

Firearm-related deaths and crime in the autonomous city of Buenos Aires, 2002

Mortes e crimes cometidos com armas de fogo na cidade autônoma de Buenos Aires, 2002

Hugo Spinelli ¹
Marcio Alazraqui ¹
Gabriela Zunino ¹
Hernán Olaeta ²
Héctor Poggesi ³
Carola Concaro ³
Sidonie Porterie ³

Abstract *Violence is one of the most serious challenges in Latin American societies. Possession and use of small arms and light weapons are considered to be among the main factors behind it. The aim of this paper is to describe deaths and crimes involving the use of a firearm in the City of Buenos Aires in 2002, focusing the health, justice and police sectors. Data on mortality and crimes were obtained from the National Systems for vital statistics and criminal information; data on firearm seizures were supplied by the Argentine Federal Police. Household interviews conducted for a previous research on firearm-related victimization were also used. An index of violent incidents was developed by police station. There were 1,304 deaths from violence, of which 23.7% were caused by a firearm. The police filed 171 proceedings on the charge of homicides with criminal intent, of which 60% had been committed with a firearm. Of the 2,108 interviewed individuals, 6.7% were victims of a crime committed with a firearm. In 9.6% of surveyed households there was a firearm. Seized firearms added up to 1,887. The index of violent incidents was higher in police stations in the southwestern area of the city that has worse living conditions. The impact of violence and its relation to firearms features as a major issue in the public agenda.*

Key words *Violence, Firearms, Homicide, Cross-sectorial action, Maps*

Resumo *A violência se constitui em um dos problemas mais graves da América Latina. O uso de pequenas e leves armas de fogo é considerada a principal responsável por este fato. O objetivo do presente trabalho foi descobrir, a partir de dados do setor saúde, da justiça e da polícia, o número de mortes e crimes envolvendo armas de fogo ocorridos na cidade de Buenos Aires em 2002. Os dados sobre mortalidade e crimes foram obtidos dos Sistemas Nacionais de Estatísticas Vitais e Informação Criminal e os dados sobre apreensão de armas de fogo foram disponibilizados pela Polícia Federal. Utilizaram-se também dados de uma investigação anterior realizada por meio de entrevistas domiciliares a respeito de vitimização por armas de fogo. Durante o período ocorreram 1.304 mortes violentas, dos quais 23.7% corresponderam a mortes provocadas por armas de fogo. Dos 171 indiciamentos policiais por homicídio doloso, 60% haviam sido cometidos com armas de fogo. Das 2.108 pessoas entrevistadas, 6,7% haviam sido vítimas de um crime cometido com arma de fogo. Foram apreendidas 1.887 armas de fogo. A taxa de eventos violentos registrados foi maior nas delegacias da zona sudoeste da cidade, que se caracteriza por condições de vida mais precárias. O impacto da violência e sua relação com armas de fogo constitui-se em um tema relevante da agenda pública.*

Palavras-chave *Violência, Armas de fogo, Homicídio, Ação intersetorial, Mapeamento*

¹ Universidad Nacional de Lanús.
Calle Venezuela 356,
2º piso, C1095AAH,
Ciudad de Buenos Aires,
Argentina.
megyps@unla.edu.ar

² Dirección Nacional de Política Criminal,
Ministerio de Justicia y Derechos Humanos.

³ Proyecto Planificación Participativa y Gestión Asociada, Facultad Latinoamericana de Ciencias Sociales.

Introduction

Violence appears to be one of the most serious challenges in Latin American societies. By the end of the 20th century, it was already the leading cause of death in Latin America among people aged 15-44¹.

According to the World Health Organization (WHO), at the end of the 20th century, 63% of homicides were caused by firearms worldwide. In Latin America, this rate was higher than 80%². As in Africa, the homicide rate in our subcontinent is approximately three times higher than in the rest of regions¹. Latin America is believed to have the highest specific rate of homicides caused by firearms in the world – about three times higher than the African rates; five times higher than that of North America, Central Europe and Eastern Europe; and forty-eight times higher than those of Western Europe³.

Possession and use of firearms are considered to be among the main factors behind the increasing levels of violence. Some authors have noted that areas with a higher number of arms show higher rates of homicides by firearms, and that household possession of firearms for self-defense increases the probability of somebody in the household becoming victim of homicide^{2, 4, 5, 6}.

Precisely, possession and use of small arms and light weapons relate to violence both in countries with high homicide rates and in countries with historically low rates. Small arms or light weapons are defined as *those that can be used and transported by one or two people, such as handguns, shotguns, rifles and light machine guns*⁷. Given their size, easy acquisition, low cost, durability and user-friendliness, their use became widespread in the past decades throughout the world, and turned into the cause of most deaths and injuries in confrontations among individuals⁸.

Argentina is no exception as refers to violence and its relation to firearms. The justice sector, through the Federal Ministry of Justice and Human Rights, informed that from the 1,340,529 crimes officially recorded in the country during 2002, the jurisdiction with the highest record of crimes was the Province of Buenos Aires – 26.9% – followed by the Autonomous City of Buenos Aires (CABA) – 5.1%⁹. Thus, the latter was the district with the second highest number of crimes, showing the highest rate of allegedly criminal acts – 7,288 per 100,000 inhabitants. In turn, the CABA, together with

the Province of Buenos Aires, accounted for 42% of total crimes committed during 2002; both jurisdictions, together with the provinces of Córdoba, Santa Fe and Mendoza, concentrated almost 70% of total crimes recorded throughout the country⁹.

Out of all crimes committed in the CABA in 2002 (202,135), 71% were crimes against property (basically robbery and theft); 12%, crimes against persons (willful and negligent injuries and homicides); and 17%, others (infringement of the narcotics act, crimes against public safety, etc.). The most frequently recorded crimes against property were robbery – 75,283 cases (52%) – and theft – 2,490 cases (43%) –; the remaining 5% were other related crimes⁹.

In turn, the Federal Police and security forces have reported that the ratio of homicides with criminal intent by place of occurrence for 2002 was 7 per 100,000 inhabitants in the Autonomous City of Buenos Aires¹⁰.

According to health sector data, the ratio of accidents, suicides and homicides in 2002 in the CABA remained high in comparison to 2001, the number of deaths from violence was always higher in young males, and most deaths had been caused by firearms¹¹. Similar findings were reported in the Brazilian and international literature on external causes¹².

These numbers, derived from the data assessment provided by the justice department, the police and health authorities, show the significance of this issue. We understand that the approach to violence should be cross-sectorial, for cover the different sector-specific viewpoints. Therefore, this paper jointly analyzes data on violence and firearms from various official sectors in Argentina. We used information for 2002, given the deep social, political and institutional crisis that affected Argentina in 2001-02.

This paper aims at describing deaths and crimes involving firearms in the Autonomous City of Buenos Aires during 2002, as well as developing an index that will enable the identification and future monitoring of hot spots. The purpose is to foster debate that triggers future cross-sectorial research to deal with the issue of violence and firearms at the social level.

Material and methods

In this paper, we analyzed information for 2002 from three official sources – justice, police and

health authorities – in the Autonomous City of Buenos Aires, with focus to the topic firearms.

From the information supplied by the health sector, we drew a profile of deaths by firearms. On the basis of data reported by the justice, we describe specific deaths caused by homicide with criminal intent and examined data from the victimization survey carried out for the year under review. Lastly, we put forward the analysis of data provided by the police on firearm seizures during the year under review, to highlight the presence of weapons in crimes with police intervention.

An index of violent incidents was developed per police station to spatially account for the frequency of violent incidents in each station's jurisdiction. There are 53 police stations in the City of Buenos Aires, each of them with its own area of influence. We used the following variables to develop the index for each police station: firearm seizures, homicides with criminal intents, homicides during interpersonal confrontations, criminal acts, deaths by firearms, homicides by firearms and total homicides. We analyzed the percental distribution of each of these variables by police station and selected the variable when higher than or equal to 2%. Thus, police stations were rated "higher" or "lower" based on the following criteria: 1) higher: whenever there were more than 5 variables selected for the police station (i.e., the value of variables was higher than or equal to 2%); and 2) lower: whenever there were 5 or less variables selected (i.e., the value was lower than 2%).

Below we provide a description of the origin of data, studied population and variables examined for each of the sources used.

Health sector: mortality from firearms

Data on mortality from firearms were derived from the statistical reports on mortality supplied by the General Directorate of Statistics and Censuses of the Government of the Autonomous City of Buenos Aires for residents in the City, and the Computerized Information System of the Province of Buenos Aires, Subsecretariat for Health Planning for non-CABA residents. Given that, in the specific case of deaths from violence, the place of occurrence becomes especially relevant, the studied population comprised people who died a violent death in the Autonomous City of Buenos Aires, whether residents or not.

Deaths from violence were characterized based on the following variables: gender, age, type of violent death and classification according to the 10th revision of the International Statistical Classification of Diseases and Related Health Problems¹³, and intervening police station. These data were used in a previous research, which also describes the methodological steps for analyzing them¹¹.

We used the ratio of deaths from violence involving firearms by place of occurrence as indicator. This ratio was estimated taking as numerator the total number of deaths from violence involving firearms, both of residents and non-residents, divided by the resident population of the Autonomous City of Buenos Aires. As there is no record of the number of people who move around the city, which would be the right denominator, it was impossible to estimate mortality rates from violence involving firearms, and the ratio was used instead.

Justice sector: homicides with criminal intent

The information was obtained from the National Criminal Information System (SNIC) of the Federal Ministry of Justice and Human Rights National Directorate for Criminal Policy. The SNIC collects data in two different ways: based on the absolute number of criminal acts recorded by the police and security forces throughout the country according to the Criminal Code; and on the features of some specific crimes, such as homicides with criminal intent, negligent homicides in highway traffic accidents and crimes against property (robbery, theft and other crimes).

For the purposes of this paper, only those crimes against persons resulting in homicides with criminal intent and crimes against property involving firearms were considered. There are no official data on negligent homicides or injuries caused by firearms.

Justice sector: victimization survey

Since 1996, the Federal Ministry of Justice and Human Rights National Directorate for Criminal Policy conducts victimization surveys in large urban centers in Argentina. These surveys are mainly targeted at describing the criminal phenomenon on the basis of household interviews – with a representative population sample. People are asked about their victimiza-

tion experiences during a period of time defined by them and, generally, about their opinion on safety-related issues. The purpose is to bring a new measurement tool – namely, the survey – to the public safety area, which entails the possibility of accessing data on the so-called “dark figure” of crime (unreported cases), among other advantages.

The questionnaire employed in these studies follows the guidelines set by the United Nations Interregional Crime and Justice Research Institute¹⁴. Data analyzed in this paper relate to firearm victimization of CABA residents interviewed in 2002.

Police sector: firearm seizure

Data on firearm seizures were provided by the Federal Police Arms and Agencies Unit. This paper includes all seizures in the CABA in 2002 relating to crimes committed in that or in previous years. The information was analyzed on the basis of the following variables: type of seized firearm, type of crime involving the firearm and month in which it was seized.

For the analysis by type of offense, titles registered by the Federal Police were grouped following the classification of the National Criminal Information System of the Federal Ministry of Justice and Human Rights National Directorate for Criminal Policy.

Results

Health sector: mortality from firearms

Out of 1,304 deaths from violence in the Autonomous City of Buenos Aires in 2002, 23.7% (309 deaths) were caused by firearms. Thus, deaths by firearms accounted for the highest percentage of violent deaths during that year, considerably more than the rest. The highest rate was recorded among city residents (65.4%); 31.1%, among residents in the Province of Buenos Aires; and only 1.2% among residents of other places; in 2.3% of cases there were no data on the victim's place of residence.

Of the four types of death (accidents, suicides, homicides and deaths from ignored violence) by firearms, the highest percentage related to homicides (66.3%), followed by suicides (31.7%). Other types of death accounted for less than 2% (Table 1). Table 1 also shows

the ratios of types of firearm-related violent deaths in CABA in relation to the number of inhabitants. For the purpose of interpreting these results, we emphasize that, as indicated in “Material and methods”, we worked based on a ratio. Anyhow, for suicides, mainly occurring at the victim's home, the ratio may be assumed to be an accurate estimator of the rate; however, for the other types of violent death, calculated values would overestimate the probability of death, as in the case of accidents¹¹.

The percentage of deaths by firearms was higher for men than for women: 288 deaths were recorded among men, accounting for 93.2%, against only 21 deaths among women (6.8%).

Age-specific analysis revealed that the highest percentage of deaths by firearms was recorded in the age-group 15-29 years. The highest percentage related to the 15-19 interval (13.9%), while for the 20-24 interval, the percentage was 13.3%, and for 25-29, 11.3%.

Below is a brief description of the distribution of homicide and suicide deaths by firearms. For these two types of death, gender distribution was similar to that for total violent deaths. Men were in both cases the most affected – among them, the homicide percentage was higher than the suicide percentage (96.1% and 87.8% respectively).

Homicides by firearms mainly affected the age-group of 15-29 years (47.7%). Suicides, however, were more significant among adults over 55, with the 65-69 group, showing the highest percentage (16.3%).

Justice sector: homicides with criminal intent

According to the SNIC, the police filed 171 preliminary proceedings investigated by the committee for alleged homicides with criminal intent, accounting for less than 1% of crimes against persons – a minimum value in official statistics on this type of crime, given that many cases go unreported. The most serious case is that of serious injuries subsequently causing the victim's death, which are captioned as serious injuries by the police and only corrected afterwards, at court.

In turn, according to research conducted in the City of Buenos Aires criminal courts, in 2002, in the Autonomous City of Buenos Aires, 214 cases entered the criminal justice system, in which potential homicide with criminal intent was investigated. For the purposes of that

Table 1
Percent distribution and ratio of violent deaths by firearms by place of occurrence.
Autonomous City of Buenos Aires, 2002.

Type of violent incident	Number (n)	Percent distribution (%)	Ratio of violent deaths per 100,000 inhabitants
Homicides	205	66.3	6.8
Suicides	98	31.7	3.3
Deaths from ignored violence	4	1.3	0.1
Accidents	2	0.6	0.1
Grand total	309	100.0	10.3

Source: Prepared by the authors based on the Statistical Reports on Mortality (SRM), 2002.

investigation, 194 cases were reviewed – that is, 90.6% of the total –, and 209 fatal victims were detected. According to these data, the ratio of homicides with criminal intent by place of occurrence was 7 victims per 100,000 inhabitants. Out of these, 60% of homicides with criminal intent were committed with firearms; the most affected age group was the group with 18-35 years. Seventy-six percent of homicide victims (209) were not armed at the time of the incident.

Data revealed two distinct subgroups: homicides with criminal intent caused by interpersonal confrontation, and homicides with criminal intent committed during robbery. As we consider of different nature, we associate the first group with violent conflict resolution, and the second, with criminal dynamics. It is worth pointing out the differences between these two types of homicide. For homicides with criminal intent caused by interpersonal confrontation, most victims were not armed (92%) and the weapons causing their death were mainly firearms (50%) or cold steel (30%). For homicides during robbery, 68 cases involved 76 victims. A considerable number of victims were armed (43%), mainly with firearms (88%), which also caused the death of victims in 69% of cases.

As to crimes against property, a higher number of robberies was recorded in 2002: 75,283 cases (52%), followed by thefts, with 62,490 incidents (43%). The remaining 5% covered other crimes against property.

In turn, according to police statistics, 34% of robberies, i.e., over 25,000 cases, were committed using firearms. In particular bank robberies and car theft are perpetrated with firearms (96% and 66%, respectively). Bearing in mind that these are police-reported data, and leaving

aside unreported offences (over 70%, according to the victimization survey), we can see the significance of firearms in public safety issues.

Justice sector: victimization survey

From all interviewed people in the CABA (2,108), 40% said to have been victim of at least one of the surveyed offences¹⁴; 6.7% of them had been victim of a crime by firearm. Offenses surveyed in 2002 included violent robbery, personal theft, sexual offences, injuries or threats, and others¹⁴.

As for offences, 68.8% of violent robberies were committed with firearms. In 9.6% of CABA households there was a firearm. According to the survey, most weapons held in households are small arms (about 68.7%). Reasons for firearm ownership alleged by half of the interviewed individuals include safety or prevention-related issues, the habit of hunting and being a member of the security forces.

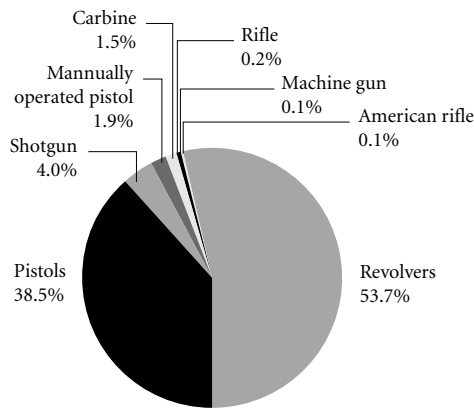
Police sector: firearm seizures

During 2002, the Argentine Federal Police (PFA) seized a total of 1,887 firearms in the territory of the City of Buenos Aires. For the first four months of the year, the distribution of seizures showed a stable trend of 174 seized firearms. Of the total number of firearms seized by the PFA, 53.7% (1,012) are revolvers and 38.5% (726) are pistols (Chart 1), both adding to 92.2% of total seizures.

The 1,887 firearms seized by the Argentine Federal Police were of 157 different manufacturers: 51% had been manufactured in Argentina, 31% abroad and 19% could not be identified.

Chart 1

Distribution per percents, of types of firearms seized by the Argentine Federal Police. Autonomous City of Buenos Aires, 2002.



Source: Prepared by the authors based on records of firearm seizures by the Argentine Federal Police Arms and Agencies Unit in the Autonomous City of Buenos Aires, 2002. Classification by firearm type and shooting mechanism.

Of total arms seized, 43.9% related to robbery, 14.3% to crimes against public safety, most importantly, 3.4% to homicides with criminal intent. The remaining percentage related to offences such as crimes against the public administration, infringement of the drug law and other crimes under special statutes, among others.

Classification criteria for seizures cover captions filed by the Federal Police and include type of crime, type of proceeding and case captioned, according to data provided by the Argentine Federal Police Arms and Agencies Unit. To systematize offences, we followed the classification suggested by the National Criminal Information System (SNIC), developed by the Federal Ministry of Justice and Human Rights National Directorate for Criminal Policy.

Spatial analysis: index of violent incidents by police station

The analysis of the percent distribution of violent deaths by firearms by police station reveals that results for the three sectors – justice, health and police – are similar for Police Station 36. This police station showed high values both for seizures and homicides in its area of influence (Table 2). However, Police Station 39

showed the highest seizure rate (6.2%), notwithstanding lower levels of homicide deaths in its area of influence (0.7%).

The number of seizures in 2002 accounts for a small percentage of total criminal acts recorded that year (1,887 seizures versus 193,496 criminal acts, accounting for only 1%).

An index of violent incidents was developed to spatially analyze the frequency of violent incidents by competent station. The results are shown in table 2 and reveal that 8 of the 53 police stations in the CABA were rated “higher”, given that the index for these stations – grey colored in the table – was 2% or more, in over 5 variables considered. The other police stations were rated “lower”. Variables used to develop the index are factors intrinsic to the violent and not violent process in itself, such as firearm seizures.

As can be seen in map 1, police stations rated “higher” are mainly located in the southwestern area of the Autonomous City of Buenos Aires. This area has the worst living conditions, as evidenced by the high concentration of households with unmet basic needs.

Discussion and conclusions

Discussion and conclusions are centered on various subjects related to the issues studied in this paper, such as trafficking in firearms and drug trafficking, social inequality and exclusion, the symbolic representation of firearms in society, the social space as the axis of public policy, the economic impact of violence and the information systems on violence.

Research revealed that most crimes were committed with firearms, pointing to their significant use in what criminology terms common crimes. It is worth mentioning that firearms are also linked to other types of crime.

The increase of deaths by firearms has been found to relate to different aspects of organized crime, such as drug trafficking and arms smuggling¹⁵. Both issues are linked to means of payment and/or monitoring of points of sale; that is to say, drug trafficking has been associated to arms trafficking, in terms of territorial fights among drug trafficking groups^{2, 15, 16}. The burden of deaths from violence cannot be attributed to drug addiction but to drug trafficking, and the literature points to the higher levels of drug trafficking-related than illicit drug use-related violence^{15, 17, 18, 19}.

Table 2

Index of violent incidents and percent distribution of violent deaths, crimes and firearm seizures by police station. Autonomous City of Buenos Aires, 2002.

Police station	Justice sector						Health sector						Police sector		Index of Violent Incidents
	Criminal acts		Homicides with criminal intent				Violent deaths by firearms (homicide, suicide and accident)				Homicides seizures		Firearm		
	n	%	Personal conflict		Total		n		By firearm		Total		n	%	
1th	7,725	4.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	10	0.9	Lower
2nd	3,094	1.6	0	0.0	0	0.0	1	0.6	0	0.0	0	0.0	11	0.9	Lower
3rd	4,556	2.4	1	0.5	1	1.2	1	0.6	0	0.0	1	0.7	22	1.9	Lower
4th	2,303	1.2	3	1.6	0	0.0	4	2.5	2	2.2	3	2.1	14	1.2	Lower
5th	3,877	2.0	2	1.1	1	1.2	1	0.6	0	0.0	0	0.0	19	1.6	Lower
6th	3,202	1.7	5	2.7	3	3.5	1	0.6	0	0.0	2	1.4	11	0.9	Lower
7th	4,436	2.3	3	1.6	2	2.4	4	2.5	0	0.0	2	1.4	21	1.8	Lower
8th	3,343	1.7	4	2.2	3	3.5	3	1.9	0	0.0	1	0.7	13	1.1	Lower
9th	4,742	2.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	23	2.0	Lower
10th	3,940	2.0	7	3.8	1	1.2	8	5.0	7	7.8	8	5.7	35	3.0	Higher
11th	3,599	1.9	5	2.7	2	2.4	1	0.6	0	0.0	1	0.7	24	2.1	Lower
12th	4,765	2.5	6	3.3	2	2.4	3	1.9	1	1.1	5	3.5	45	3.9	Lower
13th	2,557	1.3	1	0.5	0	0.0	3	1.9	0	0.0	2	1.4	20	1.7	Lower
14th	1,903	1.0	2	1.1	0	0.0	1	0.6	1	1.1	1	0.7	15	1.3	Lower
15th	3,137	1.6	2	1.1	0	0.0	1	0.6	1	1.1	2	1.4	11	0.9	Lower
16th	3,523	1.8	4	2.2	3	3.5	3	1.9	2	2.2	3	2.1	14	1.2	Lower
17th	5,086	2.6	1	0.5	1	1.2	0	0.0	0	0.0	0	0.0	29	2.5	Lower
18th	2,972	1.5	3	1.6	0	0.0	3	1.9	3	3.3	4	2.8	9	0.8	Lower
19th	5,790	3.0	2	1.1	1	1.2	4	2.5	1	1.1	2	1.4	34	2.9	Lower
20th	2,104	1.1	1	0.5	1	1.2	2	1.2	1	1.1	1	0.7	9	0.8	Lower
21st	4,562	2.4	2	1.1	0	0.0	3	1.9	1	1.1	1	0.7	11	0.9	Lower
22nd	923	0.5	1	0.5	1	1.2	1	0.6	0	0.0	0	0.0	5	0.4	Lower
23rd	3,774	2.0	4	2.2	3	3.5	4	2.5	1	1.1	3	2.1	21	1.8	Lower
24th	2,170	1.1	6	3.3	2	2.4	2	1.2	1	1.1	1	0.7	22	1.9	Lower
25th	2,740	1.4	0	0.0	0	0.0	2	1.2	0	0.0	0	0.0	15	1.3	Lower
26th	2,083	1.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	19	1.6	Lower
27th	2,569	1.3	1	0.5	1	1.2	2	1.2	2	2.2	2	1.4	9	0.8	Lower
28th	2,181	1.1	4	2.2	2	2.4	1	0.6	1	1.1	2	1.4	14	1.2	Lower
29th	3,716	1.9	1	0.5	0	0.0	3	1.9	1	1.1	2	1.4	19	1.6	Lower
30th	1,861	1.0	3	1.6	2	2.4	2	1.2	1	1.1	1	0.7	14	1.2	Lower
31st	5,046	2.6	3	1.6	2	2.4	6	3.7	1	1.1	2	1.4	7	0.6	Lower
32nd	3,613	1.9	18	9.9	10	11.8	7	4.3	6	6.7	8	5.7	24	2.1	Higher
33rd	7,046	3.6	1	0.5	0	0.0	7	4.3	3	3.3	3	2.1	36	3.1	Lower
34th	3,486	1.8	7	3.8	3	3.5	6	3.7	5	5.6	6	4.3	26	2.2	Higher
35th	4,579	2.4	1	0.5	0	0.0	2	1.2	0	0.0	0	0.0	42	3.6	Lower
36th	3,029	1.6	20	11.0	14	16.5	5	3.1	5	5.6	5	3.5	46	3.9	Higher
37th	4,624	2.4	3	1.6	2	2.4	4	2.5	2	2.2	2	1.4	29	2.5	Lower
38th	6,236	3.2	7	3.8	2	2.4	4	2.5	4	4.4	4	2.8	38	3.3	Higher
39th	3,852	2.0	1	0.5	1	1.2	1	0.6	1	1.1	1	0.7	72	6.2	Lower
40th	4,074	2.1	3	1.6	1	1.2	2	1.2	0	0.0	2	1.4	18	1.5	Lower
41st	3,581	1.9	3	1.6	1	1.2	4	2.5	2	2.2	4	2.8	21	1.8	Lower
42nd	4,271	2.2	4	2.2	2	2.4	5	3.1	2	2.2	3	2.1	36	3.1	Higher
43rd	4,423	2.3	1	0.5	0	0.0	5	3.1	3	3.3	5	3.5	19	1.6	Lower
44th	4,752	2.5	5	2.7	2	2.4	7	4.3	7	7.8	9	6.4	38	3.3	Higher
45th	4,520	2.3	6	3.3	2	2.4	1	0.6	1	1.1	7	5.0	28	2.4	Lower
46th	1,185	0.6	3	1.6	3	3.5	5	3.1	4	4.4	5	3.5	9	0.8	Lower
47th	3,319	1.7	2	1.1	0	0.0	3	1.9	2	2.2	3	2.1	22	1.9	Lower
48th	3,770	1.9	6	3.3	4	4.7	6	3.7	5	5.6	8	5.7	38	3.3	Higher

(continues)

Table 2 (continued)

Index of violent incidents and percent distribution of violent deaths, crimes and firearm seizures by police station. Autonomous City of Buenos Aires, 2002.

Police station	Justice sector						Health sector						Police sector Firearm	Index of Violent Incidents		
	Criminal acts		Homicides with criminal intent				Violent deaths by firearms (homicide, suicide and accident)				Homicides seizures				Firearm	
	n	%	Personal conflict		Total				By firearm		Total				n	%
49th	2,607	1.3	0	0.0	0	0.0	4	2.5	2	2.2	2	1.4	14	1.2	Lower	
50th	3,617	1.9	3	1.6	2	2.4	3	1.9	1	1.1	2	1.4	20	1.7	Lower	
51st	2,533	1.3	2	1.1	0	0.0	1	0.6	0	0.0	1	0.7	7	0.6	Lower	
52nd	2,370	1.2	3	1.6	0	0.0	5	3.1	4	4.4	4	2.8	27	2.3	Lower	
53rd	3,730	1.9	6	3.3	2	2.4	4	2.5	3	3.3	5	3.5	12	1.0	Lower	
Total	193,496	100.0	182	100.0	85	100.0	161	100.0	90	100.0	141	100.0	1167	100.0	–	

Source: Prepared by the authors based on data supplied by the National Directorate for Criminal Policy of the Federal Ministry of Justice and Human Rights, the General Directorate of Statistics and Censuses of the Government of the Autonomous City of Buenos Aires, the Computerized Information Bureau of the Province of Buenos Aires, Undersecretariat for Health Planning and the Argentine Federal Police Arms and Agencies Unit.

The issue of drug trafficking and arms trafficking is extremely complex, given the motives for action of those involved. This makes it difficult to obtain information on movements of arms, drug trafficking and drug use.

As to the manufacturing of arms, the Small Arms Survey revealed that all Latin American nations have the capacity to produce arms³. Among them, Brazil features as the first producer in the region; Argentina comes fourth, followed by Chile and Mexico. This survey stresses the fact that, after being used, they enter the “second” and “third” markets. This is how these arms from the resale market are involved in over 200,000 deaths per year³.

In Argentina, the National Arms Register (RENAR), a body reporting to the Federal Ministry of Defense, is in charge of registering, supervising and controlling firearm users, as well as arms and ammunition manufacturers. However, the control of unregistered arms is out of RENAR’s scope of action; unregistered arms in the illicit market are estimated to triple their counterparts in the legitimate market.

The worsening socioeconomic situation is another factor that has been linked to the increase of violence. Rather than abject poverty, it is the growing social inequalities that experts have found to relate to violence growth^{2, 4, 15, 20}. Through the crime rate, criminal behavior is strongly correlated to a measure of inequality in income distribution such as the Gini coefficient; the correlation between crime and in-

come inequality exceeds that between crime and unemployment^{21, 22}.

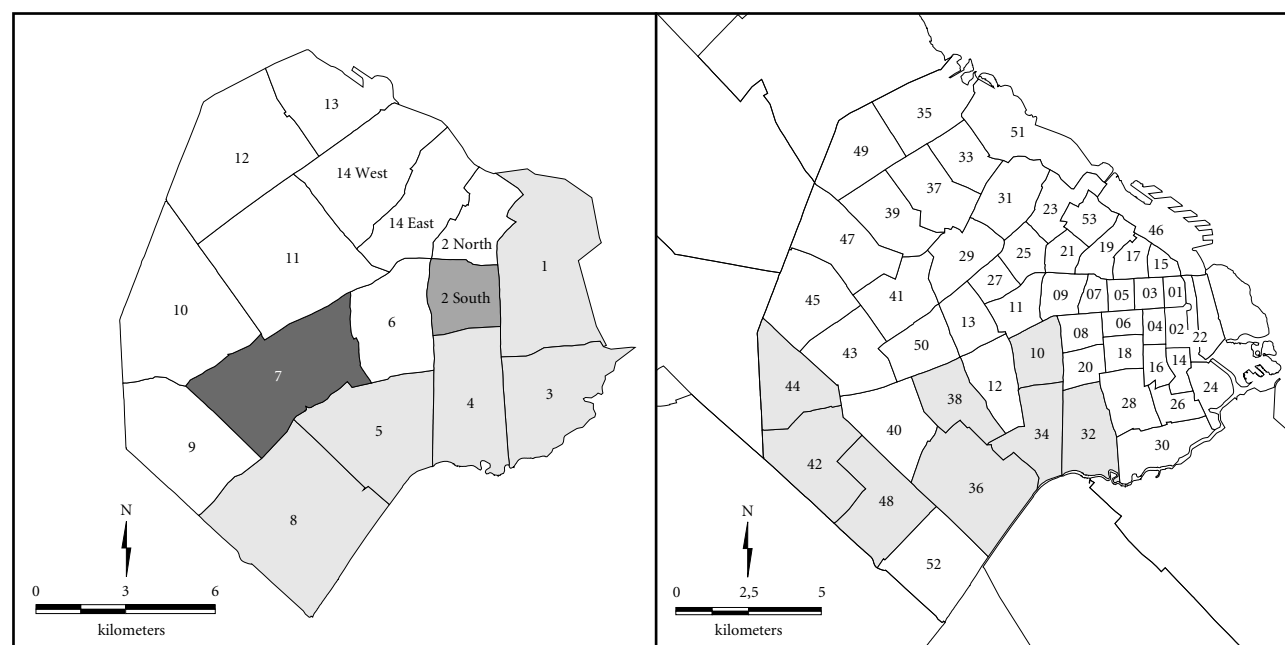
Inequality has been highlighted as a major explanatory element in research dealing with the study of spatial distribution of violence by socioeconomic profile²⁰. Like any of the social difficulties in general, the spatial distribution of violence is not at random; therefore, spatial patterns mapping this distribution within the territories are a framework for the interpretation of underlying processes, especially for reduction strategies²⁰. In fact, research has made it possible to identify spaces more vulnerable to violence: urban centers, large cities, nodes in drug trafficking networks and borders, among others²⁰.

In this paper, developing the index of violent incidents was, rather than an academic exercise, an attempt to understand jurisdictions in a dynamic way, in order to implement public policies that favor violence reduction^{23, 24}.

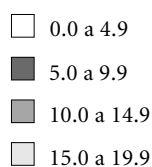
As seen in map 1, police stations rated “higher” were located in neighborhoods in the southwestern area of the Autonomous City of Buenos Aires. The southern area of the city has worse living conditions than the northern area, and it is in the south that the highest numbers of needy neighborhoods are concentrated. This area shows the highest unemployment rate, as well as the highest percentages of misery and population below the poverty line, with unmet basic needs and unfinished primary education²⁵. Of course, with this description we do not intend to establish a connection between

Map 1

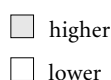
Index of violent incidents by police station in 2002 and percentage of households with unmet basic needs by Centro de Gestión y Participación (CGP) in 2001. City of Buenos Aires.



Population percent
of unmet basic needs



Index of violent incidents
by police station



Source: Prepared by the authors based on data supplied by the National Directorate for Criminal Policy of the Federal Ministry of Justice and Human Rights, the General Directorate of Statistics and Censuses of the Government of the Autonomous City of Buenos Aires, the Computerized Information Bureau of the Province of Buenos Aires Subsecretariat for Health Planning, the Argentine Federal Police Arms and Agencies Unit, and the General Directorate of Statistics and Censuses (Government of the CABA) based on the 2001 National Census of Population, Households and Housing.

poverty and violence, because we understand violence as a more complex phenomenon than this mere linear association.

On the other hand, to convey the great complexity of the subject, we stress that firearms do not simply represent a tool for robbing or killing. Firearms have an enormous symbolic power as an object of power and manliness. Qualitative research demonstrates this power to exert considerable influence on the use of firearms^{2, 15, 26}, not only for committing crimes but also as a response to the prevailing feeling of insecurity.

According to studies such as the one described by Kessler²⁶, the use of arms among offenders is, above all, crucial for shaping the relationship with victims and a vehicle for exerting power. To use a firearm is a choice between clearly set preferences. On the one hand, the firearm might immobilize victims or make them nervous – in this case leading to untimely actions that may force the offender to shoot. On the other hand, it enables offenders to commit more profitable robberies, what in turn increases the risk in case they are apprehended²⁶.

In addition, arms play a major role as a symbol of maleness, of the courage and capacity to defend oneself, to show and demonstrate “manliness”². Male subjectivity seems to be anchored in virility and work, and those who do not achieve social recognition and insertion tend to engage in violent situations – generally interpersonal confrontations²⁷ –, which result in all kinds of accidental injuries and deaths as a consequence of the negligent use of the weapon.

These readings help to explain what has been repeatedly found in various studies^{1, 6, 28, 29, 30, 31} and in this paper as well. Adolescent and young males appear as the most affected by violent deaths in general and by homicide in particular.

As stated by Couto & Schraiber²⁷, the idea that gender-specific social processes generate differences in morbidity and mortality rates between men and women is not novel. What strikes, what is peculiar is the high fatality rate associated with violent incidents involving the use of a firearm². Once again, the findings of this and other studies^{1, 2, 4, 5, 6, 8, 28, 29} show the special relevance of firearms in violent deaths, particularly in homicide deaths.

We would also like to stress the importance of the economic burden of violence for health care services, law enforcement and judicial services, as well as losses in terms of working hours whether through direct or indirect costs (emotional impact in victims and their relatives). According to the *World report on violence and health*¹, violence entails high costs in Latin American countries. Expressed as a percentage of GDP, Colombia and El Salvador have the highest expenditure of the region arising from violence (5.0% and 4.3%, respectively), followed by Brazil (1.9%), Peru (1.5%) and Mexico (1.3%). There are no reliable data on expenditure for Argentina. In the 1990s, the direct cost of deaths from violence for the health sector in the Americas was estimated to amount to ten billion US dollars per year, accounting for around 20% of the total domestic health care expenditure³².

We believe there are certain aspects of information systems that should be highlighted as a fundamental tool to support public policy-making. In this regard, Njaine *et al.*³³ refer to the “(dis)information” process as a result of difficulties (poor professional training, cultural devaluation of records, etc.) to generate and disseminate information (insufficiency of data, prevailing view in the media, etc.). Current information systems should overcome the classic

three-fold concept of datum, information and knowledge, and incorporate “communication” and “action” to build social citizenship^{33, 34, 35}.

Some of the authors of this paper have conducted previous research to find an integrated information system among official sectors. The first paper on the subject dealt with consistency of information on mortality from violence supplied by the health and justice sectors. An overall consistency coefficient of 0.66 was found; 33.5% of information on death from violence supplied by the health sector was deemed correct, through a cross-sectorial information circuit used by both the health and the justice sectors³⁶. The second paper explored factors affecting the quality of information on deaths from violence through qualitative methods. This analysis showed that inconsistencies in violence recording are mainly due to different conceptions: while the health sector focuses on the victim, the justice and police sectors focus on the offender³⁷.

Thus, when faced with the intent of integrating information, one of the main problems we come across is that data are recorded in terms of the perspective each of the sectors comprising the National Statistics System has on the issue. For instance, the justice sector analyzes data according to the type of homicide – with criminal intent or negligent –, while the health sector does not. In this investigation, numerical differences among data from the health and justice sectors may be partly due to such divergence in classifications of violent deaths.

Differences were found basically to relate to the sector-specific outlooks, but it is precisely this outlook that enables finding information that is complementary and, in turn, conclusions pointing to the seriousness and relevance of the subject. We therefore claim that it is possible to make an integrated analysis with existing information. We nevertheless stress that the complexity of the issue requires extremely careful planning of future cross-sectorial work and supplementing existing information with qualitative studies dealing with the cultural dimensions and social contexts in which violence takes place. Only this way will we achieve an analysis of the relational process of violence.

Given the interdisciplinary nature of the paper and its authors, it was hard to understand different disciplinary and/or sectorial dynamics, and we generally observed a deeper critical analysis within the discipline/sector and a tendency towards common sense in understanding other disciplines/sectors. We believe that

one should reflect upon these group dynamics, because the problem violence versus the safety of the citizen is more complex than isolated disciplines.

The issue violence is not restricted to the number of deaths and injuries it provokes; violence and insecurity are complex phenomena whose symbolic, subjective and institutional dimensions cannot be ignored. The feeling of constant vulnerability and threat contributes to the proliferation of violent and individualistic solutions, in which the population tends to take the law into their own hands, depriving the State of its specific role. Effective supervision of the proliferation of firearms should take into account efficient policy and strategy making, implementation and monitoring process, hampered nowadays by prevailing political lawlessness in this field.

Firearms and their relation to violence is a relevant subject in the public agenda of various

countries – such as Brazil, where a popular referendum was held on the ban on the trade in arms and ammunition. Of course the ban on trade in arms will not itself put an end to violence. The causes of violence are very complex, as previously mentioned in this article, and should be analyzed in full and considering all their interrelations³⁸. Banning the trade in arms and ammunition by legislating is to act against the military and authoritative logic frequently used in dispute resolution.

The impact of violence and its relation with firearms features as a major issue in the public agenda. Its cross-sectorial analysis, the development of cross-sectorial information systems with territorial expression, public policy design, the recovery of public space and social debate on these different aspects are some of the necessary and sometimes put-off tasks that should be faced in order to construct citizenship for everyone.

Collaborations

H Spinelli, M Alazraqui, G Zunino, H Olaeta, H Poggese, C Concaro and S Porterie have participated to an equal extent in the preparation of the present article.

References

1. Organización Panamericana de la Salud/Organización Mundial de la Salud. Informe mundial sobre la violencia y la salud. Washington, DC: OPS/WHO; 2003. (Publicación Científica y Técnica 588).
2. Briceño-León R, compilador. Violencia, sociedad y justicia en América Latina. 2001 [cited 2005 Nov]. Available from: <http://www.clasco.org/wwwclasco/espanol/html/libros/violencia/violencia.html>
3. Small Arms Survey. Small arms survey 2004: rights at risk. 2004 [cited 2005 Oct]. Available from: <http://hei.unige.ch/sas/Yearbook%202004/06%20Crime.pdf>
4. Szwarcwald CL, Castilho EA. Mortalidade por armas de fogo no estado do Rio de Janeiro, Brasil: uma análise espacial. *Rev Panam Salud Publica* 1998; 4(3):161-70.
5. Cardona M, García HI, Giraldo CA, López MV, Suárez CM, Corcho DC, et al. Homicidios en Medellín, Colombia, entre 1990 y 2002: actores, móviles y circunstancias. *Cad Saúde Publica* 2005; 21(3):840-851.
6. Peres MFT, Santos PC. Mortalidade por homicídios no Brasil na década de 90: o papel das armas de fogo. *Rev Saúde Publica* 2005; 39(1):58-66.
7. Desarme.org 2002. ¿Qué son las armas pequeñas? 2005 [cited 2005 Nov]. Available from: http://www.desarme.org/publique/cgi/cgilua.exe/sys/start.htm?sid=9&infoid=59&UserActiveTemplate=_desarme_es2
8. Sain GR. Informe final sobre mapeo de armas y municiones secuestradas y decomisadas. Programa de Apoyo a la Reforma Estatal y Fortalecimiento Fiscal (PAREFF). Proyecto: Construyendo Seguridad Ciudadana. Subproyecto: Recuperación y Destrucción de Armas en Circulación Ilícita. Buenos Aires: Ministerio de Seguridad de la Provincia de Buenos Aires, Banco Interamericano de Desarrollo; 2003.
9. Sistema Nacional de Información Criminal. Informe Anual de estadísticas Policiales. Dirección Nacional de Política Criminal. Ministerio de Justicia, Seguridad y Derechos Humanos. 2002. [cited 2005 Oct]. Available from: <http://www.polcrim.jus.gov.ar/insic2002/InformePais/Snic2002Parte1.pdf>
10. Dirección Nacional de Política Criminal. Dirección General de Estadísticas y Censos. Centro de Estudios Legales y Sociales. Homicidios dolosos en la Ciudad de Buenos Aires, año 2002. Una investigación sobre expedientes judiciales. Ministerio de Justicia, Seguridad y Derechos Humanos, Gobierno de la Ciudad Autónoma de Buenos Aires. 2002. [cited 2005 Oct]. Available from: <http://www.polcrim.jus.gov.ar/Dolosos/Dolosos2002Info1.pdf>
11. Spinelli H, Alazraqui M, Macías G, Zunino G, Nadalich JC. Muertes violentas en la Ciudad Autónoma de Buenos Aires. Una mirada desde el sector salud. Buenos Aires: Organización Panamericana de la Salud; 2005. (Publicación Científica 60).
12. Souza ER, Ximenes LF, Alves F, Magalhães C, Bilate D, Szuchmacher AM, et al. Avanços do conhecimento sobre causas externas no Brasil e no mundo: enfo-

- que quanti e qualitativo. In: Minayo MCS, Souza ER, organizadores. *Violência sob o olhar da saúde: a infrapolítica de contemporaneidade brasileira*. Rio de Janeiro: Ed. Fiocruz; 2003. p.131-60.
13. Organización Panamericana de la Salud/Organización Mundial de la Salud. Clasificación estadística internacional de enfermedades y problemas relacionados con la salud. Décima revisión. Washington, DC: OPS/OMS; 1995. (Publicación Científica 554).
 14. Dirección Nacional de Política Criminal. Estudio de victimización: Ciudad Autónoma de Buenos Aires, 2002. Ministerio de Justicia, Seguridad y Derechos Humanos de la Nación. 2003. [cited 2005 Oct]. Available from: <http://www.polcrim.jus.gov.ar/victimiz/victim.htm>
 15. Souza ER. Masculinidade e violência no Brasil: contribuições para a reflexão no campo da saúde. *C S Col* 2005; 10(1):59-70.
 16. Programa de Naciones Unidas para el Desarrollo. Armas de fuego y violencia. Programa Hacia la Construcción de una Sociedad sin Violencia. 2003. [cited 2005 Oct]. Available from: <http://www.violenciaelsalvador.org.sv/index.php?module=htmlpages&func=display&pid=37>
 17. Minayo MCS, Deslandes SF. A complexidade das relações entre drogas, álcool e violência. *Cad Saude Publica* 1998; 14(1):35-42.
 18. Palmer DS. Drogas y seguridad en el Mercosur. Buenos Aires: Instituto Nacional de Administración Pública; 1998.
 19. Programa de Naciones Unidas para el Desarrollo. El impacto de las drogas en la violencia. Buscando soluciones. Consejo Nacional de Seguridad Pública de El Salvador. Programa Sociedad sin Violencia. Programa Hacia la Construcción de una Sociedad sin Violencia. 2004. [cited 2005 Oct]. Available from: <http://www.violenciaelsalvador.org.sv/modules.php?op=modload&name=Downloads&file=index&req=views-download&sid=22>
 20. Rojas LI, Santos SM, Barcellos C. Diferenciación espacial de la violencia en América Latina. In: Minayo MCS, Coimbra Jr. CEA, organizadores. *Críticas e atuantes: ciências sociais e humanas em saúde na América Latina*. Rio de Janeiro: Ed. Focruz; 2005.
 21. Pompei E. Las consecuencias sociales de la distribución. *Enoikos* 1999; (14):69-79.
 22. United Nations Office on Drugs and Crime. The application of United Nation standards and norms in crime prevention and criminal justice. Expert Group Meeting. Vienna: Unodoc; 2003.
 23. Castro MSM, Silva BFA, Assunção RM, Beato Filho CC. Regionalização como estratégia para a definição de políticas públicas de controle de homicídios. *Cad Saude Publica* 2004; 20(5):1269-80.
 24. Macedo AC, Paim JS, Silva LMV, Costa MCN. Violência e desigualdade social: mortalidade por homicídios e condições de vida em Salvador, Brasil. *Rev Saude Publica* 2001; 35(6):515-22.
 25. Dirección General Adjunta de APS. Análisis de situación de salud (ASIS) de la población de la ciudad de Buenos Aires, año 2003. Buenos Aires: Departamento de Epidemiología/Secretaría de Salud del Gobierno de la Ciudad de Buenos Aires; 2003.
 26. Kessler G. Sociología del delito amateur. Buenos Aires: Editorial Paidós; 2004.
 27. Couto MT, Schraiber LB. Homens, saúde e violencia: novas questões de gênero no campo da saúde coletiva. In: Minayo MCS, Coimbra Jr. CEA, organizadores. *Críticas e atuantes: ciências sociais e humanas em saúde na América Latina*. Rio de Janeiro: Ed. Fiocruz; 2005.
 28. Briceño-León R. Urban violence and public health in Latin America: a sociological framework of explanation. *Cad Saude Publica* 2005; 21(6):1629-64.
 29. Franco S. La violencia homicida y su impacto sobre la salud en América Latina. In: Minayo MCS, Coimbra Jr. CEA, organizadores. *Críticas e atuantes: ciências sociais e humanas em saúde na América Latina*. Rio de Janeiro: Ed. Fiocruz; 2005.
 30. Souza ER. Impacto da violência no Brasil e em alguns países das Américas. In: Minayo MCS, Coimbra Jr. CEA, organizadores. *Críticas e atuantes: ciências sociais e humanas em saúde na América Latina*. Rio de Janeiro: Ed. Fiocruz; 2005.
 31. Sant'Anna A, Aerts D, Lopes MJ. Homicídios entre adolescentes no Sul do Brasil: situações de vulnerabilidade segundo seus familiares. *Cad Saude Publica* 2005; 21(1):120-129.
 32. Macedo CG. Sociedad, violencia y salud: una nueva agenda para la democracia. Discurso magistral en la Conferencia Interamericana sobre Sociedad, Violencia y Salud; 1994 Nov 16-17; Washington, DC; 1994. [Mimeo].
 33. Njaine K, Souza ER, Minayo MCS, Assis SG. A produção da (des)informação sobre violência: análise de uma prática discriminatória. *Cad Saude Publica* 1997; 13(3):405-14.
 34. Alazraqui M. Sistemas de Información en Salud: de sistemas cerrados a la ciudadanía social. Un desafío en la reducción de desigualdades en la gestión local [tese]. Salvador: Instituto de Saúde Coletiva, Universidade Federal da Bahia; 2005.
 35. Njaine K, Souza ER. Informação e comunicação sobre violência: instrumentos para a cidadania. In: Minayo MCS, Souza ER, organizadores. *Violência sob o olhar da saúde: a infrapolítica de contemporaneidade brasileira*. Rio de Janeiro: Ed. Fiocruz; 2003. p. 269-282.
 36. Alazraqui M, Spinelli H, Wilner A, Nadalich J, Olaeta H, Urquía M. Análisis de la calidad de las estadísticas sanitarias oficiales de mortalidad por causas externas: propuesta de un circuito de información intersectorial. Proyecto N° 105 PPA 1. Programa de Vigilancia de la Salud y Control de Enfermedades (VIGI+A). Buenos Aires: Ministerio de Salud y Ambiente de la Nación; 2003.
 37. Alazraqui M, Spinelli H, Wilner A, Olaeta H. Análisis cualitativo de la calidad de información de los sistemas estadísticos de salud y de justicia sobre muertes por violencias en la Ciudad Autónoma de Buenos Aires en 2001. Proyecto N° 6. Programa de Vigilancia de la Salud y Control de Enfermedades (VIGI+A). Buenos Aires: Ministerio de Salud y Ambiente de la Nación; 2004.
 38. Minayo MCS. Diga sim! Ao referendo que pergunta sua opinião sobre a proibição de comercializar armas no brasil. 2005. [cited Nov 2005]. Available from: <http://www.abrasco.org.br>>ABRASCO

Article presented in 6/03/2006

Approved in 2/04/2006

Final version presented in 20/04/2006