority of firearms seized at ports in Belize, The Bahamas, Guyana, and St Lucia were found in maritime shipments from the United States. This is consistent with prevailing assumptions about the international sources of illicit weapons in the Caribbean and the modes of transport used by traffickers.
- **High-risk items:** Trafficking of AR- and AK-rifles and the largest-capacity magazines (30+ rounds) from the United States to the Caribbean appears concentrated in a few destinations. Most seized shipments of these items at US ports were intended for the Dominican Republic, Haiti, and Trinidad and Tobago.
- **Stability of US pathways:** From 2017 to 2024, firearms trafficking dynamics from the United States to the Caribbean remained broadly stable in terms of sourcing locations, shipment sizes, and conveyances, while illicit procurement is concentrated in small areas of southern coastal states (primarily Florida).

Policy observations

The following policy observations draw on the Report's research findings as well as inputs provided by stakeholders from diverse backgrounds who participated in the project's advisory committee of regional experts. These observations are organized according to whether the actions can be implemented at the national or the regional level. Unless stated otherwise, they are addressed to governments in the Caribbean, with support from regional organizations and international partners where appropriate.

	National-level actions	Regional-level actions
Partnerships	• Scale up multisectoral prevention at the community level • Integrate public health-related measures into national security strategies	• Establish a Regional Multisectoral Commission to improve evidence-informed policymaking across sectors • Intensify joint counter-trafficking operations in the region • Sustain high-level engagement with US counterparts
Regulations and operations	• Strengthen offender management and re-entry programmes • Support non-intrusive inspection systems at key ports of entry and exit • Strengthen regulations on courier services and other shipping entities • Prioritize an integrated approach in Haiti combining arms embargo enforcement and long-term investments in development	• Enhance the provision of up-to-date training on weapons identification and tracing to law enforcement and customs officials • Intensify the use of regional intelligence to deploy screening at high-risk entry and exit points • Target the trafficking of firearms and ammunition of particular concern (for example, large-calibre firearms, large-capacity magazines, and conversion devices)
Prevention and education	• Develop preventive interventions for at-risk children and youth • Deploy counter-narratives against violence to reduce the social prestige of firearms	• Develop regional resources to enhance the security and resilience of healthcare facilities, such as a toolkit to guide the healthcare sector in its response to firearm-related violence

	National-level actions	Regional-level actions
Data and analysis	• Strengthen national data systems to record information on the specific firearms and ammunition used in the commission of violent crime • Increase the amount of publicly available data on seized and traced weapons • Undertake further research on the costs of non-fatal injuries and resulting disabilities • Further develop the use of top-down injury costing approaches	• Create a regional injury surveillance working group with representatives of governmental and civil society organizations • Consider establishing a Caribbean Integrated Violence Surveillance System that fuses multi-sectoral data • Monitor and share analysis on regional trends in firearms trafficking and gang-related activity

Regional-level actions

- **Establish a Regional Multisectoral Commission to improve evidence-informed policy-making across sectors:** Establish a commission to bring together security agencies, national law enforcement, national healthcare systems, and civil society in order to assess and implement interventions; harmonize data collection and surveillance on illicit firearms, firearm-related injuries, and other violence-related indicators; strengthen cross-sector accountability; and improve evidence-informed policy-making. This initiative would build upon the Technical Working Group recently established under the CARICOM Council for Human and Social Development – Health 'to develop a strategic framework to address crime and violence as public health issues' (CARICOM, 2025b) and other relevant regional policy instruments.
- **Intensify regional joint counter-trafficking operations**: Intensify joint investigations and operations with non-CARICOM Caribbean jurisdictions—including the French, British, and Dutch territories; the Dominican Republic; and the US Virgin Islands—and expand routine intelligence sharing and controlled delivery mechanisms.
- **Sustain high-level engagement with US counterparts:** Continue efforts by CARICOM IMPACS to sustain high-level engagement with US counterparts, notably to intensify outbound screening at Miami field office ports and jointly disrupt straw purchasing and trafficking networks supplying the Caribbean.
- **Enhance the provision of up-to-date training on weapons identification and tracing to law enforcement and customs:** Ensure that Caribbean law enforcement and customs officials receive training on current typologies and on weapons

identification and tracing and have access to detailed, up-to-date intelligence on trafficking networks, concealment methods, and smuggling techniques.

- **Target the trafficking of firearms and ammunition of particular concern:** Prioritize the interdiction of and investigations into illicit rifles, conversion devices, and large-capacity magazines.
- **Intensify the deployment of intelligence-led screening at high-risk entry and exit points:** Continue efforts by CARICOM IMPACS to scale up support for and intensify the deployment to member states of intelligence-led screening at high-risk seaports, airports, courier hubs, and free zones, and integrate cargo/parcel risk analytics with CARICOM IMPACS' Advance Passenger Information System and Passenger Name Record (APIS/PNR) and maritime domain awareness tools to enable coordinated, joint interdictions.
- **Develop regional resources to enhance the security and resilience of healthcare facilities:** Develop joint practical guidelines and tools by regional institutions, including CARICOM IMPACS and CARPHA, such as key resources and simulation exercises to support safety planning and resilience efforts, to ensure that healthcare facilities and hospitals remain as safe and resilient as possible. Such resources could also incorporate a toolkit for member states to assist healthcare providers, administrators, and planners in preparing their facilities to mitigate, respond to, and recover from firearm-related incidents.
- **Create a regional injury surveillance working group with representatives of governmental and civil society organizations:** Establish a working group to share resources, develop integrated and sustainable injury surveillance and costing processes, promote regional data sharing to enhance and strengthen research and surveillance, and advocate for evidence-based approaches to crime prevention and public health resource allocation.
- **Consider establishing a Caribbean Integrated Violence Surveillance System that fuses multisectoral data:** Consider developing a system to combine police, forensics/ballistics, emergency medical services, hospital, and morgue data—using common definitions and a minimum data set—to generate near real-time alerts and quarterly lethality dashboards under a CARICOM IMPACS–CARPHA governance framework, employing unique IDs to protect privacy and track repeat victims.
- **Monitor and share analysis on regional firearms and gang trends:** Encourage Caribbean authorities to continuously collect and share with CARICOM IMPACS comparable data on firearms and gang trends and analytical insights on firearm-related violence—including incident typologies, victim and perpetrator profiles, and situational contexts—to support timely, coordinated monitoring and response across the region.

National-level actions

- **Scale up multisectoral prevention at the community level:** Intensify multisectoral prevention efforts at the community level, co-led by law enforcement, public health, education, victim support, and justice actors, incorporating monitoring and evaluation for effectiveness and cost-efficiency.
- **Integrate public health-related measures into national security strategies:** Develop measures to ensure hospital security, the protection of healthcare workers, incident reporting, and psychosocial support and integrate these systematically into national security strategies.
- **Strengthen offender management and re-entry:** Promote the adoption, implementation, and systematic evaluation of comprehensive care programmes to reduce recidivism among firearm offenders.
- **Support non-intrusive inspection systems at key ports of entry and exit:** Support the acquisition, maintenance, and effective use of non-intrusive inspection systems at key ports of entry and exit, combined with risk profiling and post-seizure tracing.
- **Strengthen regulations on courier services and other shipping entities:** Strengthen regulations related to the screening of packages by courier services and other shipping entities in both source and destination states, and increase penalties for non-compliance with these regulations.
- **Prioritize an integrated approach in Haiti combining arms embargo enforcement with long-term investments in development:** Tighten embargo and border and maritime interdictions, target gun trafficking networks, and pair rights-compliant policing with rapid investments in jobs, schools, health, and child protection to sustainably reduce violence in Haiti.
- **Develop preventive interventions for at-risk children and youth:** Develop and implement interventions for very young school children, at-risk children, and youth who are not in school to prevent their recruitment into crime and gang-related activities.
- **Deploy counter-narratives against violence:** Deploy counter-violence narratives in communities and schools in partnership with ministries of education and health, faith-based and community networks, and youth leaders to reduce the social prestige of firearms—using A/B-tested content and community radio/WhatsApp distribution for reach and resonance.
- **Strengthen national data systems to record information on the specific firearms and ammunition linked with injuries and crime:** The national data systems should use regionally harmonized common definitions and minimum data requirements to facilitate monitoring and information exchange, and to build a comprehensive intelligence picture on illicit firearms and ammunition.

- **Increase the amount of publicly available data on seized and traced weapons:** Expand the public release of seizure and trace data—beyond US sources—using common taxonomies to facilitate data sharing, while protecting sensitive case and personal information.
- **Undertake further research on the costs of non-fatal injuries and resulting disabilities:** Undertake a retrospective study specifically focused on non-fatal firearm injuries and resulting disabilities from a qualitative perspective to understand the long-term physical, mental, and social impacts of violence on victims and families, and to inform healthcare systems on how to strengthen the care of patients to minimize and reduce long-term disabilities, both physical and behavioural.
- **Further develop the use of top-down injury costing approaches:** Further apply top-down costing approaches with comparison to bottom-up costs to further refine this methodology and simplify costing in the countries involved in the study.

> “In total, inputs were received from 15 CARICOM member states and associate members, as well as two non-CARICOM countries.”

Introduction

Nicolas Florquin and Callixtus Joseph

In 2021–23, CARICOM IMPACS and the Small Arms Survey partnered to produce the first regional *Caribbean Firearms Study*. Drawing on data shared by 22 Caribbean countries and territories, and on partnerships established with leading regional research institutions and experts, the study was launched in Port of Spain in April 2023 during the Fourth Meeting of the Technical Working Group on Preventing Illicit Trafficking of Firearms of the Caribbean Basin Security Initiative. It provided a detailed regional picture of trends in gun violence, firearms holdings and trafficking, emerging firearm-related threats, criminal use of ammunition, and the socio-economic costs of firearm-related injuries (Fabre et al., 2023).

The study underscored the need for a multisectoral approach to reduce and prevent the intertwined threats of firearms trafficking and gun violence (Fabre et al., 2023, pp. 19, 22–23). This conclusion strongly echoed the declaration made by the CARICOM heads of government at the first regional symposium on 'addressing crime and violence as a public health issue' in April 2023 (CARICOM, 2023). Regional leaders further reiterated this call in the 2024 George-Bridge Declaration and the 2025 Montego Bay Declaration, both of which highlighted the public health impact of crime and violence, driven by gang activities and illicit firearms, and emphasized the need for collaborative action (CARICOM, 2024; 2025a).

In this context, CARICOM IMPACS and the Survey extended their partnership to include CARPHA and the George Alleyne Chronic Disease Centre (GA-CDRC) at The University of the West Indies (The UWI) in order to implement a new project titled 'Pathway to Policy: Integrating Security and Public Health Responses to Firearms Trafficking and Violence in the Caribbean'. This initiative, supported financially by the German Federal Foreign Office, aims to create and support an effective pathway from regionally generated research to evidence-based policymaking. Throughout the project period (May 2023–December 2025), the partners undertook new empirical research to update and expand the data collected in the framework of the 2023 study and regularly engaged in regional security, public health, and research fora to promote knowledge sharing and joint policy discussions. Since its inception, the project has published four research outputs on the following issues: the regional proliferation of privately made firearms (Yarina and Florquin, 2024); trafficking from the United States (Schroeder, 2024); seizures of ammunition (Yarina, 2025); and the linkages between illicit firearms, public health, and prevention (Sobers et al., 2025).

This Report presents the findings of new collaborative research undertaken by the partners since 2023. Specifically, the Report seeks to address the following questions:

- Has the nature and scope of firearm-related violence in the Caribbean changed since the publication of the 2023 *Caribbean Firearms Study*?
- Who are the main actors involved, and to what extent do gangs contribute to gun violence?

- Have the types of illicit firearms circulating and being misused evolved in recent years, and with what implications for crime, violence, and public health?
- Have there been notable shifts in the mechanics or primary sources of illicit firearms, including with respect to trafficking from the United States?
- What are the costs and impacts of firearm-related violence on public health in terms of medical expenditures, disability and productivity losses, and the vulnerability of healthcare facilities and personnel to gun violence?

By assembling and analysing the data used to answer these questions, this Report enhances stakeholders' understanding of the complex issues underpinning firearm-related violence and trafficking in the Caribbean. Echoing the work of regional public health and security specialists, it calls for greater attention to the integration of, and balance between, crime prevention approaches and response strategies, including initiatives designed to reduce the access to and misuse of firearms (Sobers et al., 2025). The Report also supports the conclusions of the mid-term review of the Roadmap for Addressing Caribbean Priority Actions on the Illicit Proliferation of Firearms and Ammunition across the Caribbean in a Sustainable Manner by 2030 (hereafter 'Caribbean Firearms Roadmap'; CARICOM IMPACS and UNLIREC, 2020) which led participating states to call for the integration of prevention-focused components into the Roadmap (CARICOM IMPACS and UNLIREC, 2025, para. 5). In this way, the Report informs the Caribbean region's progress towards implementing Sustainable Development Goal (SDG) 16 on violence and illicit arms flows, SDG 3 on health and well-being, and SDG 17 on partnerships (UN, n.d.).

The Report is divided into three main chapters. Chapter 1 examines regional trends in the nature and scope of firearm-related violence. Chapter 2 updates regional data on firearms trafficking, including the principal illicit weapon types in circulation and the sources and methods used to smuggle them. Chapter 3 synthesizes updated case study research on the costs of firearm-related injuries in The Bahamas, Barbados, and Jamaica, where new methodological approaches were tested to enable more sustainable monitoring. Each chapter begins with a summary of key findings.

Data collection and methodology

This study benefited from the close and regular collaboration between the four project partners, as well as consultations with and inputs from a range of regional and international experts and institutions. Data was drawn from the following sources:

- **national statistics** on fatal and non-fatal violent injuries, often disaggregated by weapon type, intent, and, where available, gender and age;
- **hospital records** on gunshot wounds and associated care provided to the patients;
- **'top-down' costing data** produced by the health and economics unit of The UWI;

- **focus group discussions and correspondence** with medical authorities and practitioners in eight Caribbean countries and territories, facilitated through CARPHA;
- **firearms seizure data sets** received from six Caribbean governments;
- **key informant interviews** with customs and police officials;
- **partner data sets** on weapons seizures provided by other governments and institutional partners, including US Customs and Border Protection (CBP), the International Criminal Police Organization (INTERPOL), and the World Customs Organization (WCO); and
- **desk research**, including media reports of firearm-related incidents compiled in CARICOM IMPACS newsletters.

In total, new inputs were received from 15 CARICOM member states and associate members, as well as two non-CARICOM countries.

Ethics and data governance

Ethics approval for the costing research was obtained by the GA-CDRC from the research ethics committees of the ministries of health, academic institutions, and hospitals of The Bahamas, Barbados, and Jamaica. CARPHA's Research Ethics Committee (CREC) reviewed and approved the study's data collection methodology, ensuring that informed consent was obtained from all participants for data requests, interviews, or focus group discussions with national health authorities. CREC also had oversight of the responsible use of the findings, ensuring that all research outputs adhered to approved ethical protocols. CARICOM IMPACS facilitated official requests for statistics and information on firearms seizures and crimes from law enforcement agencies.

The project team also regularly consulted the project's Advisory Committee of regional experts for their feedback on research design and results. The committee comprises 17 experts with backgrounds in law enforcement, public health, communication, violence prevention, community-level programming, the private sector, academia, and small arms proliferation and control measures. Committee members provided their feedback and inputs on the Report's draft findings and policy observations during online validation sessions organized in September 2025.

Box 0.1 Key terms

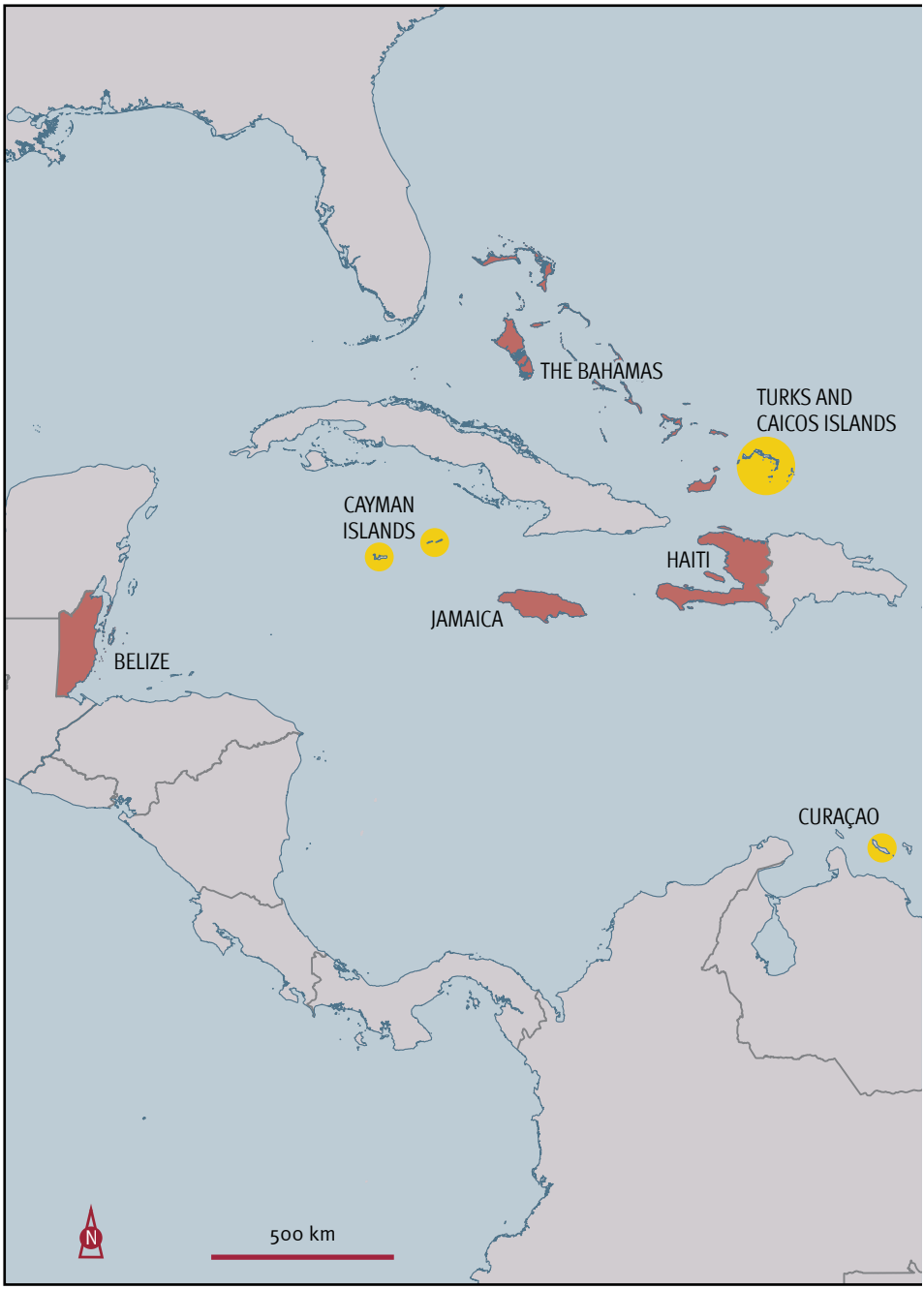
The scope of the assessment is limited to firearms and their parts, accessories, and ammunition. The term 'firearms' refers to weapons belonging to the following categories only: revolvers and self-loading pistols; rifles and carbines; shotguns; sub-machine guns; and light and heavy machine guns. The terms 'arms and ammunition' and 'weapons' are used interchangeably and refer to firearms and their ammunition, components, parts, and accessories.

The term 'accessory' refers to 'an item that physically attaches to a weapon and increases its effectiveness or usefulness but, generally speaking, is not essential for the basic intended use of the weapon' (Grzybowski, Marsh, and Schroeder, 2012, p. 245). The term 'illicit weapons and ammunition' refers to weapons and ammunition that are held, modified, produced, transferred, or used in violation of national or international law. The Survey uses the term 'illicit' rather than 'illegal' to account for cases of unclear or contested legality (Schroeder, 2014, p. 246). 'Trafficking' and 'smuggling' are also used interchangeably and refer to the illicit transfer of weapons within or across national borders, usually involving a change in ownership.

'Medium-' and 'large-calibre' firearms in this Report refer primarily to weapons of calibre .38, .380, and 9 × 19 mm for medium, and to weapons of calibre .357 magnum, .40, .44 magnum, .45, 7.62 × 39 mm, and above for large—following the approach developed in Braga and Cook (2018). Together with AK- and AR-pattern rifles (usually chambered in 7.62 × 39 mm, 5.56 × 45 mm, or .233 Rem calibres), the illicit proliferation of medium- and large-calibre firearms—especially if converted to automatic fire through the use of conversion devices and enhanced with large-capacity magazines—are of particular concern as they can contribute to increasing the scale and lethality of violence, compared with the misuse of small-calibre weapons (Braga and Cook, 2018; Fleegler et al., 2024; Libby and Wright, 2009). 'Conversion devices' are components that convert semi-automatic pistols and rifles into fully automatic firearms (Fabre et al., 2023, p. 99). Large-capacity magazines are those that can hold 11 or more cartridges, with the largest capacity magazines able to hold more than 50 rounds.

The assessment focuses primarily, but not exclusively, on the 15 CARICOM member states and six associate members (see Map 0.1). The research team also included publicly available data on Cuba, the Dominican Republic, the French and Dutch territories, and the US Virgin Islands.

The term 'Caribbean Firearms Study' is used as shorthand to refer to the Report titled *Weapons Compass: The Caribbean Firearms Study*, co-published by CARICOM IMPACS and the Small Arms Survey in April 2023 (Fabre et al., 2023). The term 'Caribbean Firearms Roadmap' refers to the Roadmap for Addressing Caribbean Priority Actions on the Illicit Proliferation of Firearms and Ammunition across the Caribbean in a Sustainable Manner by 2030, adopted in 2020 by CARICOM member states and the Dominican Republic (CARICOM IMPACS and UNLIREC, 2020).


THE BAHAMAS
TURKS AND
CAICOS ISLANDS
CAYMAN
ISLANDS
HAITI
JAMAICA
BELIZE
CURAÇAO
N
500 km

Map 0.1
CARICOM member states and associate members
as of October 2025

> “The Caribbean continues to suffer from high rates of gun violence, with the situation deteriorating over time and trends varying by jurisdiction.”

1. The nature and scope of firearm-related violence

Anne-Séverine Fabre and Maria Garcia-Joseph

Chapter findings

- Lethal violence escalated in parts of the region from 2023 to 2024. The aggregate regional homicide rate has more than doubled in the CARICOM region compared with the period 2016–19, reaching 43.8 per 100,000 population from 2023 to 2024.
- While violence is becoming more lethal in some parts of the region, not all countries are similarly affected. Belize and Jamaica, for instance, have experienced substantial decreases in homicide rates in recent years.
- Offenders continue to rely heavily on small arms to perpetrate violence. Firearm homicides accounted for 86% of all aggregate homicides in CARICOM member states and associate members between 2023 and 2024. Based on available data, this proportion has increased substantially since 2016, due in part to the deteriorating conditions in Haiti.
- Gang and organized crime group (OCG) activity has increased in Haiti. In several other states, law enforcement agencies report that gang violence can account for between a third and more than two-thirds of all homicides. The decreasing age of perpetrators in some countries further underscores the troubling situation.
- Regional trends in weapons proliferation, including seizures and misuse of high-risk items such as AK- and AR-pattern rifles, machine gun conversion devices, and large-capacity magazines, risk negatively affecting the region's homicide rates and increasing pressure on healthcare systems.
- Medical practitioners in some countries have observed an increase in the number of patients with multiple injuries and fatalities upon arrival at hospitals following shootings. Some victims of gun violence present with new gunshot wounds after being discharged, resulting in repeated hospital visits for treatment.
- Hospitals have become the site of shootings as assailants target injured patients. Although these attacks are not yet a common phenomenon, recent incidents in several countries highlight alarming trends. Violence at healthcare facilities and hospitals poses significant practical and psychological challenges for patients, medical and support staff, first responders, and visitors. Such attacks compromise safety, disrupt care delivery, and undermine public trust in health infrastructure.

Overview

This chapter examines the evolution of gun violence in the Caribbean. It begins by analysing homicide trends before, during, and after the Covid-19 pandemic, and comparing firearm violence at different levels. At the regional level, the analysis indicates a surge in firearm violence, while different patterns are observed at the national level—including record rises and declines in specific countries. The following section examines the activities of gangs and OCGs and their linkages to firearms. The chapter then discusses the extent to which trends in firearms availability and misuse contribute to more lethal forms of violence. The final section delves into the issue of shootings in hospitals to further illustrate the impact of firearm-related violence on public health.

The findings are based on official statistics, including public reports, correspondence with law enforcement officials, media coverage, and consultations with health experts. Police reports were the primary source of homicide data. When these reports were unavailable, UN reports, statements by security officials, and media sources were used. The project team also corresponded with ministries in charge of national security, hospital staff, and international experts about firearm violence. CARPHA organized focus group discussions on firearm violence and healthcare facilities with health practitioners working in public hospitals across seven countries and territories in March and April of 2024.[1]

Overall, the project team retrieved data on the 21 CARICOM member states and associate members, along with the Dominican Republic; the French overseas departments and regions located in the Caribbean (French territories) of French Guiana, Guadeloupe, and Martinique; and the US Virgin Islands. Recent data from 2024 on firearm homicides was readily available for more CARICOM member states compared to *Weapons Compass: The Caribbean Firearms Study* (Fabre et al., 2023). This shows that law enforcement agencies are sharing crime data more promptly to monitor regional trends.

Homicide, gang violence, and organized crime

This section analyses the state of gun violence in the region, focusing on homicide,[2] gang violence, and organized crime. It identifies a general increase in firearm-related homicides at the regional level and discusses the role of gangs and OCGs as prominent, illicit firearm users. It also documents national-level variations, such as the decreasing numbers of homicides in Belize and Jamaica and the high levels of gang violence in Haiti.

Homicides

Overall, violence in the Caribbean reached unprecedented levels from 2023 to 2024. The aggregate regional homicide rate has more than doubled in the CARICOM region

compared with 2016 to 2019, reaching 43.8 per 100,000 population from 2023 to 2024. Four countries and territories experienced their deadliest rates in more than a decade in 2023 or 2024: St Kitts and Nevis at 66.3, St Lucia at 42.8, Trinidad and Tobago at

Figure 1.1 Aggregate intentional homicide rates in the Caribbean, 2016–24

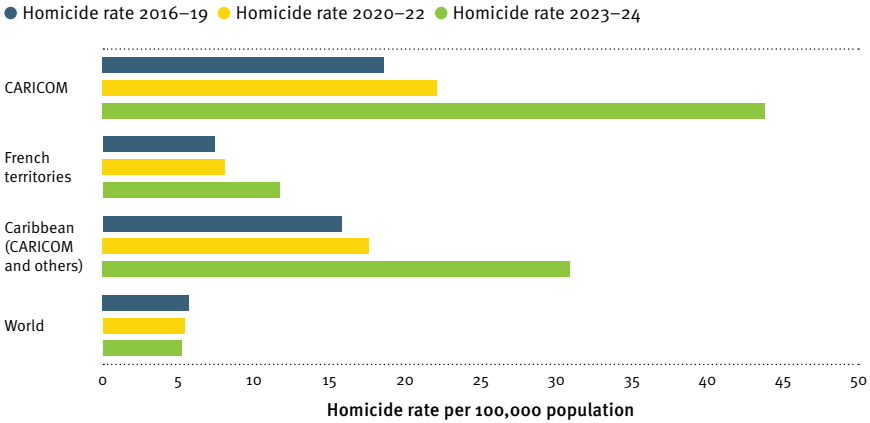
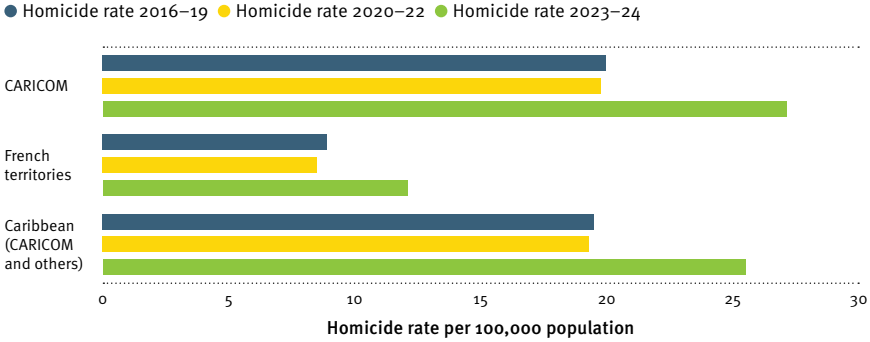


Figure 1.2 Average intentional homicide rates in the Caribbean, 2016–24



Notes: The CARICOM figures combine data from the 15 member states and six associate members. The figures of the French territories represent French Guiana, Guadeloupe, and Martinique. The data for the Caribbean category includes the above countries and territories, as well as the Dominican Republic and the US Virgin Islands.

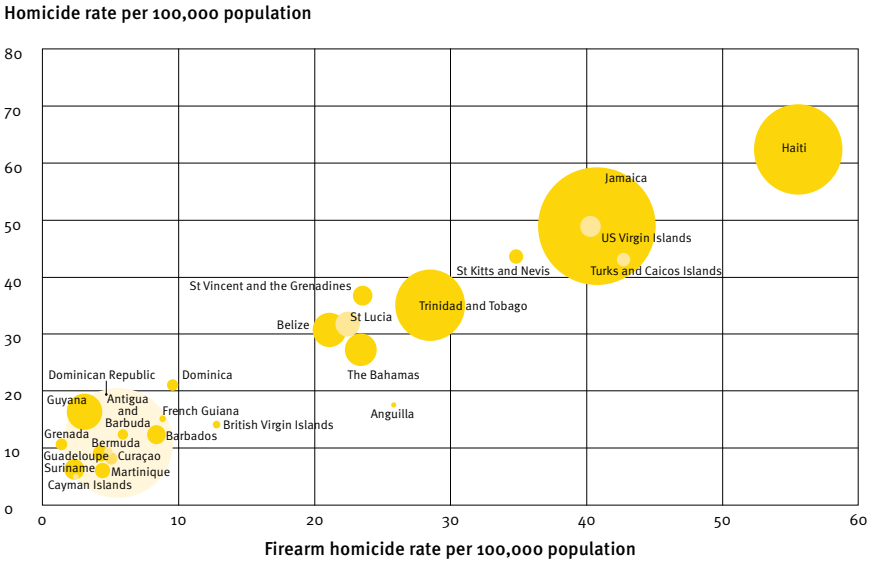
In Figure 1.1, the rates are calculated as the total number of homicides for the region divided by the total population. As a result, the situation experienced by the more populous states, such as Haiti, Jamaica, and Trinidad and Tobago, carries more weight than in countries with small populations. Data for 2024 was not available for the 'World' category. In Figure 1.2, the rates are calculated by averaging these countries' national homicide rate. Each country is, therefore, given equal weight in producing the regional average, regardless of population size. The 'World' average was not available using this calculation method. See Table 1.1 for individual country rates.

Sources: Small Arms Survey (2025); UNDESA (2024); UNODC (2025)

41.5, and the Turks and Caicos Islands at 103.2 homicides per 100,000, respectively (see Table 1.1). While this data reflects a troubling trend, Jamaica, Belize, and Curaçao reported significant declines in violence during the same period, reaching their lowest homicide rates in two decades (see Table 1.1 and Box 1.1).[3] The Covid-19 period (2020–22) and the associated restrictions of movement did not result in a significant decline in the average homicide rate, unlike in some other regions of the world (UNODC, 2023). The data, however, shows only a marginal decline, or even an increase, depending on the calculation method (see Figures 1.1 and 1.2). This highlights the seriousness and intractability of crime in the Caribbean region.

As highlighted in the 2023 *Caribbean Firearms Study* (Fabre et al., 2023), offenders in the Caribbean rely heavily on firearms to commit homicide. Recent data shows that firearm homicides accounted for 86% of all aggregate homicides for the CARICOM member states and associate members between 2023 and 2024 (Small Arms Survey, 2025).[4] This indicates an increase in the proportion of firearm homicide which amounted to 74% between 2016 and 2019, 78% from 2020 to 2022, and 86% from 2023 to 2024.

Figure 1.3 Firearm homicide rates in Caribbean countries and territories, 2016–24



Notes: The bubble size corresponds to the total number of homicides for each country or territory. Data for the entire 2016 to 2024 period was not available for Anguilla, Curaçao, French Guiana, Grenada, Guadeloupe, Haiti, Martinique, St Vincent and the Grenadines, or the US Virgin Islands, resulting in figures that reflect only the situation for available years. For Haiti and French Guiana, the data covers only 2024 and 2016, respectively. Montserrat, which has not experienced any homicide during this period, is not represented on the graph.

Source: Small Arms Survey (2025); written correspondence with international experts, November 2025.

Among the more populated countries, at least 81% of homicides committed in The Bahamas, Haiti,[5] Jamaica, and Trinidad and Tobago from 2023 to 2024 involved the use of firearms, noting that firearm homicide data could only be estimated for Haiti in 2024. Figure 1.3 provides an overview of homicides and firearm homicides in the Caribbean between 2016 and 2024 and shows a strong correlation between these two rates regardless of the total number of homicides in each country or territory.

Box 1.1 The homicide decline in Jamaica

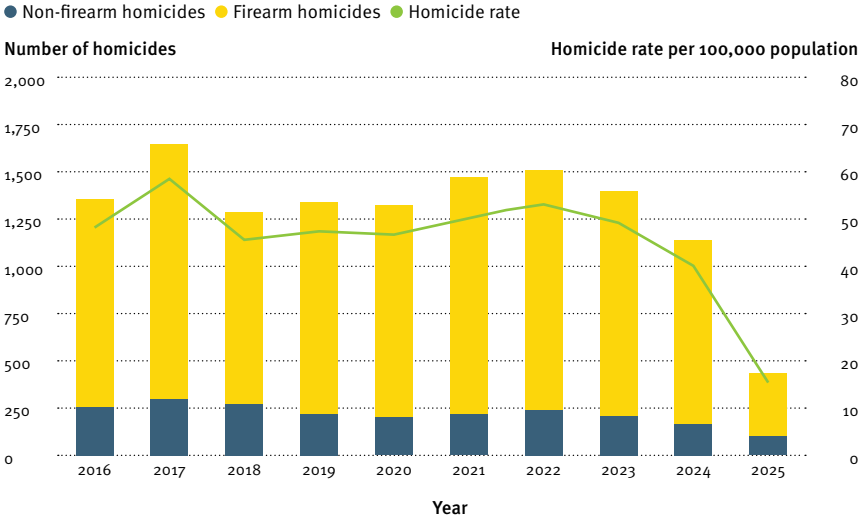
The decline in violent crime—particularly homicide—observed in Jamaica since 2023 arguably reflects a combination of targeted security measures, strengthened legislation, and prevention-oriented investments (see Figure 1.4).

Proportionate, context-specific measures such as zones of special operations[6] and limited states of public emergency concentrated law enforcement resources in high-risk communities, disrupted organized criminal activity, and contributed to rapid reductions in violence, while identifying a pathway back to routine policing. Legislative reforms expanded the state's capacity to deter and incapacitate high-risk offenders in parallel. These reforms include the adoption of the new Firearms Act (Jamaica, 2022), which increased penalties for the illegal possession of weapons. They also include the Bail Act (Jamaica, 2023), which revised the standards for granting bail, introduced pre-charge bail, and underscored the need to weigh individual freedoms against public safety. There has also been greater use of the Criminal Justice (Suppression of Criminal Organizations) Act—or anti-gang legislation—that was originally enacted in 2014 and amended in 2021 (Jamaica, 2014), with law enforcement specifically targeting individuals and organizations linked to criminal networks through their focused deterrence strategy.[7]

The Jamaica Constabulary Force (JCF) also enhanced training for personnel, improved staff working conditions, and developed infrastructure—including digitalization—while an expanded budget for the police force strengthened operational effectiveness.[8] Technology-enabled interventions included lawful surveillance, expanded CCTV networks, and improved case-management systems. These interventions supported early warning systems, raised evidentiary quality, and ensured accountability within privacy- and rights-respecting frameworks.[9] Better engagement with local communities enabled greater public cooperation in reporting and preventing crime. The government also invested in education programmes to prevent youth violence (Fabre et al., 2023).

Despite these advancements, the ongoing use of consecutive states of public emergency remains contested due to the associated human rights risks (IACHR, 2024). These measures permit warrantless searches, arrests, detentions, and curfews. The Independent Commission of Investigations was established in 2010 by the Jamaican parliament to investigate allegations of abuses perpetrated by security forces, including killings during law enforcement operations, and reported an increase in 2025 (INDECOM, 2025). To sustain and consolidate recent declines in homicide, proportionate enforcement is required. Rights-based and medium-term investments in education, decent work, and public health and psychosocial services must be underpinned by efforts to address the structural drivers of crime.

Figure 1.4 Homicides in Jamaica, 2016–25



Notes: The data for 2025 covers 1 January to 23 August.

Sources: Small Arms Survey (2025); JCF (2025b); STATIN (n.d.); written correspondence with the JCF, August 2025

Public health statistics show that interpersonal violence is the leading cause of death within the 15- to 34-year-olds age group in the Caribbean (PAHO, 2023).[10] The perpetrators and victims are mainly young men who are involved in gang activities, organized crime, or the drug trade (Baird, Bishop, and Kerrigan, 2023; Fabre et al., 2023; Weekes, 2023). Expressions of masculinity characterized by the exhibition of strength, control, and domination contribute to high levels of violence (Baird, Bishop, and Kerrigan, 2021; PAHO, 2023). The Jamaican National Crime Victimization Survey also found that more than half of 16- to 24-year-olds and 25- to 39-year-olds believed that possessing a firearm enhanced their sense of safety, which represents an increase compared with previous studies (STATIN and Jamaican Ministry of National Security, 2025, p. 77).

In The Bahamas and French territories, victims and perpetrators are often already known to law enforcement (Langlade and Larchet, 2023; RBPF, 2025, p. 9; see Box 1.2).[11] Interviews with prison inmates in Belize, Suriname, and Trinidad and Tobago showed high recidivism among firearm offenders (Fabre et al., 2023, p. 40). These findings indicate that firearm violence is disproportionately concentrated among individuals already known to authorities. This underscores the need for risk-led, targeted deterrence and robust reintegration support to reduce reoffending, as well as safeguards to mitigate surveillance bias and protect due process.

Table 1.1 Homicide count and rate per 100,000 population, and percentage of homicides by firearm, 2020–24[a]

Country or territory	2020			2021		
	Count	Rate	By firearm	Count	Rate	By firearm
Anguilla	N/A	N/A	N/A	N/A	N/A	N/A
Antigua and Barbuda	9	9.8	33%	16	17.3	25%
The Bahamas	73	18.4	79%	119	30.0	87%
Barbados	41	14.6	63%	32	11.3	53%
Belize	102	26.1	77%	125	31.6	73%
Bermuda	7	10.9	29%	7	10.8	43%
British Virgin Islands	3	8.1	100%	5	13.2	100%
Cayman Islands	3	4.4	0%	2	2.9	100%
Curaçao	13	7.0	N/A	10	5.4	N/A
Dominica	14	20.7	50%	10	14.9	0%
Dominican Republic[b]	961	8.7	50%	1,172	10.5	58%
Grenada	16	13.8	13%	5	4.3	0%
Guyana	157	19.4	17%	131	16.1	18%
Haiti	1,280	11.4	N/A	1,615	14.2	N/A
Jamaica	1,323	46.7	85%	1,474	51.9	85%
Montserrat	0	0.0	0%	0	0.0	0%
St Kitts and Nevis	10	21.3	60%	14	29.9	86%
St Lucia	52	29.2	77%	70	39.2	67%
St Vincent and the Grenadines	29	28.0	62%	32	31.1	66%
Suriname	55	9.0	24%	35	5.7	46%
Trinidad and Tobago	403	27.2	77%	452	30.4	84%
Turks and Caicos Islands	23	51.8	91%	13	28.7	92%
US Virgin Islands[b]	49	55.9	88%	45	51.6	91%
Total[c]	**4,623**	**15.3**	**68%**	**5,385**	**17.7**	**72%**

Notes:

[a] Data is unavailable for certain years. N/A = not available.

[b] These countries and territories are not members of CARICOM.

[c] The total aggregate homicides by firearm only includes homicide counts for which there is also corresponding

2022			2023			2024		
Count	Rate	By firearm	Count	Rate	By firearm	Count	Rate	By firearm
N/A	N/A	N/A	5	34.7	100%	7	48.0	71%
10	10.8	90%	10	10.7	80%	12	12.8	47%
128	32.2	91%	110	27.5	89%	120	29.9	85%
43	15.2	77%	19	6.7	74%	50	17.7	68%
113	28.1	81%	87	21.2	77%	89	21.3	71%
9	13.9	56%	4	6.2	75%	9	13.9	44%
7	18.3	100%	6	15.4	100%	5	12.7	100%
4	5.6	50%	4	5.5	50%	4	5.4	50%
8	4.3	N/A	8	4.3	N/A	7	3.8	100%
19	28.4	63%	14	21.0	71%	9	13.6	78%
1,389	12.4	54%	1,237	10.9	59%	1,096	9.6	65%
8	6.8	0%	18	15.4	39%	13	11.1	N/A
131	15.9	11%	159	19.2	16%	100	12.0	26%
2,183	19.0	N/A	4,789	41.2	N/A	7,342	62.4	90%
1,508	53.1	84%	1,397	49.2	85%	1,139	40.1	85%
0	0.0	0%	0	0.0	0%	0	0.0	0%
11	23.6	36%	31	66.3	87%	28	59.8	89%
66	36.9	83%	75	41.8	75%	77	42.8	77%
42	41.2	67%	52	51.3	83%	54	53.7	N/A
45	7.2	47%	41	6.5	34%	29	4.6	41%
605	40.4	87%	577	38.4	86%	625	41.5	81%
34	74.2	91%	23	49.8	96%	48	103.2	100%
35	40.5	86%	37	43.2	89%	44	51.3	N/A
6,399	**20.8**	**71%**	**8,703**	**28.1**	**73%**	**10,906**	**34.9**	**85%**

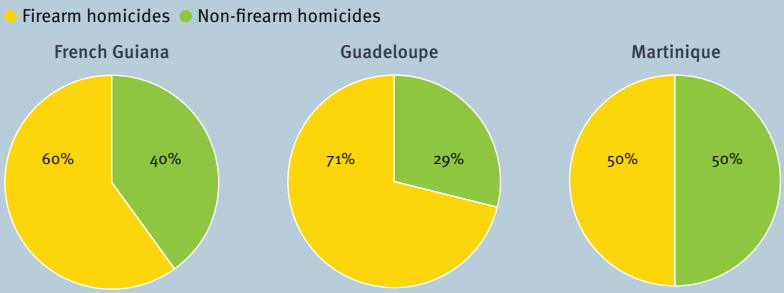
data. For each year, the three states with the highest homicide rates are highlighted in red, and those with the lowest rates are in orange—excluding rates of zero.

Sources: Small Arms Survey (2025); written correspondence with the UN's Office of the High Commissioner for Human Rights (OHCHR), August 2025; written correspondence with international experts, November 2025

Box 1.2 Homicide and armed robberies in French territories

French territories experienced high levels of firearm violence—defined here as both homicides and armed robberies—from 2023 to 2024. In 2024, 60% of homicides and 75% of armed robberies committed in French Guiana involved the use of a firearm (*Le Figaro* and AFP, 2025). Over half of the homicides and armed robberies in Guadeloupe and Martinique were perpetrated with a firearm in the same year (see Figure 1.5). Firearm-related robberies in French Guiana account for one-third of the total number of cases in France, and the rate of firearm robberies per 100,000 in Guiana is also 12 times higher than that of metropolitan France (Bas and Lurel, 2025). Most of the victims of this violence are men aged between 18 and 29 years old, while women represent almost one-quarter of victims (SSMSI, 2025).

Figure 1.5 Proportion of homicides by firearm in the French territories, 2024



Source: Small Arms Survey (2025)

The suspected perpetrators were mainly very young men, including one-third under the age of 18. These individuals primarily used handguns, a finding consistent with seizure data and analysis of ammunition collected at crime scenes (Fabre et al., 2023; SSMSI, 2025, pp. 104–08). In 2024, law enforcement seized 528 firearms in French Guiana—a record high for that year (Préfet de la Guyane, 2025). In Guadeloupe, law enforcement also seized a growing number of firearms in 2023, mostly Glock and Taurus handguns, while firearms were involved in 80% of the 474 armed robberies recorded that year (Quérin, Gaydu, and Yacou, 2025; Small Arms Survey, 2025).

The French authorities and Caribbean experts have raised concerns about inter-island trafficking between the French territories, particularly arms flows between St Lucia and Martinique, and Dominica and Guadeloupe—distances that speedboats can cover quickly. Other identified sources of trafficked firearms include Venezuela and St Vincent and the Grenadines (Yacou, 2025). These developments have prompted closer cooperation between St Lucia and Martinique, as well as among local French authorities from different territories (Nodin, 2022; Petit, 2025). The French territories present unique opportunities for firearms traffickers, providing access to the European market and a new pool of buyers who pay in euros—a currency currently stronger than the US dollar.

Gang violence and organized crime

Gangs in the Caribbean

Gangs and OCGs contribute to the demand for, and are prevalent users of, illicit firearms in the Caribbean (Fabre et al., 2023; Sobers et al., 2025). Leaders in the region frequently attribute the surge of firearm violence to transnational organized crime, gang activity, and illicit firearms trafficking, as reflected in the 2025 Montego Bay Declaration on Transnational Organized Crime and Gangs (Montego Bay Declaration) (CARICOM, 2025a). Law enforcement reports indicate that gang violence accounted for 40% of all homicides in Trinidad and Tobago from 2019 to 2024, and 70% in Jamaica in 2022 (CAPA, 2025; Fabre et al., 2023). In Belize, one-third of firearm homicides from 2023 to 2024 were gang-related (BCO, 2025; Fabre et al., 2023, p. 41).[12] The data for injured victims, however, is typically incomplete and often fails to specify whether injuries are gang-related. Many non-fatal victims do not report crimes due to a fear of further retaliation or contact with the police.

Gangs and OCGs use firearms to intimidate and threaten communities when committing crimes such as sexual violence, kidnappings, robberies, and extortion. The affected communities often suffer the greatest psychological impact, including post-traumatic stress disorder, anxiety, and depression (Adams, Morris, and Maguire, 2018; Cénat et al., 2025). Repeated exposure to violence makes these communities especially vulnerable to both experiencing violence and engaging in gang activities. In Anguilla, The Bahamas, and Haiti, armed gangs recruit children as young as those in primary school (Governor's Office of Anguilla, 2024; Russell, 2025). In 2024, the UN verified the recruitment of 302 children by gangs in Haiti, with researchers noting several risk factors for youth gang involvement and violence (UNSC, 2025b).[13] These factors include low self-control, exposure to violence, environments that foster anti-social behaviour, positive parental attitudes towards such behaviour, social media depictions of gang culture, gangs as role models, unemployment, and access to firearms (Seepersad, Bailey, and Mohammed, 2025; UNICEF and Data-Pop Alliance, 2023; Ward, McGaw, and Marsh, 2017).

Other important factors driving gang recruitment in insecure environments include coercion, protection from other gangs due to ineffective policing, and gang enlistment as a survival strategy (UNICEF and Data-Pop Alliance, 2023). In Trinidad and Tobago, the involvement of women and youth in gangs has increased, with some women assuming more senior roles. In 2023, the number of women killed in gang-related incidents was equal to those killed in intimate partner violence (Felmine, 2024).

In some countries, such as Belize, Jamaica, and Trinidad and Tobago, gangs have multifaceted roles and sometimes provide services that public institutions fail to deliver in marginalized communities. This role has, consequently, led their gang leaders

Box 1.3 Definition of gangs and organized crime groups in the Caribbean

This Report has adopted the widely used definition of a gang as 'any durable, street-oriented youth group whose identity includes involvement in illegal activity' (van Gemert, 2005, p. 148; Harriott and Katz, 2015).

Gangs in the Caribbean are mostly composed of young men, although some gangs also have older leaders (UNSC, 2024). The number of gangs varies throughout the region, from fewer than 20 in St Vincent and the Grenadines and the Turks and Caicos Islands to hundreds in Jamaica and Trinidad and Tobago.[14] This variation also applies to the level of influence, size, and type of activities these groups are involved in (Fabre et al., 2023). Gangs in Haiti, for example, have formed coalitions to coordinate attacks and leverage resources (see section on 'Haiti: an extreme case' below).

OCGs refer to 'groups of individuals for whom involvement in crime is motivated primarily by personal gain, financial or otherwise' (Bright, 2024, pp. 4–5). OCGs differ from gangs in that crime appears to be their principal line of work, and they primarily seek economic benefits and aim to control illicit markets. In practice, however, the distinction between OCGs and gangs is often blurred in certain Caribbean groups (Bright, 2024, p. 8).

to sometimes be viewed as community leaders (Baird, Bishop, and Kerrigan, 2021; Maguire, 2024, pp. 360–61).

Evidence has pointed to corruption regarding the availability of firearms and the influence of some gangs. Specifically, there is sometimes collusion between gangs and economic and political elites in some countries in the region. Cases have been identified, for example, in Belize, Guyana, Haiti, and Jamaica (Adams, Morris, and Maguire, 2018; Dawkins-Cavazos, 2024; Freemon, Katz, and Seepersad, 2024; Maguire, 2024; UNODC, 2024; UNSC, 2024). In some instances, politicians have instrumentalized gangs to gain votes in certain communities, while in other cases gangs provide protection and guarantees for the transit of licit and illicit commodities for businesspeople.

Transnational criminal networks involved in smuggling firearms

Certain gangs and OCGs specialize in the transnational smuggling of illicit weapons and ammunition. These gangs use and supply firearms, ammunition, and their parts to other gangs within the same country or to transnational networks. The 400 Mawozo gang in Haiti, for example, provides ammunition to other Haitian gangs through their cross-border criminal network with the Dominican Republic—including corrupt customs agents and economic elites (UNSC, 2024, pp. 34–35). There is also evidence of the same gang using its networks in the United States to smuggle firearms from Florida (US DOJ, 2024).

Some Jamaican and Trinidadian gangs have ties to groups in neighbouring islands, such as Barbados, St Lucia, and St Vincent and the Grenadines (UNODC, 2024, p. 24). Links were also identified between gangs in Trinidad and Tobago and Venezuela, as well as between those in Martinique and St Lucia (Lorand and Emmanuel, 2024; UNODC, 2024, p. 24). Less is known about the nature of these ties and the possible firearms trafficking between gangs in different islands. In French Guiana, armed Brazilian gangs have attempted to expand their gold panning and drug and firearms trafficking operations into the territory, although the true extent of this trafficking in arms is not well documented (*Ouest France* and AFP, 2025; see Box 1.4).

Interviews with inmates convicted of firearm-related offences in Belize, Suriname, and Trinidad and Tobago showed that sharing illicit firearms among multiple users is common (Fabre et al., 2023). In the Cayman Islands, Jamaica, and other Caribbean countries and territories, criminal networks lease out guns to commit crimes, including moving weapons across borders (Whittaker, 2024). Although firearm leasing is not new, it remains lucrative. Gangs charge varying rental prices based on the type of crime, such as robberies. These practices help concentrate firearm-related crimes

Box 1.4 Firearm use and drug trafficking

Another key element related to gangs and firearm usage is drug trafficking. An explicit case of this connection is the 'gun for drug' trade between Haiti and Jamaica, which refers to a two-decade-long exchange—supported by fishermen—of marijuana and firearms between Jamaican criminal networks and their Haitian counterparts. The costs range from 40 lbs (18 kg) of cannabis for a 9 mm pistol to 80 to 90 lbs (36 to 40 kg) for a semi-automatic rifle. With the recent crisis in Haiti, firearms can also be exchanged for meat and charcoal (UNSC, 2024).

The Caribbean is a well-known transit point for multiple drugs, including cocaine.[15] Firearms have been used by gangs to protect both the drug supply and gang members, and to secure illicit markets (Baird, Bishop, and Kerrigan, 2021). The Haitian National Police seized more than one ton of cocaine destined for the Dominican Republic in July 2025 in one operation, which resulted in gunfire exchanges and the death of suspected Jamaican firearms traffickers (Charles, 2025). In 2020, twice the amount of cocaine was seized in a single operation in the British Virgin Islands, where officials have attributed most firearm-related homicides and shootings to gangs involved in drug trafficking (BVI News, 2023). In January 2025, the authorities in Martinique seized nine tons of drugs following a record-high number of seizures in 2024 in the French territories (28 tons) (Marine Nationale, 2025). With the surge of crime and violence, there are renewed concerns about cooperation between Caribbean gangs and Latin American cartels (UNODC and FPI, 2024). For some Caribbean states and territories, the increase in drug seizures coincides with the surge of homicides committed with firearms. Often, this increase is due to gangs and OCGs fighting for territories and markets.

among a limited number of people or weapons. In the Turks and Caicos Islands, police recently identified 32 homicide cases that involved firearms used by multiple people, with some firearms linked to up to seven homicides (*Sun*, 2024). This pattern points to frequent resale or rental practices and the ongoing sharing of firearms among a single criminal group.

The diversion of state-held stockpiles is also a source of illicit weapons and ammunition for gangs. After the Haitian National Police seized 5,000 rounds of 5.56 × 45 mm ammunition diverted from the Dominican police, the Dominican police audited its armoury. They found that 838,000 rounds of 9 mm, 5.56 × 45 mm, 7.62 × 39 mm, and 12-gauge ammunition had been diverted (UNSC, 2025a, p. 16).

Haiti: an extreme case

Since at least 2018, Haiti has been in a crisis driven by gang violence. In 2021, the crisis culminated in the assassination of the president in his residence. The situation has further deteriorated over the last two years as gangs have expanded their control in Port-au-Prince and strategic rural centres—such as the Artibonite department, known for its agriculture, along with the town of Mirebalais (UNSC, 2025a). By mid-2025, gangs controlled over 85% of Port-au-Prince (UN News, 2025b). Gangs killed 5,626 people in 2024, with 90% of these deaths committed by firearm (UN News, 2025a).[16]

Gang violence in Haiti is impacting the demand for firearms in different ways. Gang members are involved in firearms smuggling from the United States and the Dominican Republic, and supply Jamaican criminal networks. Some gangs are backed by political and economic actors[17] who use them to influence elections, defeat business competitors, protect business partners, and transport licit and illicit goods (UNSC, 2024). The absence of elections since 2016 has reduced political elites' demand for gang services. In response, gangs have increasingly resorted to kidnappings for ransom, extortion—including protection rackets—and truck hijacking to finance their operations and acquire firearms (UNSC, 2024).

Haitian gangs are well-armed, including with medium- and large-calibre handguns, AK- and AR-pattern rifles, .50 calibre rifles, and an abundance of ammunition, many of which appear to be trafficked from the United States. They use these arms to extort people and businesses and commit violence, such as shoot-outs with the police and other armed actors. Recruitment of gang members occurs, inter alia, through attacks on prisons to liberate inmates, incentives offered to former national security and law enforcement officers, and threats or 'job' offers for youth to make ends meet (UNHRC, 2025). Approximately 50% of the ranks are composed of children—some as young as ten—who are trained to use firearms, monitor the police and rival gangs, commit kidnappings and attacks, and manage checkpoints (Marcelin and Cela, 2019; UNSC, 2024).

This crisis has resulted in the emergence and proliferation of other armed actors, including self-defence groups, private security companies, and hybrid security groups such as the Brigade de Sécurité des Aires Protégées (Protected Areas Security Brigade, BSAP). All these entities use unregulated and mismanaged firearm stockpiles (UNSC, 2024). In 2024, the UN estimated the number of self-defence groups in Haiti to be 60 (UNSC, 2024, p. 27). These groups have installed illegal checkpoints, used community armed gatekeepers, and committed violence against suspected gang members and populations from areas controlled by gangs. The distinction between gangs and these actors is often blurred, especially as insecurity increases their numbers (UNSC, 2024). BSAP, originally created in 2018 to support environmental protection efforts, has evolved into a paramilitary group with ties to some gangs, an unclear legal status, and a history of violent acts (Blaise et al., 2025).

These armed actors have fuelled a severe situation in which the population lacks access to essential services, including healthcare, food, shelter, and education. Gangs' control of critical infrastructures, businesses, and ports restricts access to services and the availability of goods, while exposing the population to constant gunfire and insecurity through attacks on hospitals, schools, and farmlands.[18] The lack of access has resulted in a shortage of medications and food, and the emigration of many Haitians, including highly educated people and elite forces (Amnesty International, 2025). Frequent gang attacks in Port-au-Prince and neighbouring areas displaced more than one million Haitians in 2024, many of whom now live in makeshift, overcrowded, and unsanitary shelters or repurposed school buildings and churches (Amnesty International, 2025; UNSC, 2025a). Children forcibly recruited by gangs have expressed fear of gangs, community members, and police, viewing all of them as a threat to their lives due to their affiliation. Sexual violence, often facilitated by the use of firearms, leaves women and children particularly vulnerable (Amnesty International, 2025).

The Haitian criminal justice apparatus has not been able to respond to the crisis, in part because the Haitian National Police faces multiple shortages in equipment, personnel, and capacities. These challenges have been worsened by the emigration of many law enforcement officers, the transition of former officers to gang leaders and members, corruption, and death threats against police officers. Justice officials have also been threatened, penitentiaries attacked, and court cases stalled, leading to impunity (UNHRC, 2025). Some police officers have also committed extrajudicial killings against suspected gang members and sold ammunition to gangs (UNSC, 2025a). The spread of gang presence has continued despite the UN arms embargo, international arrest warrants against gang leaders, multiple international sanction regimes against suspected political and economic supporters of these gangs, and the Kenya-led Multinational Security Support (MSS) Mission, which ended in October 2025.[19] Following the termination of the MSS, the UN Security Council authorized the establishment of a new multinational force—the Gang Suppression Force (GSF)—and the creation of a UN Support Office. The GSF, whose mandate is to tackle gang violence,

restore security, and support long-term peace, is expected to have 5,550 personnel and work closely with the Haitian National Police and armed forces (UNSC, 2025c). The Organization of American States (OAS) has also developed a roadmap for stability and peace, led by Haiti with the support of regional and international partners such as CARICOM, the UN, and the OAS itself (OAS, Haiti, and CARICOM, 2025).

Trends in firearm misuse

The recent surge in homicide and the activities of gangs and OCGs across several Caribbean states raises the question of the role played by illicit firearms in this violence. While the types of firearms and ammunition used cannot solely influence the outcome of firearm injuries, they can contribute to increasing the lethality of shootings. According to some criminologists and medical doctors, victims of multiple gunshot wounds—facilitated by automatic firearms, for instance—face a higher likelihood of dying than victims of a single gunshot wound, especially when the injury is located somewhere other than the head or neck (Braga et al., 2021; Zeineddin et al., 2020; see Chapter 3). In addition to the number and location of firearm-related injuries, factors that contribute to the lethality of shootings include the victim's age, their medical preconditions, the skill and distance of the shooter, and the access to and quality of care (Braga et al., 2021; Kaufman et al., 2021). Research has also shown that using a firearm, as opposed to other means and mechanisms, increases the lethality of an assault (Braga et al., 2021). This section examines whether these patterns may be at play in the Caribbean.

Availability of high-risk items

The misuse of large- and medium-calibre handguns, AK- and AR-pattern rifles, firearms capable of long-range fire, and large-capacity magazines increase the likelihood of fatalities by enhancing the severity, quantity, and anatomical distribution of the gunshot wounds, compared with small-calibre firearms (Braga et al., 2021; Zeineddin et al., 2020). Medium-calibre pistols, such as those chambered in 9mm Luger, are the type of firearm most commonly used by perpetrators of violent crime across the region; this type of handgun and ammunition calibre is also the most frequently seized by authorities (Fabre et al., 2025, pp. 72–73, 104; Yarina, 2025). Authorities have reported that rifles, shotguns, and sub-machine guns are also circulating. Seizures of rifles from US shipments bound for the Caribbean, including AK- and AR-patterns, have increased from 2021 to 2024, compared to previous years (see Chapter 2). In Haiti, reports have highlighted the use of large-calibre firearms, including .50 calibre rifles, by gangs (Amnesty International, 2025; UNSC, 2025a). In addition, US seizures of magazines with a capacity of 11 to more than 50 rounds from Caribbean-bound shipments have tripled

in the past four years (see Chapter 2). Fully automatic pistols and rifles, equipped with conversion devices, have also been seized. In one seizure incident, a single AR-pattern rifle was recovered together with 5,280 rounds of ammunition (Yarina, 2025). The growing availability of conversion devices and large-capacity magazines for semi-automatic pistols and rifles thus represents a troubling trend for security and public health.

Qualitative evidence on shifting patterns in injuries

The illicit circulation of medium- and large-calibre firearms and AK- and AR-pattern rifles, and the proliferation of conversion devices and large-capacity magazines, could worsen shooting outcomes in the region. While it is not possible to establish a causal link between these developments and recent incidents, several shootings in 2024 and 2025 resulted in multiple casualties. Single incidents that resulted in four to 13 people injured or killed occurred in Barbados, The Bahamas, Jamaica, St Lucia, St Vincent and the Grenadines, Trinidad and Tobago, and the Turks and Caicos Islands.[20] Shootings with multiple fatalities accounted for nearly a fifth of the 625 homicides recorded in Trinidad and Tobago in 2024 (Rupert, 2024; Small Arms Survey, 2025). While media reports do not always make it clear which type of firearm was used in these shootings, some were confirmed to involve weapons with automatic fire capabilities or conversion devices (Yarina and Florquin, 2024, p. 7).

Hospital research undertaken for this Report shows that most patients with firearm injuries in The Bahamas had at least three wounds (see Chapter 3). Medical doctors in several countries have observed an increasing number of patients presenting with multiple injuries or fatal outcomes following a shooting. Some doctors also report treating the same individuals for gunshot wounds sustained on separate occasions.[21] This pattern is reflected in a Puerto Rican study, where one-third of gunshot wound patients were repeat cases (Suarez-Cruz et al., 2020).

Changing circumstances of shootings

Apart from the type of weapon and injury, the circumstances of the shootings can also affect the risk of unintended victims. A health specialist from a CARICOM state reported, for example, a growing number of young children being harmed as bystanders in gun violence incidents.[22] In the Dominican Republic, 94% of firearm-related injuries occurred in public spaces between 2015 and 2023. This proportion is similar across all ages (CADSECI, 2024). In Belize, three out of four firearm homicides occurred in public spaces from 2023 to 2024 (BCO, 2025). Some shooters are very young, and their access to firearms that are harder to control, such as AR- and AK-pattern rifles and fully automatic firearms, raises concerns about potential mishandling. In Guadeloupe and St Martin, local authorities have reported the increasing participation of youth

in firearm crimes—including homicides—with some cases involving adolescents as young as 13 (France Antilles Guyane, 2025). In Barbados, for instance, the age of firearm-related homicide perpetrators was particularly low in 2024, with an average age of 21.6 years (Moore, 2025a).[23]

Answering the initial question of whether shifting patterns in firearms misuse and availability contribute to the increasing lethality of violence in the region is not clear-cut. At the national level, trends vary: some countries have experienced a decline or stagnation in lethal violence over time, while others have seen an upward trajectory. The lack of comprehensive data on firearm-related injuries limits longitudinal analysis of shooting victims. Yet, emerging developments such as increasing seizures of AK- and AR-pattern rifles and the illicit circulation of machine gun conversion devices and large-capacity magazines, alongside the decreasing age of perpetrators, are particularly worrying. Enhancing seizures of the most high-risk firearms, ammunition, parts, and accessories, while disrupting illicit flows and sensitizing youth and families on violence prevention, appears critical to taming these threats.

Shootings in hospitals

Gun violence has crossed into hospitals and other public health spaces in several Caribbean countries over the last two years, threatening the safety of healthcare providers and patients. In several cases, shootings have occured in hospital emergency settings, such as the accident and emergency (A&E) department, as a direct spill over from ongoing firearm-related altercations occurring in nearby communities. According to officials and doctors, hospitals have become the site of shootings as assailants attempt to complete attacks on injured victims.

In March 2024, a gunshot wound patient was shot in a hospital in St Vincent and the Grenadines while seeking treatment for a previsouly inflicted gunshot wound (*Jamaica Gleaner*, 2024). The same year, men armed with rifles pursued their victims—whom they had just shot in retaliation for a previous murder—and opened fire on them again upon arrival at the A&E department of Trinidad's main hospital, the Port of Spain General Hospital, resulting in four deaths (Superville, 2024). Three months later, a man was shot and killed at his workplace, the St James Medical Complex in Trinidad, for unknown reasons (La Vende, 2024). In July 2025, Grenada's general hospital restricted access to its male surgical ward after a fatal gang-related shooting occurred in its vicinity (Clark, 2025). In the same month, a hospital that treated ten gunshot wound patients following a single gang-related shooting went into lockdown to prevent further violence in the Turks and Caicos Islands (Handfield, 2025).

Violence at healthcare facilities and hospitals poses significant challenges to patients, medical and support staff, first responders, and visitors. It compromises safety, disrupts

care delivery, and undermines public trust in health systems. Research on the impact of firearm violence in healthcare settings in the Caribbean region, however, remains limited. While definitions of workplace violence vary, the parameters include bullying, physical assault, sexual harassment, threatening and disruptive behaviour, and verbal abuse (Chirico et al., 2022), but generally do not mention shootings explicitly. A 2024 cross-sectional study across seven Caribbean countries aimed to understand risk factors and the impact of violence on healthcare workers (HCW). In this study, approximately 39% of respondents reported experiencing violence, and 18% had colleagues who had been victimized. Respondents most frequently cited a patient's altered mental state as a reason for violence against HCWs, followed by a lack of adequate security measures (Hadmon et al., 2024). In a similar study in Trinidad and Tobago, findings showed an average of 45% of respondents experiencing violence, and almost 76% witnessed violence against HCWs over two years (Dookeeram et al., 2024).

Rising firearm violence may worsen existing violence against HCWs and within public healthcare settings overall. In Haiti, gangs use firearms to disrupt health services, take control of clinics, and occupy major hospitals (UNSC, 2025a). As a result, more than 60% of healthcare facilities in Port-au-Prince were no longer operational by mid-2025 (MSF, 2025). This raises the likelihood that many patients with chronic disease die without access to proper treatment and medication. The Pan American Health Organization (PAHO) supports the Haitian Ministry of Health's emergency response; however, critical funding to maintain and scale up this support is lacking (PAHO, 2025).

Anecdotally, firearm violence in public health settings has worsened HCWs' psychological well-being, reduced their operational efficiency, lowered job satisfaction, and eroded trust in health administration.[24] Addressing firearm violence in public health facilities and hospitals requires managing safety and security risks—working with HCWs to collect information and monitor psychological well-being and environmental conditions. It also requires creating internal education and training programmes, including de-escalation techniques, to build a culture of well-being and quality service delivery (Ryan, 2021).

Given the occurence of violence in hospitals, health-sector threat management should be integrated into national security strategies. Practical steps should prioritize facility risk assessments, incident reporting protocols, psychosocial support for HCWs, and joint exercises with police and emergency medical services.

Conclusion

The Caribbean continues to suffer from high rates of gun violence, with the situation deteriorating over time and trends varying by jurisdiction. Since 2016, regional homicide

rates have been rising, even as the Covid-19 pandemic and its restrictions slowed the increase. Across the region, homicides and robberies mostly committed by young men armed with firearms are a consistent trend. Other recent trends include the decreasing age of perpetrators in some countries and territories, the recruitment of children and adolescents in armed criminal networks, the illicit circulation of various firearm types, and the surge in gang violence—notably in Haiti (Pellegrini, 2024).

Haiti remains the region's most acute case of firearm violence, marked by entrenched gang activity, escalating lethality, systematic child recruitment, and severe disruptions to essential services and humanitarian access—underscoring the urgency for coordinated regional and international action. While levels of violence in Haiti remain the highest in the region, other countries also face high homicide rates and gang violence, and should expand actions to prevent security from deteriorating further.

The Caribbean's geography—with its multiple islands and proximity to Central America, South America, and the United States—creates favourable conditions for transnational criminal activity. Gangs and OCGs exploit these factors, committing violent crimes in one territory and quickly seeking refuge in another. They have infiltrated local criminal markets and coordinated on cross-border firearms trafficking, both within the region and with US actors. These transnational dynamics emphasize the importance of inter-jurisdictional collaboration between criminal justice agencies.

Caribbean authorities often point to gang warfare as the main reason for increasing violence. Gangs compete for territory and control over illicit markets and financial avenues, such as extortion, to sustain or expand their activities. As a result, shootings have increased in the region over the last two years, often involving multiple victims and sometimes innocent bystanders—including children. Some gangs are equipped with large-calibre and automatic firearms, increasing the risk of fatalities and multiple injuries. In some cases, shootings take place on hospital grounds, where perpetrators attempt to inflict further casualties. These incidents demonstrate a clear intent to kill, impede healthcare delivery for all patients, and jeopardize HCWs' safety.

The recent Montego Bay Declaration highlights Caribbean unity in combating transnational criminal networks and firearm-related crime. Leaders have committed to monitoring emerging trends in illicit firearms trafficking, enacting stricter legislation for relevant offences, and promoting public awareness to support prevention and prosecution efforts (CARICOM, 2025a). Several studies have examined the root causes of crime in the region to advance sustainable violence reduction (Griffith, 2024; Harriott and Katz, 2015; GI-TOC, 2022). A multisectoral approach beyond security and public health—including the education sector and other relevant sectors—is necessary to design and evaluate programmes and interventions against firearms trafficking and misuse. Caribbean authorities have achieved positive short-term results by implementing various strategies. Given their shared challenges, learning from each other and strengthening collaboration remain crucial in the Caribbean. ●

Chapter endnotes

1 These countries and territories were Aruba, Barbados, Belize, Bermuda, Grenada, Montserrat, and Trinidad and Tobago.

2 The focus on homicide reflects greater data availability and reliability, allowing for trend analysis. In contrast, data on other firearm-related violent crimes remains limited and the definitions used can vary considerably depending on the source, whether in police records or victimization surveys.

3 See also Holness (2025) and Love FM (2024).

4 The 2023 *Caribbean Firearms Study* reported that firearm homicides accounted for over half of all homicides in the region (Fabre et al., 2023, p. 38). The higher proportions reported in this chapter for the same period (2016–20) relate to the computation method, in which the denominator included only the homicides for which data on firearm homicides for the same year and country was also available, the inclusion of CARICOM associate members, and an increase in the availability of firearm homicide data used to compute the regional figures.

5 The proportion of homicides by firearm in Haiti (see Table 1.1) is an estimate based on correspondence with international experts in November 2025.

6 See CAPRI (2024).

7 Consultation with a JCF representative, 26 August 2025.

8 Consultation with a JCF representative, 26 August 2025.

9 Written correspondence with a CARICOM IMPACS representative, 26 September 2025.

10 Interpersonal violence is the second leading cause of death, after road injury, for Caribbean males aged 10–19 (PAHO, 2023, p. 18).

11 Between 57% and 69% of the homicide victims in French Guiana, Guadeloupe, and Martinique had prior contact with law enforcement between 2019 and 2020, increasing to 67% and 85% for the suspects (Langlade and Larchet, 2023, p. 6). In The Bahamas, 72% of the victims had prior contact with the police (RBPF, 2025, p. 9). The Bahamas, Belize, the Cayman Islands, and Trinidad and Tobago also reported a greater use of firearms in robberies between 2020 and 2024—up to 77% (Small Arms Survey, 2025).

12 Other motivations include drug-related retaliation, revenge, and mistaken identity, which can also be linked to gang violence.

13 Due to the lack of disaggregated data, it is not possible to determine the proportion of primary school children compared to older children.

14 See Cooke (2025); Handfield (2024); UNODC (2024); and UNSC (2024).

15 In 2022, INTERPOL and CARICOM IMPACS seized weapons and ammunition, as well as record amounts of drugs—more than 12 tons, 80% of which were cocaine—in 19 Caribbean countries over seven days during Operation Trigger VII (INTERPOL, 2022). In 2024, the former Premier of the British Virgin Islands, Andrew Alturo Fahie, was sentenced to 11 years in prison for conspiring to broker tons of Colombian cocaine destined for the United States, through collaboration with the Mexican Sinaloa Cartel. The managing director of the island's port was sentenced to nine years (US DEA, 2024).

16 An estimated 90% of killings committed by gangs, police operations, and self-defence groups in Haiti involved the use of a firearm in 2024. Other homicides were committed with machetes and rocks (written correspondence with OHCHR, 25 August 2025 and 17 November 2025).

17 This is not unique to Haiti. In Jamaica and elsewhere in the Caribbean, political elites have also supported gangs and criminal networks (Grant, 2022).

18 As of April 2025, nearly 3,000 schools have been closed in Haiti due to gang violence, while 56 hospitals were attacked by gangs in 2024 (UNSC, 2025a; 2025b).

19 The MSS Mission to Haiti was an international military and police mission, approved by the UN Security Council in 2023 and led by Kenya, to support the Haitian National Police in tackling gang violence and restoring security. UN member states pledged 2,500 officers to support the mission; however, fewer than 1,000 were deployed, and its mandate ended on 2 October 2025 (Opala and Le-Cour-Grandmaison, 2025; SCR, 2025). In 2022, the UN Security Council adopted a sanctions regime—an arms embargo, travel ban, and asset freeze against individuals and entities—on Haiti, which was renewed in 2025 and includes nine individuals—all gang leaders, except for one former customs official, politician, and businessperson, and one former security official—and two gangs (Viv Ansanm and Gran Grif) (UNSC, 2025a; 2025d). Examples of arrest warrants include those on gang leaders Lanmo Sanjou and Izo, sought by the United States. Apart from the United States, the United Kingdom, Canada, and the European Union have also established sanction regimes on Haiti.

20 See Achong (2024); Barbados Today (2024); Duncan (2024); Eyewitness News (2025); Handfield (2025); iWitness News (2025); Yarina and Florquin (2024).

21 Focus group discussions with Caribbean healthcare practitioners, 9 April 2024.

22 Focus group discussions with Caribbean healthcare practitioners, 9 April 2024.

23 In 2024, 34 firearm-related homicides were committed in Barbados (see Table 1.1).

24 After a 2024 hospital shooting, medical doctors from Trinidad and Tobago pushed for more preparedness measures (*Trinidad Express*, 2024).

> “New data on illicit firearms in the Caribbean is improving understanding of the types of weapons in the region, the sources of illicit weapons, and the mechanics of arms trafficking.”

2. Trends in firearms trafficking

Matt Schroeder

Chapter findings

- Available multi-source data indicates that handguns continue to account for the vast majority of illicit firearms seized or traced in the Caribbean, with pistols predominating. Seizures of rifles—especially AR- and AK-pattern models—have risen modestly in recent years, but still comprise a small percentage of all seized firearms.
- Data on illicit trafficking to the Caribbean from source countries other than the United States remains sparse. More detailed data on seized weapons traced or otherwise linked to countries other than the United States would help to address this knowledge gap.
- Available data suggests that trafficking dynamics in the United States are fairly stable. There was little change in the states in which weapons are procured and exported, the size of the shipments, or the modes of transport used by traffickers from 2017 to 2024.
- Illicit procurement of Caribbean-bound firearms in the United States appears to be concentrated in small areas in southern coastal states, primarily in Florida. Half of all successfully traced US-sourced firearms seized in the Caribbean were purchased in just 10 of the 3,143 counties in the United States, and 30% were traced to just 2 counties in Florida. Data on seizures by US customs officers suggests that the transport of illicit firearms to the Caribbean is also largely concentrated in southern Florida.
- Trafficking of AR- and AK-rifles and the largest capacity magazines (30+ rounds) from the United States to the Caribbean is limited to a handful of countries. Most seized shipments of these items were intended for the Dominican Republic, Haiti, and Trinidad and Tobago.
- The vast majority of firearms seized at ports in The Bahamas, Belize, Guyana, and St Lucia were found in maritime shipments from the United States. This is consistent with prevailing assumptions about the international sources of illicit weapons in the Caribbean and the modes of transport used by traffickers.

Overview

The following chapter updates and expands upon the data and analysis on illicit arms flows in the Caribbean first published in *Weapons Compass: The Caribbean Firearms Study* (Fabre et al., 2023). The chapter draws on newly released data to track changes in illicit firearms flows in the Caribbean since the first study, assess common claims about trafficking in the region, and improve understanding of illicit US- and non-US-sourced firearms and ammunition.

The chapter begins with a brief overview of the methodology and data used in this chapter, including previously unreleased and expanded data sets. It goes on to assess changes to the types and categories of illicit weapons, including AR- and AK-pattern rifles and large-capacity magazines, and privately made firearms (PMFs). The chapter then uses new seizure and trace data to reassess trafficking dynamics in the region, including procurement and shipment locations in the United States, modes of transport, and the time-to-crime of US-sourced weapons. The chapter concludes with an analysis of trafficking from countries other than the United States and the need for more and better data on this trafficking.

Methodology and data sources

This chapter benefits from a notable increase in both the quantity and quality (specificity) of data. The most significant improvements relate to (1) interdictions at US ports of shipments reportedly destined for the Caribbean, and (2) US-sourced firearms seized in the Caribbean and successfully traced to retail sales in the United States. The data on US port seizures is compiled by US Customs and Border Protection (CBP) and released to the Survey in response to requests filed under the US Freedom of Information Act (FOIA). Starting in 2024, US CBP began releasing data that identified the mode of transport and the location of each seizure in addition to previously released details about the make, model, calibre, and quantity of seized weapons; the date of each seizure; and the statutes under which each shipment was seized. The newly released information provides additional insight into the dynamics of trafficking from the United States to the Caribbean.

Similarly, a FOIA request filed by analyst John Lindsay-Poland prompted the 2024 release of US trace data on weapons seized in six Caribbean countries[1] that is disaggregated by calibre, manufacturer, source state, source county, source zip code, and time-to-crime, among other key variables. The new data improves our understanding of the types of firearms trafficked from the United States to the Caribbean and the geographic scope of this trafficking.

As part of this study, the Survey also attempted to acquire more data on seized and traced firearms from countries other than the United States. These initial efforts yielded three important new data sets. The first is a redacted version of data on the Caribbean from the Illicit Arms Records and tracing Management System (iARMS) database, which contains detailed information on firearms trace requests submitted through INTERPOL. The redacted data set includes records on more than 400 trace requests submitted by or to Caribbean governments from 2019 to early 2025.[2] Due to its sensitive nature, the data is aggregated by region and by firearms category for display in this Report.

The second new data set addresses the need for better information on seizures of firearms shipments at Caribbean ports. Specifically, the authors requested data on seizures of inbound shipments at ports from 16 Caribbean states, six of which provided data: The Bahamas, Belize, the British Virgin Islands,[3] Guyana, Jamaica, and St Lucia. The new data includes some or all of the following information about 40 seized shipments: the seizure date, the port of seizure, the mode of transport, the seized weapons, and the country/port of origin (see Annexe 2.1). While the new data set is too small to draw any definitive conclusions, it does provide additional insight into the mechanics of arms trafficking in the region, including transport modes, shipment size and composition, the frequency of seizures at Caribbean ports, and the proximate source countries of illicit firearms seized at these ports. The Survey hopes to expand this data set with contributions from more Caribbean countries in the future.

The final data set is on firearms seized as part of Operation Calypso, a joint operation led by the WCO and CARICOM IMPACS. The operation, which involved 28 customs organizations from across the Caribbean, led to the seizure of 350 firearms and their components, along with ammunition, drugs, undeclared bulk cash, and smaller quantities of other strategic goods in November and December 2024 (WCO, 2025). Data on the seized firearms, which was shared with the Small Arms Survey, identifies the departure country and port type; the transport, conveyance, and concealment modes; the trafficked items; and the destination country and port type. The multinational nature of the operation, together with the detailed data, complements the country-specific seizure data from the United States and the Caribbean customs agencies.

The expansion in—and improvement of—data on seized and traced firearms, when combined with previously available data, covers, in aggregate, the entire illicit transfer chain, from the point of diversion to the seizure of illicit firearms after their use in crimes, although complete transfer chain data for individual weapons remains rare. Other sources used in this chapter include data compiled by the US Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) on US-sourced firearms seized in the Caribbean and traced to 'foreign entities' (military, law enforcement, and civilian importers), data compiled from documentation related to 41 court cases (prosecutions) involving US-

based arms trafficking networks accused of smuggling weapons to the Caribbean, and government data on quantities of domestic seizures of firearms provided by Caribbean law enforcement agencies.

Despite these improvements, many gaps in the data—and our understanding of illicit arms flows in the Caribbean—remain, the most significant of which concerns trafficking from countries other than the United States. The US government continues to be one of the few governments in the region from which detailed data on seized and traced weapons is available, making it difficult to identify other prominent source countries of trafficked weapons. The Survey is attempting to address this imbalance by acquiring data from sources other than the US government, and responses from INTERPOL, the WCO, and the governments of The Bahamas, Belize, Guyana, Jamaica, and St Lucia represent significant steps forward. Detailed data from more countries is required, however, to fully understand international trafficking dynamics in the region.

Data on domestic sources of illicit firearms, including illicit production of PMFs, also remains limited. Such data is generally not publicly available; and the little information that is available is primarily anecdotal. The routine public release of detailed data on seized weapons (such as make, model, and production date), key parts and accessories (such as receivers, frames, and conversion devices), and production equipment (such as 3D printers and computer numerical control (CNC) milling machines) by Caribbean governments would dramatically improve our understanding of the types of PMFs circulating in the region and the rate at which criminals are adopting this technology. The need for more detailed data on PMFs is compounded by concerns about the ability of local law enforcement to distinguish PMFs from their factory-made counterparts. Regular publication of high-resolution imagery of domestically seized firearms suitable for identification of PMFs by independent analysts would both help to assuage these concerns and be a valuable supplement to statistical data on PMF seizures.

Types and categories of illicit firearms

Previous research conducted by the Survey revealed that handguns were by far the most frequently seized and traced items by authorities in the region, comprising as much as 88% of all seized firearms, while seizure and trace rates of rifles in the Caribbean were significantly lower than in other parts of the Western Hemisphere (Fabre et al., 2023). More recent data indicates that handguns continue to account for the vast majority of seized and traced firearms, although seizure and trace rates did decline in three of the four multi-year data sets examined (see Table 2.1).

Table 2.1 Seizures of firearms seized in or intended for Caribbean countries, 2017–24

	Seizures at US ports				Trace requests received by US ATF				Trace requests submitted through INTERPOL (2019–March 2025)			
	2017–20		2021–24		2017–20		2021–24		2019–21		2022–March 2025	
Type	**Quantity**	**%**	**Quantity**	**%**	**Quantity**	**%**	**Quantity**	**%**	**Quantity**	**%**	**Quantity**	**%**
Total handguns	415	95%	313	79%	6,301	90%	4,102	87%	174	89%	149	92%
Pistols	339	78%	308	78%	5,194	74%	3,692	78%	116	59%	114	70%
Revolvers	13	3%	5	1%	1,101	16%	406	9%	56	29%	32	20%
Other/unspecified handguns	63	14%	–	–	6	<1%	4	<1%	2	1%	3	2%
Rifles	6	1%	58	15%	329	5%	407	9%	2	1%	1	1%
Shotguns	15	3%	24	6%	326	5%	165	3%	1	<1%	4	2%
Sub-machine guns	–	–	–	–	–	–	–	–	–	–	–	–
Machine guns	–	–	–[a]	–	46	<1%	20	<1%	–	–	–	–
Other/unknown/unspecified firearms	–	–	3	<1%	13	<1%	25	<1%	18	9%	8	5%
Total	**436**		**398**		**7,015**		**4,719**		**195**		**162**	

	Jamaica police seizures (2018–24)				The Bahamas		Operation Calypso	
	2018–21		2022–24		2024		(November–December 2024)	
Type	**Quantity**	**%**	**Quantity**	**%**	**Quantity**	**%**	**Quantity**	**%**
Total handguns	2,222	87%	2,162	86%	342	81%	92	93%
Pistols	1,883	74%	1,932	77%	329	78%	86	87%
Revolvers	339	13%	230	9%	13	3%	6	6%
Other/unspecified handguns	–	–	–	–	–	–	–	–
Rifles	184	7%	162	6%	61	14%	4[c]	4%
Shotguns	82	3%	67	3%	18	4%	3	3%
Sub-machine guns	64	3%	51	2%	–	–	–	–
Machine guns	–	–	–	–	–	–	–	–
Other/unknown/unspecified firearms	–	–	77[b]	3%	–	–	–	–
Total	**2,552**		**2,519**		**421**		**99**	

Notes: Percentage column totals may not add up to 100% due to rounding.

[a] A RAPID FIRE 1919A4 CAL308 seized in 2022 from a shipment bound for Haiti was originally categorized in the source document as a 'machine gun' even though the RAPID FIRE 1919A4 is a semi-automatic variant.

[b] These firearms are described in the source document as 'homemade'.

[c] Two seized air rifles were excluded from this total.

Sources: Bahamas Ministry of National Security (2025); INTERPOL (n.d.); JCF (2025a); Stop US Arms to Mexico (2024); Small Arms Survey (n.d.a)

Rifles accounted for the most notable changes to seizure rates of US-sourced firearms. Seizures of rifles at US ports increased from 1% to 15%, and trace rates nearly doubled from 5% to 9% from 2017 to 2024 (see Table 2.1). The increase in port seizures was largely attributable to attempted shipments to three countries: the Dominican Republic, Guyana, and Haiti, which accounted for more than 80% of rifles seized from 2021 to 2024 (Small Arms Survey, n.d.a).

Seizure and trace rates for shotguns remained fairly steady, while rates for revolvers fell. Tracking rates of seizures and traces of sub-machine guns, machine guns, and other automatic weapons remains challenging because of the inconsistent and often opaque reporting practices of governments. It is often unclear which firearms are categorized as 'sub-machine guns' and 'machine guns'—for example, they may include just automatic models intended for military and law enforcement or also semi-automatic variants sold on the civilian market. The categorization of converted firearms is also often unclear. For example, pistols and rifles equipped with switches and other machine gun conversion devices (MCDs) may be categorized as 'pistols' and 'rifles', or as sub-machine guns and machine guns. More standardized and detailed reporting by governments would help eliminate some of this ambiguity.

AR- and AK-pattern rifles

The newly acquired data indicates that the majority of Caribbean-bound rifles seized from US-based traffickers are AR- and AK-pattern rifles, and that these models comprise an increasingly large share of all seized firearms. The proportion of AR- and

Table 2.2 AR- and AK-pattern rifles seized from US outbound shipments to the Caribbean as a percentage of seized firearms, 2017–24

Seized rifles by pattern	2017–20		2021–24	
	Quantity	% of all seized firearms	Quantity	% of all seized firearms
AR- and AK-pattern rifles	5	1%	43	11%
AR pattern	5	1%	20	5%
AK pattern	0	0	23	6%
Other models/unclear	1	<1%	15	4%
Total seized rifles	**6**	**1%**	**58**	**15%**

Note: Percentage column totals may not add up to 100% due to rounding.

Source: Small Arms Survey (n.d.a)

AK-pattern rifles among firearms seized from Caribbean-bound shipments rose from 1% in 2017–20, to 11% just three years later (see Table 2.2).

The data also suggests that US-based trafficking in AR- and AK-pattern rifles is largely limited to just a handful of Caribbean states. The rifles were found in just 13 shipments to 6 countries, and nearly 65% of all seized AR- and AK-pattern rifles were recovered in just 2 seizures: a shipment to the Dominican Republic in December 2023 and a shipment bound for Guyana in September 2024.

Data from the 41 court cases studied also supports these findings. Approximately 14% of all firearms seized from defendants[4] in these cases were AR- and AK-pattern rifles, which is roughly consistent with seizure rates of these rifles at US ports. In ten of the 14 cases in which these rifles were seized or trafficked, the intended recipients were located in Haiti and/or the Dominican Republic (Small Arms Survey, n.d.b).

US trace data appears to reveal similar patterns, although the absence of data disaggregated by model precludes a definitive assessment. The percentage of traced firearms chambered for 7.62 mm and 5.56 mm ammunition—popular calibres for AR- and AK-pattern rifles—seized in Caribbean countries and traced to US retailers increased from 3% of all firearms in 2017–20 to 7% in 2021–24, roughly mirroring trends in seizures at US ports (see Table 2.3).

Table 2.3 Traces of US-sourced firearms chambered for 7.62 mm and 5.56 mm ammunition and seized in the Caribbean, 2017–24

Country	2017–20			2021–24		
	7.62 mm and 5.56 mm firearms	% of all traced firearms	Traced firearms, all calibres	7.62 mm and 5.56 mm firearms	% of all traced firearms	Traced firearms, all calibres
The Bahamas	29	3%	923	52	5%	974
Barbados	1	<1%	148	6	4%	149
Dominican Republic	10	<1%	1,734	37	8%	477
Haiti	37	22%	172	47	20%	241
Jamaica	62	3%	1,840	47	3%	1,590
Trinidad and Tobago	62	3%	2,214	145	11%	1,341
Total	**201**	**3%**	**7,031**	**334**	**7%**	**4,772**

Note: Percentage column totals may not add up to 100% due to rounding.

Source: Stop US Arms to Mexico (2024)

Of the six countries studied, Haiti saw the highest rates of seizures of firearms with calibres typically associated with AR- and AK-pattern rifles. This is not surprising given the well-documented use of these rifles by the numerous gangs that are battling for control of the country. The time-to-crime for firearms of these calibres seized in Haiti was also notably faster than the other five countries; 47% of the firearms of these calibres that were seized and traced in Haiti from 2017 to 2024 were purchased in the United States less than a year prior to the trace as opposed to an average of just 13% for the other five countries studied. According to US ATF, a time-to-crime of less than a year is significant not only because it is an indicator of firearms trafficking, but also because firearms seized less than a year after retail sale are usually easier to trace (US ATF, 2002; 2023a, p. 14).

Large-capacity magazines

While illicit firearms receive most of the attention from government officials and the press, the uncontrolled proliferation of certain parts and accessories is nearly as impactful in certain circumstances. Large-capacity magazines reduce reload rates for semi-automatic pistols and rifles and increase the number of rounds that can be

Table 2.4 Seized firearms magazines identified by capacity, 2017–24

Magazine capacity		2017–20		2021–24	
Type[a]	No. of rounds	No. of magazines	%	No. of magazines	%
Standard	10 or fewer	15	12%	35	9%
Large capacity	11 to 29	30	23%	223	54%
	30 to 49	76	59%	104	25%
	50+	5	4%	42	10%
	Large capacity (unspecified)	3	2%	6	1%
	Total large capacity	114	88%[b]	375	91%[b]
Total[b]		**129**		**410**	

Notes: Percentage column totals may not add up to 100% due to rounding.

[a] The categorization of standard- and large-capacity magazines is consistent with the US government's definition of 'large capacity ammunition feeding device', which is capable of accepting more than ten rounds (US CFR, n.d.).

[b] These totals do not include seized magazines of unspecified capacity that were bound for the Caribbean, which totalled 546 magazines from 2017 to 2020 and 434 magazines for 2021–24.

Source: Small Arms Survey (n.d.a)

Images 1–2 Drum magazine seized by Haitian authorities, 2024

Notes: Drum magazine and other firearm components and ammunition found by Haitian police in a shipping container from the United States in 2024.

Source: Haitian National Police (2024)

easily carried by an individual, thereby potentially prolonging armed engagements and increasing the number of rounds fired during these engagements. When used in combination with machine gun conversion devices, large-capacity magazines effectively transform pistols into sub-machine guns and rifles into machine guns, with obvious implications for law enforcement and public health.

Overall, seizure rates for large-capacity magazines remained fairly steady from 2017 to 2024, comprising 88% of all magazines identified by capacity that were seized from 2017 to 2020, and 91% of magazines seized from 2021 to 2024. The most notable change involved seizures of the largest capacity magazines (50+ rounds), which increased from 4% of seized magazines identified by capacity to 10% (see Table 2.4).

As with AR- and AK-pattern rifles, trafficking of the highest capacity magazines was largely limited to a small number of countries. Shipments to the Dominican Republic, Haiti (see Images 1–2), and Trinidad and Tobago accounted for 86% of seized magazines with capacities of 30+ rounds, and 94% of the magazines with a capacity of 50 or more rounds were found in shipments to just two countries—the Dominican Republic and Trinidad and Tobago.

Privately made firearms

Improvements in 3D-printing technology and designs for 3D-printed firearms, coupled with an increase in the production and popularity of firearms made from semi-finished ('80%') frames and receivers over the past decade, have sparked fears of a large-scale shift away from factory-produced weapons to PMFs by criminals and other unauthorized end users. This concern is particularly relevant to regions with robust domestic controls on factory-produced firearms, such as the Caribbean. Widespread

acquisition and use of PMFs by criminals would severely undermine key laws and regulations on the production, sale, ownership, export and transit of firearms.

Tracking the proliferation of PMFs is difficult. As previously reported by the Small Arms Survey, PMFs are often confused with factory-produced models, leading to erroneous reporting and record-keeping (Fabre et al., 2023, p. 95), and much of the data on illicit firearms contains little or no detailed information on PMFs or their components.

That said, available data does provide some insight into trafficking of PMFs in the region. The Survey has identified seizures of various types of PMFs in several Caribbean states, including 3D-printed weapons and workshops for producing 3D-printed weapons (Yarina and Florquin, 2024, p. 5). Furthermore, US trace and port seizure data reveals an increase in the quantity of items frequently used in the production of some PMFs. The number of rifle receivers, pistol frames, and receiver kits seized in Caribbean-bound shipments increased more than three-fold from 2017–20 (48 units seized) to 2021–24 (167 units seized). These seizures include 36 AR15 rifle receivers discovered in an express shipment to Suriname in 2021, and 14 'homemade' and unmarked receivers seized from two different shipments to Haiti in 2020.

While most of the firearms acquired and smuggled by 41 US-based trafficking networks studied were fully assembled, factory-produced weapons, trafficking of PMFs and parts for PMFs was also not uncommon. Traffickers in at least nine of the cases smuggled or attempted to smuggle assembled PMFs or parts used in the assembly of PMFs. In most cases, the items trafficked as part of the conspiracies were a mix of factory-produced firearms (often straw-purchased from US retailers) and PMF components. This is consistent with US port seizures, suggesting that most traffickers of PMFs do not focus exclusively, or even primarily, on PMFs and their components. The two (apparent) exceptions both involve the Dominican Republic—one directly and the other indirectly (see section on the 'Size and quantity of seized shipments' below).

Conspicuously absent from nearly all the lists of items seized from Caribbean-bound shipments are machine gun conversion devices. Conversion devices are simple, easy-to-install components that convert semi-automatic pistols and rifles into automatic weapons. Seizures of conversion devices in the United States have increased substantially; units seized by police and subsequently traced by US ATF jumped from 658 in 2019 to 5,816 in 2023 (US ATF, 2025c). Reports of criminal acquisition of the devices have surfaced in several Caribbean countries in recent years, including, but not limited to, the British Virgin Islands, the Dominican Republic, Haiti, Jamaica, St Lucia, St Thomas, and Trinidad and Tobago.[5]

The only potential conversion devices referenced in the Caribbean-bound shipments seized by US authorities were found in a commercial air shipment to Suriname in July 2023.[6] Similarly, conversion devices are mentioned in only two of the 41 trafficking networks reviewed for this Report, and sales of the devices appear to have been

a marginal part of the second network's activities. When queried about the small number of conversion devices found in Caribbean-bound shipments and referenced in documents from court cases against US-based traffickers, the US Department of Homeland Security (DHS) noted that there is 'no need to source conversion devices from the US. [One] can easily order them from other countries, like China. We've seen boxes of them from China' (US ICE, 2024).

Trafficking dynamics

Trafficking to and within the Caribbean is often referred to as the 'ant trade' because it frequently takes the form of a steady stream of small shipments of arms and ammunition. While most of the seized shipments analysed by the Survey were comparatively small (that is, contained three or fewer firearms), the term 'ant trade' itself does not fully convey the nature and scope of trafficking to the region, as explained below. This section also assesses new and recently released data on the locations and transport modes of US-based trafficking, along with trafficking from countries other than the United States. The data reveals both change and continuity in trafficking dynamics in the region.

Size and quantity of seized shipments: super-charged 'ant trade'

There has been little change in the size of seized shipments in recent years. An average of 2.5 firearms were recovered per seizure at US ports from 2021 to 2024, with 78% of seized shipments consisting of three or fewer firearms. These figures are roughly consistent with data from 2017–20, during which seizure size averaged three firearms, and 70% of seized shipments consisted of three or fewer firearms. The average size of firearms seizures recorded during Operation Calypso was about the same at three firearms per seizure.

Trafficking that consists of a steady stream of small quantities of firearms is frequently referred to as the 'ant trade', which is often associated with amorphous, decentralized networks of part-time traffickers utilizing readily available commercial transport modes. While the numerous small shipments to the Caribbean are consistent with the 'ant trade', the term fails to fully describe arms trafficking to the Caribbean. A close look at the data reveals a more diverse trafficking ecosystem, in terms of the both size of the shipments and the prodigiousness of the trafficking networks.

The inadequacy of the term 'ant trade' to describe US-based firearms smuggling to the Caribbean is most clearly illustrated by the activities of the largest trafficking

Images 3–4 Firearms acquired by Sune-Giron and his accomplice, 2024

Notes: Firearms, ammunition, and accessories seized from three residences in Florida during the investigation of Sune-Giron's trafficking network, April 2024 (left); surveillance camera images of Sune-Giron and his girlfriend straw-purchasing firearms at a gun shop in Florida, February 2024 (right).

Sources: USDC Middle District of Florida (2024a; 2025)

networks, the most prolific of which was based in central Florida. A key participant in this network was Rafael Sune-Giron, a Guatemalan fugitive wanted for aggravated robbery in his home country. US authorities determined that Sune-Giron was part of a vast trafficking conspiracy that acquired firearms and ammunition online and via straw purchases from brick-and-mortar gun stores in Florida, and smuggled them to the Dominican Republic, Haiti, and Puerto Rico. According to US authorities, the number of firearms trafficked to the Caribbean by this one network numbered 'in the thousands'.[7] Sune-Giron alone was responsible for the trafficking of between 450 and 900 firearms (see Image 3–4).[8]

While the Sune-Giron case is unusual, the acquisition and trafficking of large quantities of firearms by US-based traffickers is not. At least 10 of the 41 trafficking schemes studied involved the purchase of at least 50 firearms, and participants in 5 of these schemes acquired 100 or more. These figures are likely under-estimates given the tendency of the court documents to focus primarily on specific sales rather than on estimates of total procurement by the trafficking networks. Furthermore, not all shipments are small. In February 2025, Dominican authorities at the port of Haina discovered 23 firearms, including a .50 calibre rifle, along with 32 magazines, and 36,000 rounds of ammunition in a container from Miami, Florida. The weapons were reportedly bound for Haiti (General Directorate of Customs of the Dominican Republic, 2025). That seizure occurred just days after authorities found 30 rifles and seven pistols in a shipment from Brooklyn, New York (Haiti Libre, 2025). Jamaican officials also seized several large shipments in 2025, culminating in the discovery of 159 pistols and 74 rifles in an industrial-size water heater shipped from the United States in May (*Jamaica Gleaner*, 2025; Murphy, 2025).

Thus, while the average size of documented illicit arms shipments to the Caribbean is small, there are exceptions, and those exceptions contain dozens, sometimes hundreds, of firearms. Furthermore, the total number of firearms delivered through these shipments, including the smaller shipments, is massive, and the cumulative effect of these transfers on public health and security in places such as Haiti is as profound as any other type of arms trafficking.

Procurement and shipping locations in the United States

Recently released US customs and trace data provides new insight into where Caribbean-bound firearms are procured and shipped. For years, US and Caribbean officials have identified gun traffickers located in Florida and Georgia as the main source of firearms smuggled from the United States to the Caribbean.[9] The new data not only supports these claims, but also reveals that the procurement and shipment of illicit firearms to the Caribbean is even more geographically concentrated than previously (publicly) known.

Table 2.5 Ports of seizure for Caribbean-bound shipments from the United States, 2017–24

US CBP field office	No. of ports/states or territories covered by field office	No. of seized shipments	%
Miami	5 ports/Florida	230	75%
Chicago	41 ports/Illinois, Indiana, Iowa, Kansas, Kentucky, Minnesota, Missouri, Nebraska, Ohio, Pennsylvania, South Dakota, Wisconsin	19	6%
Houston	20 ports/Oklahoma, Texas	16	5%
New York	4 ports/New Jersey, New York	16	5%
San Juan	9 ports/Puerto Rico, US Virgin Islands	12	4%
Atlanta	12 ports/Georgia, North Carolina, South Carolina	5	2%
Tampa	18 ports/Florida	4	1%
Boston	44 ports/Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	2	<1%
Laredo	18 ports/Texas	1	<1%
Los Angeles	8 ports/California, Nevada	1	<1%

Note: Percentage column totals may not add up to 100% due to rounding.

Source: Small Arms Survey (n.d.a)

Trace data indicates that, during the period 2017–24, almost 70% of all successfully traced firearms seized in the six Caribbean states for which data is available came from Florida and Georgia.[10] This is consistent with procurement patterns documented during prosecutions of US-based trafficking networks.[11] More surprising, however, is the fact that nearly 70% of those firearms were traced to just 7 of the 226 counties in those states, and 44% were seized in just 2 of those counties: Miami-Dade and Broward in Florida. In other words, 30% of all firearms seized in the Caribbean and successfully traced to US retailer sales were purchased from firearms dealers in just *two* of the 3,143 counties[12] in the United States, as analyst John Lindsay-Poland first noted in 'No Shelter from the Storm: Update on Iron River of Guns' (Stop US Arms to Mexico, 2025, p. 3).

The data on Caribbean-bound shipments seized by US customs officials tells a similar story: 78% of the seized shipments nationwide were interdicted in ports in or near Atlanta (Georgia), Tampa (Florida), and Miami (Florida). Consistent with the trace data, interdictions in the Miami area accounted for 75% of all seizures (see Table 2.5).[13]

Documentation from the US court cases involving trafficking to the Caribbean reveals a similar pattern. Traffickers in 25 of the 29 cases in which transport locations were identified shipped their weapons from Florida or Georgia (Small Arms Survey, n.d.b).

Table 2.6 Firearms seized in the Caribbean and successfully traced to US retail sellers, top ten US counties, 2017–24

County	2017–20	%	County	2021–24	%
FL-BROWARD	381	16%	FL-BROWARD	515	20%
FL-MIAMI-DADE	286	12%	FL-MIAMI-DADE	292	11%
FL-ORANGE	98	4%	FL-ORANGE	153	6%
FL-PALM BEACH	96	4%	FL-PALM BEACH	115	4%
FL-DADE	86	4%	FL-HILLSBOROUGH	57	2%
GA-CLAYTON	49	2%	GA-COBB	51	2%
GA-COBB	43	2%	FL-DADE	49	2%
GA-GWINNETT	36	2%	GA-GWINNETT	42	2%
TX-HARRIS	31	1%	GA-CLAYTON	33	1%
GA-DEKALB	31	1%	TX-HARRIS	33	1%
Total (all counties in the United States)	**2,331**		**Total (all counties in the United States)**	**2,574**	

Source: Stop US Arms to Mexico (2024)

The trace data also reveals that procurement and shipping patterns were remarkably consistent from 2017 to 2024. Not only did Florida and Georgia account for nearly exactly the same percentage of successfully traced firearms from 2017 to 2020 (69.9%) and from 2021 to 2024 (70.4%), the four counties to which the most firearms were traced nationwide were also the same, as were nine of the top ten counties (see Table 2.6).

The percentage of Caribbean-bound shipments interdicted at ports in Florida and Georgia decreased during this period (from 82% to 76%) but still accounted for the vast majority of seized shipments from the United States to the Caribbean.

Documentation from prosecutions of US-based traffickers also indicates that most of the firearms trafficked by these individuals and networks were procured and/or shipped to the Caribbean from Florida and Georgia. The activities of several of the networks extended beyond these states, however. In one-third of the cases, one or more of the co-conspirators was located (or active) in a state other than Florida or Georgia, and conspirators procured firearms in other states in at least nine of the cases. These cases include:

- a ghost gun producer who set up a workshop in his basement in Rhode Island and shipped dozens of assembled firearms to the Dominican Republic. According to court documents, the conspirator purchased kits for pistols and rifles from an unidentified 'ghost gun retailer', including at a gun show in Pennsylvania, assembled them, and then shipped them to the Dominican Republic. US authorities estimate that the trafficker exported between 100 and 200 firearms from Rhode Island before he was arrested in 2021 (USDC Southern District of New York, 2022a; 2022b);
- a trafficking ring that ordered components for PMFs[14] from online vendors, primarily through eBay, and had them delivered to the addresses of friends and relatives in Connecticut, Massachusetts, and Virginia. The purchased components were then mailed directly—or through a freight forwarder in Miami—to Dominica. US authorities estimate that the traffickers placed 124 orders for firearm components worth more than USD 36,000 from 2021 to 2024. While some of the components were routed through Florida, most of the activity occurred in other states; and
- a drug dealer and gang member residing in Massachusetts who recruited straw purchasers to buy firearms from retailers in Maine. The trafficker then transported the firearms to New York, packed them into boxes with food and toys, and shipped them via a freight forwarder in Brooklyn to the Dominican Republic. The shipment was interdicted by Dominican authorities on 6 October 2022 (USDC Southern District of New York, 2022c; see Images 5–6).

Notably, most of the US-origin shipments interdicted as part of Operation Calypso departed from New York rather than Florida. Of the 23 seizures of shipments from the

Images 5–6 Seized firearms and shipping invoice linked to traffickers in New York, 2022

Notes: Firearms discovered by Dominican authorities in a cargo shipment from New York, October 2022 (left); falsified shipping receipt for the seized shipment (right). The receipt identifies the shipped cargo as 'boxes', 'tanks', 'rice', and 'oil' in Spanish.

Sources: USDC Southern District of New York (2022c; 2023)

United States, 13 came from New York while only 8 came from Florida. The time frame and sample size is significantly shorter/smaller than the US CBP data, but the results do raise the possibility that trafficking operations could shift to other states in response to a significant increase in law enforcement efforts in Florida.

Modes of transport

The newly acquired data suggests that the transport modes used by traffickers have changed very little since 2021. As shown in Table 2.7, data on US port seizures indicates that the percentage of cases involving the two main transport modes—commercial air and commercial maritime shipments—declined only slightly from 75% in 2017–20 to 69% in 2021–24. Changes involving the other transport modes were comparably modest, increasing or decreasing by no more than 9% during this period.

The even split between seizures of illicit commercial air shipments and maritime shipments is surprising given repeated claims by law enforcement officials and journalists that most trafficking from the United States to the Caribbean is accomplished via maritime shipping. When queried about the data, the US DHS indicated that the results were likely due to the fact that air and mail shipments are more highly scrutinized

Table 2.7 Modes of transport used in Caribbean-bound shipments seized by US CBP, 2017–24[a]

Mode of transport (conveyance)[b]	2017–20		2021–24	
	No. of shipments	%	No. of shipments	%
COMMERCIAL VESSEL	41	37%	44	36%
COMMERCIAL AIR	42	38%	40	33%
EXPRESS CONSIGNMENT	7	6%	18	15%
OTHER	13	12%	7	6%
NO TRANSPORTATION INVOLVED	1	<1%	5	4%
PRIVATE AIRCRAFT	0	0%	5	4%
MAIL	3	3%	2	2%
AUTO	4	4%	2	2%
PRIVATE VESSEL	1	<1%	0	0%
Total	**112**		**123**	

Notes: Percentage column totals may not add up to 100% due to rounding.

[a] The transport mode descriptions are taken verbatim from the source. The US DHS provides the following descriptions of these transport modes:

- auto: non-commercial personal vehicle;
- commercial air: commercial cargo shipping aircraft;
- commercial truck: commercial cargo shipping truck;
- commercial vessel: commercial cargo shipping vessel;
- express consignment: express consignment carrier facility;
- mail: mail;
- no transportation involved: conveyance was not used in the commission of the crime;
- other: conveyances not otherwise categorized, such as ultralight aircraft, canoes, etc.; and
- private aircraft: general aviation aircraft (US OHSS, n.d.).

[b] Data on the transport mode for shipments to Barbados, Belize, Curacao, and Dominican Republic was not included in the US CBP data set used to calculate these figures.

Source: Small Arms Survey (n.d.a)

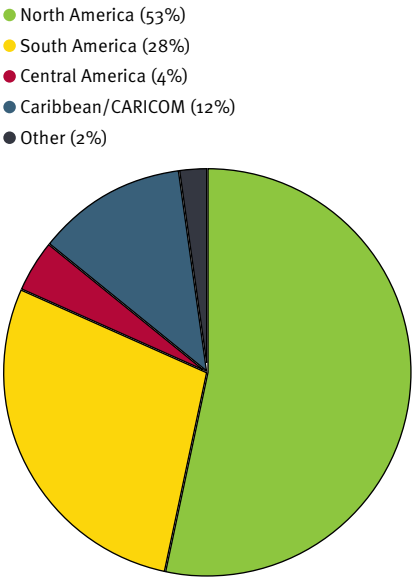
(US ICE, 2024), a theory that is supported by data on port seizures in Caribbean states. As shown in Annexe 2.1, 31 of the 38 seizures of shipments from the United States in which the transport mode was identified were of arms and ammunition found on maritime vessels, and most of those vessels were cargo ships. When asked about claims that the vast majority of illicit Caribbean-bound firearms shipments from the United States are maritime shipments, a US official responded that '[i]t really is that

lopsided. Maritime shipments via local freight forwarders are the most cost-effective mode of transport and, given the volume of maritime shipments and the difficulty of checking each shipment (it can take 3+ hours to unload a maritime container), it is the most frequently used transport mode.' He also added that US officials are aware of the problem and that 'more strict accountability [. . .] for freight forwarders is an ongoing line of effort'.[15] Officials from The Bahamas identified courier air services as 'a key modus operandi for firearms trafficking', but also confirmed that maritime vessels, and particularly private vessels and sea courier companies, remain 'major contributor[s]' to illicit firearms flows into The Bahamas.[16]

Weapons trafficked from locations other than the US mainland

There is little doubt that the US mainland is not the only source of illicit arms and ammunition in the Caribbean, but determining the scope and scale of trafficking from non-US sources has proven difficult. For example, the three data sets acquired or compiled with the goal of better understanding non-US-sourced weapons actually contain as much or more data on trafficking from the United States. 53% of the completed traces in INTERPOL's iARMS database were to North America, which is notable because most seized firearms suspected of coming from the United States are likely submitted for tracing directly to US ATF. Thus, even in data sets in which traces to the United States are likely to be under-represented, the United States is still by far the largest source country for traced weapons. Most of the remaining firearms were traced to South America, followed by the Caribbean and Central America (see Figure 2.1).

Figure 2.1 Source regions of firearms traced through INTERPOL, 2019–24



Source: INTERPOL (n.d.)

Similarly, most of the shipments of firearms and ammunition seized at Caribbean ports came from the United States. Of the 28 seized shipments at ports in The Bahamas, Belize, Guyana, and St Lucia from 2017 to early 2025 in which the country/port of origin is identified, 27 reportedly came from the United States (see Annexe 2.1). The sole shipment from elsewhere consisted of two shotguns

and an unspecified quantity of 7.62 mm ammunition from Venezuela. This data set, when combined with the other data presented in this chapter, provides increasingly strong evidence that traffickers in the United States are indeed the predominant source of illicit firearms in most of the region. Similarly, 79% of international shipments interdicted as part of Operation Calypso departed from the United States, and these shipments contained at least 94% of the firearms seized during this operation.

Yet the data also confirms that arms and ammunition are trafficked from other countries as well. A little less than half of the firearms submitted for tracing through INTERPOL were traced to countries other than the United States (INTERPOL, n.d.), as were 23% of firearms submitted for tracing to US ATF between 2018 and 2022. The latter were traced to 35 different countries, according to the US Government Accountability Office (US GAO, 2024, p. 12). Details on these and other weapons sourced in countries other than the United States are sparse, however. UN and media investigations provide some additional information, but even these reports often lack key details about

Table 2.8 Successful traces of US-sourced firearms seized in the Caribbean, 2017–24

Country	Years	Traced to a US retail purchaser	Traced to a foreign country	Total
The Bahamas	2017–20	733 (97%)	**21 (3%)**	**754**
	2021–24	946 (98%)	**20 (2%)**	**966**
Belize	2017–20	54 (50%)	**55 (50%)**	**109**
	2021–24	58 (39%)	**92 (61%)**	**150**
Dominican Republic	2017–20	292 (58%)	**213 (42%)**	**505**
	2021–24	364 (99%)	**4 (1%)**	**368**
Jamaica	2017–20	639 (78%)	**184 (22%)**	**823**
	2021–24	876 (84%)	**162 (16%)**	**1,038**
Trinidad and Tobago	2017–20	198 (70%)	**84 (30%)**	**282**
	2021–24	347 (81%)	**81 (19%)**	**428**
Total	**2017–20**	**1,916 (77%)**	**557 (23%)**	**2,473**
	2021–24	**2,591 (88%)**	**359 (12%)**	**2,950**

Notes: Percentage column totals may not add up to 100% due to rounding.

Sources: US ATF (2018a; 2018b; 2019a; 2019b; 2020a; 2020b; 2021a; 2021b; 2022a; 2022b; 2023b; 2023c; 2024a; 2024b; 2025a; 2025b)

sources and trafficking mechanics. In their 2024 report, UN investigators referenced ongoing investigations into 'trafficking activities' from South America to Haiti, including the seizure of several AK-pattern rifles that were traced to Venezuela. Queries about the rifles submitted to the Venezuelan government were still pending when the report was published, however (UNSC, 2024, p. 18).

Additionally, 12% of all US-sourced firearms seized in five Caribbean countries and successfully traced by ATF in 2021–24 were traced to legal foreign imports (versus domestic sales in the United States), with country-specific rates ranging from 1% in the Dominican Republic to 61% in Belize. As shown in Table 2.8, the proportion of US-sourced weapons traced to foreign importers dropped from 23% to 12%, much of which is explained by a sudden, precipitous decrease in legally exported US-sourced firearms seized in the Dominican Republic. When the Dominican Republic is excluded from the sample, the percentage of US-sourced firearms traced to foreign importers still decreases but not by as much (from 17% to 14%).

Significantly less is known about these weapons than firearms trafficked from the US mainland. Available data reveals nothing about the seized weapons, their chains of custody, or the circumstances surrounding their diversion. Also absent from these totals is data on PMFs made from unserialized or counterfeit components—a particularly difficult subgroup of illicit firearms to track. More detailed data on domestic and port seizures from Caribbean governments would significantly improve our understanding of illicit firearms flows in the region, as would data on outbound seizures of Caribbean-bound firearms shipments from more source countries. A better understanding of these flows is necessary for ensuring the efficient and effective use of scarce enforcement resources.

Conclusion

New data on illicit firearms in the Caribbean is improving understanding of the types of weapons in the region, the sources of illicit weapons, and the mechanics of arms trafficking. The data reveals that handguns still account for most of the firearms seized in the region, despite slow but steady increases in seizures of specific types of rifles, namely AR- and AK-pattern rifles, in shipments from the United States. Also notable is the increase in seizures of very large-capacity magazines (50+ rounds), which jumped from 4% of seized magazines identified by capacity at US ports in 2017–20 to 10% in 2021–24. Shipments of both types of items were limited to a small, overlapping subset of Caribbean states, which points to a gradual bifurcation of trafficking to the region.

The data also underscores the continued centrality of traffickers, shipping companies, and gun stores based in the United States, and particularly the states of Florida

and Georgia, to the illicit flow of weapons from the United States. At least 27 of the 29 reported shipments seized at ports in The Bahamas, Belize, Guyana, and St Lucia from 2017 to early 2025 came from the United States, as did 79% of international shipments interdicted during Operation Calypso.

Of particular concern are traffickers in Florida and Georgia, which were the sources of nearly 70% of firearms seized in six Caribbean states and traced to US retail sales. Many of these firearms were shipped from southern Florida, as evidenced by the fact that 75% of Caribbean-bound shipments interdicted in the United States were seized in ports affiliated with US CBP's Miami field office.

Yet it is also increasingly clear that the problem is not limited to Florida and Georgia, or even to the United States. A little less than half of the firearms seized in the Caribbean and successfully traced through INTERPOL in recent years came from countries other than the United States. Similarly, several hundred additional firearms were traced by US ATF to other countries, including importers of US weapons. This data confirms that the US mainland is not the only source of illicit firearms in the Caribbean, but the full extent of trafficking from other sources is not clear. More and better data from sources other than US authorities would provide a fuller picture of trafficking to and within the region.

Within the United States, trafficking to the Caribbean extends beyond the southern border states. Authorities have dismantled large trafficking networks in Connecticut, Massachusetts, Pennsylvania, Rhode Island, and Virginia, and 13 of the 23 US-sourced arms shipments interdicted during Operation Calypso came from New York. These cases highlight the extreme difficulty of curtailing trafficking from a country as large and economically robust as the United States, which has hundreds of ports.

Perhaps the biggest challenge confronting US and Caribbean authorities, however, is the volume of trade at many US ports. 'The primary barrier is the sheer number of bulk maritime shipments and the resources required to check every shipment,' observed one US law enforcement official. More resources for screening cargo at US ports would help, but authorities will never be able to screen it all. A complementary strategy would be to invest more heavily in the screening capacity at ports in the Caribbean, which tend to be less busy but also often lack trained personnel and equipment. Several countries are actively improving security at their ports, including the Dominican Republic, which now scans 100% of all incoming cargo with modern scanners. 'If we could elevate their capabilities so they are on par with the Dominican Republic [. . .] a port of entry-focused approach would be more feasible,' said the official. This approach has the potential to reduce trafficking in not only firearms but also other contraband, including narcotics, especially when combined with increased regional intelligence sharing, stronger regulations on courier services and other shipping entities, and more training on weapons identification and tracing for local law enforcement.

Annexe 2.1 Seizures of firearms at ports in five Caribbean countries, 2017–25

Seizure date	Country	Seizure location	Mode of transport	Country/ port of origin	Seized items[b]
27/11/2017	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Jerico 9 mm pistol s/n N/A; (1) Lorcin .22 cal Pistol s/n 'N/A' **Ammunition:** (9) .22LR, (251) .243 cal. **Parts:** (3) Magazine 9mm, (1) Barrel 12 Gauge, (1) Bolt 12 Gauge, (1) Trigger N/A
06/03/2020	St Lucia	Shed 6	General cargo vessel	United States	**Firearms:** (2) AK-47, (7) Taurus, (1) Smith & Wesson **Ammunition:** (349) 9mm, 7.62x39mm, .308 cal.
20/05/2020	Belize	Belize City Port	Commercial cargo vessel	United States	**Ammunition:** (250) Remington 12 Gauge, (350) PMC Bronze .45 cal., (25) Remington 20 Gauge, (24) Remington 30-30, (50) Magtech .38 Spl., (50) Federal Premium .45 cal., (50) Aguila .22 cal., (50) Winchester .22 cal., (48) Nitro-Steel Magnum 12 Gauge, Federal High Velocity 20 Gauge **Parts:** (1) Magazine 7.62 mm (6) Magazine 9mm, (1) Mag speed loader 9 mm
14/12/2020	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Bersa BP9CC 9 mm pistol, s/n FYV7328; (1) Smith & Wesson .40 cal. pistol, s/n F45238
2022	Jamaica	Denham Town (Wharf)	(Maritime)	N/A	**Firearms:** (18) pistols, (3) rifles
2022	Jamaica	Sangster Int'l Airport	(Air)	N/A	**Firearms:** (23) pistols
22/08/2022	St Lucia	Shed 6	General cargo vessel	United States	**Firearms:** (2) AR15, (1) Taurus **Ammunition:** (30) 5.56mm, (8) 12 gauge

Seizure date	Country	Seizure location	Mode of transport	Country/ port of origin	Seized items[b]
17/10/2022	St Lucia	Shed 6	General cargo vessel	United States	**Firearms:** (2) AK-47
24/12/2022	St Lucia	Vieux Fort Wharf	Vessel Zero Tallerance	N/A	**Firearms:** (1) Taurus **Ammunition:** (12) 9mm
2023	Jamaica	Norman Manley Int'l Airport	(Air)	N/A	**Firearms:** (1) Pistol
2023	Jamaica	Sangster Int'l Airport	(Air)	N/A	**Firearms:** (3) Pistols
2023	Jamaica	Freeport (Wharf)	(Maritime)	N/A	**Firearms:** (1) Pistol
19/01/2023	St Lucia	Shed 6	General cargo vessel	United States	**Firearms:** (1) AR15; (1) Glock 27; (3) Taurus **Ammunition:** (53) .40 cal.
07/03/2023	Guyana	Morwhanna	Boat	Venezuela	**Firearms:** (2) 12- & 16-gauge shotguns **Ammunition:** (unspecified) 7.62 x 39 mm
09/05/2023	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) ACP .45 cal pistol, no s/n **Parts:** (1) Extended magazine .45 cal., (1) Magazine .45 cal.
18/05/2023	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Maverick 88 12-gauge shotgun, s/n MV0859296
20/07/2023	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Mossberg .22 cal rifle, s/n ESC4289286 **Ammunition:** (579) Winchester .22 cal.

Seizure date	Country	Seizure location	Mode of transport	Country/ port of origin	Seized items[b]
23/08/2023	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Draco 7.62 mm pistol, s/n *ROA22DO-8383, (1) Smith & Wesson M&P 9 9mm pistol no s/n; (1) Canik TP9 9mm pistol, s/n *23AT13529; (1) CZ P10 9mm pistol, s/n G247493 **Ammunition:** (200) Luger 9mm, (160) Target FMJ 7.62mm, (200) Ball SS109 5.56 mm, (240) Belom 7.62 mm
07/09/2023	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Smith & Wesson M&P 9mm pistol, s/n JCK0819
18/10/2023	Guyana (East Bank Demerara)	Larparkan Bond, Timebri	Barrel	United States	**Firearms:** (8) 9mm pistols
15/12/2023	St Lucia	West Tech	N/A	United States	**Firearms:** (1) Glock; (1) Taurus; (1) Hellcat
2024	Jamaica	Newport West (Wharf)	(Maritime)	N/A	**Firearms:** (114) pistols; (2) rifles, (1) Revolver
2024	Jamaica	Sangster Int'l Airport	(Air)	N/A	**Firearms:** (7) pistols
2024	Jamaica	Freeport (Wharf)	(Maritime)	N/A	**Firearms:** (9) pistols
26/01/2024[a]	The Bahamas (Eleuthera)	Local Dock	Vessel	United States	**Firearms:** (1) Taurus G3C 9mm Pistol S.N. ACE898578 **Ammunition:** (1,019) rounds of 9mm (400) rounds of .40 cal. (79) rounds of 7.62 mm; 3 magazines

Seizure date	Country	Seizure location	Mode of transport	Country/ port of origin	Seized items[b]
04/02/2024	St Lucia	Point Seraphine	*Anthem of the Seas* cruise ship	United States	**Firearms:** (1) Glock 27 **Ammunition:** (9) .40 cal.
12/02/2024[a]	The Bahamas (Nassau)	Lynden Pindling Int'l Airport	Airplane	United States	**Firearms:** (1) Austria Glock 48 Pistol S.N.BVAN825; (1) Smith & Wesson 9mm Pistol S.N. erased; (1).40 Beretta Pistol S.N. BER004414; One (1) Spike Tactical Rifle S.N. SCR077901 **Ammunition:** (8) 9mm; (1) 5.56mm; (1).40 cal.; (4) magazines
23/02/2024	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Winchester 12 Gauge shotgun, s/n 32788D
26/03/2024	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) ACP Kimber .45 cal. pistol, s/n DU181281; (1) Glock 9mm pistol, s/n CXN869US; (1) Springfield .45 cal. pistol, s/n N422745 **Ammunition:** (400) Luger 9mm, (600) FMJ .45 cal., (100) FMJ .380 cal.
05/04/2024	Belize	Belize City Port	Commercial cargo vessel	United States	**Ammunition:** (48) Luger 9mm **Parts:** (1) Magazine 9mm
07/04/2024	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Winchester 1892 .357 cal. rifle, s/n 00113YW92N; (1) Mossberg M590 12 Gauge Shotgun, s/n V1922390; (1) Smith & Wesson .38 Special Revolver, s/n ADV194 **Ammunition**: (68) Federal SPL 9mm, (25) SB Buckshot 12 Gauge, (50) FMJ .380 cal., (20) Special Fed. RTJ .38 cal., (174) LR Troy Landy .22 cal., (21) Hornady Critical Defense 380

Seizure date	Country	Seizure location	Mode of transport	Country/ port of origin	Seized items[b]
08/04/2024	Belize	Belize City Port	Commercial cargo vessel	United States	**Parts:** (1) Magazine .380 cal
14/05/2024[a]	The Bahamas (Nassau)	Lynden Pindling Int'l Airport	Airplane	United States	**Firearms:** (1) Glock 17 9MM Pistol S.N. erased; (1) DB9 9MM Pistol S.N. erased; (1) Smith and Wesson 9MM Pistol S.N. Erased; (1) Glock 19 9mm Pistol S.N. Erased; (1) FN 5.7.Pistol S.N. Erased; (1) Glock 26 9MM Pistol S.N. Erased; (1) Smith and Wesson Pistol S.N. Erased; (1) Canon 9MM Pistol S.N. Erased; (1) Taurus Judge Revolver S/N Erased **Ammunition:** (184) 9mm; (100) .40 cal. (20) 5.7 mm; (5) .410 gauge (8) Magazines
30/07/2024	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Galil Ace Gen. 2 5.56m pistol, s/n G20333366; (1) Sig Sauer P320 X-Ten 10 mm pistol, s/n 58J531579; (1) Mossberg 12 Gauge Shotgun, s/n V1849038 **Ammunition:** (61) Remington 10mm **Parts:** (2) Magazines 10mm, (1) Magazine 5.56 mm, (1) HS510C Scope 12102394606
2025	Jamaica	Denham Town (Wharf)	(Maritime)	N/A	**Firearms:** (40) pistols; (6) rifles
2025	Jamaica	Newport West (Wharf)	(Maritime)	N/A	**Firearms:** (49) pistols; (16) rifles; (1) revolver
2025	Jamaica	Sangster Int'l Airport	(Air)	N/A	**Firearms:** (1) pistol

Seizure date	Country	Seizure location	Mode of transport	Country/ port of origin	Seized items[b]
09/01/2025	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) N/A ('Ar15 Rifle') .223 No Serial No.; (1) M4LR .22 cal. LR Rifle, s/n BPQ40402
24/01/2025	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Sig Sauer P365 9mm pistol, s/n 66F560174; (1) Smith & Wesson M&P40 .40 cal. pistol, s/n HVK8841; (1) Smith & Wesson M&P 380 pistol, s/n NFX0598; (1) Ruger .38 Spl. Revolver, s/n 1543-62857; (1) Browning Sweet Sixteen [shotgun], s/n 895-88845 **Ammunition:** (199) Smith & Wesson .40 cal., (150) Armscore Precision .38 cal., (25) Civil Defense .40 cal., (157) Federal American Eagle .380 cal., (74) Lugar 9mm **Parts:** (2) Magazines 9mm, (1) Magazine .40 cal., (4) Strikman Laser Bore Sight 9 mm
12/02/2025	Belize	Belize City Port	Commercial cargo vessel	United States	**Firearms:** (1) Glock (Replica) SCT-19 9mm pistol, s/n AAA0022624 **Ammunition:** (30) Luger 9mm **Parts:** (2) Magazine 9mm

Notes:

N/A = not available. s/n = serial number.

[a] For The Bahamas, only data from 2024 was available.

[b] The lists of seized items are taken verbatim from the source documents.

Sources: Bahamas Ministry of National Security (2025); Belize Customs & Excise Department (2025); Guyana Police Force (2025); Jamaican Ministry of National Security (2025); Royal Saint Lucia Police Force (2025)

Chapter endnotes

1 These countries are The Bahamas, Barbados, the Dominican Republic, Haiti, Jamaica, and Trinidad and Tobago.
2 This is the number of trace requests still available in the system and not the total number of trace requests submitted during this period.
3 In response to the Survey's request, the Royal Virgin Islands Police Force responded with the following statement: 'The RVIPF as its stands has no intelligence to support or suggest that large shipments of firearms inbound for the BVI [British Virgin Islands] or our neighboring USVI [US Virgin Islands] were seized by local law enforcement agencies over the past 20 years.' Email correspondence with the Royal Virgin Islands Police Force, 31 March 2025.
4 This figure refers to the firearms identified by model.
5 See US ICE (2024). See also Yarina and Florquin (2024, pp. 5–6) and Fabre et. al. (2023, pp. 99–100).
6 These items are described as ten 'GLOCK FULL AUTO CONVERSION KIT[S]'.
7 Email correspondence with the US Attorney's Office, Middle District of Florida, 24 March 2025.
8 Email correspondence with the US Attorney's Office, Middle District of Florida, 24 March 2025. See also USDC Middle District of Florida (2024a; 2024b).
9 See, for example, Fabre et al. (2023, p. 76) and Padgett (2024).
10 Texas was third with 5% of all traces. No other state accounted for more than 3% of the traced firearms.
11 Of the 33 cases of trafficking to the Caribbean in which the procurement location is identified, traffickers purchased firearms in Florida or Georgia in 24 cases (73%), and purchases were made in Florida, Georgia, and one or more additional states in 26 cases.
12 See Mackun, Comenetz, and Spell (2021).
13 It should be noted that some of those shipments may have originated in other states and may have been passing through Miami when they were interdicted.
14 While court documents do not identify the intended purpose of the components, the types and quantities of items suggest that they were intended for use in the assembly of PMFs.
15 Correspondence with an official from US Department of Homeland Security, June 2025.
16 Email correspondence with an official from the Ministry of National Security of The Bahamas, April 2025.

> “Integrating data collection on gunshot wounds and the care provided to patients into existing surveillance systems and trauma registries should be prioritized for more efficient and longer-term monitoring and costing of firearms injuries.”

3. A public health perspective on the costs of firearm-related violence

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Chapter findings

- This chapter presents updated estimates of the costs of firearm-related injuries in The Bahamas, Barbados, and Jamaica for 2024, based on data from 304 patients. Data from medical records was collected prospectively the same year the patients visited the medical facilities, enabling more timely and efficient monitoring than the retrospective approach employed in the 2023 *Caribbean Firearms Study*.
- The direct medical costs of non-fatal firearm injuries are estimated at USD 1.6 million in The Bahamas, USD 228,000 in Barbados, and USD 2 million in Jamaica for 2024. The ratio of the average direct medical costs for treating a single non-fatal firearm-related injury to public health expenditure per capita was 5:1 in The Bahamas, 3:1 in Barbados, and 8:1 in Jamaica.
- Total productivity losses due to fatal and non-fatal firearm-related injuries in 2024 are estimated at USD 72 million in The Bahamas, USD 19 million in Barbados, and USD 135 million in Jamaica.
- Compared to other weapons, firearm injuries contributed to a greater proportion of disabilities and more inactive days in two of the three country samples.
- A relative lack of documentation regarding the context of firearm-related violence in medical records makes developing preventive measures more difficult. Good practices from the region, as well as from other settings, should serve as the basis for identifying minimum contextual data on shootings that can realistically be collected by public health facilities.

Overview

Violence is a major public health burden for the Caribbean, with regional homicide rates largely exceeding global rates (see Chapter 1). Caribbean governments have formally recognized violence as a public health issue. They have also acknowledged the need for a public health approach to violence involving a 'systemic multidisciplinary evidence-based framework' to reduce violence through surveillance, risk identification, the design and implementation of targeted interventions, monitoring, and evaluation (CARICOM, 2023; 2024). It is therefore crucial to understand the problem of violence from cause to effect and to further explore both the characteristics and costs of interpersonal violence.

Determining the costs of gun violence requires a data-centric and preventive public health approach that considers the short- and long-term social and psychological impacts of this violence on individuals, families, and communities. This chapter is based on research coordinated by the GA-CDRC and builds upon the methodology and findings of the *Caribbean Firearms Study* (Fabre et al., 2023). It begins by introducing prior research conducted in the Caribbean on interpersonal violence and providing a rationale for the prospective approach applied in the present study. The chapter goes on to present estimates of the direct medical costs and healthcare resource use for treating interpersonal violence injuries involving firearms or sharp or other weapons in The Bahamas, Barbados and Jamaica. It also discusses the impact of violence on productivity losses and violence-related disabilities. The chapter concludes by demonstrating how the findings from this research can inform the development of research and surveillance strategies for interpersonal violence within the region.

The prospective approach to costing: developing a systematic monitoring tool

This section discusses existing research conducted on firearm violence in the Caribbean, which has highlighted the very high proportion of homicides involving firearms in this region compared with the rest of world. The section also explains the rationale for using a prospective data collection approach for estimating the costs of violence-related injuries.

Previous research in the Caribbean

The increasing rates of morbidity and mortality caused by violence-related injuries in the Caribbean, along with the associated high economic costs, can be viewed as

a public health challenge (Jaitman and Machin, 2016a). At the first regional symposium focusing on crime and violence as a public health issue—held in Trinidad and Tobago in April 2023—the CARICOM heads of government recognized, among other important areas of concern, the costs to their countries' social, economic, and health systems; they also highlighted the need for a 'robust regional response' to tackle this issue (CARICOM, 2023). Subsequently, the George-Bridge Declaration, adopted in 2024, highlighted CARICOM's regional approach to crime and security (CARICOM, 2024). The declaration called for the establishment of a task force to draft a range of model legislation (to address several issues including 'cybercrime, fraud, controlled delivery of firearms, gang-related criminality, money laundering, and witness anonymity');[1] the strengthening of the Regional Security System; the implementation of targeted programmes for children and youth affected by violence; the rehabilitation of criminals; and the recognition of the critical importance of mental health and education. Similarly, the 2025 Montego Bay Declaration—issued at the 49th Regular Meeting of the Conference of Heads of Government of CARICOM—acknowledged the public health impact of crime and violence driven by gang activities and illicit firearms and emphasized the need for collaborative action to address these challenges (CARICOM, 2025a).

Past studies have found that Latin America and the Caribbean have the highest proportion of homicides involving male victims and firearms in the world (Alvarez, Aburto, and Canudas-Romo, 2020; Fabre et al., 2023; UNODC, 2023). The aggregate homicide rate in 2024 was 34 per 100,000 inhabitants in the Caribbean (see Chapter 1 for a detailed analysis).

Previous research has estimated the direct costs of violence and crime in the Caribbean, providing some insights into the indirect costs (Fabre et al., 2023, pp. 129–31). Jaitman and Torre (2017) applied an accounting-based methodology—a method that aims to value and sum up damages in monetary terms—to their research on 17 Latin American and Caribbean countries. They found the overall cost of crime in the Caribbean to be 3.7% of gross domestic product (GDP) in 2017. This was slightly higher than the regional average for Latin America and surpassed that of Australia, Canada, France, Germany, the United Kingdom, and the United States (Sutton, Jaitman, and Khadan, 2017). In 2024, Perez-Vincent et al. stated that the overall cost of crime, as a proportion of the region's GDP in 2022, had reached 3.44%, which was mostly unchanged from previous study; the paper also noted that the cost of crime translates to '78 per cent of the public budget for education, twice the public budget for social assistance, and 12 times the budget for research and development' (Perez-Vincent et al., 2024, p. 7). Researchers also found that public security accounted for more than 2% of GDP in the Caribbean, private spending on other crime-related costs was 1.2% of GDP, and social costs represented 0.5% of GDP. Caribbean firms also reported an average annual sales loss of 2.4% due to crime (Sutton, Jaitman, and Khadan, 2017).

Studies on crime and violence often focus on homicide rates, which are accurate and easily available due to the reporting requirements in respective countries.[2] A significant number of victims survive these ordeals, and are therefore not represented in these homicide statistics. Moreover, in the Caribbean, research has demonstrated a need for improved information systems for crime and intervention monitoring to ensure more consistent statistics (Fabre et al., 2023, pp. 22–23, 126; Jaitman and Machin, 2016a; Sutton et al., 2017). Despite a global increase in research on crime economics, crime remains an understudied area in Latin America and the Caribbean (Jaitman and Machin, 2016b).

In 2021, the Small Arms Survey and CARICOM IMPACS identified the cost of interpersonal violence as a focus area for their research and policy collaboration on firearm misuse in the Caribbean. New costing research was initiated through the GA-CDRC and focused on incidents that took place in 2019, before the Covid-19 pandemic. The data was collected in 2022 and published in 2023 as part of the *Caribbean Firearms Study* (Fabre et al., 2023, pp. 126–45). The research was the result of a multisectoral collaboration involving professionals from the health system, academia, and the security sector. The direct medical costs and productivity losses were estimated for three Caribbean countries—The Bahamas, Barbados, and Jamaica—using the approach proposed by the World Health Organization (WHO) in its *Manual for Estimating the Economic Costs of Injuries Due to Interpersonal and Self-directed Violence* (hereafter 'WHO manual') (Butchart et al., 2008). The findings showed that 'direct medical costs and productivity losses due to firearm-related violence amounted to at least USD 49 million in The Bahamas, USD 12 million in Barbados, and USD 135 million in Jamaica for the year 2019' (Fabre et al., 2023, p. 143).[3] In these countries, the average medical expenditures for treating a single gunshot wound exceeded the annual per capita health spending by ratios ranging from 2:1 to 11:1. The study also found that firearm wounds resulted in higher medical costs than wounds inflicted by other instruments (Fabre et al., 2023, p. 126).

Rationale for a prospective approach

The 2023 *Caribbean Firearms Study* identified several challenges affecting cost estimation (Fabre et al., 2023). In public facilities, healthcare is provided to patients at no cost at the point of delivery. As a result, individual hospital bills are often not generated, and incomplete information is available on medical expenses. To address this in the present Report, bottom-up costing was conducted using a combination of current data and estimates for previous years, with adjustments made for inflation.

The country sites generally use paper-based medical records. In the previous study, patient records of interpersonal violence injuries that occurred in 2019 were collected

three years later in 2022, making it difficult to retrieve inactive records stored off-site. Considering these challenges, and the potential scope for development in this research area, this new round of research aimed to bridge the gaps in data, expand the depth of analysis, lay the groundwork for routine cost estimations, and collect data prospectively. Data from medical records for the present study was therefore collected in 2024, the same year that patients visited the medical facilities. A collaboration with the Centre for Health Economics (HEU) at The UWI St. Augustine campus in Trinidad was also established to assist in developing top-down cost estimates to allow for these to be compared with estimates generated using a bottom-up approach (Agard et al., 2025).

Incident characteristics and direct medical costs

This section provides a brief overview of the methodology used in this new study, as well as the main findings from the costing research, which focused on 304 incidents of interpersonal violence injuries that took place in The Bahamas, Barbados, and Jamaica in 2024. It discusses the sample, the incident characteristics, the frequency of healthcare resource use for treating injuries caused by various weapons, and the related direct medical costs. A more detailed description of the methodology and data sources used can be found in Annexe 3.1. The findings show the estimated average direct medical costs for treating firearm injuries to be higher than those for injuries inflicted by other weapons.

Methodology and data sources on direct medical costs

The research activity was guided by the WHO manual, which provides a protocol for estimating the costs of interpersonal violence injuries based on data from patient healthcare resource use and financial data (Butchart et al., 2008). The present study adopted the questionnaire and data requirements recommended in the WHO manual, with some modifications made to facilitate more detailed analysis and the integration of lessons learned from similar research conducted in Jamaica (Violence Prevention Alliance, 2017).

The participating hospitals were the Princess Margaret Hospital in Nassau, The Bahamas; the Queen Elizabeth Hospital in Bridgetown, Barbados; and the Kingston Public Hospital in Kingston, Jamaica. Data collectors reviewed 304 medical records of patients with interpersonal injuries who visited the hospitals in 2024, and recorded data on injury characteristics and healthcare resource use. Since the study focused on costing healthcare resource use, only patients receiving hospital care were included—the sample does not include cases of injuries (fatal or non-fatal) outside of the hospital

setting. A sample of at least 100 cases was chosen as other studies have recommended this as an appropriate number for cost estimation (Butchart et al., 2008). Using financial data from public hospital sources, the research team at the GA-CDRC conducted a bottom-up cost estimation. Top-down estimates were provided for select healthcare resources by the HEU research team and applied to healthcare resource use data taken from the medical records by the GA-CDRC team. Bottom-up and top-down costing are explained in detail in Box 3.1 and the methodological annexe (see Annexe 3.1).

Incidence data for non-fatal injuries was obtained from participating hospitals only, and does not include data on patients treated elsewhere. Based on the sample, the average costs for non-fatal injuries were estimated using bottom-up costing. The estimated costs were applied to the total number of incidents of interpersonal violence recorded from the participating hospitals.

Due to differences in the number of gunshot wounds being treated in the three case study hospitals, the sampling strategies varied across countries and involved a mix of random and convenience sampling. Given the sampling method and sample size, the sample is not representative of all interpersonal violence occurring in the countries studied.

Cross-country comparisons of the costs should be avoided, since the data for non-fatal incidents was extracted from participating hospitals only and therefore has limitations. Moreover, the samples from which the average direct medical costs are derived may not be representative. The financial data was not complete for each resource used in the medical treatment of injuries, and the figures reported are therefore likely to be under-estimates. Finally, to facilitate comparisons with other in-country costs and spending, costs are provided in USD and are not adjusted for purchasing power parity—even though healthcare and costs of living vary between the three countries.

Sample description and results

A sample of 304 patient records of individuals injured in violent incidents was selected in the three countries: 101 in The Bahamas, 100 in Barbados, and 103 in Jamaica.

As shown in Table 3.1, individuals aged 39 or younger accounted for over two-thirds of the injuries in each country sample. Due to the small sample, the prospective nature of the study sample, and ethical requirements to minimize the risk of identifying any of the patients, the data was not analysed by exact age or by gender. The 18–29 age category was combined with the under-18 age group, which included fewer than ten cases overall. The most commonly used weapons were, in The Bahamas, those categorized as 'other', in Barbados, sharp objects, and, in Jamaica, firearms. In all three

Table 3.1 Descriptive characteristics of the study sample in the three country sites, 2024

	The Bahamas (n=101)	Barbados (n=100)	Jamaica (n=103)
Age	**Number of patients (%)**		
≤29	36 (35.6)	39 (39)	43 (41.7)
30–39	34 (33.7)	28 (28)	26 (25.2)
40–49	13 (12.9)	17(17)	20 (19.4)
≥50	18 (17.8)	15 (15)	14 (13.6)
Unknown	0	1 (1)	0
Instrument used in violence	**Number of patients (%)**		
Firearm	21 (20.8)	35 (35)	53 (51.5)
Sharp weapon	29 (28.7)	37 (37)	27 (26.2)
Other[a]	51 (50.5)	28 (28)	23 (22.3)
Injury severity	**Number of patients (%)**		
Fatal	2 (2.0)	3 (3)	16 (15.5)
Serious	18 (17.8)	48 (48)	41 (39.8)
Slight	81 (80.2)	49 (49)	46 (44.7)

Note: [a] Blunt weapons and other means—including unspecified instruments resulting in thermal burns—are combined under the category 'other'.

countries, the most common injury severity was slight (patients went to the emergency room but were not admitted), followed by serious (patients were admitted to the hospital), and fatal. In Barbados, there were almost as many slight injuries as there were serious injuries (a difference of one).

Firearm injury victims had the longest hospital stay in all countries. In Jamaica and The Bahamas, firearm injury victims were much more likely to require medical investigations, blood transfusions, and medication during their initial visit. In The Bahamas and Barbados, patients with injuries due to firearms were more likely to need surgery, as indicated in Table 3.2.

In most cases, in the samples from The Bahamas and Jamaica, the costs for treating firearm injuries generally exceeded those for other weapons, as seen in Table 3.3. Overall, the estimated average medical costs for treating firearm injuries were higher than for injuries inflicted by other weapons in all countries.

Table 3.2 Healthcare resource use during initial visit, in-country samples, by instrument[a]

	Instrument	The Bahamas	Barbados	Jamaica
Patients who used an ambulance (%)	Firearm	47.6	22.9	5.7
	Sharp weapon	37.9	40.5	3.7
	Other	15.7	46.4	13.0
Average length of stay (days)	Firearm	16.2	7.5	7.7
	Sharp weapon	8	5.4	2.5
	Other	4.3	1.6	5.2
Patients requiring investigations[b] (%)	Firearm	95.2	82.9	98.1
	Sharp weapon	89.7	73.0	74.1
	Other	82.4	85.7	91.3
Patients requiring surgery (%)	Firearm	42.9	42.9	41.5
	Sharp weapon	17.2	40.5	63.0
	Other	11.8	7.1	39.1
Patients requiring medication during initial visit[c] (%)	Firearm	100	88.6	98.1
	Sharp weapon	82.8	91.9	81.5
	Other	64.7	92.9	82.6
Patients requiring blood transfusions (%)	Firearm	14.3	5.7	22.6
	Sharp weapon	0	8.1	3.7
	Other	0	3.6	0

Notes:

Figures set in red indicate the weapon category that accounts for the highest percentage of healthcare resource use in each country sample.

[a] These figures refer to the initial visit and do not consider the resources used during follow-up care.

[b] These are patients who required medical investigations (diagnostic tests) such as blood tests and imaging.

[c] These are patients who received medications during the initial in-hospital visit, with the exception of take-home medications.

Table 3.3 Estimated average medical costs by bottom-up costs of instrument and resources used (USD) during initial visit, in-country samples[a]

Healthcare resource	The Bahamas			Barbados			Jamaica		
	Firearm	Sharp weapon	Other	Firearm	Sharp weapon	Other	Firearm	Sharp weapon	Other
Ambulance	408	408	408	104	104	104	67	79	61
Hospital stay[b]	5,313	2,628	1,431	1,237	1,000	419	827	828	1,246
Consultations[c]	4,569	2,270	1,574	N/A	N/A	N/A	420	159	228
Examinations/tests	711	331	269	818	376	411	201	76	79
Surgery	4,149	3,116	1,353	813	550	550	1,662	770	633
Medications[d]	236	148	27	101	120	79	172	171	69
Blood transfusions[e]	44	0	0	24	8	35	1,101	523	0
Total	**15,430**	**8,902**	**5,062**	**3,098**	**2,158**	**1,598**	**4,450**	**2,606**	**2,316**

Notes:

Totals may not add up due to rounding. N/A = not available. Figures set in red indicate the weapon category that accounts for the highest average medical costs in each country sample.

[a] These figures are for non-fatal and fatal injuries combined.

[b] Hospital stay comprises daily ward charges in all three countries with the addition of registration costs in The Bahamas and Barbados.

[c] Consultations include doctors' consultations—data for which was most complete for The Bahamas and not available for Barbados.

[d] Medication costs are hospital medications required during the initial visit.

[e] These figures are under-estimates for Barbados, as only costs for some materials involved in transfusions were included.

Box 3.1 Comparison of top-down and bottom-up costing estimates

The bottom-up costing method applies unit costs to each healthcare resource used in patient management and is considered more accurate than top-down estimates; however, it is time-consuming and costly (Agard et al., 2025; Cunnama et al., 2016; Health Economics Group, 2016; Hendriks et al., 2014). Top-down cost estimates use annual expenditures or budgets to calculate the average cost of healthcare resource use and, for the purpose of interpersonal violence research, could increase the efficiency of costing and solve or reduce the issue of missing costs. Bottom-up and top-down costs could also be combined in costing, thus ensuring the accuracy of bottom-up costs and the completeness of top-down costs (Cunnama et al., 2016; Hendriks et al., 2014).

Table 3.4 compares top-down estimates for selected public sector services with bottom-up costs. Since these healthcare resource categories do not align exactly to those in bottom-up estimates, direct medical cost totals were not compared. The hospital stay top-down estimates were consistently higher than bottom-up estimates in all countries for all weapon types. There were, however, variations in other costs, with the most alignment observed in hospital stay costs, radiological exams in The Bahamas, lab tests and hospital medications in Barbados, and medication, particularly for 'other' weapon injuries, in Jamaica. The variations can partially be explained by the differing costs of each service. For example, top-down estimates provide one cost for any X-ray, while the bottom-up costs vary depending on the type and anatomical location of the X-ray. The findings suggest the need for further testing and application, since top-down costing provides a more practical and efficient method of cost estimation—thereby offering the potential to make significant progress in monitoring on a regular basis the costs of interpersonal violence in the region.

Table 3.4 Comparison of bottom-up and top-down estimates for select healthcare resources, 2024 (USD)

Country	Healthcare resource	Top-down estimates			Bottom-up estimates		
		Firearm	Sharp weapon	Other	Firearm	Sharp weapon	Other
The Bahamas	Hospital stay	6,054	2,984	1,616	5,313	2,628	1,431
	Lab tests	960	582	311	179	125	57
	Radiological exams	600	219	292	591	275	255
	Medications in hospital	186	186	186	236	148	27

Country	Healthcare resource	Top-down estimates			Bottom-up estimates		
		Firearm	Sharp weapon	Other	Firearm	Sharp weapon	Other
Barbados	Hospital stay	2,917	2,251	943	1,237	1,000	419
	Lab tests	109	101	76	243	113	69
	Radiological exams	309	181	192	918	514	604
	Medications in hospital	123	123	123	101	120	79
Jamaica	Hospital stay	1,347	1,523	1,798	827	828	1,246
	Lab tests	210	62	51	72	410	72
	Radiological exams	84	79	111	169	61	69
	Medications in hospital	45	45	45	172	171	69

Source: Laptiste, Beharry, and La Foucade (2025)

Table 3.5 Estimated average direct medical costs and total medical costs for non-fatal gun violence injuries at the participating hospitals, calculated using bottom-up costing, 2024 (USD)

Country	Non-fatal incidents[a]	Average direct medical costs[b]	Total direct medical costs
The Bahamas[c]	104	15,646	1,627,184
Barbados[d]	55	4,142	227,810
Jamaica[e]	440	4,584	2,016,960

Notes:

[a] These costs are based on statistics from the participating hospital for 2024 only.

[b] Average direct medical costs are based on the sample.

[c] The incident data covers January to December 2024 for The Bahamas and assumes that all admitted cases were non-fatal.

[d] The incident data covers January to December 2024 for Barbados and assumes that all admitted cases were non-fatal.

[e] The incident data covers January to December 2024 for Jamaica and assumes that all admitted cases were non-fatal.

Table 3.5 provides estimates of average direct medical costs for non-fatal gun violence injuries from the three participating hospitals in 2024 based on bottom-up costing. The total direct medical cost estimates were calculated by multiplying the average direct medical costs by the number of non-fatal incidents documented in each hospital. Total direct medical costs for the participating hospitals were USD 1,627,184 in The Bahamas, USD 227,810 in Barbados, and USD 2,016,960 in Jamaica. The non-fatal incident figures are all based on hospital statistics from one hospital in each country and do not represent all non-fatal firearm injuries in these countries.

The average direct medical costs in this study, based on 2024 data, were higher than those in the *Caribbean Firearms Study*, based on 2019 data, across all three countries. In The Bahamas, average direct medical costs were more than twice as high in 2024 due to the use of different unit costs for consultation fees.

Table 3.6 shows the number of wounds stemming from firearm incidents. In Barbados and Jamaica, one wound was documented for most firearm incidents. In The Bahamas, however, most firearm-related injuries involved multiple wounds. Potential explanations from experts on the research team include the types of firearms and ammunition used,[4] the type of crime (for example, drive-by shootings), the number of perpetrators, and a strong intent to kill the victims to avoid subsequent identification. The number of wounds recorded should nevertheless be interpreted with caution, as it

Table 3.6 Number of gunshot wounds[a] documented in patients with firearm injuries in study sample

Country	Number of wounds	Number of patients (%)
The Bahamas	One wound	6 (28.6)
	Two wounds	5 (23.8)
	Multiple wounds[b]	10 (47.6)
Barbados[c]	One wound	14 (40.0)
	Two wounds	8 (22.9)
	Multiple wounds[b]	12 (34.3)
Jamaica[c]	One wound	23 (43.4)
	Two wounds	14 (26.4)
	Multiple wounds[b]	15 (28.3)

Notes:

[a] Data on wounds must be interpreted with caution as it does not differentiate entry from exit wounds.

[b] Multiple wounds are those with three or more wounds.

[c] The number of wounds was not documented for one firearm injury in both Jamaica and Barbados.

may be difficult to distinguish between entry and exit wounds during initial emergency examinations.

The number of wounds may also be related to patient mortality (Zeineddin et al., 2020), although there are conflicting findings regarding this association (Cripps et al., 2009; Ordoñez Delgado et al., 2022). Based on an analysis of the severity of the injury and the number of injury regions, while most cases with one wound involved slight injuries, incidents involving two or more wounds typically resulted in serious injuries (see Table 3.7).

When assessing the impact of gunshot wounds on patient outcomes, it is essential to consider not only the number of wounds, but also the number of body regions injured. One study found that the greater the number of wounds, the more body regions injured, which was associated with more severe injury (Carr et al., 2008). This aligns with the findings shown in Table 3.7, which reveal that individuals with multiple wounds had up to four body regions injured, while patients with a single wound had only one.

Table 3.7 Number of patients with gunshot wounds[a] based on injury severity and number of injured regions[b]

	Number of patients		
	One wound	**Two wounds**	**Multiple wounds[c]**
	43	27	37
Injury severity			
Slight	21	5	7
Serious	18	20	22
Fatal	4	2	8
Number of body regions injured[b]			
One	37	16	16
Two	0	10	12
Three	0	0	7
Four	0	0	2

Notes:

[a] Data on wounds must be interpreted with caution as it does not distinguish between entry and exit wounds.

[b] Injury regions comprise upper extremity, lower extremity, chest/abdomen, and head/neck; injuries classified as superficial are not included.

[c] Multiple wounds are three or more.

In all three country samples (see Table 3.8), a high proportion of injuries occurred in the context of a fight or argument—75%, 36%, and 42% in The Bahamas, Barbados, and Jamaica, respectively. When examining the weapon used in each context in the medical record, the context is not recorded in most cases of firearm injuries, while

Table 3.8 Injuries by context and instrument, in-country sample, 2024

Country	Instrument	Number of patients (%)				
		Fight/ argument	Gang-related	Robbery/ Burglary	Other[a]	Not documented
The Bahamas	Firearm n=21	3 (14.3)	2 (9.5)	2 (9.5)	4 (19)	10 (47.6)
	Sharp weapon n=29	29 (100)	0	0	0	0
	Other n=51	44 (86.3)	1 (2)	2 (3.9)	4 (7.8)	0
	Total n=101	76 (75.2)	3 (3.0)	4 (4.0)	8 (7.9)	10 (9.9)
Barbados	Firearm n=35	0	0	3 (8.6)	14 (40)	18 (51.4)
	Sharp weapon n=37	20 (54.1)	0	0	9 (24.3)	8 (21.6)
	Other n=28	16 (57.1)	0	1 (3.6)	4 (14.3)	7 (25)
	Total n=100	36 (36.0)	0	4 (4.0)	27 (27.0)	33 (33.0)
Jamaica	Firearm n=53	2 (3.8)	2 (3.8)	5 (9.4)	14 (26.4)	30 (56.6)
	Sharp weapon n=27	23 (85.2)	0	3 (11.1)	0	1 (3.7)
	Other n=23	18 (78.3)	0	0	2 (8.7)	3 (13.0)
	Total n=103	43 (41.7)	2 (1.9)	8 (7.8)	16 (15.5)	34 (33.0)

Note:

[a] This category includes sexual assaults, mobs or riots, police shootings, and other unspecified contexts.

'other' weapon and sharp weapon injuries are inflicted mostly during fights and arguments. This study did not explore the reasons for this lack of documentation on the context and cause of firearm violence, although such information would be beneficial in developing preventive measures.

Loss of productivity and other economic indicators

Up until this point, the chapter has explored the characteristics of violent incidents and the associated direct medical costs. The following section explores the productivity losses and long-term disabilities resulting from these incidents. It compares the direct and indirect costs to healthcare expenditure and GDP in each country in order to put these costs into perspective.

Methodology and data sources for indirect productivity losses

The study used the WHO manual to guide the estimation of indirect productivity losses for fatal and non-fatal injuries. For non-fatal injuries, the estimation used the average length of hospital stay and recovery days from the sample as inactive days, and the GDP per capita from publicly available sources (World Bank, n.d.c) as a proxy for average annual wages, to produce estimates.

Fatal injury productivity losses were estimated using the years of potential life lost (by calculating the difference between the average age of death from the sample and the retirement age from publicly available government sources) and the GDP per capita—and applying a discount factor of 3% per year (Barbados NISSS, n.d.; Government of The Bahamas, n.d.; Jamaican Ministry of Finance and Planning, n.d.; World Bank, n.d.c).

To determine total productivity losses, national incidence data on fatal interpersonal violence was gathered from official crime statistics, media reports, and communication with law enforcement officials, while data on the incidence of non-fatal interpersonal violence was only available for the participating hospitals. Productivity losses due to non-fatal injuries are therefore under-estimated and relate only to the patients who visited the three participating hospitals in 2024.

Results

Based on the available data on fatal (national) and non-fatal (participating hospitals only) injuries in each country, estimated productivity losses for 2024 amounted to USD 72 million in The Bahamas, USD 19 million in Barbados, and USD 135 million

Table 3.9 Estimated productivity losses from fatal and non-fatal firearm injuries using GDP per capita, 2024 (USD)

		The Bahamas[a]	Barbados[b]	Jamaica[c]
Fatal (national)	Number of incidents	102	34	973
	Average productivity losses per incident	703,597	557,309	138,706
	Total productivity losses	71,766,894	18,948,506	134,960,938
Non-fatal (participating hospitals only)	Number of incidents	104	55	440
	Average productivity losses per incident	3,639	3,783	485
	Total productivity losses	378,456	208,065	213,400
Total		**72,145,350**	**19,156,571**	**135,174,338**

Notes:

Estimates for fatal incidents are based on the assumption that people can be productive until the retirement age in their respective countries.

[a] Data on fatal incidents was sourced from national police statistics (RBPF, 2025), while data on non-fatal injuries was sourced from the participating hospital only, with the assumption that all admitted cases were non-fatal.

[b] Data on fatal incidents was sourced from national media reports (CBC, 2025; Moore, 2025b), while data on non-fatal incidents was sourced from the participating hospital statistics only, with the assumption that all admitted cases were non-fatal.

[c] Data on fatal incidents was obtained through correspondence with the Jamaica Constabulary Force, 20 August 2025, while data on non-fatal incidents was sourced from hospital statistics only, with the assumption that all admitted cases were non-fatal.

in Jamaica (see Table 3.9). The average productivity losses for fatal injuries exceeded those for non-fatal incidents, since fatal productivity losses account for years of potential life lost. The death of younger victims therefore results in greater productivity losses. Fatalities can lead to the loss of decades of productivity, resulting in significant social and economic consequences.

For Barbados, the average productivity losses for non-fatal firearm injuries are higher in the 2024 study than in the previous *Caribbean Firearms Study*. The opposite is true, however, in The Bahamas and Jamaica. This is mainly because of differences in the length of stay and number of inactive days among patients visiting the three hospitals in 2019 and 2024. At the hospital level, total productivity losses increased in The Bahamas and Barbados due to the higher recorded incidence of non-fatal injuries in 2024 compared to 2019.

The average productivity losses for fatal firearm injuries increased in all three countries in 2024 in comparison to the 2019 estimates generated for the previous study—primarily due to an increase in GDP per capita. The total productivity losses were higher in The Bahamas and Barbados than in the previous study, in part because of the increase in recorded national firearm fatalities, while Jamaica recorded a reduction in firearm injury fatalities (see also Chapter 1).

Disabilities

In this study, productivity losses from non-fatal injuries were calculated based on the estimated number of inactive days due to the injury, including days spent in the hospital and sick leave estimates. In The Bahamas and Jamaica, the average number of inactive days was higher for firearm-related injuries than for sharp and other weapons (see Table 3.10). Long-term physical or psychological dysfunction and changes in quality of life were not considered in this study when estimating the indirect costs.

Disability is, however, a possible outcome of non-fatal injuries. According to the United Nations Convention on the Rights of Persons with Disabilities, a person with a disability has 'long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others' (UN, 2006, p. 3). The term 'disability' in this study therefore refers to long-term effects of the injury, which are likely to result in physical impairment and restrict societal participation such as employment.

Firearm-related injuries resulted in more disabilities than injuries caused by other instruments in The Bahamas and Jamaica (see Table 3.10). In the combined sample of all three countries, a total of 29 disabilities were recorded, of which 16 were due to injuries caused by firearms, 11 were caused by sharp weapons, and 2 were caused by other weapons. To minimize the risk of breaches in patient privacy or confidentiality, an analysis of the specific type of disability is not provided for individual countries. General comments on the type of disabilities by weapon can be made, however. The disabilities resulting from firearm-related injuries include traumatic brain injury, vision loss, amputation, paraplegia, unspecified mobility issues, and other unspecified disabilities. The specific disabilities from non-firearm injuries were similar except that no cases of paraplegia were recorded. The conclusions that can be drawn from the types of disabilities are limited and would require a more comprehensive study. It is, however, clear that, in this sample, the majority of disabilities resulted from firearm injuries.

Estimates of years lived with disability (YLD) due to interpersonal violence for The Bahamas, Barbados, and Jamaica were 102.8, 55.2, and 59.7 years per 100,000 population, respectively, based on the most recent PAHO estimates for 2019 (PAHO, n.d.). These figures are not reported by type of weapon but provide a measure of the public

Table 3.10 Dimensions of productivity loss by instrument in non-fatal injuries in study sample

	Instrument	The Bahamas	Barbados	Jamaica
Average estimated number of inactive days[a]	Firearm	30	13	22
	Sharp weapon	16	32	11
	Other	9	2	7
Number of patients with disabilities (%)	Firearm	8 (40)	2 (6.1)[b]	6 (14.3)
	Sharp weapon	3 (10.3)	6 (16.7)[b]	2 (8.3)
	Other	0	1 (3.6)[b]	1 (4.8)

Notes:

Figures set in red indicate the weapon category accounting for the highest count and percentage of disabilities in each country sample.

[a] Inactive days include both sick days and hospitalized days.

[b] Documentation of disability in Barbados is incomplete.

health burden of non-fatal injury and interpersonal violence overall—beyond direct medical costs and the shorter-term productivity losses. The study's findings, indicating a link between firearm violence and the highest number of disabilities in the sample, highlight the need for more disaggregated data on YLD by the mechanism of injury to determine which weapon inflicts the greatest burden.

Armed violence can also have a negative impact on the mental health of victims and their communities, which, in turn, may affect their ability to fully participate in society. In Haiti, for instance, violence led to the closure of most mental health services while contributing to a surge in trauma-related disorders including 'PTSD [post-traumatic stress disorder], depression, anxiety, and suicidal ideations' (Cénat et al., 2025, p. 1). Further research on the specific effects of firearm-related violence on mental health would allow for a deeper understanding of this problem.

Comparison to socio-economic indicators

Direct medical costs and indirect productivity losses due to injuries caused by different weapons can be compared to determine which injuries consume the most resources. Analysing these costs in relation to public healthcare expenditure and GDP helps governments to understand the impacts of interpersonal violence on the economy, or compared to other types of spending, thereby supporting the allocation and redistribution of resources towards violence prevention (Butchart et al., 2008; Peterson et al., 2024; see Table 3.11). As noted in the WHO manual, D.B. Evans et al. recommended

Table 3.11 Comparison of the direct medical costs and indirect productivity losses due to firearm injuries with selected socio-economic indicators, 2024

	The Bahamas	Barbados	Jamaica
Healthcare expenditure per capita[a]	USD 2,884	USD 1,575	USD 551
Direct medical cost per non-fatal firearm-related injury incident	USD 15,646	USD 4,142	USD 4,584
Average direct medical cost to healthcare expenditure per capita ratio	5:1	3:1	8:1
GDP (thousands)	USD 15,832,800	USD 7,165,000	USD 19,930,288
Combined fatal and non-fatal productivity losses	USD 72,145,350	USD 19,156,571	USD 135,174,338
Productivity losses as percentage of GDP	0.5%	0.3%	0.7%

Note:

[a] The healthcare expenditure per capita was inflated from 2022 to 2024 costs.

keeping direct and indirect costs separate, and comparing the indirect cost component to GDP (cited in Butchart et al., 2008, p. 6).

According to the most recent figures for 2022, healthcare expenditure per capita was USD 2,341 in The Bahamas, USD 1,302 in Barbados, and USD 468 in Jamaica (World Bank, n.d.a). If inflated to 2024 costs,[5] the per capita healthcare expenditure is USD 2,884 in The Bahamas, USD 1,575 in Barbados, and USD 551 in Jamaica. For firearm-related injuries, the average direct medical costs per incident were USD 15,646 in The Bahamas, USD 4,142 in Barbados, and USD 4,584 in Jamaica. This shows that, in all three countries, the average cost of treatment for a single firearm violence incident exceeded the most recent available per capita health expenditure figures by ratios of 5:1 in The Bahamas, 3:1 in Barbados, and 8:1 in Jamaica. As in the previous *Caribbean Firearms Study*, direct medical costs for firearm violence exceeded both per capita healthcare expenditure and direct medical costs for the treatment of injuries due to other weapons.

The combined fatal and non-fatal productivity losses for The Bahamas, Barbados, and Jamaica amounted to 0.5%, 0.3%, and 0.7% of their respective GDPs for 2024 (World Bank, n.d.b). These figures are higher than those of the previous *Caribbean Firearms Study* for The Bahamas (0.4%) and Barbados (0.2%) due to increases in the number of firearm injuries and homicides recorded for the 2024 calculations in these two

countries. In Jamaica, the percentage decreased from 0.9% in the previous study. Although Jamaica also recorded increased productivity losses, the decrease was likely due to a slight increase in productivity loss relative to a much greater increase in GDP from 2019.

Next steps and integration with injury surveillance systems

This section highlights the potential way forward for monitoring firearm-related morbidity and mortality in the Caribbean and anticipating the associated costs, based on the findings of this study. It supports the call for a real-time injury surveillance system and its potential integration into the healthcare system, at both the national level and the regional level.

An injury surveillance system involves the ongoing collection, analysis, and dissemination of injury data to relevant stakeholders. Surveillance can be either active (cases are searched, investigated, and followed up on) or passive (information is collected as part of other work) (Holder et al., 2001). Surveillance systems are useful tools for 'quantifying the problem of injuries and violence' (Andall-Brereton and Mueller, 2018, p. 330), generating knowledge about high-risk groups, and providing evidence of the efficacy of implemented interventions.

In the Caribbean, data on crime is most commonly sourced from national police, citizen security opinions, or victimization surveys (Jaitman and Machin, 2016a; Sutton et al., 2017). The use of these data sources has been linked to under-reporting of crime prevalence and its true impact on society. This highlights the need for more effective systems to monitor crime consistently and regularly.

To assist countries in capturing reliable data, the US Centers for Disease Control and Prevention (CDC) and WHO have produced guidelines for developing injury surveillance systems (Andall-Brereton and Mueller, 2018). With respect to gun-related violence, the guidelines recommend collecting data on whether the injury involved the use of a firearm; the type of firearm used (pistol or other firearm); the severity of the injury; the perpetrator–victim relationship; and contextual information on the factors that precipitated the assault (Holder et al., 2001). More recent good practices in violence prevention and emergency trauma care that promote the collection of essential public health data on violent injuries—including the instrument used—include the CDC's violent death reporting system, the Cardiff model for violence prevention, and the WHO minimum data set for injury (Cardiff University, 2022; CDC, 2024; WHO, 2020).

While many Caribbean nations lack a structured system and the resources for such data collection, some have succeeded in implementing these systems. Jamaica, for

instance, established an injury surveillance system in 1998 to monitor violence-related injuries. This was expanded in 1999 to track all injuries and renamed the Jamaica Injury Surveillance System (JISS) (Ward et al., 2010). Based on its successful implementation at the Kingston Public Hospital, the JISS was then introduced at four other hospitals at the end of 2001 (Ashley and Holder, 2002). The JISS data, when combined with injury data from other health centres and the 'sentinel surveillance system', served to provide estimates of the impact of injuries on the health sector (Ashley and Holder, 2002; Ward et al., 2010).

Countries including The Bahamas, Barbados, and Trinidad and Tobago have also piloted injury surveillance systems. The lessons learned from these countries could potentially be used to assist others in establishing more permanent national injury surveillance systems (Ezenkwele and Holder, 2001).

A regional surveillance system would greatly benefit the Caribbean, as numerous factors contributing to crime and violence transcend national boundaries (UNODC and World Bank, 2007). A coordinated regional data collection system is needed for the development and implementation of interventions to reduce the burden of injuries in the Caribbean (Andall-Brereton and Mueller, 2018). By collecting more detailed data through injury surveillance systems, the public health impact of emerging firearm threats can be monitored and assessed more effectively (Yarina and Florquin, 2024). The establishment of such a system would support the implementation of commitments made in the Montego Bay Declaration of 2025, through which the Caribbean heads of government have reaffirmed their commitment to regional collaboration on the issues of crime and violence, especially illicit firearms trafficking (CARICOM, 2025a). Crucially, increased systematic collection of data on the incidence of violent injuries, including gunshot wounds, would help fill the gap in national statistics on non-fatal injuries documented in this chapter. More comprehensive statistics on violent injuries, combined with improved bottom-up and top-down approaches for determining the costs of care that build upon the tools tested in this study, can help Caribbean societies obtain a fuller understanding of the costs of violence, as well as the investments needed to cope with its impacts.

Conclusion

Consistent with the 2023 *Caribbean Firearms Study*, this chapter found that direct medical costs for firearm violence exceeded both per capita annual healthcare expenditure and the direct medical costs for treating injuries caused by other weapons in the three case study countries in 2024. One noticeable difference between the two studies was the increase in productivity losses documented in the present Report—which raises concerns about the young age of victims in the sample under

review—along with the rising number of total fatal injury incidents in The Bahamas and Barbados.

It is not currently possible to generate real-time data on the incidence and costing of firearm injuries in the three countries under study. Achieving this would require dedicated technical resources, a research team, and the coordination of several local and regional groups. Moving forward, integrating data collection on gunshot wounds and the care provided to patients into existing surveillance systems and trauma registries should be prioritized for more efficient and longer-term monitoring and costing of firearm injuries.

One outcome of this study was to assess how different approaches could assist in the development of injury surveillance systems that integrate costing requirements. Based on the experience gained from the design and implementation of this study and its findings, a prospective approach to capturing new incidents in real time may not be an efficient use of resources. Instead, regular, scheduled intermittent periods of data collection, a few months after the initial visit, may be more efficient for capturing the range of care provided. This will facilitate the capture of initial incident data and follow-up simultaneously, increasing the comprehensiveness and efficacy of data collection.

Although not discussed here, the study team has begun to develop a method to reduce the costing data requirements from patient data by creating 'treatment patterns' of standard healthcare resource use for injuries based on the anatomical region and severity of the wounds, informed by collected data and expert consensus. Average costs are subsequently applied to attain an estimate for each 'treatment pattern'. While this method is in the early stage of development, it could prove useful for estimating the cost of injuries based on basic data collected in the hospital medical records departments during the initial contact with the health system. Lastly, top-down costing shows potential for expediting cost estimation; however, this area requires further development and input from health economists and public health practitioners.

Research on violence tends to focus on fatal injuries, due to the more accurate reporting. More research is required on non-fatal injuries to understand the consequences of violence on survivors. This study provides an estimate of non-fatal productivity losses; however, in the absence of national statistics on non-fatal violent injuries, calculations of incidence and costs were limited to the data on injuries treated at the participating hospitals. Furthermore, the research methods used for this chapter do not capture the tangible costs of lost productivity beyond the recovery days documented in patient records, including the impacts of long-term disability or intangible costs such as reduced quality of life and mental health. The need for accurate, disaggregated, and timely access to data in the public health approach to addressing violence therefore cannot be overstated in order to truly understand all aspects of the problem of violence.

Annexe 3.1 Methodology for estimating the costs of firearm-related violence

The research for this chapter, including the questionnaire used for data collection, was based on the WHO *Manual for Estimating the Economic Costs of Injuries Due to Interpersonal and Self-directed Violence* (hereafter 'WHO manual') and its subsequent adaptations to the Caribbean context (Butchart et al., 2008; Fabre et al., 2023; Violence Prevention Alliance, 2017). From June to December 2024, data collectors prospectively reviewed 304 medical records of interpersonal injuries from the participating hospitals in The Bahamas, Barbados, and Jamaica. Study data was collected and managed using REDCap electronic data capture tools hosted by CaribData for The UWI (Harris et al., 2009; 2019). The team entered data on healthcare resource use and injury characteristics in the questionnaire using the REDCap app on secure password-protected mobile tablets. Although the WHO manual recommends selecting records using International Classification of Diseases codes, coding was not complete for the year under study. Patient records were therefore selected using random and convenient sampling from records that met the criteria of interpersonal violence injuries caused by firearm or sharp or other weapons (blunt or otherwise specified).

The unit costs of services and medication were obtained from the financial departments and pharmacies of the participating hospitals, pharmaceutical award documents, and national drug formularies for the period 2019–26. If not already in US dollars, the costs were converted using currency converters (Xe, n.d.), applying a December 2024–January 2025 conversion rate. The only available current costs for 2024 were those for medication costs for Jamaica. Costs for other services and resources in The Bahamas, Barbados, and Jamaica were obtained from previous years (2019 for Jamaica, and 2022 data for Barbados and The Bahamas). The costs were then inflated to 2024 costs using the Caribbean average of gross annual medical inflation rates provided in annual global medical trend rate reports for the period 2019–24 from the Aon website (Aon, n.d.).[6]

The costing was calculated using a bottom-up approach similar to that used for the 2023 *Caribbean Firearms Study*. Using this approach, the unit costs of medications and services were applied to the healthcare inputs provided to patients, as collected from patient records during their hospital stay. These inputs include ambulance use, hospital stay costs, consultations, blood transfusions, surgeries, laboratory and radiological investigations, and in-hospital and discharge medications. The average cost of resources used for each weapon and the severity category were subsequently determined from the data collected. While a broader range of medication costs were included compared to the previous study, due to some missing costs, the results are still likely to be under-estimates. Attempts were made to obtain the average cost per medico-legal investigation for fatal injuries—one of the variables covered in the WHO manual—but this was not possible due to the lack of available data (Agard et al., 2025).

The estimated average costs for non-fatal injuries, which were calculated based on bottom-up costing of the sample, were then multiplied by the number of interpersonal violence incidents recorded in the participating hospitals in 2024 to determine the total direct medical costs.

Costing studies using alternative 'top-down' methods in relation to other public health issues have been conducted in several countries in the Caribbean, including Barbados by the HEU. These studies involved estimating costs for health programmes and services at selected health facilities using the top-down approach, which reflected the structure and functions of the facilities.

Top-down costing refers to a method of cost estimation in which the total expenditure of a facility (or department) is first aggregated and then systematically allocated to different cost centres, services, or units based on allocation criteria such as staff time, floor space, patient volume, or service use. Cost centres represent all the departments and service areas of the facility, including direct cost centres (such as radiology, pharmacy, wards, outpatient, surgery, and emergency), that deliver patient care, and indirect cost centres (such as administration, maintenance, housekeeping, kitchen, transport, laundry) that provide supportive functions.

Unlike bottom-up (micro-costing) approaches, which calculate costs by identifying and summing individual inputs used in delivering a service, the top-down approach distributes overall facility-level costs downward to estimate the unit or average cost of health services.[7] While the chapter mainly implements a bottom-up approach, the HEU provided relevant top-down cost estimates for comparative purposes, which were then applied by the GA-CDRC team to the patient resource use data from the sample for The Bahamas, Barbados, and Jamaica, and are presented in Box 3.1 (Laptiste, Beharry, and La Foucade, 2025).

There were some limitations to the study methodology, which must be considered when interpreting the findings. Due to differences in the number of gunshot wounds being treated in the three case study hospitals, the sampling strategies varied across countries and involved a mix of random and convenience sampling. As a result of the sampling method and sample size, the samples are not representative of all interpersonal violence occurring in each of the countries studied. Cross-country comparisons of the costs should be avoided due to limitations in the data—including the use of non-fatal incidents only from participating hospitals; the lack of representativeness of the samples from which the average direct medical costs are derived; and the differences in healthcare costs and cost of living in each country. Lastly, the financial data was not complete for each resource used for medical treatment of injuries, therefore the figures reported are likely under-estimates.

Ethics approval for this research was obtained from the research ethics committees of the ministries of health, academic institutions, and hospitals of the participating countries.

Chapter endnotes

1 This need was first identified in Needham's Point Declaration in October 2023 (CCJ, 2023).
2 See, for example, UNODC (2023); UNODC and World Bank (2007); and Sutton, Jaitman, and Khadan (2017).
3 These costs are in USD and not adjusted for purchasing power parity.
4 For a discussion of the types of firearms and ammunition used, see Chapters 1 and 2. See also Yarina (2025).
5 This was calculated based on the Caribbean average of gross annual medical inflation rates provided in annual global medical trend rate reports from 2019 to 2024 (Aon, n.d.).
6 Aon publishes annual global medical trend reports. The average gross medical inflation rate for Caribbean countries was calculated and applied to the available costs to inflate them to 2024 costs.
7 For more information, see La Foucade, Scott, and Theodore (2005) and Laptiste, Beharry, and La Foucade (2025).

> “A multisectoral approach that extends beyond security and public health—and that achieves a greater balance between crime response strategies and prevention approaches—is crucial.”

Conclusion

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The Caribbean region continues to suffer from high rates of gun violence and has seen an increase in homicide rates since 2016, briefly tempered by Covid-19 restrictions. Across the region, homicides and robberies, mostly committed by young men using firearms, remain a persistent trend. Additional concerns and worrying developments include the recruitment of children and adolescents into armed gangs and criminal networks in several countries and territories; the illicit circulation of firearm components and accessories of particular concern (such as conversion devices and large-capacity magazines); shooting incidents in or near hospitals; and surges in gang-related violence, notably in Haiti, which remains the country in the region most severely affected by firearm violence.

This Report deepens understanding of the types and sources of illicit weapons, and the mechanics of arms trafficking. Handguns still account for most of the firearms seized in the region, despite slow but steady increases in seizures of specific types of rifles, namely AR- and AK-pattern rifles, in shipments from the United States. Also notable is the increase in seizures of large-capacity magazines, as well as the continued circulation of privately made firearms and conversion devices. Traffickers, shipping companies, and firearm retailers based in the United States, and particularly in the states of Florida and Georgia, continue to be central actors in the illicit flow of weapons from the country. The United States is not the only source of illicit firearms in the region, however. Half of the firearms seized in the Caribbean and successfully traced through INTERPOL in recent years were traced to countries other than the United States, including in South America, highlighting the importance of a regional response.

The trafficking and misuse of firearms affect all segments of society, including the public health sector. Facilities are sometimes targeted by the perpetrators of violence, while personnel work under stressful conditions, having to prioritize emergency care for gunshot wound patients over routine but important care for other patients. Consistent with the 2023 *Caribbean Firearms Study*, this Report found that the average direct medical costs of treatment provided to patients with gunshot wounds greatly exceed annual healthcare expenditures per capita, as well as the costs of care for patients injured by other types of weapons. The research also documents significant disability and productivity losses due to firearm injuries, and highlights the young age of some of the victims. Firearm-related violence therefore continues to divert scarce public resources towards dealing with the impacts of violence—which could otherwise be invested in violence prevention, education, and development.

Faced with these interconnected challenges, a multisectoral approach that extends beyond security and public health—and that achieves a greater balance between crime response strategies and prevention approaches—is crucial (Sobers et al., 2025). Regional leaders have already committed to increasing the surveillance of illicit firearms trafficking, enacting stricter legislation for relevant offences, establishing the CARICOM Crime Gun Intelligence Unit (CARICOM IMPACS, 2022), and promoting public

awareness to support prevention and prosecution efforts (CARICOM, 2025a). They have also taken initial steps to translate these commitments into concrete policies by establishing a dedicated working group (CARICOM, 2025b). The mid-term review of the Caribbean Firearms Roadmap, and participating states' subsequent call for the integration of prevention components, provide an opportunity to enhance synergies and cooperation between regional small arms control measures and broader preventive strategies (CARICOM IMPACS and UNLIREC, 2025, para. 5).

Central to success will be the region's capacity to design interventions and monitor their results using harmonized data and indicators, as well as to create effective feedback loops that allow lessons from implementation to be shared. While regional organizations and international partners can provide assistance, national governments remain the key players on the front line of the regional fight against firearms trafficking and misuse. Making the heads of governments' vision for a multisectoral response a reality by implementing it at the national level is the next critical step to mitigating and reversing the illicit circulation of firearms and associated violence across the Caribbean.

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About the **'Pathway to Policy' project**

The project 'Pathway to Policy: Integrating Security and Public Health Responses to Firearms Trafficking and Violence in the Caribbean' aims to improve the quality and availability of relevant data and analysis on matters related to firearms proliferation and misuse in the Caribbean. Building on partnerships with leading regional and international institutions, the project engages with regional security, public health, and research stakeholders through knowledge sharing and policy prioritization. This project is implemented by the Caribbean Community Implementation Agency for Crime and Security, the Caribbean Public Health Agency, the George Alleyne Chronic Disease Centre at The University of the West Indies, and the Small Arms Survey.

For more information, please visit:
www.smallarmssurvey.org/project/pathway-to-policy-caribbean-project

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