Global Journal of Transformation in Law, Human Rights and Social Justice
https://eurekajournals.com/GJTLHRSJ.html
ISSN: 2581-4001

Police Fatality in Jamaica, 2013 to 2023: An Epidemiological Profile of the Crime Fighting Dilemma of Police Officers in Jamaica

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Abstract

This study investigates the mortality rates within the Jamaica Constabulary Force (JCF) from 2013 to 2023, comparing these to the general Jamaican population to identify any significant disparities and underlying causes. The research utilised a descriptive research design analysing secondary data from the JCF's Statistics and Information Management Unit. Our findings reveal a notably higher probability of death from murders and traffic-related incidents among JCF members compared to the general population. Specifically, the death rate within the JCF ranged between 1.6 and 2.9 per 1000 population, while the general Jamaican population experienced a higher range of 5.6 to 8.9 per 1000 population over the same period. However, the probability of dying was more significant in the JCF than in the broader population for six of the eleven years studied. Natural causes accounted for the majority of deaths in both populations, though murders constituted a higher percentage of deaths within the JCF (20.9%) compared to Jamaica overall (6.37%). This research highlights the increased risks law enforcement officers face in Jamaica and underscores the need for targeted interventions to address these risks.

Keywords: Death, death rate, homicide rate, natural cause of death rate, traffic death rate, Police, Jamaica Constabulary Force (JCF),

Introduction

The Jamaica Constabulary Force (JCF) has described as “an unfortunate moment” the death of police constable Ricardo Fairclough, who was shot during a robbery on Monday night in the St Ann parish, situated on the north coast of the island (Browne, 2023)

“A policeman was shot and killed on Berwick Road in Kingston early Sunday, the police have confirmed.

He has been identified as 30-year-old District Constable Ricardo Jarrett, who was assigned to the Darling Street Police Station in Kingston” (The Gleaner, 2023)

The High Command of the Jamaica Constabulary Force (JCF) mourns the loss of Constable Ricardo Fairclough, who was fatally shot in the line of duty on the evening of April 15, 2024, along Bravo Street in St. Ann's Bay, St. Ann" (JCF, 2024).

The police profession is riddled with numerous perils, the most serious of which is being killed in the line of duty (Kachurik et al., 2013). Police officers have an increased risk of death above that of the general population from many types of diseases and work-related incidents. For instance, Vena et al. (1986) observed that police officers were at a significantly increased risk of digestive cancers and cancers of the colon and lymphatic and hematopoietic tissues. Additionally, Feuer and Rosenman's (1986) proportionate mortality research of police and firefighters in New Jersey found that officers experienced higher rates of mortality from liver diseases, arteriosclerotic heart disease, and digestive and skin diseases.

Violanti et al. (2021) investigated 1,853 police deaths between 1950 and 2018. They observed a slightly higher risk of death from mental disorders than that of the general population, with the younger officers having a higher risk. They suffer from numerous mental health problems, including PTSD, depression, suicide, and sleep disorders. This type of death may be a result of repeated exposure to chronic stress and trauma. An FBI-released report on law enforcement officers killed in the line of duty in 2022 reveals that a total of 59 police officers were feloniously slain in the year 2022 (Chavez, 2023). Some were killed in unjustified attacks with firearms, three by offenders using vehicles as weapons, eight by personal weapons (fists, hands, feet, etc.), and a few in unintentional accidents. Other circumstances included being hit by a car, plane crashes, falls, and firearm-related incidents. These statistics reveal that officers are faced with both psychosocial and physical that may lead to disease and possible earlier death rates among police officers.

Over the years, the JCF has experienced various fatalities ranging from murders, traffic-related incidents, and deaths due to natural causes. This study delves into the statistical comparison of these fatalities over eleven years from 2013 to 2023, analysing data on the causes of death, including murder, traffic accidents, and natural causes. The findings aim to provide a clearer picture of the occupational hazards faced by police officers in Jamaica, potentially influenced by their active duty roles and the inherent risks of their profession. Moreover, the research considers the broader implications of these findings on policymaking, resource allocation, and strategic planning necessary to safeguard the well-being of police officers. By exploring the underlying factors contributing to these mortality rates, the study seeks to contribute to the ongoing discussions on improving officer safety and enhancing the JCF's operational strategies.This study employed a hybrid theoretical framework as it provides a platform for interpreting mortality in the Jamaica Constabulary Force (JCF).

Theoretical Framework

Occupational Stress Theory

This framework could be pivotal in understanding how the unique stressors associated with police work (such as the threat of violence, high-stakes decision-making, and exposure to traumatic events) contribute to higher mortality rates (Ganster & Perrewé, 2011; Lait et al., R.

(2002). You can explore how chronic stress impacts physical health and can lead to increased susceptibility to both acute and chronic health conditions.

Leading Proponents: Robert Kahn and colleagues (1964), Daniel Levinsonand colleagues (1965), and Richard Lazarus (1986; 2006; see also Lazarus & Folkman, 1984).

Key Tenets

- Stress results from an imbalance between demands and resources.
- Occupational stress examines work-related stressors that can lead to physical and psychological health issues.
- Chronic exposure to high stress can increase susceptibility to a variety of health issues, impacting mortality.

Routine Activity Theory

Often used in criminology to explain patterns of crime, this theory could be adapted to examine the circumstances under which JCF members are at higher risk of violent deaths. The theory posits that for a crime (or incident leading to mortality) to occur, three elements must be present: a motivated offender, a suitable target, and the absence of a capable guardian. Analysing how these elements converge in the line of duty could provide insights into preventive strategies.

Leading Proponents: Lawrence Cohen and Marcus Felson (1979)

Key Tenets

- The probability of a crime happening depends on the convergence in space and time of a motivated offender, a suitable target, and the absence of capable guardians.
- The theory has been extensively used to explain variations in crime rates across different contexts but can also be applied to understand targeted violence or accidents.
- Adapting this to police work involves examining when and where officers are most at risk and what measures can mitigate these risks.

Social Support and Resilience Theory: This angle would explore how social support systems within the police force (peer support, family networks, and institutional support) and resilience training impact officers' well-being and mortality rates. The framework could help assess whether robust support mechanisms correlate with lower mortality rates and better overall health outcomes among officers.

Leading Proponents: Social Support - Sheldon Cohen and T.A. Wells (1985); Resilience - Norman Garmezy (1987) and Michael Rutter (2007, 2008, 2012).

Key Tenets

- Social support can buffer the effects of stress and improve psychological and physical health outcomes.
- Resilience refers to the ability to recover from stress or adversity; factors contributing to resilience include social relationships and coping skills.

- This theory explores how internal and external resources can mitigate the adverse effects of occupational stress.

Ecological Systems Theory: Using this framework, you can examine how different environmental systems (from immediate work environments to broader societal structures) influence the mortality rates of JCF members. This approach considers multiple layers of influence, including organisational policies, community relations, and national law enforcement strategies, allowing for a comprehensive analysis of the factors contributing to mortality.

Main Proponent: Urie Bronfenbrenner (1977, 1995)

Key Tenets

- Human development is influenced by different environmental systems ranging from the immediate environment (microsystem) to the broader societal context (macrosystem).
- Each system contains roles, norms, and rules that can powerfully shape development.
- This theory can be used to analyse how various environments interact to impact the health and safety of police officers.

Public Health and Occupational Safety Framework: This approach would integrate public health and occupational safety principles to assess the systemic health risks and safety challenges JCF members face. By exploring how occupational exposure (e.g., traffic incidents and violent confrontations) correlates with mortality, this framework could support the development of targeted health policies and safety regulations to reduce these risks.

Leading Proponents: There is no single proponent; the framework combines public health approaches from figures like William Foege with occupational safety concepts from pioneers like Alice Hamilton.

Key Tenets

- Focuses on preventing injury and illness in the workplace by controlling risks and promoting health.
- Integrates public health and occupational safety research to develop interventions that reduce work-related health risks.
- Emphasizes the role of systematic and environmental changes to improve health outcomes.

Literature Review

Active Duty and Mortality Rate

Both psychosocial and physical factors may lead to a high death rate among police officers. The police profession, when compared to others of a similar nature, like firefighters, is laden with numerous risks Kachurik et al., (2013), with being killed in the line of duty counted as the highest (White et al., 2023). When the variables about police officers being killed and injured in the line of duty were examined, it was found that officers with more significant social investments (wives and children) and experience were less likely to be killed. These officers, in

particular, approach situations more cautiously than officers with little social investment and maturity (Kachurik et al., 2013; Gibbs et al., 2013). These officers with the family will attempt to de-escalate a potentially volatile situation rather than quickly resort to hands-on tactics to resolve a dispute.

Furthermore, more experienced officers are likelier to use discretion in dangerous situations than their less skilled counterparts (Kachurik et al., 2013). On the other hand, Kachurik et al. (2013) suggested that police officers who are single with no children are more likely to be exposed to death-related incidents due to thrill-seeking behaviour. Much of the previous research on deadly police-citizen contacts has focused on the incident-level correlates of police use of lethal force or police lethal victimisation. According to studies, black cops and younger, less experienced officers are more likely than their colleagues to use fatal force (Fyffe, 1982; Fryer, 2017; Ouellet*et al*., 2019; Wood*et al*., 2019).

Mortality Rate and Gender

The literature indicates that compared to their male counterparts, females, despite their high social investment (kids and marriage), are more likely to die on active duty (Gibbs et al., 2018). The trend is interesting as prior research suggests that male officers have high odds of being killed in the line of duty (Gibbs et al., 2018; Tucker-Gail et al., 2021). Studies indicate that women officers are relatively absent from leadership positions; hence, they are more likely to die but in a less gruesome manner (Archbold & Schulz, 2012). Another factor contributing to females' continued absence is their low aspirations to be in higher roles in policing organisations due to issues associated with token-ism such as feeling isolated at work, being second-guessed by their male colleagues, and receiving differential treatment based on their gender (Todak *et al*., 2021). Thus, female officers are always on the frontline.

Sheppard et al. (2024) offer another perspective on the mortality rate difference between male and female police officers. The findings revealed that female police were less likely than male officers to use complex physical control "hard" alternatives (e.g., stuns and blows) but more likely to use intermediate weapons (e.g., conducted energy weapons). Thus, the consensus can be drawn that less force correlates with higher survival when interacting with citizens. Consistent with social role theory, female police officers may be better able to manage conflicts without force. Alternatively, because of their smaller height and less intimidating presence or because of cultural norms that condemn violence against women, the public may be less likely to use violence against female police officers (Rabe-Hemp et al., 2007; Sheppard *et al*., 2024).

Further findings showed that female officers encounter less lethal violence than male police officers when on duty (Lichtenberg, 2018). It was discovered that female officers were more likely than male officers to report seeing people they thought were emotionally disturbed, under the influence of drugs, or both, and they were less likely to report seeing people who they thought were carrying a weapon. Perhaps because of these interactions or perceptions, female police modify their style, handling situations more frequently without force. (Sheppard *et al*., 2024).

Stress; Trauma and Mortality Rate

Police officers quite frequently are exposed to high levels of traumatic situations that build stress Warren (2016), such as being shot at, assaulted or witnessing a crime scene. Violanti and Steege (2021) compared law enforcement officials to all U.S. citizens in the study population who held a job throughout their lives, and the results show a considerably higher probability of suicide deaths among them (PMR = 154, 95% CI = 147-162). Compared to all deceased people in regular employment, law enforcement officers had a 54% higher suicide death rate. Additionally, Schweitzer Dixon (2022), in reviewing the current literature on the prevalence of suicide deaths, attempts, and ideation of study, shows that one study revealed approximate estimates of the rate of suicide to be twice the rate of officers who die in the line of duty, another study reported three times the rate, and another reported to be eight times that of the general population.

In general, police officers are more likely to commit suicide while still working. Violanti and colleagues (1998) found that officers given 15 - 20 years of service had the highest stress scores, and often, these officers are close to retirement (Violanti & Steege, 2021). Furthermore, older officers in this police service had higher adverse life events and depression scores than younger officers. When compared, the percentage of off-duty suicides was significantly more significant than for on-duty suicides. Violanti and Steege (2021) compared five police agencies to discern their suicide pattern and discovered that, on average, 64% of suicides happened outside of the department; an officer in a small police department committed suicide; they did it while not on duty. Lastly, Violanti and Steege (2021) the current study discovered that almost 91% of police officers chose a weapon as a suicide technique.

Research on police suicide has primarily focused on two of these factors, even though worker suicide is a complex combination of environmental factors, workplace stressors, and personal vulnerabilities: workplace trauma as a determinant of posttraumatic stress reactions and organisational stressors as a determinant of job stress and burnout (Syed et al., 2020; Torchalla & Killoran, 2022; Nelson & Smith, 2016). Additional findings from Violanti and Steege (2012) revealed that the annual suicide rate for all departments of 15.3//100,000 officers was above the U.S. general population suicide rate of 11/100,000, with the lowest department rate being approximately four times the national rate in exploring reasons why Violanti and Steege (2012) cited a lack of availability for mental health assistance, increased workload and danger, and community visibility.

Furthermore, considering the comparatively greater suicide rate among male cops, the data also show that police is a male-dominated field. However, White female cops also had a higher suicide rate than White women in all other jobs. Additionally, female employees had a greater prevalence of depression (12.5 vs. 6.2%) compared to male employees (Violanti et al., 2010). Psychosocial symptoms are predictive of suicide thoughts among female police, according to a consistent result (Violanti et al., 2008). In a research conducted in 2007, Pienaar et al. found that intrusive memories linked to posttraumatic stress disorder accounted for 46% of the variation in suicide thoughts among female police. Violanti and Steege (2021) examined the issue from a racial perspective. They found that African-American males in law enforcement had a suicide risk that was over two times higher (PMR = 188, 95% CI = 146-240) than that of African

Americans in all other occupational categories. It does point out, though, that non-White cops are a group that knows very little about suicide.

Methods and materials

This study employs a descriptive research design using secondary data. The JCF Statistics and Information Management Unit (SIMU) provided the data. The quantitative approach allows for the numerical assessment of findings and determining the prevalence of issues in this study (Babbie, 2004; Neuman, 2014; Salkind, 2003). As the primary law enforcement agency within the island, the JCF is responsible for collecting and reporting crimes and arrests made in connection with these crimes. The data was entered and stored in Microsoft Excel and the Statistical Packages for the Social Sciences (SPSS) for Windows, Version 29.0. Descriptive statistics, rates, probabilities, and percentages were computed on data, and the results were displayed in tables.

Operationalisation:

Death rate: The number of deaths in a year for a defined geographical area divided by the number of people in a population times 1,000

Murder rate: The number of homicides/murders in a year for a defined geographical area divided by the number of people in a population times 1,000

Traffic Death rate: The number of deaths by traffic accidents in a year for a defined geographical area divided by the number of people in a population for those 12 months times 1,000

Natural Death rate: The number of deaths by natural causes (total deaths minus the number of deaths in traffic accidents and murders in a year for a defined geographical area divided by the number of people in the population for those 12 months times 1,000

Probability of death: The number of deaths in a year for a defined geographical area divided by the number of people in a population for those 12 months

Sex ratio: The sex ratio is the number of males divided by the number of females times 100

Findings

This section of the study is crucial as it provides a comprehensive data analysis and interpretation of the research objective: to evaluate deaths in the Jamaica Constabulary Force (JCF) and compare and contrast these with mortality in the general Jamaican population. The findings from this analysis are significant in understanding the trends and patterns of deaths in these two populations.

Table 1 presents deaths disaggregated by murder, traffic and natural in the Jamaica Constabulary Force (JCF) and Jamaica. Over the last decade (2013-2024), the data revealed 282 deaths in JCF, with an average of 26 annually, compared to 223,204 in Jamaica, with an average of 20,291 yearly. Comparatively, there were 59 murders of members of the JCF, with an average of 5

annually and 14,258 Jamaicans, with an average of 1,296 yearly. Additionally, natural causes constitute most deaths in the JCF (63.12%) and Jamaica (91.6%), with murders constituting 20.9% in the JCF and 6.37% in Jamaica for the 11-year studied period.

Table 1: Murders, Traffic deaths, and Natural Deaths in the JCF and Jamaica

Year	Deaths							
	JCF				Jamaica			
	All Deaths	Murder	Natural	Traffic	Murder	Traffic	Natural	All Deaths
2013	28	9	15	4	1,202	307	13,918	15,427
2014	25	2	18	5	1,005	331	16,984	18,320
2015	31	8	19	4	1,208	382	16,313	17,903
2016	23	6	13	4	1,354	379	16,596	18,329
2017	31	8	18	5	1,647	322	17,692	19,661
2018	19	3	15	1	1,289	389	18,084	19,762
2019	23	3	14	6	1,340	440	19,157	20,937
2020	29	4	22	3	1,332	443	19,611	21,386
2021	28	8	17	3	1,471	487	22,941	24,899
2022	24	3	18	3	1,016	488	23,386	24,890
2023	21	5	9	7	1,394	425	19,871	21,690
TOTAL	**282**	**59**	**178**	**45**	**14,258**	**4,393**	**204,553**	**223,204**
Average	**26**	**5**	**16**	**4**	**1296**	**399**	**18,596**	**20,291**

Table 2 presents the deaths in the Jamaica Constabulary Force (JCF), and Jamaica disaggregated by murder, traffic, and natural cases for 11 years (2013-2023), with the figures for Jamaica adjusted to exclude the JCF figures. The adjusted statistics for Jamaica revealed marginal reductions, with the overall average deaths for the period declining by 25.

Table 2: Murders, Traffic deaths, and Natural Deaths in the JCF and Adjusted for Jamaica

Year	Deaths							
	JCF				Adjusted Statistics for Jamaica (exclude police statistics)			
	All Deaths	Murder	Natural	Traffic	Murder	Traffic	Natural	All Deaths
2013	28	9	15	4	1,193	303	13,903	15,399
2014	25	2	18	5	1,003	326	16,966	18,295
2015	31	8	19	4	1,200	378	16,294	17,872
2016	23	6	13	4	1,348	375	16,583	18,306
2017	31	8	18	5	1,639	317	17,674	19,630
2018	19	3	15	1	1,286	388	18,069	19,743
2019	23	3	14	6	1,337	434	19,143	20,914
2020	29	4	22	3	1,328	440	19,589	21,357
2021	28	8	17	3	1,463	484	22,924	24,871
2022	24	3	18	3	1,013	485	23,368	24,866
2023	21	5	9	7	1,389	418	19,862	21,669
Total	**282**	**59**	**178**	**45**	**14,199**	**4,348**	**204,375**	**222,922**
Average	26	5	16	4	1,291	395	18,580	20,266

Table 3: Population Statistics for the JCF and Jamaica, death rates in the JCF and Jamaica, and the probability for JCF and Jamaica

Year	Population		Death Rate		Murder Rate / 1000 JCF	Murder Rate / 1000 Jamaica	Traffic Deaths/ 1000 JCF	Traffic Deaths/ 1000 Jamaica	Natural Deaths JCF / 1000	Probability	
	JCF	Jamaica	JCF /1000	Jamaica /1000						Murder	
										Police	Non-Police Jamaican
2013	9,740	2,714,669	2.8747	5.6828	0.9240	0.4428	0.4107	0.1131	1.5400	0.0009	0.0004
2014	11,773	2,720,554	2.1235	6.7339	0.1699	0.3694	0.4247	0.1217	1.5289	0.0002	0.0004
2015	11,807	2,725,288	2.6256	6.5692	0.6776	0.4433	0.3388	0.1402	1.6092	0.0007	0.0004
2016	11,556	2,728,148	1.9903	6.7185	0.5192	0.4963	0.3461	0.1389	1.1250	0.0005	0.0005
2017	11,389	2,728,654	2.7219	7.2054	0.7024	0.6036	0.4390	0.1180	1.5805	0.0007	0.0006
2018	11,790	2,727,503	1.6115	7.2455	0.2545	0.4726	0.0848	0.1426	1.2723	0.0003	0.0005
2019	11,890	2,813,773	1.9344	7.4409	0.2523	0.4762	0.5046	0.1564	1.1775	0.0003	0.0005
2020	11,778	2,820,436	2.4622	7.5825	0.3396	0.4723	0.2547	0.1571	1.8679	0.0003	0.0005
2021	12,018	2,827,695	2.3298	8.8054	0.6657	0.5202	0.2496	0.1722	1.4145	0.0007	0.0005
2022	12,498	2,827,377	1.9203	8.8032	0.2400	0.3593	0.2400	0.1726	1.4402	0.0002	0.0004
2023	12,740	2,825,544	1.6484	7.6764	0.3925	0.4934	0.5495	0.1504	0.7064	0.0004	0.0005

Table 3 presents population Statistics for the Jamaica Constabulary Force and Jamaica, death rates in the Jamaica Constabulary Force and Jamaica by selected categories (murder, traffic, and natural), and the probability of deaths in Jamaica Constabulary Force and Jamaica. The findings revealed that the death rate in the Jamaica Constabulary Force lies between 1.6 and 2.9 per 1000 population in the Jamaica Constabulary Force and between 5.6 and 8.9 per 1000 population in Jamaica for 11 years. Additionally, the probability of dying is more significant in the Jamaica Constabulary Force (for six years of the 11 years; 2013, 2015, 2016, 2017, 2020, and 2021) than in Jamaica (5 years of the 11 years; 2014, 2018, 2019, 2022, and 2023. In 2023, the probability of dying as a member of the Jamaica Constabulary Force was 0.0004 compared to 0.0005 for the general population in Jamaica.

For the 11 years (2013-2023), 20.5% of the deaths in the Jamaica Constabulary Force were owing to murder compared to 6.5% in Jamaica (Table 4). The findings revealed that annually, a more significant percentage of police officers are murdered as well as die in traffic accidents in Jamaica compared to the Jamaicans. In 2023, 23.8% of deaths in the Jamaica Constabulary Force were attributed to murders compared to 6.43% of the Jamaicans. Comparatively, 33.3% of members of the Jamaica Constabulary Force died in traffic accidents, to 1.96% of Jamaicans. Additionally, there are 126 deaths of members of the Jamaica Constabulary Force for every 1,000 deaths in Jamaica (282/223,204 x 1000) and four murders of members of the JCF for every 1,000 Jamaicans murdered.

Table 4: Annual Deaths in Percent for the Jamaica Constabulary Force and Jamaica

Year	Annual Deaths in %							
	JCF				Jamaica			
	All Deaths	Murder	Natural	Traffic	Murder	Traffic	Natural	All Deaths
2013	28	32.14	53.57	14.29	7.79	1.99	90.22	15,427
2014	25	8.00	72.00	20.00	5.49	1.81	92.71	18,320
2015	31	25.81	61.29	12.90	6.75	2.13	91.12	17,903
2016	23	26.09	56.52	17.39	7.39	2.07	90.55	18,329
2017	31	25.81	58.06	16.13	8.38	1.64	89.99	19,661
2018	19	15.79	78.95	5.26	6.52	1.97	91.51	19,762
2019	23	13.04	60.87	26.09	6.40	2.10	91.50	20,937
2020	29	13.79	75.86	10.34	6.23	2.07	91.70	21,386
2021	28	28.57	60.71	10.71	5.91	1.96	92.14	24,899
2022	24	12.50	75.00	12.50	4.08	1.96	93.96	24,890
2023	21	23.81	42.86	33.33	6.43	1.96	91.61	21,690
TOTAL	**282**	**20.49**	**63.25**	**16.27**	**6.49**	**1.97**	**91.54**	**223,204**

Table 5 presents deaths disaggregated by murders, traffic accidents, and natural causes in the Jamaica Constabulary Force and for Jamaica adjusted to exclude those deaths in the Jamaica Constabulary Force. The annual figures for Jamaica marginally declined when deaths were adjusted to exclude those in Jamaica Constabulary Force.

Table 5: Murders, Traffic deaths, and Natural Deaths in the JCF and Adjusted for Jamaica

Year	Deaths							
	JCF				Jamaica (exclude police statistics)			
	All Deaths	Murder	Natural	Traffic	Murder	Traffic	Natural	All Deaths
2013	28	32.14	53.57	14.29	7.75	1.97	90.29	15,399
2014	25	8.00	72.00	20.00	5.48	1.78	92.74	18,295
2015	31	25.81	61.29	12.90	6.71	2.12	91.17	17,872
2016	23	26.09	56.52	17.39	7.36	2.05	90.59	18,306
2017	31	25.81	58.06	16.13	8.35	1.61	90.04	19,630
2018	19	15.79	78.95	5.26	6.51	1.97	91.52	19,743
2019	23	13.04	60.87	26.09	6.39	2.08	91.53	20,914
2020	29	13.79	75.86	10.34	6.22	2.06	91.72	21,357
2021	28	28.57	60.71	10.71	5.88	1.95	92.17	24,871
2022	24	12.50	75.00	12.50	4.07	1.95	93.98	24,866
2023	21	23.81	42.86	33.33	6.41	1.93	91.66	21,669
TOTAL	**282**	**20.49**	**63.25**	**16.27**	**6.47**	**1.95**	**91.58**	**222,922**

Table 6 presents the annual deaths in the Jamaica Constabulary Force (JCF) disaggregated by murder, natural causes, and traffic accidents as a per cent of total deaths in Jamaica. Total annual deaths in the Jamaica Constabulary Force (JCF) constitute less than twoper 1000 annual Jamaican deaths, except for traffic deaths. Additionally, in 2013, there were seven police murders per 1000 of the Jamaican population, and this figure substantially declined to 1.99 in 2014, and in 2023, the figure was 3.58 per 1000 Jamaican population. As it relates to road traffic deaths, in 2013, 13.0 members of the Jamaica Constabulary Force died per 1000 Jamaican population, and this increased to 16.47 per 1000 Jamaican population in 2023.

Table 6: Annual Deaths in the JCF are disaggregated by murder, natural causes, and traffic as per 1000 Jamaica's deaths.

Year	JCF			
	All deaths	Murder	Natural	Traffic
	(in 1000 Jamaica			
2013	1.815000	7.487521	1.077741	13.02932
2014	1.364629	1.99005	1.059821	15.10574
2015	1.731553	6.622517	1.164715	10.4712
2016	1.254842	4.431315	0.783321	10.55409
2017	1.576725	4.857316	1.017409	15.52795
2018	0.961441	2.327386	0.829463	2.570694
2019	1.098534	2.238806	0.730803	13.63636
2020	1.356027	3.003003	1.121819	6.772009
2021	1.124543	5.438477	0.741031	6.160164
2022	0.964243	2.952756	0.769691	6.147541
2023	0.968188	3.586801	0.452921	16.47059

Table 7 presents the annual deaths in the Jamaica Constabulary Force (JCF) disaggregated by murder, natural causes, and traffic accidents as a per cent of adjusted total deaths in Jamaica, excluding those in the JCF. Deaths in the Jamaica Constabulary Force (JCF) constitute less than two per 1000 adjusted annual Jamaican deaths, except for traffic deaths. The rates were marginally higher when adjusted to exclude deaths in the JCF. Additionally, in 2023, there were 17 fatal traffic accidents of members of the JCF per 1000 traffic deaths among Jamaicans, with there being four murders of members of the JCF per 1000 murders of Jamaicans.

Table 7: Annual Deaths in the JCF disaggregated by murder, natural causes, and traffic as per 1000 of Adjusted Jamaica's deaths (excludes those occurring in the JCF)

Year	JCF			
	All deaths	Murder	Natural	Traffic
	(per 1000 Adjusted deaths in Jamaica)			
2013	1.818300	7.544007	1.078904	13.20132
2014	1.366494	1.994018	1.060945	15.33742
2015	1.734557	6.666667	1.166073	10.58201
2016	1.256419	4.451039	0.783935	10.66667
2017	1.579215	4.881025	1.018445	15.77287
2018	0.962366	2.332815	0.830151	2.577320
2019	1.099742	2.243829	0.731338	13.82488
2020	1.357869	3.012048	1.123079	6.818182
2021	1.125809	5.468216	0.741581	6.198347
2022	0.965173	2.961500	0.770284	6.185567
2023	0.969126	3.599712	0.453127	16.74641

The graphical depiction of deaths in Jamaica and the Jamaica Constabulary Force (JCF) show different patterns, with the latter being cyclical.

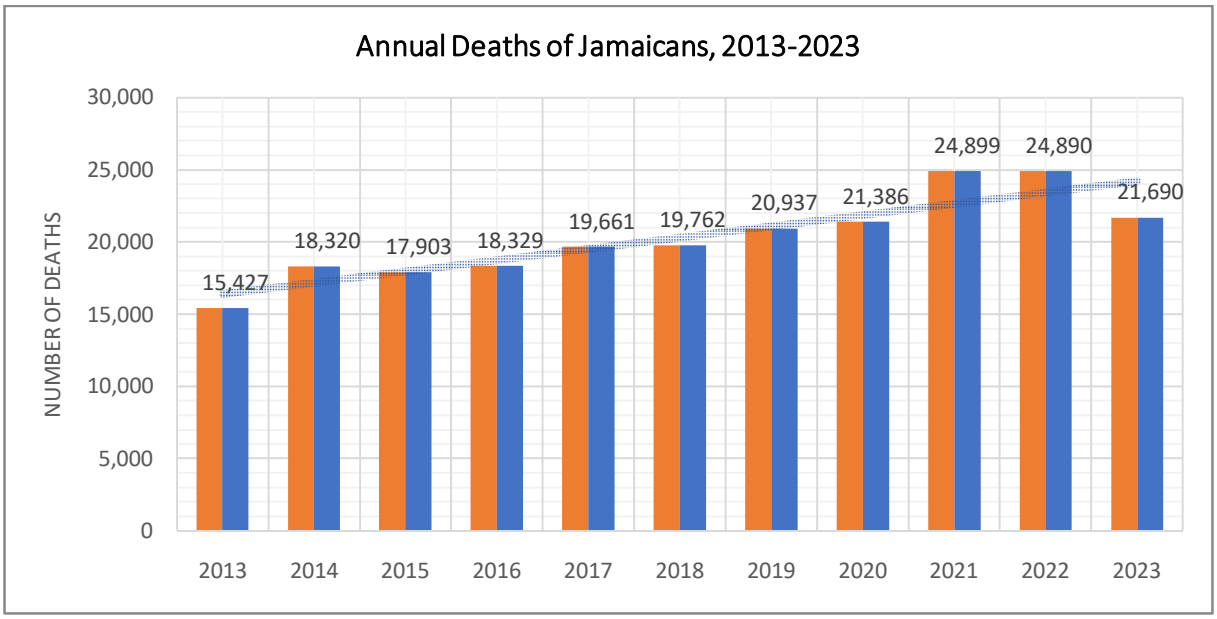

Figure 1: Annual Deaths in Jamaica, 213-2023

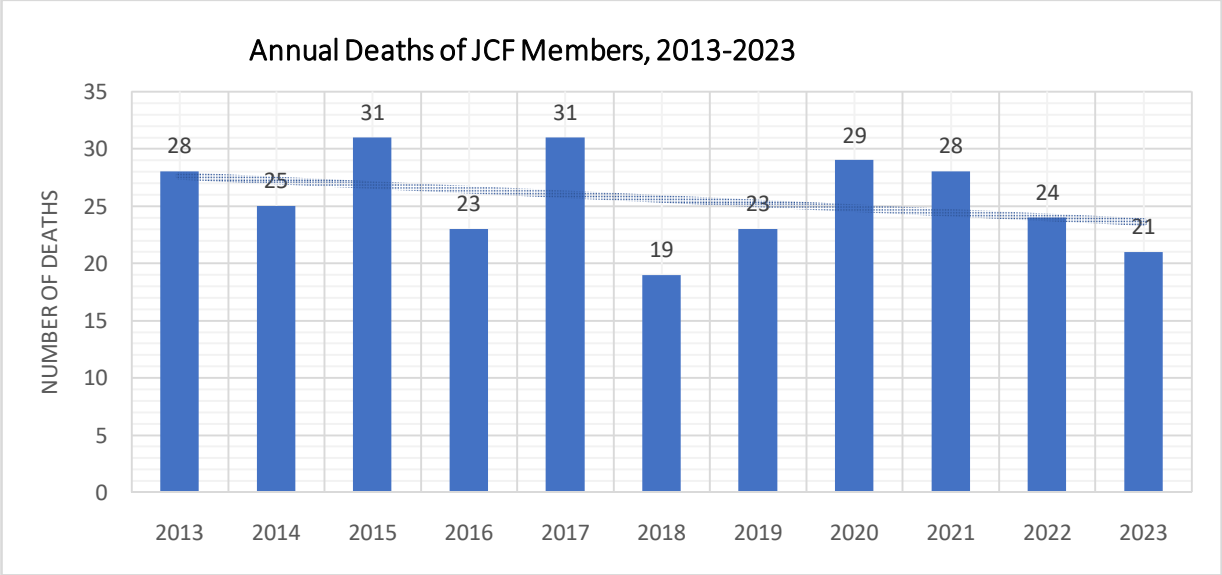

Figure 2: Annual Deaths in Jamaica Constabulary Force, 213-2023

Table 8 presents deaths by gender, sex ratio, and male-to-female ratio of police officers in the Jamaica Constabulary Force (JCF). The findings revealed that the highest prevalence of male-to-female deaths of police officers occurred in 2019 (11 males to every one female), and the least male-to-female deaths occurred in 2020 (2 males to every one female).

Table 8: Deaths by Gender, Sex Ratio, and Male-to-Female Ratio of Police Officers in Jamaica

	DEATH				
Year	**Male**	**Female**	**Total**	**Sex Ratio**	**Male: Female**
2013	23	5	28	460	5:1
2014	19	6	25	317	3:1
2015	26	5	31	520	5:1
2016	18	5	23	360	4:1
2017	28	3	31	933	9:1
2018	16	3	19	533	5:1
2019	21	2	23	1050	11:1
2020	20	9	29	222	2:1
2021	24	4	28	600	6:1
2022	21	3	24	700	7:1
2023	19	3	22	633	6:1

Discussion

Violantiet al. (2013) indicated that police officers in the United States have an elevated risk of death compared to the general population (see also Violanti et al., 2021), which is also the case in Jamaica. This research comprehensively analyses mortality rates within the Jamaica Constabulary Force (JCF) over 11 years, revealing nuanced insights into the specific occupational hazards and general health risks that disproportionately affect police officers compared to the general Jamaican population. While the overall mortality rate for JCF members was consistently lower than that of the general population, the elevated risk during specific years

(2013, 2015, 2016, 2017, 2020, and 2021) raises concerns about the fluctuating safety and operational conditions experienced by officers. These variations suggest that external socio-political events, criminal activity shifts, or changes in JCF operational tactics might significantly influence officer safety. This finding prompts a discussion about the need for dynamic risk assessment and management strategies that can be adjusted in real-time based on changing conditions, thus providing proactive rather than reactive responses to identified risks.

The current findings revealed that annually, a more significant percentage of police officers are murdered as well as die in traffic accidents in Jamaica compared to the Jamaicans. In 2023, 23.8% of deaths in the Jamaica Constabulary Force were attributed to murders compared to 6.43% of the Jamaicans. Violanti et al. (2013) indicated that "The years of potential life lost (YPLL) for police officers was 21 times larger than that of the general population (Buffalo male officers vs U.S. males = 21.7, 95% CI: 5.8-37.7)" which speaks to the dilemma of policing communities in the U.S. and Jamaica. The stark contrast in homicide rates between JCF members and the general population not only underscores the inherent risks associated with policing but also calls for an urgent review of the measures currently in place to protect officers. This high rate of violent deaths suggests that existing strategies may be inadequate or improperly executed. The reality is that the police profession is riddled with numerous perils, the most serious of which is being killed in the line of duty (Kachurik et al., 2013).Discussions should focus on improving personal protective equipment, enhancing situational awareness and conflict de-escalation training, and perhaps most critically, fostering better community-police relations to reduce hostility and the likelihood of violent confrontations.

In 2023, 33.3% of all deaths of members of the Jamaica Constabulary Force (JCF) were owing to traffic incidents, compared to 1.93% of deaths in Jamaica. Over the 11 years of this study (2013-2023), traffic deaths among members of the JCF account for between 42% and 76% of all deaths, compared to between 1.6% and 2.1% of all deaths in Jamaica. The significant percentage of officer deaths due to traffic incidents points to potential gaps in vehicle safety standards and driver training within the JCF. Given the high-risk nature of police driving, which often involves high-speed chases and emergency response situations, there is a clear need to implement more rigorous driving training programs. Upgrading the fleet with vehicles better equipped with safety features could reduce these fatalities. This discussion should also explore the role of policy in mandating regular vehicle maintenance and safety checks to ensure that all operational vehicles meet the highest safety standards.

The variability in the causes of death over the years indicates an evolving risk landscape, which could be linked to changes in criminal tactics, economic fluctuations, or variations in community engagement with law enforcement. This reality underscores the necessity for the JCF to maintain a flexible approach to strategy and policymaking that incorporates regular reviews of death causes and the effectiveness of implemented safety measures. Engaging in continuous dialogue with officers on the ground could also provide valuable insights into their everyday risks and inform more effective strategies.

Studies have revealed that male officers have higher odds of being killed in the line of duty than their female counterparts (Gibbs et al., 2018; Tucker-Gail et al., 2021), which is equally the case

in Jamaica. Sheppard et al. (2024) forwarded a perspective on gender disparity in mortality by offering that female police were less likely than male officers to use complex physical control "hard" alternatives (e.g., stuns and blows) but more likely to use intermediate weapons (e.g., conducted energy weapons). Consistent with social role theory, female police officers may be better able to manage conflicts without force. Alternatively, because of their smaller height and less intimidating presence or because of cultural norms that condemn violence against women, the public may be less likely to use violence against female police officers (Rabe-Hemp et al., 2007; Sheppard et al., 2024). The recurring nature of specific risks highlights the need for targeted interventions that are reactive and preventive. By emphasising the development of comprehensive health and wellness programs, the JCF can address the direct causes of officer mortality and the indirect factors, such as stress and mental health, which may contribute to these deaths. Additionally, increasing the availability of mental health resources, including regular psychological assessments and counselling services, could help manage the psychological burdens of policing, which often go unaddressed.

The high rate of natural death among members of the Jamaica Constabulary Force (JCF), as well as the degree of stressfulness of the job, explains suicides. Brooks (nd), using suicide data for the Jamaica Constabulary Force, postulated, “According to data from the Jamaica Constabulary Force (JCF), there were 27 reported suicides between November and January, a significant increase compared to previous years. Of these, 23 were men, with the majority being over 40. The JCF notes this with concern and is urging for greater attention to be paid to mental health and suicide prevention in Jamaica." Violanti and Steege (2021) found that law enforcement officers had a 54% higher suicide death rate. Schweitzer Dixon (2022), in reviewing the current literature on the prevalence of suicide deaths, attempts, and ideation of study, shows that one study revealed approximate estimates of the rate of suicide to be twice the rate of officers who die in the line of duty, another study reported three times the rate, and another reported to be eight times that of the general population. The current study is not able to compare suicides in the Jamaica Constabulary Force and Jamaica. However, there is evidence that the stressful nature of the job and their personal life influence the well-being of Jamaican police officers, which accounts for suicide statistics for members of the Jamaica Constabulary Force (JCF).

Theoretical Applicability

The applicability of Occupational Stress Theory is born out in our findings that Jamaica Constabulary Force (JCF)members experience elevated risks of death in traffic-related incidents and violent encounters. This issue aligns with the theory's premise that chronic occupational stress can impair judgment and response times, potentially leading to fatal outcomes. For instance, the data show a higher incidence of traffic fatalities among officers compared to the general population, suggesting that the high-stress nature of police work may contribute to riskier driving behaviours and reduced situational awareness.

Additionally, the premise of Routine Activity Theory may explain the disproportionate murder rates observed among JCF members, where 23.8% of officer deaths in 2023 were due to homicides, compared to 6.43% in the general population. This theory posits that the convergence of a motivated offender and a suitable target, often without effective guardianship, increases the

likelihood of crime occurrences. By the nature of their duties, officers frequently find themselves in such risk-laden scenarios, particularly in high-crime areas or when they are outnumbered or otherwise vulnerable.

The authors posit that Ecological Systems Theory can effectively explain how different environmental layers impact police safety. The study's fluctuation in mortality rates over the years can be attributed to changes in socio-political climates, community engagement levels, and internal JCF policies. This theory highlights the impact of broader societal systems on individual outcomes, suggesting that both micro and macro environmental changes are crucial in shaping the mortality risks officers face.

The faith in Social Support and Resilience Theory is highlighted by the observation that natural causes are a significant contributor to officer mortality, alongside the critical role of murders and accidents. This theory underscores the importance of robust social support and resilience strategies in mitigating the impact of stress and occupational hazards on officers' well-being. Enhancing resilience could be particularly effective in reducing deaths attributed to stress-induced health conditions, which are implied by the high rates of natural deaths in the force. The implementation of mental health programs and stress management interventions could play a pivotal role in decreasing overall mortality rates among JCF members.The employment of multiple theoretical frameworks in this research proved to be a justified and practical approach, as evidenced by the comprehensive analysis of the multifaceted challenges faced by the Jamaica Constabulary Force (JCF). No single theory could explainthis study's complex and varied findings, highlighting the necessity of an integrative theoretical perspective.

Occupational Stress Theory addresses the stress-related aspects of law enforcement work. Still, it could not account for the specific situational factors elucidated by Routine Activity Theory, which explained the heightened risk of violent deaths. Similarly, ecological systems theory provides a broader socio-political context for understanding the environmental impacts on officer safety. At the same time,social support and resilience theory offers insights into internal coping mechanisms and support structures critical for officer well-being. This multi-theoretical approach enriched the analysis and ensured a more holistic understanding of the data, thereby supporting the development of targeted and effective interventions to enhance officer safety and health.

Broader Implications

The findings of this research have severe implications for policing culture, community relations, and policy development, which may extend beyond the Jamaica Constabulary Force (JCF) to encompass broader law enforcement practices. By highlighting the nuanced challenges officers face, this study underscores the critical need for an integrated approach to law enforcement that prioritises community engagement and proactive safety measures. Enhanced community-police relations, as demonstrated by the data, could significantly reduce violent confrontations—a recurrent risk factor for officer mortality. Such improvements can decrease the incidence of officer-involved violence andraise positive public perceptions of the police, thus fostering a cooperative atmosphere that can facilitate more effective policing.

Conclusion

Policymakers and JCF leadership are urged to consider these findings as critical inputs in their strategic planning processes. By investing in technologies that enhance officer safety, promoting policies that foster positive community interactions, and continually evaluating the effectiveness of safety and health measures, the JCF can significantly improve its operational effectiveness and the well-being of its officers. Such strategic efforts should be integral to the long-term success of the JCF in fulfilling its mandate to serve and protect.

This research, therefore, advocates for policies that are informed by a clear understanding of the environmental and operational contexts in which officers operate. Adopting community-oriented policing strategies could serve as a preventive measure against the risks identified in the study. These strategies should focus on building trust and rapport between officers and community members, which can lead to increased public cooperation and support. Such collaboration is essential not only for the immediate safety of police officers but also for the efficacy of law enforcement efforts in maintaining public order and safety.

In the final analysis, while the JCF confronts unique and significant challenges, the opportunities for meaningful interventions are clear and achievable. By comprehensively addressing the specific occupational hazards and the broader health and welfare concerns, the JCF can significantly enhance its operational effectiveness and ability to serve the community safely and effectively.

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