

## **THE EFFECTS OF SMALL ARMS ON SOCIETY**

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This discussion paper looks at some of the effects of small arms, light and bladed weapons on society. The paper is not intended to answer questions or propose solutions, rather look at these weapons as an element in our society. As such, they can have a range of effects on people's lives, from providing an income to causing direct or indirect costs on individuals or the society as a whole. While no specific country is at the centre of this paper, various examples from around the world will be used to support the discussion, including the US, Switzerland and Yemen.

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## Background thoughts

From the beginning of mankind hand weapons have played a central part in the evolution of the species; from sticks and stones; to blades both stone and metal; and to firearms and blades man has chosen to be armed. In this context nothing has changed, but the financial and social costs of this choice have risen.

The linkages between cultures of gun ownership, the reasons for ownership, and the economics of the trade in guns and ammunition are discussed in this paper alongside the consequences of arms on a society, including the possession and use of bladed weapons. The discussion does not include the questions of arms issued to, and carried by the armed forces, including defence forces and police, but it does consider the culture of these forces in using deadly force as part of their role in protecting the citizens of a country.

The various rationales for a citizen owning a gun or a knife can be separated into three categories:

- **Ownership for self-protection against a perceived threat.** There are a number of countries where a citizen can bear arms openly for reasons of self-protection. Perhaps the most topical of these is the US where the Second Amendment to the US Constitution gave Americans the right to bear arms.  
In the UK in some, mostly inner-city, areas where there is a growing gang culture, the weapon of choice for self-protection and for offensive use, is the bladed weapon which could be termed a weapon of convenience since knives are readily available. Nevertheless, it is true to say that if UK law were as liberal on the ownership issue as it is in the US, the gun would be the preferred weapon, not least because it is easier to shoot someone than to draw a knife and stab them.
- **Ownership for sporting pursuits.** In the UK and other countries there is no 'right to bear arms' for the self-protection of citizens and gun ownership is almost entirely for sporting purposes.
- **Ownership for criminal purposes.** Criminal gangs, as mentioned under the heading of self-protection, increasingly use guns for higher end crime and trafficking. The ready availability of guns on the black market facilitated by internet trading and global transportation means enables the criminal to source and purchase his weapon of choice.

Bladed weapons are more often used by lower end criminals to threaten, injure and self-protect.

- **Ownership as a 'badge of honour'**. This category of ownership is mostly comprised of young males who carry blades and who 'follow the pack'.

The possible reasons for a citizen carrying a gun and the debate on whether a society where gun ownership, ostensibly for protection, is safer than one where this category is outlawed, is supported by some research-based statistics that portray a picture of 'more guns legally-held, equals more deterrence and less injury or death caused by lethal weapons' in the 'wrong' hands. However, the picture is confused by the lack of evidence of the effect of the sheer quantity of weapons in a society, and also the lack of discussion on the severity of punishment in the case of a gun or knife-related crime and how much deterrent effect the penalty has on a would-be perpetrator.

And behind this picture, which is far from clear, is a huge commercial industry producing an increasing variety of lethal weapons for the individual to purchase with an excess of ammunition, some of which can be used in different weapons of the same caliber.

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## 1. GUN OWNERSHIP

### *The numbers*

‘Small arms’ have been defined by the 1997 UN Panel of Governmental Experts on small arms in conjunction with its portability<sup>1</sup>. “Any civilian, private, and military weapons that fire a projectile” and can be carried “by an individual, a small number of people, or transported by a pack animal or a light vehicle” fall into this category. We will use the term ‘gun violence’ to refer to small arms-related incidents.

Data on gun ownership across the world is hard to collect not only because of illegal trafficking, missing weapons from government stockpiles, the number of stolen guns, and lack of a standard reporting mechanism for official military small arms holdings<sup>2</sup>, but also because each country has its own laws on gun registration; and firearms included in the count can vary from country to country. Small arms, which include revolvers and self-loading pistols, rifles and carbines, assault rifles, sub-machine guns, and light machine guns, and ammunitions are often developed for military use and then adapted for civilian use<sup>3</sup>. *Small Arms Survey* has estimated that as of 2014 there were 875 million civilian, law enforcement, and military firearms in the world, which is about one gun per every ten people, for an annual authorized, or legal, trade exceeding \$8.5 billion<sup>4,5</sup>. As a measure of quantity, civilian ownership accounts for 650 million guns, of which around 79 million are known to be registered with the authorities<sup>6</sup>, state militaries own about 200 million based on the number of military personnel, and about 25 million belong to law enforcement agencies<sup>7</sup>. These estimates show that civilians own more guns than armies and police forces combined.

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<sup>1</sup> General and complete disarmament: small arms. Annex. Report of the Panel of Governmental Experts on Small Arms. 27 August 1997. <http://www.un.org/Depts/ddar/Firstcom/SGreport52/a52298.html>

<sup>2</sup> Data sources and the estimation of military-owned small arms. September 2013. [http://www.smallarmssurvey.org/fileadmin/docs/H-Research\\_Notes/SAS-Research-Note-34.pdf](http://www.smallarmssurvey.org/fileadmin/docs/H-Research_Notes/SAS-Research-Note-34.pdf)

<sup>3</sup> Product categories. <http://www.smallarmssurvey.org/weapons-and-markets/products.html>

<sup>4</sup> Weapons and Markets. <http://www.smallarmssurvey.org/index.php?id=122>

<sup>5</sup> <http://www.smallarmssurvey.org/fileadmin/docs/A-Yearbook/2007/en/full/Small-Arms-Survey-2007-Chapter-02-EN.pdf>

<sup>6</sup> <http://www.smallarmssurvey.org/fileadmin/docs/A-Yearbook/2007/en/full/Small-Arms-Survey-2007-Chapter-02-EN.pdf>

<sup>7</sup> Estimating law enforcement firearms. December 2012. <http://www.smallarmssurvey.org/fileadmin/docs/A-Yearbook/2007/en/full/Small-Arms-Survey-2007-Chapter-02-EN.pdf>

According to the Small Arms survey, the US is home to about 48 per cent of the estimated world's civilian-owned guns with an average of 89 firearms per 100 people, but only a quarter of Americans own guns (between 34 and 43 per cent depending on 2013 General Social Survey and Gallup surveys<sup>8</sup>), which means that some gun owners have more than one gun. Switzerland ranks number 3 after Yemen, with 45.7 guns per 100 residents.

### ***Three countries, three driving forces***

Keeping in mind that all these are estimates with several variables, what drives gun ownership? Although we know that in developed economies civilian gun ownership is driven mostly by sports shooting and hunting, cases like Yemen, Switzerland, and the US show that there are differences in national gun cultures that affect the driving forces of gun ownership.

Gun ownership in **Yemen**, for example, is linked to self-defense but also to the increasing use and ownership of guns in the midst of the ongoing sectarian conflict. According to the 2007 Small Arms Survey report<sup>9</sup>, the rate of gun ownership in Yemen exceeds one weapon per every two citizens. While fear and insecurity drive Yemenis, caught in the idle of a civil war and rising crime, to own a firearm, the gun is also symbol of status, power and manhood in Yemen, after replacing the traditional curved dagger that was the weapon of choice for most Yemenis until the mid-20th century. The country's rooted gun culture that date back to tribal violence is made worse by the ongoing conflict, and the consequent increasing stockpiles of weapons, many of which have been smuggled into the country thanks to lax gun trade regulations.

In **Switzerland** gun ownership is closely associated with the country's national security and neutrality. Until 2007, members of the Swiss Army, which include almost all Swiss males as military service is mandatory between 18 and 34 years of age, were required to keep a box of sealed, government-issued ammunition and their service rifles in their homes. Following a number of gun violence incidents across Switzerland, changes were made, including the mandatory storage of ammunition in a central arsenal, separate from the gun, which is allowed to be kept at home after

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<sup>8</sup> A minority of Americans own guns, but just how many is unclear. June 4, 2013.

<http://www.pewresearch.org/fact-tank/2013/06/04/a-minority-of-americans-own-guns-but-just-how-many-is-unclear/>

<sup>9</sup> <http://www.smallarmssurvey.org/fileadmin/docs/A-Yearbook/2007/en/Small-Arms-Survey-2007-Chapter-02-annexe-4-EN.pdf>

the 2011 popular referendum calling for an end to militiamen's practice of keeping their service weapons at home was rejected.<sup>10</sup>

In the **United States**, gun ownership is protected by the Second Amendment of the US Constitution, which guarantees the right to bear arms for self-defense, and is identified with gun advocates, who legally and legitimately own and use guns for sport, hunting, and recreational uses, but primarily for self-defense, as shown by a 2013 Gallup survey<sup>11</sup>.

### **Gender**

The high gun ownership rates in Yemen, the US and Switzerland are closely linked to their separate gun cultures that focus on self-defense and national security. Fear and insecurity play a role in driving gun sales, but other factors influence gun ownership, including gender and lobbies. Links to gender have been established both in terms of gun ownership and of violence against women.

There is a strong connection between machoism and firearms both in developed and developing countries. This link is visible in Yemen and Afghanistan for example, where men and boys are the gun owners for the most part; and the gun is a badge of honour and a statement of manhood. In developed countries, like the US for example, gun ownership is also more common among men than women (37 per cent vs. 12 per cent) and among white men in particular (82 per cent)<sup>12</sup>. A distinction between rural areas and suburban/urban areas is also noted with 46 per cent gun owners among those who live in rural areas in comparison to 28 per cent and 19 per cent of gun owners who live in suburbs and urban areas respectively.

In the US and Canada, fear of abuse against women drives the demand for firearms and plays a role in gun ownership among women. Crime prevention campaigns promoted by National Rifle Associations such as "Refuse to be a victim"<sup>13</sup> in the US; and "Lioness method of rape protection" in Canada tap into women's fears by describing the consequences of rape and highlighting guns as a

<sup>10</sup> Eidgenössische Volksinitiative 'Für den Schutz vor Waffengewalt'

<https://www.bk.admin.ch/ch/d/pore/vi/vis361t.html>

<sup>11</sup> Personal safety top reason Americans own guns today. Art Swift. October 28, 2013.

<http://news.gallup.com/poll/165605/personal-safety-top-reason-americans-own-guns-today.aspx>

<sup>12</sup> The demographics of gun ownership. Kim Parker, Juliana Menasce Horowitz, Ruth Igielnik, Baxter Oliphant and Anna Brown. Pew Research Center. June 22, 2017. <http://www.pewsocialtrends.org/2017/06/22/the-demographics-of-gun-ownership/>

<sup>13</sup> <https://rtbav.nra.org/>

tool to prevent it. In the US, gun ownership among women is at about 8 per cent. Such campaigns also produce commercial revenue for the industry.

A link between firearms and domestic violence against women has also been established. Data from the 2014 Global Status report on Violence Prevention show that firearms are widely used in partner homicides in the Americas.

### ***Gun lobbies and gun control organizations***

Gun cultures in developed countries are affected by the campaigns of pro-gun lobbies as well as gun control organizations; these competing influences in turn affect government policies on the carrying of small arms. This is most obvious in the US, and Europe, but not in countries like Yemen where the policy on carrying weapons is opaque and rendered useless by civil war.

In Brazil, the Brazilian pro-gun lobby contributed to the outcome of the 2005 referendum on a nationwide gun ban. And the US' National Rifle Association (NRA) and the London-based International Action Network on Small Arms (IANSA), that represents more than 500 gun control organizations<sup>14</sup>, showed active support for the respective sides in the referendum which resulted in a victory for the pro-gun lobby<sup>15</sup>.

Gun control advocacy groups have had practical effects on legislation in some countries, usually following a gun-related incident. In Canada for example, the Coalition for Gun Control was created after the 1989 Montreal massacre, a mass shooting at the École Polytechnique in Montreal, Quebec, and led Canada's National Firearms Association (NFA) to become more politically involved as a result<sup>16</sup>. The NFA, which was formed in 1978 to protect the right to hunt and self-defence, bears a resemblance to the NRA. The NRA was created as a recreational group in 1871, and began to transform itself into a lobbying organization in 1934 when firearms bills started to matter. In 1977, the NRA formed its own Political Action Committee (PAC) that allowed it to deliver funds to legislators, in an attempt to directly influence gun policy.

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<sup>14</sup> Gunning for the world. David Morton. October 19, 2009. <http://foreignpolicy.com/2009/10/19/gunning-for-the-world/>

<sup>15</sup> As Brazil votes to ban guns, NRA joins the fight. Kelly Hearn. November 7, 2005. <https://www.thenation.com/article/brazil-votes-ban-guns-nra-joins-fight/>

<sup>16</sup> Gun policy in the United States and Canada. The impact of mass murders and assassinations on gun control. Anthony K. Fleming. 2012. P 43  
[https://books.google.com/books?id=5tCoAwwAAQBAJ&pg=PA43&lpg=PA43&dq=NFA+canada&source=bl&ots=9bBpJmt5\\_J&sig=Ty0H-ILYg1-U9uQzrdeMxh8P5i4&hl=en&sa=X&ved=0ahUKewiavLOKl-LZAhWppFkKHRu2Di04ChDoAQgmMAA#v=onepage&q=NFA%20canada&f=false](https://books.google.com/books?id=5tCoAwwAAQBAJ&pg=PA43&lpg=PA43&dq=NFA+canada&source=bl&ots=9bBpJmt5_J&sig=Ty0H-ILYg1-U9uQzrdeMxh8P5i4&hl=en&sa=X&ved=0ahUKewiavLOKl-LZAhWppFkKHRu2Di04ChDoAQgmMAA#v=onepage&q=NFA%20canada&f=false)

Nowadays, the NRA spends about \$250 million a year for gun advocacy and an average of \$3 million per year to influence gun policy<sup>17</sup>. It raises money thanks to its gun memberships and advertisement. Gun producers advertise in NRA publications, including *American Rifleman and American Hunter*, and provide about eight per cent of the NRA's overall revenues; they also distribute NRA membership materials and receive discount gun purchase offers.

### ***From conflicts to post-conflict scenarios***

Gun ownership in the context of conflict has been well established and recognized. The economic, social, and financial effects of gun violence on individuals, communities, and countries do not end with a peace agreement. Light weapons and small arms often remain a source of violence after the conflict has come to an end. According to a study by the United Nations Development Programme (UNDP), small arms “frequently outlast peace agreements and are taken up again in the post-conflict period”<sup>18</sup>. In the immediate aftermath of a conflict, gun ownership is often linked to survival and protection, and can also become a symbol of power. Small arms that have been smuggled into the country outside the government control also represent a risk. The WHO says that “The availability of weapons in post-conflict situations where demobilization has not been accompanied by decommissioning of weapons or job creation for former soldiers is also an important factor”<sup>19</sup>. According to the US government, small arms are prolonging conflicts in Africa and they are making them “more lethal”<sup>20</sup>. In places like South Africa where the fight against apartheid has created a “culture of violence”, or Yemen, which legitimizes the use of guns to resolve disputes, the use of a firearm is more socially acceptable.

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<sup>17</sup> US gun control: what is the NRA and why is it so powerful? January 8, 2016.

<http://www.bbc.com/news/world-us-canada-35261394>

<sup>18</sup> “Development held hostage”: assessing the effects of small arms on human development.

<sup>19</sup> World report on violence and health. WHO. 2002.

[http://www.who.int/violence\\_injury\\_prevention/violence/world\\_report/en/summary\\_en.pdf](http://www.who.int/violence_injury_prevention/violence/world_report/en/summary_en.pdf)

<sup>20</sup> Arms and conflict in Africa. July 1, 2001. <https://2001-2009.state.gov/s/inr/rls/fs/2001/4004.htm>

## 2. FINANCIAL EFFECTS - PROFITS

### ➤ Production

There are more than 1,000 companies from 100 countries that produce small arms, light weapons and their ammunition<sup>21</sup>, but thirty are considered major producers. The twenty top manufacturing countries are also the top exporting countries<sup>22</sup>. According to the Trade Update 2017, in 2014 international small arms trade by top and major exporters was worth at least \$6 billion<sup>23</sup>. Trade in sporting shotguns, rifles and revolvers is greater than that in firearms made for military use.

The US company 'Defense Distributed' has been successful in bypassing gun manufacturers and is now selling the firing mechanism and aluminium spine of a 'Ghost Gun', a home-made firearm without serial numbers, and 'Ghost Gunners', a grinding tool that allows an individual to build lower receivers at home. The sale and printing of these items is unregulated as they are considered unfinished pieces. A 3D-printable plastic pistol was successfully tested<sup>24</sup> and its blueprints were first posted on the Internet for a brief period of time and downloaded over 100,000 times in 2013 until the State Department ordered their removal claiming they violated U.S. laws regarding the illegal distribution of blueprints around the world without a license<sup>25</sup>. According to the 1988 Undetectable Firearms Act, it is illegal to manufacture in the US any firearm that is not detectable by walk-through metal detectors. The 3-D gun also bypasses the law by inserting a 6 ounce piece of steel into the body of the 3-D weapon. The design remains available on file-sharing sites, and there is a lawsuit against the government for allegedly threatening the owner of 'Defense Distributed' with criminal charges. The company claims that the removal of the files violates the right to free expression and by extension the right to bear and manufacture arms.

<sup>21</sup> Producers. <http://www.smallarmssurvey.org/weapons-and-markets/producers.html>

<sup>22</sup> Producers of small arms, light weapons, and their ammunition. Number 43. July 2014. [http://www.smallarmssurvey.org/fileadmin/docs/H-Research\\_Notes/SAS-Research-Note-43.pdf](http://www.smallarmssurvey.org/fileadmin/docs/H-Research_Notes/SAS-Research-Note-43.pdf)

<sup>23</sup> Trade Update 2017. Out of the shadows. Paul Holtom and Irene Pavesi. <http://www.smallarmssurvey.org/fileadmin/docs/S-Trade-Update/SAS-Trade-Update-2017.pdf>

<sup>24</sup> Shots fired from world's first 3D-printed handgun. Adam Gabbatt. May 6, 2013. <https://www.theguardian.com/world/2013/may/06/3-handgun-fired-cody-wilson>

<sup>25</sup> State Department orders 3D gun plan offline. Sarah Parnass. May 10, 2013. <http://abcnews.go.com/blogs/politics/2013/05/state-department-orders-3d-gun-plans-offline/>

➤ **Job creation and economic benefit**

The US is the biggest producer of firearms in the world, and high domestic demands also make the US also the largest importers of handguns, rifles and shotguns. According to a 25-year survey, 2,288 US companies produced more than 106 million firearms between 1986 and 2010<sup>26</sup>. Recent estimates indicate that there are over 140,000 people employed in the firearms and ammunition industry, which generates an additional 159,623 jobs in supplier and secondary industries. In 2016, the firearms and ammunition industry's annual revenue was over \$13 billion with an economic impact estimated at about \$51 billion throughout the country<sup>27</sup>. The industry also provides significant tax revenues with \$6.5 billion in federal and state taxes. Even in a time of recession, between 2008 and 2010, the number of employees in the gun industry increased by more than 10 per cent.

➤ **Investments and shareholders**

Both public and pension funds are invested in shares of gun manufacturers. According to a 2016 report<sup>28</sup>, almost 75 per cent of 23,000 mutual funds had some link to the weapons industry. Nine US investment firms, including BlackRock, Vanguard and London Company of Virginia, have made more than \$500 million in 2015 by owning these shares<sup>29</sup> with Blackrock making the largest gains, a total of \$112 million out of its \$4.5 trillion assets at the time. With more than \$6 trillion in assets today, Blackrock recently said it would consider portfolios that exclude gun manufacturers and retailers. A Deutsche Bank analysis shows that ethical investing does not damage profits<sup>30</sup>. Mutual-fund companies, such as Vanguard and Blackrock that include large gun holdings, already offer social index funds that exclude weapons makers. Several companies, including Walmart, Dick's Sporting Goods, Kroger, and Delta Airlines recently cut ties with gun-rights groups or restricted the sale of

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<sup>26</sup> Estimating civilian owned firearms. September 2011. [http://www.smallarmssurvey.org/fileadmin/docs/H-Research\\_Notes/SAS-Research-Note-9.pdf](http://www.smallarmssurvey.org/fileadmin/docs/H-Research_Notes/SAS-Research-Note-9.pdf)

<sup>27</sup> Firearms and ammunition industry economic impact. 2017. <https://d3aya7xwz8momx.cloudfront.net/wp-content/uploads/2017/07/EconomicImpactofIndustry2017.pdf>

<sup>28</sup> Investor responses to gun violence in the US. MSCI ESG research issue brief. Emily Lawrence, Meggin Thwing Eastman, Ken Frankel. June 2016. <https://www.msci.com/documents/10199/0c8ec676-6880-4f76-bef9-fc1146cbc173>

<sup>29</sup> Gun stocks make 9 big investors richer. Matt Krantz. December 10, 2015. <https://www.usatoday.com/story/money/markets/2015/12/10/investors-firearms-guns-profit-holdings/77062356/>

<sup>30</sup> ESG and financial performance: aggregated evidence from more than 2000 empirical studies. Gunnar Friede, Timo Busch and Alexander Bassen. December 15, 2015. <https://www.tandfonline.com/doi/full/10.1080/20430795.2015.1118917>

weapons. Today, socially-responsible investors are likely to buy shares of retailers that have announced restrictions on gun purchases, and will have the possibility to vote as shareholders on future strategies<sup>31</sup>. On the other hand, fear of tighter gun regulations following mass shootings usually leads to an increase in gun sales and as a result, to a rise in gun manufacturers' stocks. Shares of American Outdoor Brands and Sturm Ruger, the two largest US gun manufacturers, rose significantly after the Las Vegas shooting in 2017<sup>32</sup>.

➤ **School security systems industry in the US**

Following several shootings in US schools over the past few years, the school security system industry reached \$2.7 billion in revenue in 2017. Since the mass shooting at Columbine High School in Colorado in 1999, \$811 million has been allocated by the US federal government to improve security in schools across the country, including the introduction of security guards, active-shooter drills, surveillance systems and access control systems, and \$45 million alone has been allocated since the shooting at Sandy Hook Elementary School in Connecticut. This figure does not include the additional funding requested at a state and local level. According to the National Centre for Education Statistics, the percentage of schools using video surveillance systems rose from 20 per cent in 1999 to over 70 per cent in 2013<sup>33</sup>. Based on this data, the market is expected to grow an average of one percent a year, reaching \$2.8 billion by 2021.

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<sup>31</sup> US investors wanting out of gun stocks find it's not so easy. David Randall and Laila Kearney. March 7 2018. <https://www.nasdaq.com/article/us-investors-wanting-out-of-gun-stocks-find-its-not-so-easy-20180307-01131>

<sup>32</sup> Firearm and defense technology stocks spike in aftermath of Las Vegas shooting. Giovanni Bruno. October 2, 2017. <https://www.thestreet.com/story/14326530/1/gun-stocks-spike-in-aftermath-of-deadliest-u-s-shooting-in-las-vegas.html>

<sup>33</sup> Indicators of School Crime and Safety. May 2016. [https://nces.ed.gov/programs/crimeindicators/ind\\_20.asp](https://nces.ed.gov/programs/crimeindicators/ind_20.asp)

### 3. FINANCIAL EFFECTS – COSTS

#### ➤ Violence and gun violence – a health problem

According to the World Health Organization (WHO), violence in general is a health problem as much as it is a social justice problem, and one that can be prevented<sup>34</sup>. In 1996, the Forty-ninth World Health Assembly addressed the issue and adopted Resolution 49.25 (6) that declared violence a global public health problem<sup>35</sup>.

Data from the *Small Arms Survey* show that small arms were used in 46 per cent of all violent deaths globally between 2010 and 2015. This is especially widespread in the Americas (Central America, the Caribbean and Northern America), southern Africa and Southern Europe. Data in the US show that 70 per cent of violent deaths were caused by firearms. Data from the WHO's Global Burden of Disease for 1998 show that urban populations are more affected than rural populations, and that income plays a role in the rates of violent deaths. It has been established that the rate in low and middle income countries is more than double than in high income nations highlighting the link between poverty and gun deaths<sup>36</sup>. According to the Global Status Report on Violence Prevention 2014, low and middle-income countries in Latin America and the Caribbean have the highest rates of homicides committed with firearms of any developing nation<sup>37</sup>, and Honduras and Venezuela have the highest rates of firearm-related deaths in the world<sup>38</sup>.

The world as a whole has taken steps to recognize the need to address the issue of firearms-related violence. One of the 17 Sustainable Development Goals (SDGs) established by the UN 2030 Agenda for Sustainable Development<sup>39</sup> calls for the reduction of “all forms of violence and related death rates” (Goal 16.1)<sup>40</sup> and illegal arms flows (Goal 16.4)<sup>41</sup>. The Resolution adopted by the UN General Assembly on 25 September 2015 suggests a link between firearms, violence, and sustainable development and advocates that measures that target the use, possession, and transfer of firearms, such as gun-control legislation, transfer controls, amnesties, and crackdowns on illicit gun ownership

<sup>34</sup> Small arms and global health.

[www.who.int/violence\\_injury\\_prevention/publications/violence/small\\_arms/en/](http://www.who.int/violence_injury_prevention/publications/violence/small_arms/en/)

<sup>35</sup> Prevention of violence: a public health priority.

[http://www.who.int/violence\\_injury\\_prevention/resources/publications/en/WHA4925\\_eng.pdf](http://www.who.int/violence_injury_prevention/resources/publications/en/WHA4925_eng.pdf)

<sup>36</sup> [http://apps.who.int/iris/bitstream/10665/66838/1/WHO\\_NMH\\_VIP\\_01.1.pdf](http://apps.who.int/iris/bitstream/10665/66838/1/WHO_NMH_VIP_01.1.pdf)

<sup>37</sup> Developing countries in Latin America and the Caribbean have world's highest homicide rates. December 2014. [http://www.paho.org/hq/index.php?option=com\\_content&view=article&id=10270%3A2014-developing-countries-latin-america-caribbean-worlds-highest-homicide-rates&Itemid=1926&lang=en](http://www.paho.org/hq/index.php?option=com_content&view=article&id=10270%3A2014-developing-countries-latin-america-caribbean-worlds-highest-homicide-rates&Itemid=1926&lang=en)

<sup>38</sup> Countries with the highest rates of firearm related deaths. <https://www.worldatlas.com/articles/countries-with-the-highest-rates-of-firearm-related-deaths.html>

<sup>39</sup> [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E)

<sup>40</sup> Goal 16 - P 25 [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E)

<sup>41</sup> Goal 16 - P 25 [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E)

can help to decrease violent deaths in both conflict and non-conflict situations. Furthermore, these measures are believed also to help in the reduction of collateral outcomes, such as firearm-related injuries and disabilities, and psychological traumas. Within the same framework, the Arms Trade Treaty (ATT) was sponsored by the UN and entered into force in 2014 to regulate and limit the international trade in small arms<sup>42</sup>. The US and many other major exporters and importers of small arms in the world, including China, Russia and Pakistan, have signed but not ratified the treaty as of today.

More than 32,000 people die in firearm-related incidents in the US every year, with suicide the leading cause accounting for about two of every three gun deaths<sup>43</sup>. The medical profession in the US has been addressing small arms-related violence as a health issue for some time now. The American Medical Association (AMA), the American Academy of Paediatrics (AAP), the American College of Emergency Physicians (ACEP), and the American Psychiatric Association (APA) have recommended legislative reforms. The idea is to treat firearms incidents in the same way as other societal traumatic incidents resulting in injury and affecting people of all ages and gender, such as car crashes, sudden infant death syndrome (SIDS), diseases that can be prevented with vaccines, and drug, alcohol, and tobacco abuse<sup>44</sup>. Paediatricians in some US states already include talks about guns at 'well-being' appointments as part of a broader prevention policy that includes road safety and drug addiction. There is no national database for gun deaths, similar to the Fatality Analysis Reporting System that records car crashes deaths. Car safety standards that were based on this system have contributed to a 27 per cent decrease in car deaths since data have been recorded in 1975.

The American Medical Association (AMA) has declared gun violence a “public health crisis” that needs a public health response, and has asked the US Congress to fund more research into the issue<sup>45</sup>, after a 1996 amendment to a spending bill prohibited the Center for Disease Control and Prevention (CDC) from carrying out any type of study on gun violence. According to AMA, funding

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<sup>42</sup> The Arms Trade Treaty. <https://www.un.org/disarmament/att/>

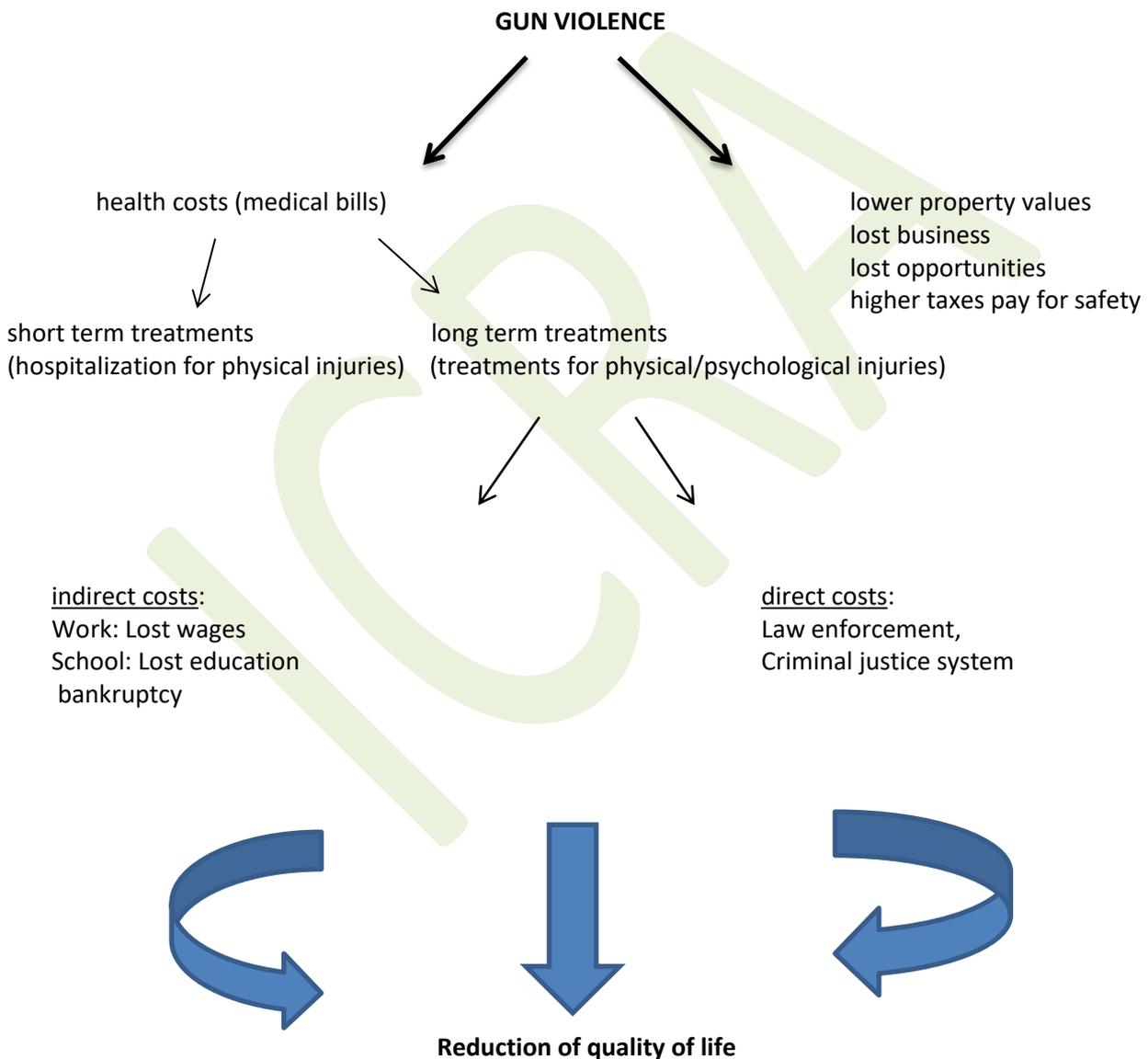
<sup>43</sup> The truth about suicide & guns. <http://www.bradycampaign.org/sites/default/files/Truth-About-Suicide-Guns.pdf>

<sup>44</sup> Five Years after Sandy Hook: Why Reframing Gun Violence as a Public Health Issue is Essential. Ruth Abaya, MD, MPH. December 14, 2017. <https://injury.research.chop.edu/blog/posts/five-years-after-sandy-hook-why-reframing-gun-violence-public-health-issue-essential#.WnTRvExFyCo>

<sup>45</sup> AMA calls gun violence “a public health crisis”. June 14, 2016. <https://www.ama-assn.org/ama-calls-gun-violence-public-health-crisis>

and publication on gun violence is disproportionately low relative to the mortality rate from it<sup>46</sup>. The American Public Health Association (APHA) has also called for further research to increase the country’s public health response to gun violence<sup>47</sup>.

➤ **Health costs**



<sup>46</sup> Funding and Publication of Research on Gun Violence and Other Leading Causes of Death. David E. Stark, D, Ms; Nigam H. Shah, MBBS, PhD. JAMA. 2017;317(1):84-85. doi:10.1001/jama.2016.16215 <https://jamanetwork.com/journals/jama/fullarticle/2595514>

<sup>47</sup> Preventing gun violence. APHA. [https://www.apha.org/~media/files/pdf/factsheets/160317\\_gunviolencefs.ashx](https://www.apha.org/~media/files/pdf/factsheets/160317_gunviolencefs.ashx)

The data provided by the WHO that suggest that income plays a role in the rates of violent deaths is crucial in trying to determine the costs of gun violence, as income affects for example the ability to pay for health bills and the consequent recovery from a gun-related incident, and the ability to pay for safety by paying higher taxes to support local law enforcement agencies.

In countries with a private health system, like the US, direct costs such as health bills resulting from a gun-related injury can lead to loss of wages and property, a lower quality of life, and eventually to bankruptcy (indirect costs). In the US, firearms-related deaths are the third-leading category of injury-related deaths. According to a recent study by Johns Hopkins University, firearms-related injuries account for approximately \$2.8 billion in emergency department and inpatient care each year<sup>48</sup>. The study analyzed 704,916 people in the US who arrived at an emergency room for treatment of a firearm injury between 2006 and 2014. More than half of the patients did not have insurance or were self-paying, which means that they either covered the costs themselves or the costs were added to the overall uncompensated care that hospitals provide to uninsured patients and paid by taxpayers or absorbed as losses by the medical sector. It is estimated that costs across all 50 states surpass \$100 billion a year, equivalent to the country's annual federal spending on education and surpasses the federal transportation budget. According to a recent study that relies on records from hospital emergency-room reports, there are more than a million shooting survivors living in the US which means that about six out of seven people who suffer a gunshot wound survive (this data excludes suicide attempts)<sup>49</sup>.

Studies in developing countries also show significant costs of firearm-related injuries to health systems. In Colombia, for example, the costs are equivalent to 25 per cent of the country's annual GDP. *The direct costs of gun violence in conflict or post-conflict situations can be higher as medical facilities available may not be fully equipped to deal with gun injuries and to provide the physical and emotional care needed.*

Globally, gun-related violence can result in additional direct and indirect costs for the victim and for the victim's family and affect their socio-economic situation. Non-fatal gun-related incidents can amount to higher costs as they may include a long recovery period, rehabilitation, and therapy to

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<sup>48</sup> The annual cost of gun violence in America - \$2.8 billion in emergency room, inpatient charges. October 4, 2017. <https://hub.jhu.edu/2017/10/04/gun-violence-cost-injury-study/>

<sup>49</sup> The hidden epidemic of firearm injury: increasing firearm injury rates during 2001-2013. *American Journal of Epidemiology*, Volume 185, Issue 7, 1 April 2017, Pages 546–553, <https://doi.org/10.1093/aje/kww147>

treat post-traumatic stress disorder (PTSD) and mental health issues; long-term disability, including spinal cord injuries, traumatic brain injuries and amputations<sup>50</sup>. The burden of health bills (direct costs) combined with the physical and psychological recovery from a gun injury, can translate into the loss of a job and its benefits, to the loss of a property due to missed payments, which might lead to an involuntary move to a more affordable area, which might also mean less safe. As a result, quality of life is compromised. *One may say that the forced displacement following a firearm-related incident is similar to the displacement of people following a conflict. Internally Displaced People (IDPs) are forced to leave their homes and the effects of the conflict continue in time after the violence has stopped.*

The effects of gun violence can also be seen on 'secondary' victims including first responders and bystanders who are not directly involved in the violence. Furthermore, the neighbourhoods where violent crimes take place may suffer from the negative image that they acquire as a result of the violence, lose business opportunities and decay, which would in turn affect the whole community.

A violent trauma, even one that happened to people who have no direct links with the violence, can make anybody feel less safe. According to a 2007 research paper by the National Center for Post-traumatic Stress Disorder<sup>51</sup>, "the impacts of mass shootings extend far beyond the primary victims to encompass the community, whether that is a workplace, neighbourhood, school, or campus". There is evidence that mass shootings can lead to an increase in fear and a decrease a sense of perceived safety<sup>52</sup>.

### **So what?**

*In the US where the debate on small arms and weapons-related violence is most developed, advocates for gun control laws and opponents of restrictions on lawful gun ownership have been caught up in a conflict of their own for decades, one that resembles the features of a frozen conflict. No agreement on the future of gun ownership is in sight. The new student movement that was born after a shooting at the Marjory Stoneman Douglas High School in Parkland, Florida in February this year may help reframe the conversation on gun violence as one about safety and nothing else. Every country has its own history, culture and - based on these two conflict elements - its own laws. The*

<sup>50</sup> [http://apps.who.int/iris/bitstream/10665/66838/1/WHO\\_NMH\\_VIP\\_01.1.pdf](http://apps.who.int/iris/bitstream/10665/66838/1/WHO_NMH_VIP_01.1.pdf)

<sup>51</sup> Impact of mass shootings on survivors, families, and communities. Fran H. Norris, PHD. National Center for PTSD. Dartmouth Medical School. PTSD Research Quarterly. Summer 2007. Volume 18, Number 3. <https://www.ptsd.va.gov/professional/newsletters/research-quarterly/V18N3.pdf>

<sup>52</sup> The Mental Health Consequences of Mass Shootings. Sarah R. Lowe, Sandro Galea. June 17, 2015.

*short and long-term effects of firearms on our society are perhaps the only common denominator, and the starting point for a discussion that can go beyond the main reasons for disagreement and one that is necessary to guarantee safety. Understanding the long-term effects of guns in society might help manage their use and prevent their misuse.*

## **Conclusion**

The story of human beings and weapons is not new. In terms of the personal weapon for defence or offence, first came the stick and the stone; then it was the blade; and then the gun. Today we are talking about the blade and the gun and our inability to curb their use. That inability stems, it would seem, from one aspect of our discussion that was not there at the beginning; it is of course the commercialisation of weapons production and the huge amount of revenue that accrues to States from selling arms.

**March 2018**