Research Newsletter

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Health-related strategies for preventing violence and mitigating its impact in the Western Cape

Western Cape Government
Health and Wellness
FOR YOU

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Editorial

Violence is a problem globally and more than a million people die each year as a result of interpersonal and/or collective violence. Outside of conflict zones, South Africa is among the countries with the highest rates of violence worldwide. For example, when the crime statistics were released for the third quarter 2022, the national minister of police reported that 7,555 murders were recorded – a 10% increase since 2021. Sexual offences also increased by 9.6%, rising from 14,188 to 15,545. Rape (9.8%), sexual assault (4.1%) and attempted sexual offences (45.6%) had also increased.

In light of the of this reality, the Western Cape Department of Health and Wellness (WCGH:W) in conjunction with the Western Cape Provincial Health Research Committee (PHRC) jointly held the 2022 provincial health research day, with the theme '*Health-related strategies for preventing violence and mitigating its impact in the Western Cape province*'. Importantly, violence prevention is a provincial priority and stewardship for this has been given to the WCGH:W. In line with this, the PHRC decided that a focus on violence, especially the prevention of violence, was timely and appropriate.

In this 16th issue of the health research newsletter, interesting and cutting-edge research-based articles on violence are shared. All were presented at the 2022 research day by locally based experts in the area of violence research, its effect on the health system and broader communities.

The first article is based on Dr Keith Cloete's presentation, the director-general of health in the province (WCGH:W), which set the scene for the research day. It discusses the provincial safety plan which intends to prevent crime and have 'boots on the ground'. An article based on Professor Richard Matzopoulos's keynote address follows. This presentation addressed gun violence and homicide in South Africa. The next article is based on Professor Naeemah Abraham's second keynote address which addresses the issue of femicide and gender-based violence in the country. Then, there are articles based on the four round-table discussions presented by local experts in the area of violence.

The first round-table article was by Drs Megan Prinsloo and Marcus van Heukelum. This article speaks to the burden of injury on the health system, and highlights that managing injuries overstretches the health system. An article on the troubling issue of violence meted against emergency medical services (EMS) staff in communities and how to address this based on Mr Craig Wylie and Dr Shaheem De Vries's presentation follows. This is followed by an article discussing violence against people with disabilities based on Dr Xanthe Hunt's presentation. This interesting article addresses violence against people with disabilities from a structural and interpersonal perspective and how this impacts their health outcomes. The final article, based on Dr Melvin Moodley and Prof Andrew Nicol's presentation, reviews the policy and data landscape on violence in South Africa as well as the injury surveillance work conducted at Groote Schuur Hospital. It discusses the extent of homicide in the country, the disparities across society and the burden of injuries at the hospital due to violence.

Acknowledgements

We acknowledge the contribution made by staff members of the Health Intelligence (HI) directorate within the WC Department of Health and Wellness in the drafting and editing of the articles in this newsletter. Special thanks to: Abulele Hashe, Ashleigh Levendall, Sabela Petros and Virginia Zweigenthal.

The Provincial Safety Plan – the story thus far …

This article is based on the introductory presentation by Dr Keith Cloete (Head, WCG:H) at the Western Cape Provincial Health Research Day in November 2022.

Introduction

The consequences of violence can be devastating for both the victim – on a personal and family level – as well as on the public sector health service where many are treated and re-habilitated. Dr Cloete focused on the Provincial Safety Plan to introduce the 2022 research day.

The broad objectives of the plan

The first objective of the plan is to prevent crime and have 'boots on the ground'. Firstly, areas with high levels of crime coupled with inadequate policing must be identified, and this needs rectifying to ensure an enhanced policing and investigative capacity. Implicit in this approach is to be data-led.

Secondly, policing must be evidence-based. Our approach is that the incidence of violence must be reduced through prevention. Underlying and systemic causes of crime and violence must be addressed through having holistic, integrated and long-term action that are knowledge based and adaptable to various settings.

The safety priority approach

The safety priority approach is informed by a 'theory of change' which is evidence informed and has demonstrated a sustained reduction in violence. As is seen in Figure 1, there are three 'Whats' and three 'Hows'. The first 'what' refers to improving law enforcement effectiveness and coordination, the second means to strengthen social protective factors against violence and the third aims to improve safety infrastructure in public spaces. The 'Hows' refer to firstly, coordinating local resources in a local geographic area – the Area Based Team (ABT) approach; secondly to evidence-use in the re-design of programmes through a public health approach; and finally, to use data to inform and prioritise interventions so as to identify trends.

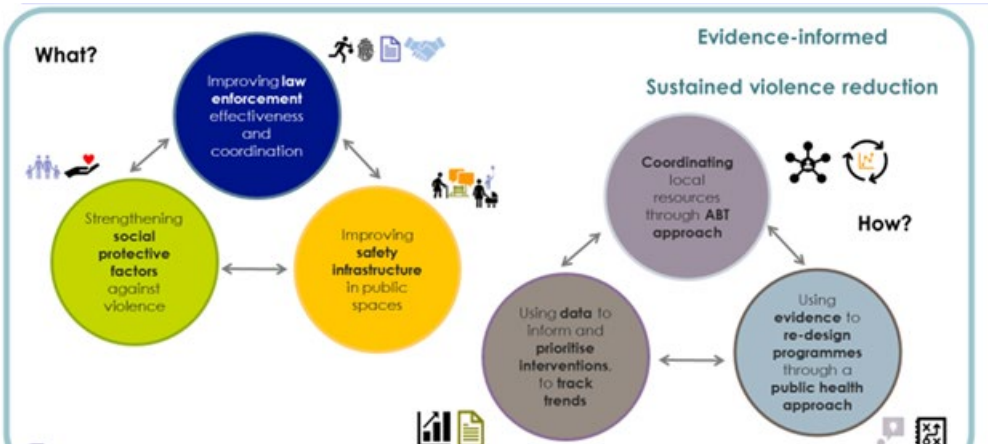

Figure 1: The safety priority approach, theory of change

Law enforcement initiatives

Improvements in law enforcement focuses on its effectiveness and coordination, namely to i) improve and increase law enforcement in hot spots, ii) strengthen provincial oversight mechanisms, iii) improve law enforcement operations as well as prioritising drivers of crime. To accomplish these, the department has worked with the South African Police (SAPS) and City of Cape Town (CoCT) and trained a cadre of law enforcement officers through the Law Enforcement Programme (LEAP) who have been deployed to hotspots in the province. Their deployment was informed by the available data on hotspots.

By November 2022, 1,116 officers had been employed and deployed, and a further 54 were in training. Deployment is in 13 high-crime areas, of which 10 form part of the top murder policing precincts – Delft, Gugulethu, Khayelitsha, Kraaifontein, Mfuleni, Mitchells Plain, Nyanga, Atlantis, Bishop Lavis and Phillipi. In addition, a reaction unit is deployed in Grassy Park and Steenberg to stabilize these areas.

The impact of the interventions

A few lessons have been learnt with regards to fighting and containing violence in the province through the rapid assessment of the LEAP which provided insights into successes and challenges. These include that data are key to planning; integration and collaboration with law enforcement agencies; the importance of continuously dealing with hotspot areas; that hotspots with limited resources need to be covered; that information from communities is vital to achieve success. Coupled with these lessons, are the quick wins which had positive effects, namely the increase in joint and integrated operations with other Law Enforcement Agencies; increased recoveries of firearms and dangerous weapons; increased recovery of illegal substances such as drugs and illegal alcohol sales; and, the stabilization and slight decreases in murder rates in areas where LEAP was deployed.

Social protective initiatives

Addressing social protective factors are also crucial to halt the scourge of violence. These include: strengthening parent-child relationships; strengthening the resilience and emotional intelligence of children at risk of violence; reduction in harmful alcohol and drug consumption; and, changing harmful social norms and practices on violence and gender.

The interventions

Representatives of the Safety Social Cluster departments were an integral part of the ABTs. Participating government departments were: Department of Social Development (DSD), Department of Health (DOH), Western Cape Education Department (WCED), South African Police Services (SAPs), Department of Correctional Services (DCS) and the Municipalities. Civil Society and NGOs also formed part of the cluster.

The roles and responsibilities were clarified and DSD is a lead department. The *life cycle* approach was used to render care and support services to persons at risk. DSD centres provide service delivery programme through their local offices in specific ABT areas. This includes: prevention and early intervention child protection services; parenting programmes, fatherhood and boy role-model programmes, family counselling services, youth at risk programmes through youth cafes and food relief programmes; and, gender-based violence (GBV) services to women and children at risk and community support to people with disabilities and older persons.

The impact of the interventions

Lessons learnt included role clarification between stakeholders to ensure seamless support for families and, strengthening the referral pathways between government departments. Strengthening social protective factors also resulted in visible impact amongst stakeholders and beneficiaries. There was better cooperation between departments and silo activities were reduced.

Joint projects that improved cooperation between role-players included mental health – a focus of both health and social development; learners at risk were referred more effectively to DSD by WCED schools; children at risk were referred more effectively to DSD from DOH following alleged abuse; the provincial GBV implementation plan, developed and approved by the Well-being Workstream, was supported by the Safety Social Cluster and ABTs; and finally, SAPS referrals to DSD to follow-up women and children at risk, particularly for cases who present after-hours.

The urban design for the safety initiative

Urban design impacts on violence, as the urban environment is a meeting space for persons from diverse backgrounds – all competing for limited resources. These meeting spaces can be attractive to persons with anti-social behavior, who perpetrate incidents such as robbery, assaults and rape. Dr Cloete, maintained that the design of a safe urban environment has been a challenge in the province as it is led by municipalities. However, work continues through the Regional Socio-Economic Project (RSEP) and Violence Prevention through Urban Upgrade (VPUU) in the City. Nonetheless, better lighting has been installed; there is CCTV in hotspots areas as well as fencing and improved pedestrian walkways. The focus here is on under-served and neglected neighbourhoods, with beneficiaries in Bredasdorp, Vredenburg, Velddrift, Worcester and Stellenbosch.

The impact of the interventions

Important lessons learnt include: facilities and amenities that are in a poor state of repair attract unwanted elements into an area; vandalism of infrastructure is a major problem; over-usage of facilities results in maintenance and management challenges; and rapid urbanization continue to create huge backlogs in the provision of safe public places.

While the impact of interventions cannot always be measured quantitatively, the creation of paved walkways, improved lighting, live-work units, active boxes for surveillance have attracted more personnel and activities to former "hot spot" areas and made them much safer. In addition, recognising the needs of the poor and aiming to provide them with dignified spaces has had a positive impact by creating co-owned safer places.

Figure 2: What story does the data tell us?

What does the data say?

Data drawn from the forensic pathology services (FPS) and safety dashboards have provided better information to emergency centers, and presentations are shared with provincial partners. As seen in Figure 2, there is a strong link between alcohol and interpersonal violence. Crime reports about hotspot areas have been compiled and relationships have been built between role players. More importantly, the data has confirmed what was already tacitly known. For example, interpersonal violence occurs mostly on weekends and public holidays and affects mostly men between the ages 18-40 years. Importantly, a significant proportion of women especially pregnant women in their second trimester experience interpersonal violence. The utilization of information from the FPS dashboard has enabled the location of deployment of LEAP officers. Murder has decreased in most policing precincts where LEAP officers were deployed; and the data on the link between alcohol availability and interpersonal violence helped inform national policy during the Covid-19 pandemic.

How can evidence change the situation?

The province has prioritized action that is informed by evidence and is guided by a theory of change, which also informed the governance of the priorities. Six meetings of the provincial Evidence Advisory Committee were held in 2021/2022. They reviewed local and international evidence of "what works" to reduce GBV and compared this to the WCG GBV implementation plan. The adopted alcohol harms reduction strategy included disseminating proposals for international best-buys that use a public health approach. Subsequently, Cabinet approved the amendment of the WC Alcohol Regulation Act in April 2022.

In addition, as is shown in Figure 3, the family strengthening strategy has become a key issue, and is addressed through evidence informed parenting programmes. Coupled with this, the "youth at risk" component of the youth task team was activated, with the purpose of better understanding the continuum of risk they face and the extent to which provincial services address such risks.

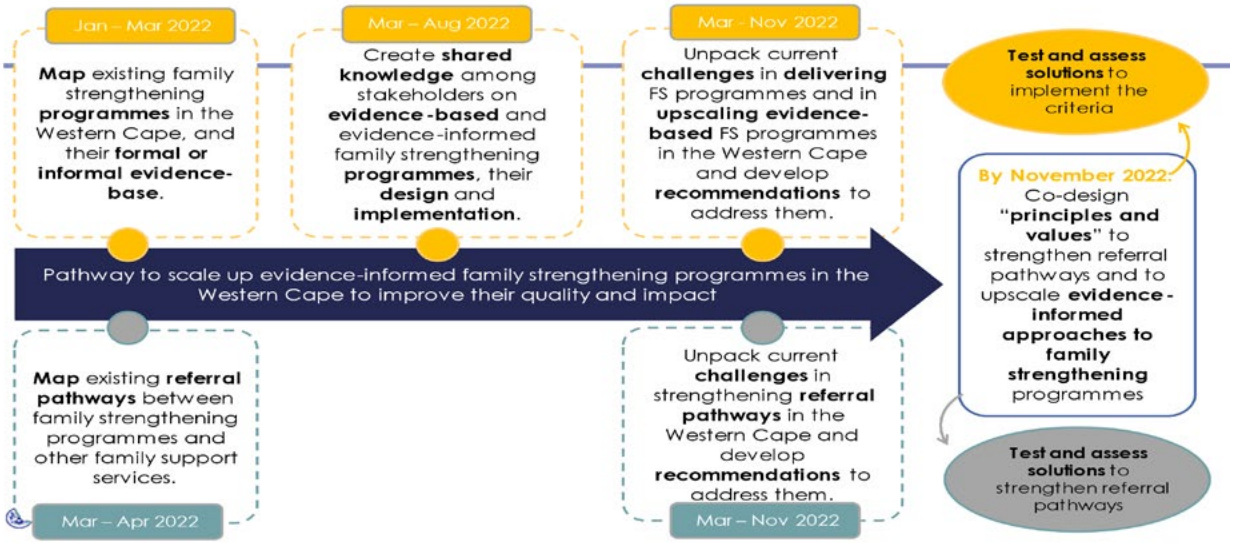

Figure 3: Scaling up evidence-informed family strengthening programmes in the WC to improve their quality and impact

There have been lessons learnt, and results are evident. For example, while there is evidence of "what works" to reduce violence, the first step is developing theories of change. Implementation of initiatives is more important but this requires adequate support and authorization. The development of indicators to track performance is best done through a consultative process. Linking enablers and programme implementers can be a challenge. Active listening is key with teams needing be open to thinking and doing things differently. Two results with *impact* that are seen include that the language of evidence is slowly being strengthened in strategic engagements, and there are increasing partnerships between researchers and implementers to strengthen evidence.

Action required in local areas

The ABTs, in each geographic area, need to work together in new ways and approach issues differently across sectors. By November 2022, there were 16 ABTs areas that covered the Metro district and the five rural districts. These ABTs focus on the law enforcement stream, the social cluster and urban design stream as well as GBV awareness. These issues are discussed at ABT meetings and workshops. Their focuses for 2023 are: governance linkages; using localized data to develop and implement context specific strategies and interventions; mapping resources to harmonize collective efforts; and, workshops convened with all stakeholders to building further linkages.

Interestingly, WCGH:W has been funded to develop a violence prevention unit (VPU). It will primarily be responsible for providing strategic direction and oversight of a comprehensive violence prevention strategy, including the implementation of the Cardiff Model – an internationally acclaimed multi-sectoral approach to violence prevention. It will have a data curation, policy analysis and implementation support component, and will work in partnership with key stakeholders including government departments, civil society, business, research councils and higher education institutions (HEIs). Its implementation is planned to be in the 2023/24 financial year.

Conclusion

This plan will be governed by collaborative decision-making, informed by evidence, underpinned by mutual respect and learning between role-players across multiple sectors. The ABTs experience demonstrates that one must work beyond mandates and boundaries, to allow people to come together, co-create and take ownership of the process. In addition, there will be local area implementation and decision-making, district/City coordination and provincial/National alignment of policy making. Relationships are critical for success and role-players at the ABT level require support from their leaders and institutions to "do things differently" and, people must feel safe to fail. Finally, a whole of government action (WoGA)and whole of society approach (WoSA) are crucial to realize the full implementation of the plan.

Gun violence and homicide

This article is based on the keynote address by Professor Richard Matzopoulos at the Western Cape Provincial Health Research Day in November 2022

Prof Matzopoulos is a Chief Specialist scientist and Director at the Burden of Disease Research unit, at the South African Medical Research Council (SAMRC). He coordinates the violence injury research program in the School of Public Health, at the University of Cape Town (UCT). His research centres on measuring the health and social burden of violence and injury as well as evaluating interventions and policies that target their upstream determinants. He advises the Western Cape (WC) Government on alcohol harm reduction, interpersonal violence, injury prevention and surveillance.

His presentation focused on gun violence. He reviewed the Firearm Control Act (FCA), evidence-based interventions, and lessons learnt. He discussed whether the FCA had influenced the decline in firearm homicides. Information used came from Crime Statistics, post-mortem data from Forensic Pathology Services and death notification data from Home Affairs and Statistics South Africa (Stats SA). Other useful sources of data for information about gun violence are female and child homicide surveys, health facility-based surveillance and Hospital Emergency Centre Triage and Information System (HECTIS), the provincial emergency services information system.

According to the Forensic Pathology services, gunshot wounds are the leading cause of murder in the WC. In 2020/21, they exceeded deaths from traffic injuries in health facilities. However, in 2010/11 they were 25% lower. Many recent cases presenting to health facilities are victims of multiple gunshot wounds. Some cases are likely to die on route to hospital, and others require advanced treatment requiring hospital admission, which incur significant health care costs. The growing numbers of these patients requiring hospital management increase stress and fear among health workers.

South Africa's gun violence epidemic

Prof Matzopoulos presented data on the epidemic of gun violence. He compared the 2017 global age standardized homicide rate to SA and the WC. This demonstrates that SA has a homicide rate more than six times higher than the global average, with the WC ten times higher than the global average. Interpersonal violence is the fifth leading cause of premature mortality in SA. Interpersonal violence also affects other conditions such as mental health, and major infectious diseases such as HIV/AIDS. Consequently, interpersonal violence is the second leading risk factor contributing to the burden of disease in the country after unsafe sex.

Over the last 25 years, there has been a fluctuation in murder numbers. A linear downward trend was encouraging but there has been a recent uptick in murders. The decline was due to a decrease in firearm homicides. Figure 1 depicts the situation globally and includes the mechanism specific homicide rate in various countries. Changes, shown in the red squares, demonstrates that firearm homicide accounts for most of the variation in rates. Other forms of homicides – due to sharp objects, falls, fires, poisoning – all cluster close to the x-axis. This demonstrates that the variation in homicide rates is largely dependent on the extent of firearm homicide rate. There is relatively little fluctuation in rates of homicide from other mechanisms. Levels of violence in a society also seldom vary extensively over time, however with the introduction of firearms the same levels of violence can lead to more homicide. This is because lethality increases when firearms are in the mix, as firearm assaults are known to be seven times more lethal than other forms of assaults.

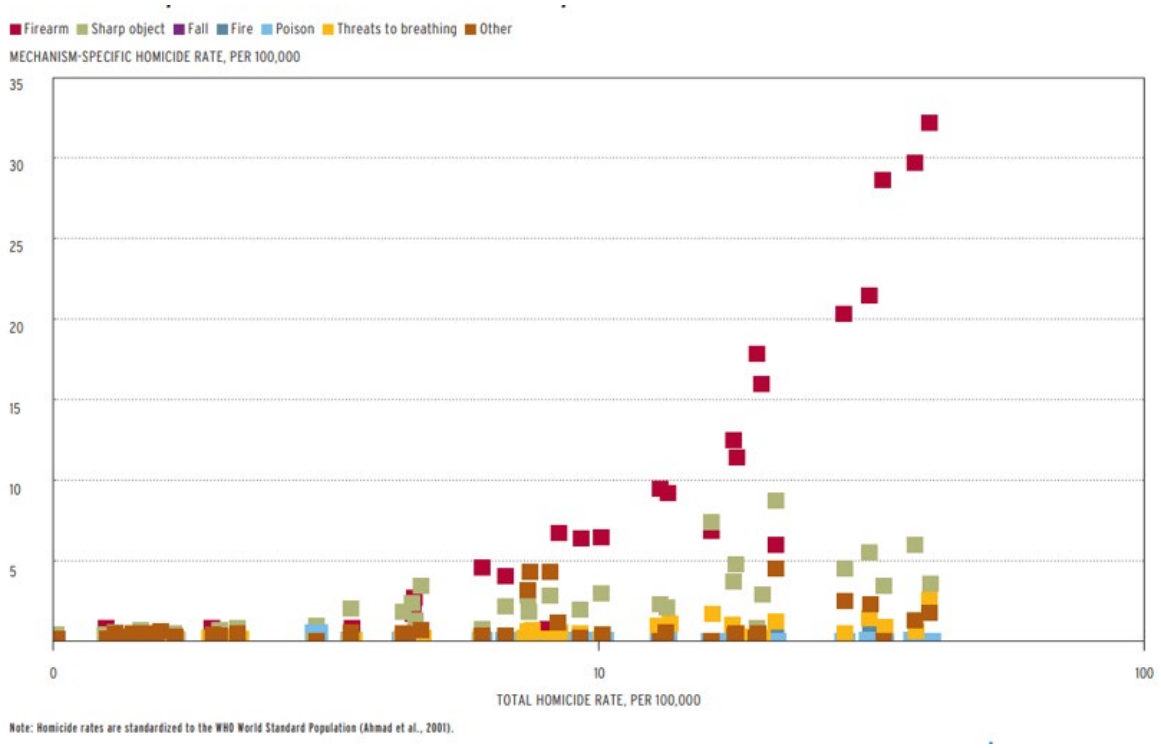

Figure 1: The relationship between total homicide rate and mechanism specific homicide rate

Over the past seven to eight years firearm deaths and firearm homicides have increased, whereas, homicides due to all other mechanisms have remained stable. This emphasizes that the variation in homicide is largely attributable to gun homicide. In the WC, gunshot wounds have increased dramatically. In 1997, about 28% of homicides in Cape Town were due to firearms[2]. More recent work from 2010 to 2016 found that 36% of WC homicides were due to firearms[3]. In 2020/21 data shows that more than half of the WC murders are due to firearms, with most due to multiple wounds[4].

Evidence-based lessons to reduce firearm injuries and death

To reduce violence at a population level, The World Health Organization (WHO) includes reducing access to lethal means including guns, knives and pesticides as key strategies [5]. There is quite extensive overview of what is required, but Prof Richard highlighted a few. These include a ban on certain firearm types; licensing and registration schemes for owners and suppliers; and, controls on the carrying of firearms. In broad strokes, limiting access to firearms saves lives, prevents injuries and reduces costs to society. Globally, jurisdictions with restrictive firearm legislation and lower gun ownership have lower levels of gun violence.

Following the 2010 WHO report, a 2016 systematic review of 130 studies from 10 countries, found that laws targeting firearm use, sales and ownership together with implementation of laws targeting multiple elements of regulations had impact[6]. Implementation laws targeting multiple elements of firearm regulations reduced firearm-related deaths. Conversely, relaxing firearm restrictions may increase firearm homicides.

The Firearms Control Act of 2000 and proposed amendments

In SA, the FCA of 2000 completely overhauled the existing firearms control system. It unambiguously intended to reduce firearms in circulation. It regulated and restricted the type of firearms in circulation, users and use. For example, it included background checks for users' physical and mental capacity, resulting in an "access gradient". The Act was promulgated in 2000, with phased implementation. Amnesties and hand-ins were instituted, with recovery of legal and illegal guns. From April 2003, there was more rigorous application of licensing conditions, as well as operations to forfeit illegal weapons and destroy surplus and illegal weapons.

The epidemiological triad, a public health approach, is being used for gun control. Firstly, there must be reduced exposure to the 'host' or victim, as well

as limiting the types and quantity of the 'agent' involved – the firearm. Secondly, the 'environment' must be changed by strengthening, improving and reducing the opportunity to use guns. This limits the opportunity for the users to own guns and the legitimate use of those firearms.

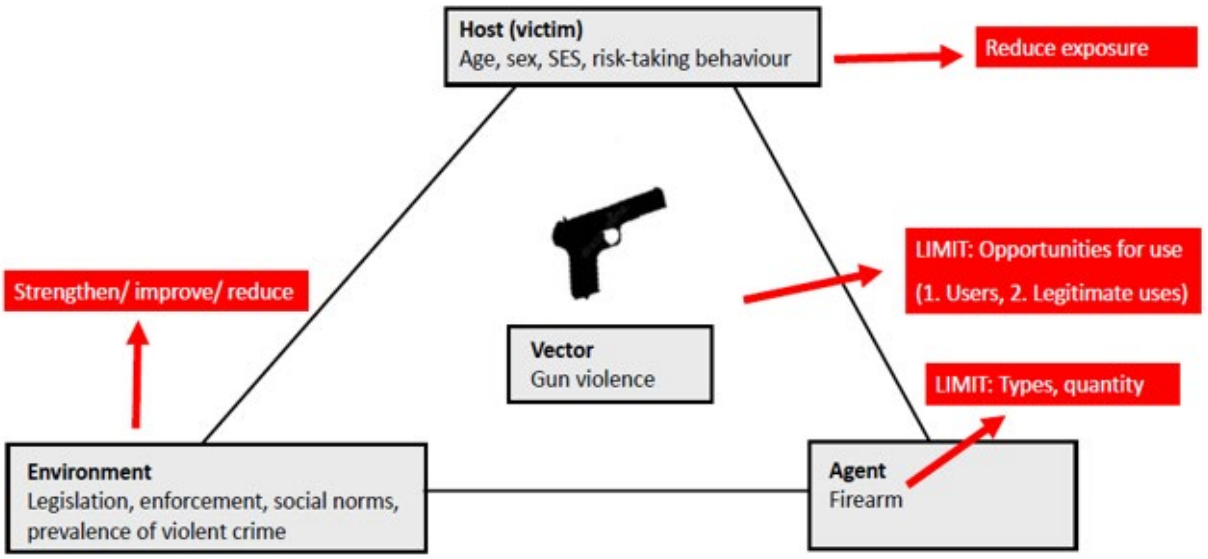

Figure 2: Epidemiological triad (firearms)

The proposed amendments to FCA will impose similar but stricter conditions than those imposed in the 2000 controls. Ammunition possession will be further limited, from 200 to 100 rounds; the licensing age of individuals will be increased; there will be permanent disqualification for violent offenders; and gun collections will be banned. The most controversial and potentially game changing intervention is to remove the license of handguns for self-defense which is currently legally allowed. To date, most legally owned guns in SA are owned for the purposes of self-defense. Owners are older people – 2/3 of them are over 50 years of age, and 80% of them are men. Reasons given for owning guns are for protection against 'stranger danger'[7] – the armed criminals that break into homes to steal and harm individuals. However, evidence shows that the use of force in robberies is considerably rare. Less than 4% of robberies involve actual acts of violence. Murder is a very rare outcome when force is used. However, the presence of a firearm increases the risk of force being used and of murder in the case of a robbery[8].

Prof Matzopoulos maintained that protection from 'stranger danger' with guns is ill-conceived; avoiding confrontation would put one at less risk. Unfortunately, when firearms move into the illegal pool, most originate from private gun owners. Consequently, more than 90% of guns that are lost and stolen come from private gun owners, which means it is important to clamp down on the supply or source of the guns that are used in crime.

Declines in firearm homicide

Figure 2 shows the trends in death notification from firearm homicide. These are gunshot deaths and are due to known changes in firearm availability. Since 2000, there has been an increasing trend in gunshot deaths. Deaths decreased after the implementation of the Act, which gained momentum around 2003 after the stricter implementation of the FCA provisions. However, there was a period of poor gun control from about 2010-2011, which coincided with the police fast-tracking a backlog of stalled license applications. Their annual reports reflect that in 2011, they cleared a backlog of 1.3. million stalled applications and competency certificates. This may be a substantial source of guns entering the illegal pool of firearms.

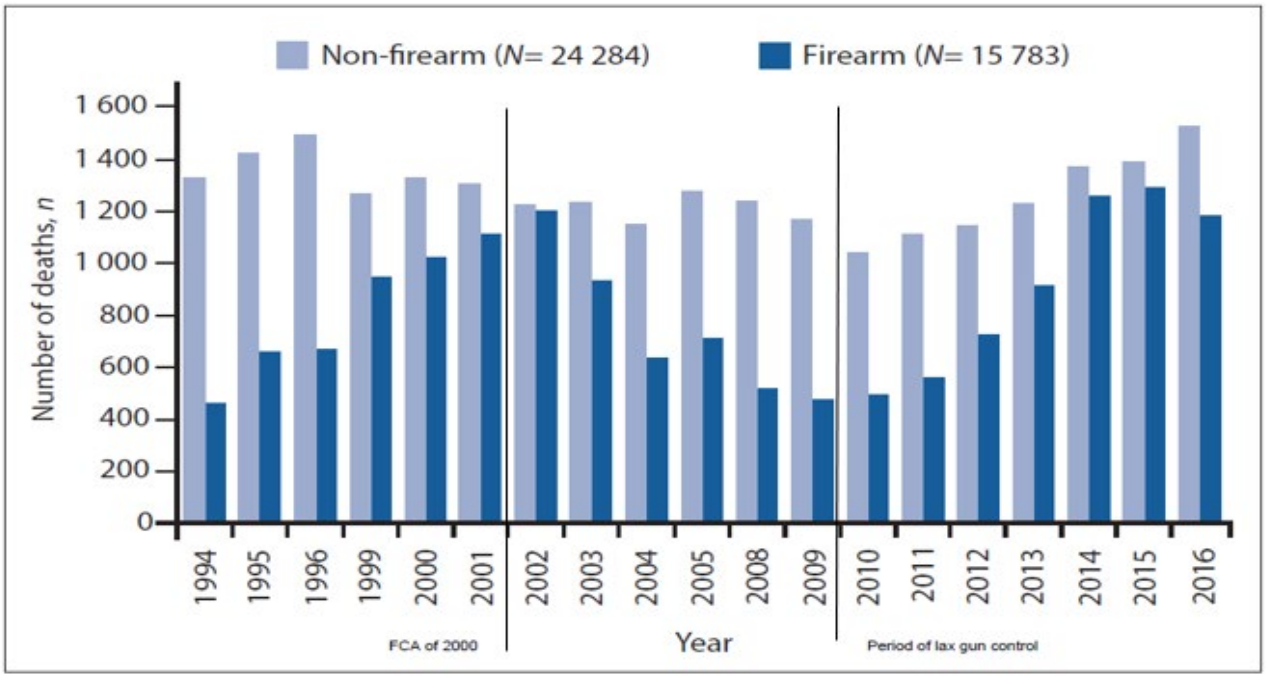

Figure 3: Firearm and non-firearm homicide in Cape Town[9]

The Cape Town data is similar to the national trend but increases earlier than the national data – from 2007. The early increase is suspected to be due to 'Prinsloo guns', which had been seized in previous crime operations or amnesties. These guns were sold by a national police colonel, Colonel Prinsloo, to WC gangsters. There is court evidence that links firearm deaths, particularly amongst children, to these guns.

What has gone wrong and where to from here?

The WC Government in 2013 saw an opportunity to include prevention within the policy framework. It encompasses a comprehensive intersectoral and whole-of-society approach to the prevention of violence and is guided by international global campaign for the prevention of violence. This has informed the recent provincial safety strategy. There were two quick wins – firearms and alcohol – to buy time for the longer-term interventions to be interpreted, implemented and sustained.

The longer-term interventions are early childhood development, youth development and changing social cultural norms. The 2019 Western Cape Burden of Disease Rapid review stated, that "unfortunately, poor implementation of the two quick wins, has caused a reversal. In effect, they've become quick losses, necessitating a severe enforcement response, which has culminated in the deployment of military personnel in mid-2019 to the Cape Flats. For this deployment to be successful, it needs to be considered as a short-term emergency response that will provide a space for the diverse and comprehensive interventions outlined in the Policy Framework to be revisited and implemented with urgency, including implementation of the Alcohol Harm Reduction Policy"[10]. Importantly five years have elapsed since the Alcohol Reduction White Paper was published[11]. Yet the major policy changes encapsulated in the White Paper have also not been implemented. There is also little success with firearms.

One of the province's challenges is that firearms are considered a national competency. Legislation and policy around firearms cannot be led by provincial government. The Democratic Alliance, the political party governing the province, favours private gun ownership, and highlights that the problem is the illegal guns. However, while the success of the Law Enforcement Advancement Plan (LEAP) Officers in confiscating illegal firearms is encouraging, it is concerning that we are simultaneously arming hundreds of LEAP, provincial law enforcement, Metro Police and private security personnel. This ultimately increases firearms in circulation, increasing the risk of homicide from 'legal interventions', off-duty shootings and the influx of firearms stolen from law enforcement officers in the illegal firearms pool.

Closing messages

People should be wary of ignoring evidence, particularly the evidence for the 'quick wins' because poorly implemented 'quick wins' become 'quick losses'. The amendments to the FCA are an opportunity to correct the gun death trends observed. Removing self-defense as a licensing category will reduce the circulation of guns and it is critical that people with criminal convictions do not get licenses. For gender-based violence, specifically domestic abuse, complaints should result in the immediate suspension of the firearm instead of waiting for evidence to be presented and a conviction. Lastly, the WC government should priorities reducing guns in circulation rather than encouraging an armed response to crime. There should be a vigorous and transparent stockpile management of circulated guns, and it should institute a comprehensive liability cover for any incident that arises due to a gun being used in the province.

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Femicide in South Africa

This article is based on Professor Naeemah Abrahams' key-note presentation at the Provincial Health Research Day, in November 2022. She is the director of the Gender and Health Research Unit at the South African Medical Research Council (SAMRC), which she helped set up early in the 1990s.

Background

Historically, there has been no research exploring the extent of femicide, the most extreme form of gender-based violence in South Africa (SA). This motivated the SAMRC, 20 years ago, to dedicate resources to research this issue. The absence of perpetrator information in police administration data makes it impossible to know anything about who kills women. Therefore, it is impossible to identify women killed by their intimate partners from routine police data. The SAMRC femicide surveys are the only national database on gender-based violence in the country. The database spans the period from 1999 to 2017 and field work is underway to collect data about femicide over the COVID-19 period.

The SAMRC studies focus on two types of femicide: women killed by partners with whom she has a romantic relationship with – Intimate-partner femicide (IPF) – and, non-intimate partner femicide (NIPF), which is the killing of a woman by a stranger, acquaintance or even a family member.

Data collection method

Prof Abrahams explained the approach used in data collection. Firstly, the SAMRC researchers collect data from a sample of mortuaries; they review mortuary registers and autopsy reports which includes collecting information about Crime Administration System (CAS) numbers. They use this information to link cases with the police – i.e. the police stations and the investigation officers. Interviews are then set up with investigating officers to extract data from murder dockets. The aim is to identify the perpetrator as well as the relationships between victims and perpetrators. To ensure representativeness, mortuaries are divided into large, medium and small mortuaries, by the number of annual postmortems conducted. Additionally, since 2009, data on child murders is collected. In 2017, a large sample – 81 mortuaries or 50% of all mortuaries were included, which facilitated the calculation of provincial estimates of femicide. Imputation is used for missing data, particularly where police were not able to identify perpetrators.

Femicide statistics from three South African studies

When the data on the first femicide study (reporting on the year 1999) was released it was found that three women are killed per day by an intimate partner and this figure is often reported in the media. In 2017, more than 1000 women were killed by their partners, which boiled down to three women killed per day. Figure 1 displays a consistent decrease in absolute numbers of deaths over the three studies – 1999, 2009 and 2017. However, as our population has increased over this period, there has been a 36% increase in the female population of 14 years and over. So, encouragingly, the proportion of women affected by femicide had decreased over this time. This is the reason for using rates rather than absolute numbers.

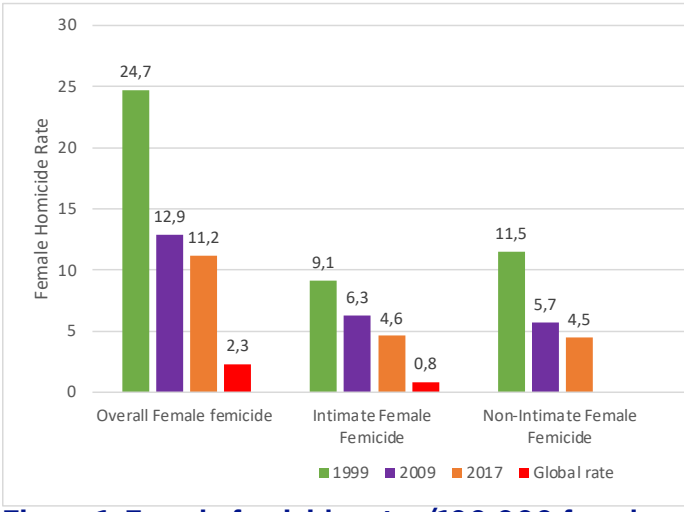


Figure 1: Female femicide rates/100 000 female population across 3 South African studies

As is seen in Figure 1, Between 1999 and 2009, there was a substantial decline that almost halved the *overall* femicide rates. In 2017, it had stabilized. For *intimate femicide*, the rate dropped from 9.1 in 1999, to 4.6 in 2017. For *non-intimate femicide*, there was a similar decline, but this was not as dramatic as for intimate femicide. Incident rate ratios are used to discern whether decreases were significant, and all three rates showed significant decreases in the rate between the years: from 1999 to 2009 and 2009 to 2017. The global rate of overall femicide, at

2.3/100 000 population, cannot be used to directly compare SA with international rates as this does not include younger women, 14 years and over. Nonetheless, the global rate in 2017 was five times lower than the South African rate.

Table 1 gives the 2017 provincial overall femicide rates. The Western Cape (WC) – 12.3, closely follows the national profile (11.2), but the Eastern Cape and KwaZulu-Natal vastly exceed the national rate. The Eastern Cape is double the national average for all forms of femicide, intimate and non-intimate. While Limpopo has the lowest femicide rate, this is twice the global rate. These findings are important.

Table 1: 2017 Femicide Provincial rates/100 000 population

	Femicide	Intimate Partner Femicide	Non-Intimate Partner Femicide
South Africa (National)	**11.2**	**4.8**	**4.4**
Western Cape	**12.3**	**4.9**	**4.8**
Eastern Cape	**22.3**	**8.0**	**10.0**
Northern Cape	11.0	6.2	3.1
Free State	12.9	5.9	4.8
KwaZulu-Natal	**14.0**	**5.8**	**5.5**
North-West	7.7	3.7	2.6
Gauteng	8.1	3.9	2.7
Mpumalanga	5.7	3.0	2.0
Limpopo	**4.9**	**2.4**	**2.4**
Global	**2.3**	**0.8**	

There is speculation about current trends, as 2017 is five years ago and COVID-19, a great disruptor, has intervened. However, the SA Police Service (SAPS) national report for the first quarter of 2022, shows that adult female murders increased by 53% and was up by 46% for children. This is concerning as it indicates that the last 18 years gains may be slipping. Prof Abrahams highlighted that from 1999 to 2009, there was a suspected decline in firearm-related femicide murders, because of the implementation of the Firearm Control Act. However, in 2017 fire-arm-related non-intimate femicide had increased and it is likely that this type of femicide is fueled by the availability of guns in communities.

As shown in Table 1, intimate partner femicide is the leading cause of the murder of women in the country, surpassing non-intimate partner femicide. However, there are provincial differences. In the WC intimate partner femicide rates are similar to non-intimate partner femicide compared to Northern Cape, where two-thirds of women are killed by intimate partners.

How Police and Criminal Justice systems respond to Femicide

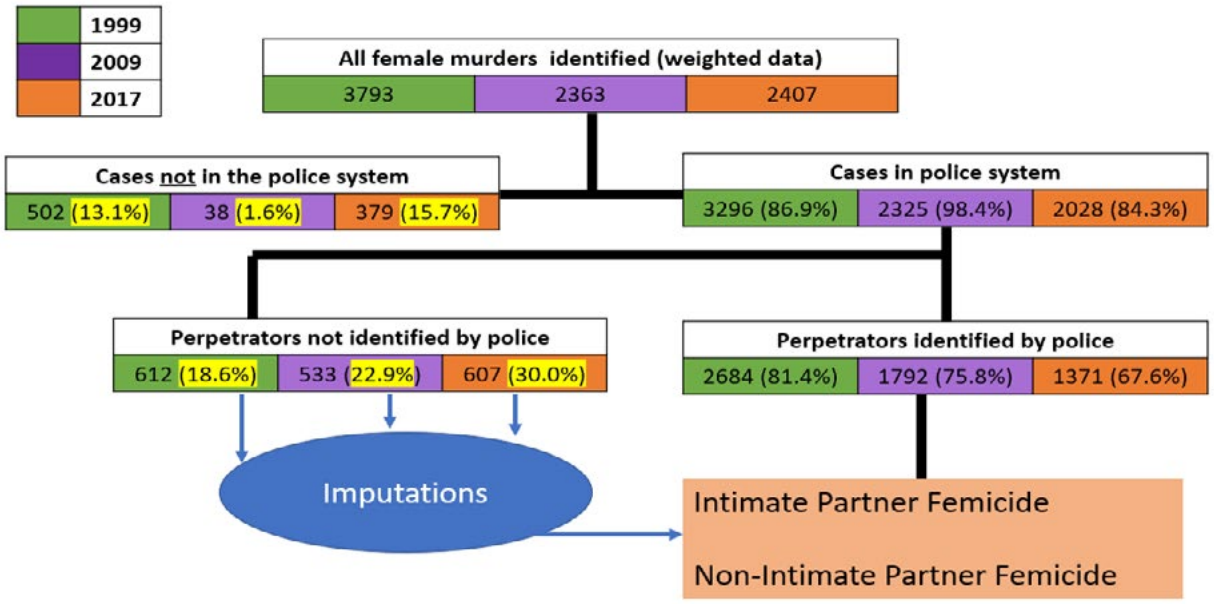


Figure 2: Police response to femicide

The SAMRC study methods review femicides and break these down according to whether cases are recorded in police databases or not. Figure 2 details how cases are broken down for the years 1999, 2009 and 2017. For those with police records, the SAMRC ascertains the number of femicides where perpetrators were identified. In 2017, there were 2407 bodies in the mortuaries. However, no police investigations were found for 15.7% of these cases. Of the 84.3% with police reports, from police interviews, 30% had no perpetrator identified. The WC fared better and only 12% of perpetrators were not identified.

It is well known that not all crimes are solved, and failure to identify a perpetrator for femicide has increased over the years. In 1999, this was 18.6%; it increased to 22.9% in 2009; and was 30% in 2017. Police investigation of femicide deaths is clearly an issue but this may indicate the problem of inadequate police investigation of crime generally in the country. While this underperformance needs to be verified, such data is difficult to find. The MRC study has shown a decrease in femicide over the three studies which implies a probable reduction in police femicide caseloads. Consequently, we should expect to have improved investigations rates, which is not seen.

There is data on a previous history of abuse in police records of women murdered. This information is poorly included in investigations of femicide, which further indicates that police response to abuse of women is not improving. In 2009, a third of cases noted a previous history, and this proportion has decreased over time. This is important as a history of abuse information is key to the investigation, prosecution and sentencing of perpetrators. Conviction rates among the cases where a perpetrator was known has improved over the three studies. Nonetheless, it remains dismally low at 37.8% in 2017.

The National Femicide Prevention strategy

In view of this poor performance, the Department of Justice and Constitutional Development asked the SAMRC team to develop a National Femicide Prevention strategy. The first task was to decide on a definition of femicide for the country, which in turn would strengthen information across different sectors. This could provide guidance for practitioners and policy makers.

Five strategic prevention objectives were devised and are detailed in Figure 3. The first strategic objective focuses on strengthening legislation and developing femicide-specific policy and guidelines to prevent and respond to femicide. The second objective focuses on providing leadership and accountability for femicide prevention. The next objective focuses on prioritizing femicide surveillance and building knowledge of what works to prevent femicide, followed by an objective that focuses on implementing a targeted, content-specific femicide prevention programme. Finally, the last objective focuses on strengthening institutional capacity to prevent femicide.

Strategic objective one

Strenghning legislation and develop femicide specific policy and guidelines to prevent and respond to femicide

Strategic objective two

Provide leadership and accountability for femicide prevention

Strategic objective three

Prioritise femicide surveillance and build knowledge of what works to prevent femicide

Strategic objective four

Implement a targeted, content-specific femicide prevention programme

Strategic objective five

Strengthen institutional capacity to prevent femicide

Figure 3: Strategic objectives for the National Femicide Prevention

Conclusion

South Africa continues to experience a huge problem of femicide. However, it has reduced over the 18 years, particularly for women murdered by intimate partners. This may indicate that policy making is working, with improved implementation. Perhaps there are improvements for women at risk of violence, due to improved interventions from government and advocacy groups? This advocacy may have led to an increase in prevention and supportive programs from NGOs, such as increases in the number of available shelters as well as advocacy about the gender norms that drives violence against women. Nonetheless, there is no room for complacency as is shown by the evidence of poor police case investigation. We need to ensure that the justice system of protection orders for women really works. We need to implement the national femicide prevention and response strategy. These would go a long way to eradicate the scourge of femicide in South Africa.

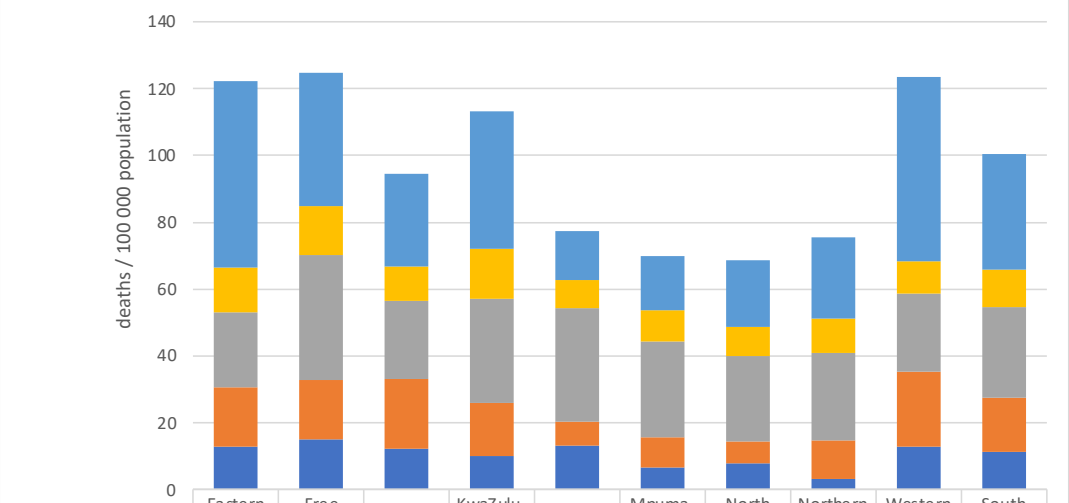
The Burden of Injury on the Health System in South Africa

This article is based on the first roundtable presentation by Drs Megan Prinsloo from the South African Medical Research Council (SAMRC), and Marcus van Heukelum from Tygerberg Hospital (TBH), at the Provincial Health Research Day in November 2022.

Managing injuries load our health system. They are a leading cause of premature deaths and drain the country's resources. Understanding its magnitude and the consequent impact on the health care system was addressed by Dr Prinsloo who presented data on the burden of injury mortality in South Africa (SA). Following this overview, Dr van Heukelum addressed the financial burden of orthopedic gunshot injury management at Tygerberg Hospital (TBH).

The Burden of Injury Mortality in SA

Dr Prinsloo highlighted that the mortality rate due to injuries has declined, from 109 per 100 000 population[1] in 2009 to 100 per 100 000 population[2] in 2017. Despite this, the country's mortality burden remains high compared to global rates. Homicide is the leading cause of injury deaths in the country, with firearms accounting for nearly a third[2]. The South African Police Service (SAPS) statistics indicate that approximately 23 people are shot and killed each day, and disabled survivors place further strain on the health system[3]. Findings of her team's second national Injury Mortality Survey (IMS) in 2017 demonstrates that, apart from the Eastern Cape, the Western Cape (WC) province had one of the highest homicide rates countrywide, while the WC transport death rate was among the lowest (see Figure 1)[2].



	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpuma-langa	North West	Northern Cape	Western Cape	South Africa
Homicide	55,8	39,6	27,9	41	14,7	16	19,8	24,2	55	34,5
Suicide	13,4	14,7	10,2	15,1	8,3	9,6	8,8	10,2	9,7	11,3
Transport	22,5	37,6	23,3	30,9	34	28,4	25,5	26,1	23,4	27,2
Other intentional	17,5	17,6	21	16,1	7,1	9,2	6,6	11,8	22,5	16,2
Undetermined	13	15,1	12,2	10	13,2	6,6	7,8	3,1	12,8	11,2

Figure 1: Age standardized injury mortality rates (2017) Source: Prinsloo M et al (2021)2.

The 2020/21 SAMRC Injury Mortality Survey

Sixty-five mortuaries from 111 in eight of SA's nine provinces were accessed, selected by province and mortuary size. Mortuary data was complemented by data from fieldwork conducted in the WC. Post-mortem reports from April 2020 to March 2021 were reviewed to retrieve information on causes of death and entered on-site into a database using tablets. Altogether 25813 non-natural records from the eight provinces were captured as well as 7149 non-natural deaths from the WC. In November 2022, the survey results were still being analysed. However, preliminary findings were compared to the 2017 IMS findings for the Provincial Health Research Day.

There are major differences, comparing the two surveys (2017 vs 2020/21). For the 2020/21 survey there was an increase in the proportion of homicides, especially during the Covid-19 period, and a reduction in transport related deaths. For homicides, when standardizing 2017 firearm homicides rates by age to compare provinces, for males, the WC had a rate of 44 per 100 000, compared to KwaZulu-Natal (28.2 per 100 000) and Gauteng (20.4 per 100 000)[2]. The pattern of deaths shows that the variation in deaths is likely to be related to national alcohol sale restrictions and curfews imposed to mitigate Covid-19. Deaths peaked when these restrictions were relaxed or removed (see Figure 2)[4]. However, the finding still need to be statistically tested.

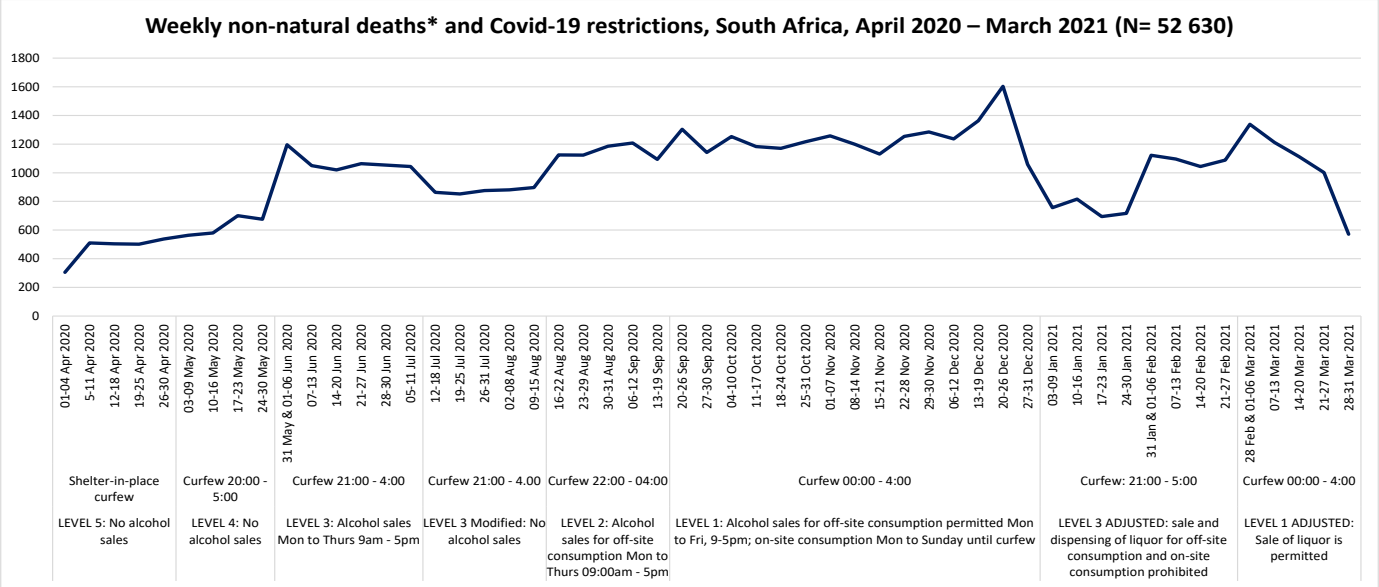


Figure 2: Weekly non-natural deaths and Covid-19 restrictions, SA April 2020 – March 2021 (N = 52 630) Source: Prinsloo M (2022)4.

When comparing the IMS results for the three years (2009, 2017, 2020/21) there is a slight increase for homicides and firearm related deaths to 37.0 per 100 000 and 16.0 per 100 000 respectively for 2020/21[4]. Contrary to widely held views, there were no increases in suicide rates during the Covid-19 restrictions. Alcohol restrictions and curfews likely facilitated a reduction in transport injuries and deaths during this period. Overall, since 2017, there has been a decline in injury mortality.

Both road traffic deaths and homicides have declined, with the 2017 IMS being 29% lower than the 2009 road traffic mortality rate[2]. Alcohol is a driver of traffic crashes – both for drivers and pedestrians. In 2017, pedestrians had the highest blood alcohol concentration (BAC) levels compared to drivers and passengers, and 23.8% of pedestrians had BACs of 0.25g/100ml and above.

A second SA risk assessment study (2022), reviewing 18 risk factors for diseases, found that interpersonal violence ranked the highest (8.5%) after unprotected sex (26.6%). Around 34.8% of interpersonal violence disability adjusted life years (DALYs) lost are due to direct interpersonal violence injuries[5], which demonstrates its huge burden on the health care system.

Costing Tygerberg hospital's orthopaedic gunshot related injury

Dr van Heukelum highlighted the incidence of violence by demonstrating its high profile in newspaper articles which declare that Cape Town is the most violent city in the world outside of a war zone[6]. Gunshot homicides increased between 2010 and 2016 – from 38 to 52 deaths per 100 000[7]. Non-fatal fire-arm injuries result in huge workloads for orthopaedic surgery. These fire-arm injuries burden the health care system and are expensive[8]. This is a global phenomenon.

A Tygerberg hospital (TBH) study focused on the overall burden of gunshot related injuries over four years (2014-2017). They found that most gunshot injuries were due to low velocity gunshot wounds with only four being due to high velocity gunshots. Low velocity bullets damage tissue along the line

of the bullet, whereas high velocity bullets cause extensive damage. Of the 1 449 patients' records reviewed, a total of 1 706 gunshot injuries were found. Patient management was largely evenly split between surgical (790) and non-surgical treatment (916) (see Figure 3).

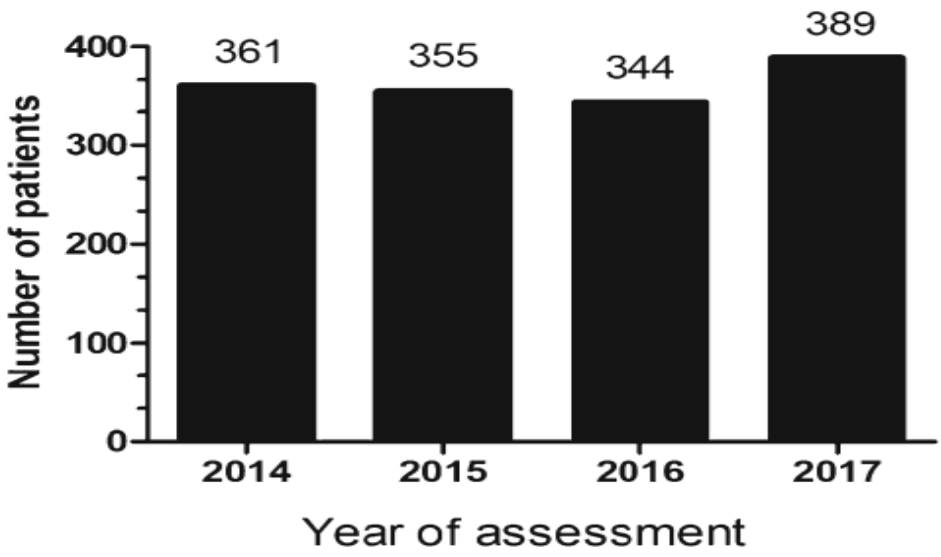


Figure 3: Number of patients presenting with gunshot-related orthopaedic injuries per year (2014-2017)

Little is known of the true cost involved in managing injuries in SA. However, a study conducted in 2017 at Groote Schuur Hospital (GSH) showed that the surgical cost of managing orthopaedic gunshot wounds was US$ 2 900[9].

Van Heukelum's TBH study identified all orthopaedic gunshot related injuries from 1 January to 31 December 2017 through reviewing front room trauma logs. They aimed to calculate the overall costs involved in managing gunshot related orthopaedic injuries at a tertiary centre and provide a costing model to determine the financial burden of the current gunshot epidemic.

They reviewed patients' records for the following: the injury site and injury characteristics, diagnostic imaging used, management received (operative, non-operative), hospital admission and duration, theatre episodes and orthopaedic implants used. This information was then associated with costs. Cost analysis included emergency consultation, imaging, inpatient admissions (calculated by 24-hour period), theatre related procedures, orthopaedic implants and use of blood products. Their calculations excluded consumables, lab tests, medication, transport, rehabilitation (physiotherapy, crutches/braces), follow up, complications and loss of income.

Altogether 389 patient folders were reviewed: 360 males and 29 females, who had an average age of 28 years (range 3-69 years). These 389 patients had 449 injuries; mostly 290 lower limb injuries, followed by 132 with upper limb injuries and 27 with spinal injuries. Many (15%) had multiple gunshot injuries and they spent 2060 days in hospital. The patients needed various implants such as nails (77), plates (62) and circular fixators (11). The total cost of managing the 389 gunshot injuries was R10 227 503 (see Figure 4).

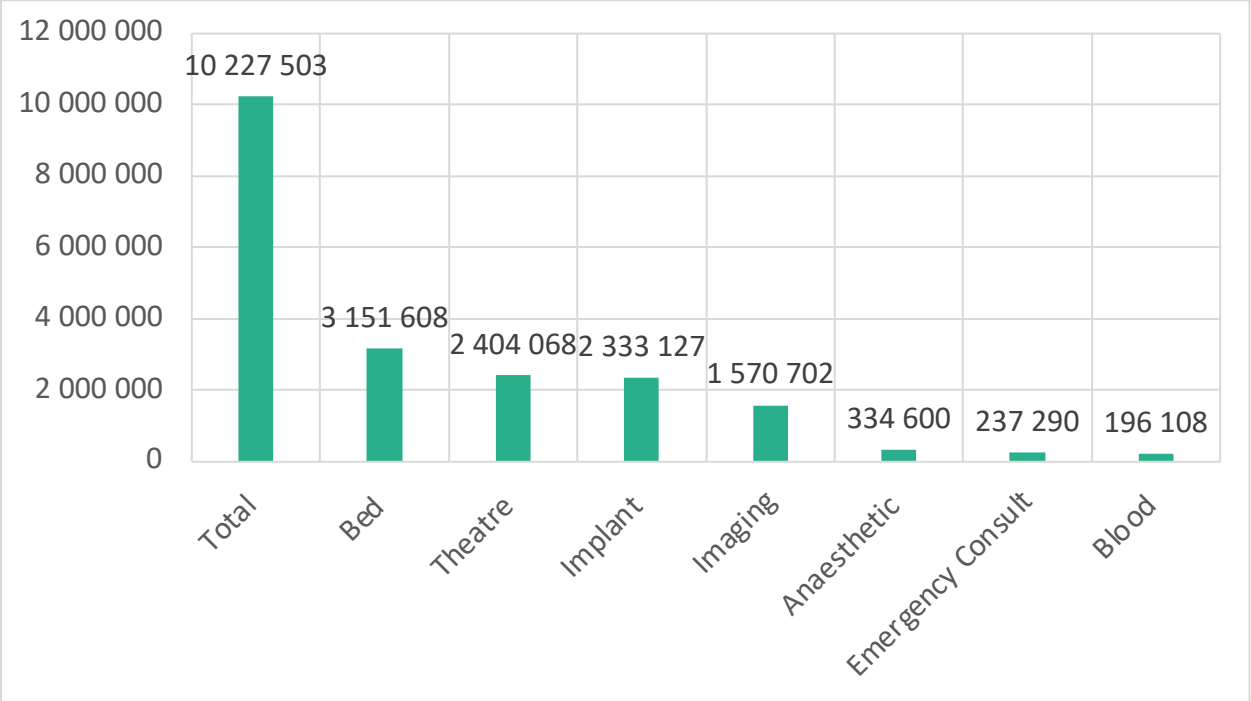


Figure 4: Total cost of managing 389 gunshot injuries [in Rands]

The average cost per year to manage patients with gunshot wounds is much higher than managing other patients. The average cost of managing surgical patients is R47 670 compared to R8 810 for non-surgical patients. Theatre time is a high-cost area and on average three hours is required per gunshot related orthopaedic case. Over the year of the study, an excess of 540 hours (>22 days) of theatre time was used to manage gunshot injured patients.

Conclusion

The burden of injuries on the public healthcare system was powerfully demonstrated by Drs Prinsloo and van Heukelum. They proposed that inadequate restriction on the availability of alcohol is a driver of injuries and advocated that interventions to restrict alcohol use would prevent injuries and will not only save lives, but also reduce the cost of managing and treating victims of alcohol use. They advised that communities and society need to be made aware of the serious impact of injury on the health system. Legislators and policy makers need to develop regulations and policies that seek to reduce the availability of alcohol and the circulation of guns and ammunition in society.

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Violence and Emergency Medical Service staff

This article is based on the round table discussion led by Mr Craig Wylie, director and Dr Shaheem de Vries, medical director of Emergency Medical services at the Western Cape Provincial Health Research Day in November 2022

Emergency Medical Services' actors in complex systems

The presenters introduced attendees to Emergency Medical Services' (EMS) use of systems thinking to both understand and approach the difficult problems they face. They used concepts such as 'complex systems' and 'messes'.

Firstly, complex systems arise in densely interconnected, interdependent systems and are non-linear, in that one consequence does not result from one incident. In other words, inferring causality for observed issues is difficult. Problems experienced by EMS are related to both EMS' roles within society, as well as the events taking place in society. In complex systems, such as those where EMS work, context matters. Events happen in neighbourhoods and communities, and those neighbourhoods and communities have profiles that in turn affect subsequent responses. Paradoxically, an actor in a complex system controls almost nothing but influences everything. These are lessons that the EMS team learned early to keep their staff safe; control is an illusion, however that does not mean there is no ability to influence the situation.

EMS Messes

Donella Meadows, a key system thinker, argues that challenges and problems are best described as 'messes' in order to convey the complexity[1]. The facilitators also made use of causal loop diagrams to help convey the generative mechanism involved in these 'messes'.

There are three EMS messes. Mess One is Red Zones; the architype used here is 'eroding goals'. Mess Two is the psycho-social impact on staff; the architype here is 'shifting the burden'. Mess Three is community engagement with 'tragedy of the commons' as the architype.

Mess 1: Red Zones

A Red Zone is a geographic area, it could be a suburb, an informal settlement or any other area, where the EMS crew is unable to go unless escorted by the police. These have a significant impact on how EMS renders services. The reason for designation of areas as 'Red Zones' is to mitigate risks.

EMS has targets, set nationally, and they must get to critical incidents in 30 minutes in urban areas. In rural areas the target is 60 minutes, and EMS must reach these targets 90% of the time. This is the matrix used to determine whether service delivery is taking place. It should also be borne in mind that these areas are not just Red Zones, they are also busy in terms of workload. Table 1 shows the Red Zones in the Western Cape, and the number of cases within those Zones.

Table 1: Top 10 gunshot areas in Cape Town

Incident Sub-urb	Count	% Priority 1 <15min
Delft	131	26.47%
Khayelitsha	63	35.09%
Philippi	52	17.39%
Manenberg	50	18.60%
Hanover Park	42	5.71%
Lentegeur	40	27.78%
Tafelsig	38	15.79%
Bonteheuwel	37	17.65%
Wesbank	34	15.63%
Eastridge	33	29.63%
TOTAL	**520**	**22.06%**

Looking at Red Zone area response-time, there is a drop in EMS performance over time – the number of cases reached under 15 minutes. As is seen in Figure 1, in 2014, EMS achieved 66% for this indicator and thereafter, aimed to improve this to 70%. However, in 2015, the impact of gang violence became visible. This was significant and negatively impacted staff safety.

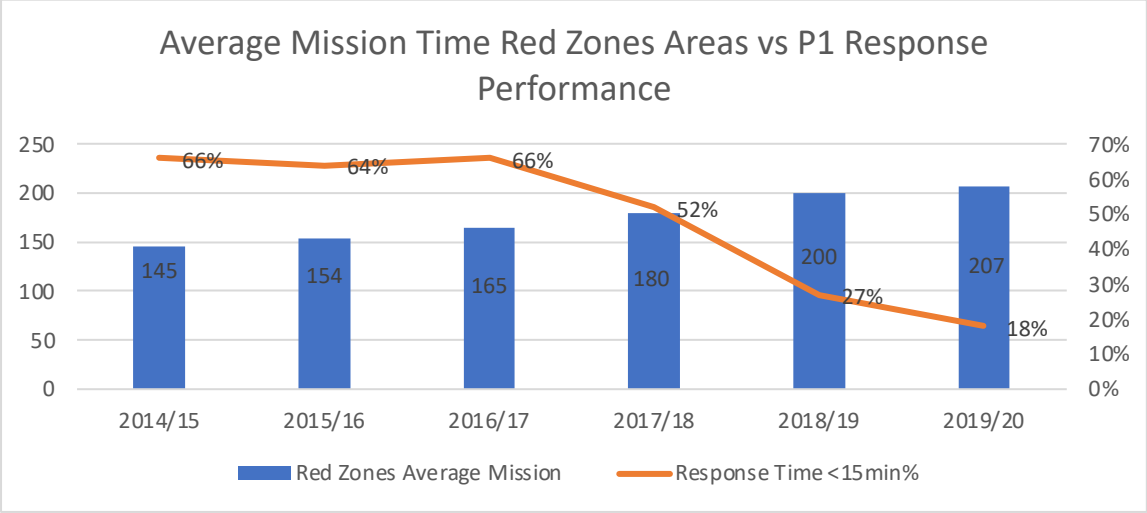

Figure 1: Response performance in Red Zones Areas <15minutes

In 2016, EMS was tasked by the Head of the Department to develop an intervention safety plan. One strategy identified was the Red Zone declaration – areas where staff was mostly attacked. For calls to Red Zones, EMS staff first go to local police stations and wait to be escorted to incidents.

However, having Red Zones had an impact on their 'mission time'. 'Mission time' is the time it takes to complete a call – going to the incident and back to the hospital. Calls take longer to complete due to waiting for an escort. This demonstrates the impact of linking one pressured resource with another, such as the police service (SAPS). It is not surprising that the top 10 gunshot areas in the province are also the top Red Zones.

Constitutional dilemma

According to section 27 of the Constitution of the Republic of South Africa, no one may be refused emergency medical treatment. After the declaration of the Red Zones, EMS realized that having Red Zones may be unconstitutional. While certain communities were not necessarily refused services, their access to those services was impacted. Therefore, declaring some areas as Red Zones may be a constitutional issue.

Mess 2: Workforce Impacts

EMS has around 1600 staff that work in ambulances and they face attacks every day. Starting in 2015-2016, attacks increased throughout the province and in South Africa. A publicised example, in 2021, was that of a female paramedic in KwaZulu-Natal who was killed while responding to a call-out. These attacks have negatively impacted the psychosocial wellbeing of staff.

While EMS has put measures in place to assist, protect and support their staff, they are only addressing the symptoms. The bigger issue remains. Fridays and Saturdays have the highest numbers of attacks – almost double than those during the week. Attacks take place mostly at night. The assaults mostly faced are; being threatened with weapons; stoning of ambulances; and, being robbed. In 2019, there was a low number of documented incidents because of interventions that worked, but in 2020, numbers increased dramatically.

The issue is not about the number of cases but the potential attack against paramedics. EMS has a high attrition rate, meaning that the directorate struggles to keep staff. It also struggles with attracting new staff or pupils due to the danger paramedics experience. Consequently, violence against the workforce can be viewed as a hazard like any other workplace hazards. This means that the EMS workforce needs protection against the psychosocial hazards that are within their services. However, EMS is an intensely clinical area of health care, with patients being the sole focus, and there is little time to focus on the psychological safety of staff. Nonetheless, discussions are required about how psychological safety of staff can also be a priority.

Mess 3: Responsive times vs responsiveness

The African Federation for Emergency Medicine notes that there are two tiers of out-of-hospital emergency care[2]. The top layer (Tier Two) in Figure 2, the apex, is emergency medical services and pre-hospital care, which consists of nurses, mobile clinics and other outreach. At the base, there is first responder care (Tier One) – community health workers. Historically, there was little focus on Tier one, because in the Western Cape there is a strong Tier Two.

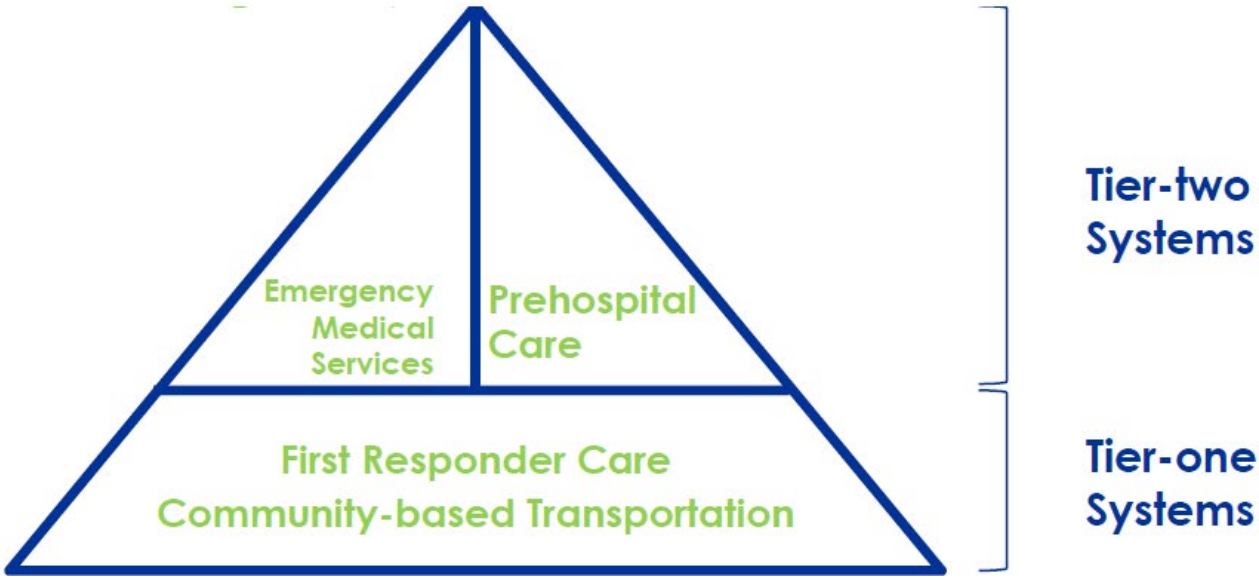

Figure 2: Model of African Out-of-Hospital Emergency Care systems.

Experience has shown that a community orientated primary care (COPC) approach is crucial to ensure that the apex can function. Therefore, focusing on the base of the pyramid may yield better results overall. For example, links with communities were enabled by projects such as the Vaxi-taxi. Staff working in this vaccination access initiative highlighted the gains that came with building community relationships. The initiative-built trust between the community and EMS. Rebuilding trust could be difficult since it had been broken. However, the Vaxi-taxi initiative showed that rebuilding trust can be achieved, with unexpected consequences.

> *"NGO's, farms, everybody just welcomes us in... it's so easy for me to engage with them*
>
> *now, it opens up a new world".*
>
> *"My psychiatrist says this is the best they have seen me, and they hope I can stay on this project for as far as possible"*

The Vaxi-taxi challenged pre-conceived models – that EMS is going to respond quickly and then drive away fast, to get patients to facilities. Rather, Vaxi-taxi showed that it was a relationship – between EMS and communities – a form of participatory service delivery. Currently, EMS is deliberating whether their focus should be 'community orientated emergency care' – looking at Tier-one systems for 'out of hospital care'. This includes reflecting on whether the strength and resilience needed from the staff and services lies within Tier one systems in addition to a focus on Tier-two.

Discussion

At the end of the round table there was time for questions from attendees. They posed many vexed and provocative questions including: How do we reconcile our constitutional mandate with our need for safety? Should our staff bear the cost for the social determinants of violence? And, are we capable of the 'different sort of doing' that is needed?

Interventions put forward to manage relationships with communities included: training people in communities to do first aid, to help while waiting for the ambulance to be escorted by police; engaging community leaders to be a party to safety, to protect EMS staff and their ambulances in the community; using community-based transportation systems; updating the patient about where the ambulance is, to openly communicate about the struggles the ambulance has on route, and how the patient can get to safe spot for the ambulance.

In conclusion, the round table demonstrates how difficult community-based problems can be viewed and analyzed through systems thinking. EMS services are delivered in communities and are bound to the communities served. In addition, interventions targeting one issue can have unexpected positive consequences such as promoting work satisfaction and community trust.

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Violence against people with Disabilities

This article is based on Dr Hunt's presentation at the Provincial Health Research Day, in November 2022. She is a senior researcher at the Institute for Life Course Health Research in the Department of Global Health at Stellenbosch University.

The global perspective on violence against people with disabilities

Structural and interpersonal violence play a significant role in health outcomes for people with disabilities. Violence against people with disabilities is highly prevalent. A study in South Africa (SA) found that through a random sample of around 100 people with disabilities, 24.3% reported that they had an experience of recent violence – in the previous two weeks. Violence could be physical, sexual, or by intimate partners. Importantly, people with disabilities are an extremely heterogeneous group.

Globally, there are around one billion people who live with disabilities. The group comprise people with a range of functional limitations and degrees of impairment. Within this broad umbrella of disability, there are sub populations who are more susceptible to risks than others. For example, children with disabilities are twice more likely to experience violence than children without disabilities.

Dr Hunt's presentation focused more on the children and women subgroup as they are at a greater risk of violence. Figure 1 shows differences in prevalence of experiencing violence when women with disabilities and women without disabilities are compared. Globally, among women with disabilities, 61% have experienced violence. However, among women without disabilities, 35% have experienced violence. While the data is not specific to SA, it raises a flag, as the country has high levels of violence.

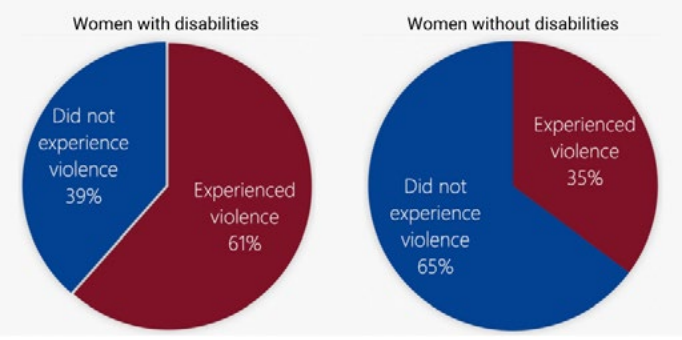

Figure 1: Violence prevalence between women with disabilities and woman without disabilities

Social determinants play a significant role in explaining why the rates of violence are higher in people with disabilities and are mostly among women and children. People with disabilities globally are poorer than people without disabilities. This is due to employment exclusion – people with disabilities may be less able to get work, which then limits their income. Education exclusion is also important – people with disabilities are less likely to have the education of able-bodied people. Poorer education results in lower income paying jobs. In low- and middle-income countries (LMICs) where there may not be great social protection systems or freely available assistive technologies, people with disabilities incur substantial out of pocket health expenditure. This marginalization and disadvantage create situations and make people with disabilities more vulnerable to violence. They find it difficult to report or escape violence when it happens. This shows the relationship between disability and poverty. High levels of poverty are correlated with and are characterized by higher levels of violence.

It is conceptually difficult to distinguish between social determinants and risk factors. Social determinants can be seen as 'the cause of causes', and risk factors are the causes at a more individual level. Social determinants and risk factors for people with disabilities can amplify one another. For example, for violence against women with disabilities, a social determinant might be the lack of access to health care, resulting in some women not attending service platforms where they may be screened for exposure to intimate partner violence. On the other hand, a risk factor is that a woman may have more complex healthcare needs, which makes her dependent on a partner and consequently, more vulnerable to violence in the home.

Forms of Violence

There are different forms of violence. Dr Hunt focused on sexual violence against women and child abuse.

Sexual Abuse

Women with disabilities are twice as likely to experience sexual violence than women without

disabilities. Dr Hunt described her work with women with physical disabilities, specifically in a population with spinal cord injuries. Her research focused on relationship histories, sexual reproductive health experiences, as well as experiences in childbearing and childcare. Themes from her qualitative data were firstly, that social representation of gender and disabilities interact with stigma and poor access to services, which creates vulnerability to sexual violence. Secondly, women with disabilities in SA often understand their own violence experiences as being a product of patriarchal norms and a disabling environment.

The following quotations of women's own voices highlights the role that societal norms play a role in creating violence. Violence is normalized because of disability.

> ***Woman:*** *Before I got in an accident it was fun, but after I got in an accident this changed*
>
> ***Interviewer***: *How did it change, my sister?*
>
> ***Woman:*** *I didn't get the love the way it was, so I can say that I was just a useless person…*
>
> ***Interviewer:*** *That is what he was saying?*
>
> ***Woman:*** *Yes, and there is no one else that can fall in love with me again*

This extract highlights the role of disability in normalizing violence. The woman is viewed less valuable as a result of having acquired a disability. Dr Hunt highlighted that there is an intersection of two norms. Discourse around men – what men will do and men's entitlement to sex – is used to perpetrate violence against women. These interact to create a situation in which intimate partner violence against women with disabilities is extremely common.

Child Abuse

Parental stress, socioeconomic deprivation and a lack of services create risk for child abuse. Children with disabilities are more likely to experience abuse than children without disabilities. Child development professionals operate with the assumption that parents do not intend harming their children. However, children are harmed, most frequently at home. It is important to understand the context in which abuse takes place, in order to develop services which, support rather than vilify parents. Parenting stress is very common in families raising children with disabilities. On average, these families live in socioeconomically deprived circumstances. They are poor with few opportunities to earn a livelihood and incur additional expenses due to child impairments. In practice, parents tend to be extremely stressed, with little access to services, particularly services that understand disability and what it may mean to families.

Preventing violence against people with disabilities

Addressing stigma and discrimination is key to protect people with disabilities from violence. At a community level, changes in public attitudes towards people with disability can impact on how people with disabilities are treated. Radio and television programmes can normalize disability and expose audiences to different ideas about disability. Additionally, attitudes can change through investing in improving caregiver and healthcare workers knowledge and attitudes towards disability. When healthcare workers are informed, they are more likely to identify women who are at risk and who need screening initiatives.

Interventions must address socio-economic vulnerability. As this is the driver of most violence against people with disabilities, people with disabilities need social protection. Key interventions include the availability of grants, drives towards universal health coverage and public works programmes that are accessible to people with disabilities. Opportunities need to be created to improve education, empowerment, and livelihoods of people with disabilities, so that they can gain socio-economic independence. These would go a long way to alleviate some of the circumstances that can result in violence.

Finally, empowerment interventions, that aim to connect people with disabilities to organizations that can support them in community settings, are important. Support is required at both a personal level – to access services and support in the community – and at a structural level – to connect them with opportunities to change livelihoods – as well as service improvement initiatives. Additionally, there must be support for organizations of persons with disabilities, who advocate for their rights and highlight issues. This could further protect people with disabilities against violence.

Violence surveillance and policy changes

This article is based on a roundtable presentation by Dr Melvin Moodley from the Western Cape Government: Health (WCG:H) and Prof Andrew Nicol from the University of Cape Town (UCT), at the Provincial Health Research Day in November 2022.

The round table reviewed the policy and data landscape on violence in South Africa (SA) as well as the injury surveillance work conducted at Groote Schuur Hospital (GSH). The former was presented by Dr Moodley and the latter by Prof Nicol.

Background

In 2020, South Africa's (SA's) homicide rate was 33 per 100 000 while in 2021/22, the Western Cape (WC) the homicide rate was 54.3 per 100 000 [1]. These homicides are not evenly distributed across the province. In 2021/22, ten policing precincts accounted for 46.65% of all murders. These correlate with the socio-economic status of residents, with those living in lower socio-economic areas living in higher violence incidence areas. Breaking down violence data further, from 1 January to 2 November 2022, approximately 12 people were murdered every day in the province[2]. These data prompted the WCG to act, making safety one of its strategic priorities. This was set out in the Provincial Strategic Plan 2019-2024.

Provincial Strategic Plan 2019–2024

The Plan has safe and cohesive communities as one of its strategies. This was incorporated into the 2021 Western Cape Recovery Plan, which has four priorities: Covid-19 recovery; jobs creation; safety; and, wellbeing. Safety is built on three pillars: improving the capacity and effectiveness of policing and law enforcement; reducing exposure to and experience of violence by children; and safety of public spaces and promoting social cohesion.

The Provincial Strategic Plan contains several safety interventions for implementation. These include establishing area-based teams to reduce violence; an alcohol harm reduction strategy which focuses on unit pricing as well as operating hours and the Law Enforcement Advancement Programme (LEAP). The strategy is informed by data and is evidence based.

Available data

The Western Cape Forensic Pathology Trauma Mortality report is an important source of data on trauma mortality. The landing page is given in Figure 1, and the link to the report is: WC Forensic Pathology Mortality Report - Power BI). It demonstrates that most injuries and deaths occur over weekends and public holidays. This helps guide where, when and how many resources should be allocated to prevent or reduce levels of trauma. Most injuries occurred in poorer communities – areas such as Khayelitsha, Delft and Kraaifontein. The data also show how injuries occur. For example, most trauma deaths (57%) are due to homicide, with over fifty per cent of homicides due to firearm injuries and a further 33.7% of homicides due to sharp objects[3].

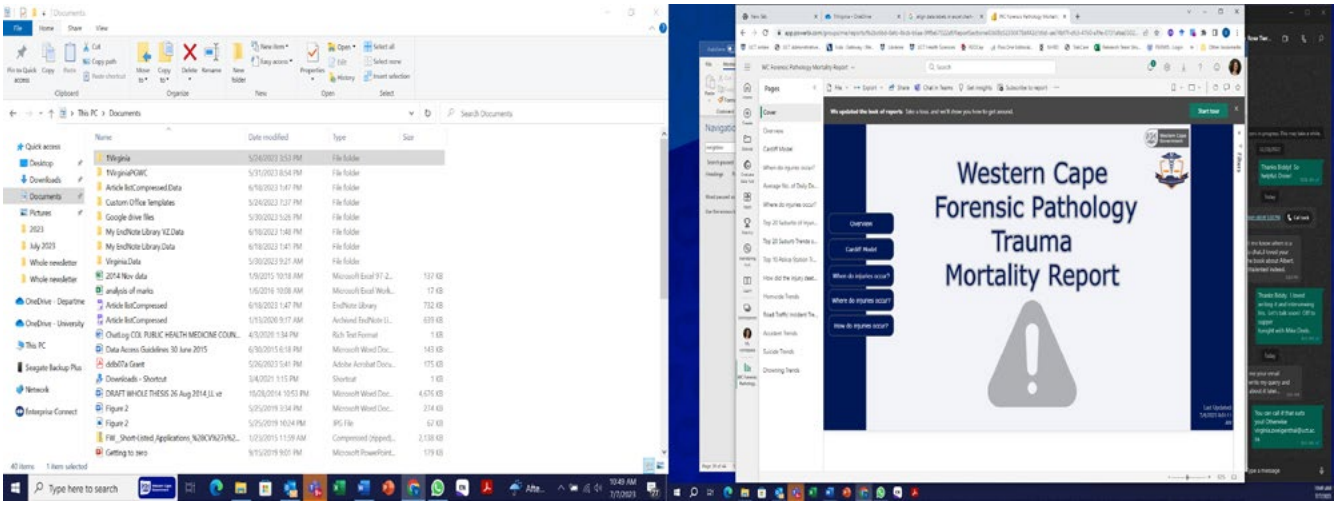

Figure 1: Western Cape forensic pathology trauma mortality report landing page

Another important dashboard is the Safety and Trauma Injury report, which uses the Hospital Emergency Centre Triage and Information System (HECTIS) as its data source. This is a web-based information system used in over 40 public sector emergency centers in the WC. From the HECTIS data we see that in 2022, 45.2% of injuries were due to accidents and 42.1% due to assaults. Breaking down the assault data further, sharp objects accounted for 43.9% of all assaults and blunt objects accounted for 42.6%. Most trauma occurred over weekends. Most trauma occurred among men between the ages of 20 and 40 years (72.7%). However, a significant proportion of females were assaulted (27.3%). Disturbingly, many women were assaulted during their second trimester of their pregnancies.

Injury surveillance at Groote Schuur Hospital (GSH)

Prof Nicol's presentation covered the findings of injury surveillance data system started in 2014 at GSH. The intention was to monitor the high numbers of violence related injuries that predominantly presented to the hospital over weekends. Over a period of 11 months, more than nine thousand (9 236) trauma admissions records were analyzed, and the ten most common mechanisms of injury were identified. High numbers of stab wounds (1 933), vehicle collisions (1 736), assault with blunt objects (1 571) and firearm injuries (442) were found.

There has been an increase in single and multiple gunshot injuries presenting to the trauma unit at GSH. There are approximately 40 firearm injuries per month to manage, placing a load on health staff. To arrest the tide of injuries coming into hospitals for care and rehabilitation requires both internal and external interventions. External interventions such as legislation and policy are crucial to prevent trauma.

Introduction of legislation and policy changes

The introduction of the Firearms Control Act 60 (2000), whose purpose was to control and contain the use of firearms had a significant impact on reducing the number of gunshot injuries seen and managed at GSH and Red Cross Children's hospital (RXH). After the Act was promulgated in 2002, the impact on the number of gunshot injuries on the work of providers at the two hospitals and the trend of gunshot injuries seen reduced further over time.

The team at GSH also noticed the role alcohol played in the number of injuries seen and managed at the hospital. Starting from Friday evening and over weekends clinicians witnessed high numbers of injuries decreasing on Mondays and quieting down from Tuesday. The banning of alcohol during the COVID-19 period resulted in a dramatic reduction in trauma numbers (between 40% and 50%). When alcohol was unbanned at the beginning of June 2020, there was a substantial increase in all trauma cases. Other substances, such as 'tik' (methylamphetamine), are also implicated in injuries. A study conducted at GSH in 2012 showed a third of the patients presenting with trauma had tik followed by mandrax in their bloodstream[4].

Injury surveillance

Trauma management systems can assist in managing injured patients and reduce mortality. The electronic based system has assisted with speedy data capturing, analysis and real time management of cases. The electronic system records daily trauma volumes, identifies exact injury location and type of injury incurred. It has no negative impact on clinical efficiency, has reduced the time given to note-writing. The system has also allowed the geographic mapping of where patients are coming from.

Interestingly, doctors started to bring their own iPads to work and analyzed data instantaneously along the patient pathway – from admission, resuscitation to discharge – resulting in a sudden 'explosion' of data collection. Together, these have helped to improve clinician performance. However, the main challenge experienced with the T6 system is that within the first year, many iPads were lost which necessitated a desk bound version of the application.

Conclusion

Gathering data to develop surveillance systems that identify sources and drivers of trauma, the times and geographical hot spots for injuries can create evidence informed interventions such as policies. This is vital not only to improve patient care in our health facilities, but also to prevent and contain violent incidents from occurring in the broader society. Furthermore, it is important to get the buy-in of all health providers including nurses and support staff to transform the way health delivery is conducted. This includes managing trauma in health facilities as was powerfully conveyed by the two presenters.

References

1. South African Police Service (SAPS) (2019/20). Crime situation in the Republic of South Africa twelve (12) months (April - March). Available: https://businesstech.co.za/news/government/421424/south-africa-crime-stats-2020-everything-you-need-to-know/
2. The Western Cape Government Strategic Plan (2019 - 2024). Available: https://www.westerncape.gov.za/text/2020/February/western_cape_strategic_plan_2019-2024.pdf
3. The Western Cape Forensic Pathology trauma mortality report. Available: WC Forensic Pathology Mortality Report - Power BI
4. Nicol A.J, Sorsdale K, Hoffman R et al. Violence and substance abuse at a Cape Town Trauma Centre. Abstract at Safety and Violence Initiative of the University of Cape Town inaugural conference 2011.

CONFERENCES AND ANNOUNCEMENTS

Conferences

1. The GloPID-R Africa Hub Launch, 22-23 August 2023**, Cape Town. For more information contact:** glopidrafrica@mrc.ac.za
2. Public Health Association of South Africa (PHASA), conference. Theme: Transforming Research Translation – Re-imagining Public Health Evidence, Policies and Practices 10 – 13 September 2023, **Gqeberha** (Port Elizabeth). **For more information contact Deon Salomo:** deon.salomo@mrc.ac.za
3. 7th Global Alcohol Policy Conference (GAPC) 2023, Theme: Investing in people before profits: building momentum towards the Framework Convention on Alcohol Control, 24 - 26 October 2023, **South Africa**: Visit the Conference website http://gapc2023.samrc.ac.za/
4. WC Provincial Health Research Day, 3 November 2023, Theme: The Environment and Health. **Cape Town**, virtual: MS TEAMS. For further information contact: sabela.petros@weterncape.gov.za and/or health.research@westerncape.gov.za
5. Health Informatics in Africa **(HELINA),** Conference, 1-33 November 2023, **Cape Town**. Theme: Effective Implementation, Meaningful Use and Sustainability of Digital Health Interventions -The Role of Health Informatics and Imaging Informatics in Africa. **For more information contact:** secretariat@helina.africa .

Announcement/s

1. Dr Victoria Pillay-van Wyk has stepped down as member of the Provincial Health Research Committee (PHRC). She has represented the South African Medical Research Council (SAMRC) for close to six years. Thanks to her for her support over the years.
2. Mr Edward Siputa has been appointed as a community representative to sit on the PHRC. He is a Clinical Research Worker working for the University of Cape Town at the South African Tuberculosis Vaccine Initiative (SATVI) and is based in the Cape Winelands rural health district. The committee looks forward in working with him for next the six years.

OUR PLEDGE

OUR BINDING PHILOSOPHY IS THAT WE AIM TO DO THE GREATEST GOOD FOR THE GREATEST NUMBER CREATING THE GREATEST VALUE FOR ALL, LEVERAGING OUR AVAILABLE RESOURCES.

IN our DECISIONS we will always consider the vulnerable and favour their plight.

IN OUR ENGAGEMENTS we will relate to one another through **KINDNESS** and respect, living the **VALUES** in the departmental **LEADERSHIP** behaviour charter.

We will protect our safe meeting space and nurture open debate and the exchange of ideas.

WE WILL ENCOURAGE a journey of personal awareness in ourselves and others; celebrate positive **GROWTH** and individual **CONTRIBUTIONS**; **INSPIRE** others and portray the meaningfulness of our work.

WE RECOGNISE that we need to **ROLE-MODEL** the **LEADERSHIP** we wish to see and take **RESPONSIBILITY** to lead others on the same journey. Our ultimate focus is to be the **BEST** for the public we serve.

Western Cape Government

Health and Wellness

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