



“Homicide and Suicide in Switzerland over twenty years (1980-2004): Study on forensic medicine, police and court files“

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1. INTRODUCTION

1.1 Aims of the project

Homicide is an extreme and a rare event. In Switzerland, the number of completed homicides varied, between 1982 and 2004, from 60 to 110 cases per year, according to police statistics (BFS 2009a). These numbers are far too low to allow any meaningful analyses of correlates, particularly if the great variety of homicide constellations is taken into account. The idea of setting up a large database, covering all homicide cases over a longer period of time and including many details on case, victim and offender characteristics has, thus, become increasingly popular in several countries. Models are large databases of a similar kind in the Netherlands (Nieuwbeerta & Leistra 2007), Finland (Kivivuori et al. 2007), England and Wales (Soothill et al. 2002), several American cities (such as Chicago, Block et al. 1999) and, although limited to homicide/suicide in the family context, Germany (Oberwittler & Lafrenz 2007). Some of these databases have been in operation over a couple of years, others are still under development. The present project has been narrowly associated with these sister-projects from the beginning. It has greatly benefited particularly from the Dutch model, and contributed to develop similar initiatives in Germany. For the time being, the analyses at the international level are currently taking off at an increasing pace. Our project is part of several of these initiatives.

During the time of the build-up of this database, the Federal Office of Statistics has, supported by the Federal Bureau of Gender Equality, prepared a study homicide and attempted homicide, based on information available at the statistical offices of the cantonal police forces and based on four years (2000 to 2004, Zoder & Maurer 2006). The present database is far broader, reaching back to 1980, includes, therefore, a far larger sample of cases, and contains

information on many critical variables that are usually not recorded at the level of police statistical offices. Although our database includes only a limited (French-Swiss) sub-sample of attempted homicides, it covers also the wide area of suicide. In sum, it will be helpful in studying critical issues related to homicide and suicide as well as the prevention of such events.

The present report has been drafted with a limited purpose. It is intended to offer an overview of what kind of information is available in the database and what frequencies can be observed. It has been prepared in English, given that the interest for this project is considerable abroad and that students and colleagues should have a documentation that is easily accessible. Of course, the data will be made available to other Colleagues and researchers, either directly from our centre or through the usual channels of data archives.

1.2 History of the project

The project “Homicide and Suicide in Switzerland over twenty years (1980-2004): Study on forensic medicine, police and court files” has been sponsored by the Swiss National Science Foundation (thereafter FNS) and aims to improve the empirical knowledge about homicides and suicides in Switzerland. The first part of this FNS-project started in 2001 and was limited to 4 cantons in the French-speaking part of Switzerland, namely Vaud, Neuchâtel, Valais and Fribourg (Villettaz, Killias & Mangin, 2003). For the time period from 1980 to 2001, all cases of homicide (N=191) as well as of the available cases of attempted homicide (N=121) and a random sample of 10% of all cases of suicide since 1980 (or 201 cases) were collected. Since suicide is, approximately, about ten times more frequent than homicide, a random sample of 10% of suicide cases seemed appropriate to reach similar absolute numbers of homicide and

suicide. The methodology of the data collection is common to both projects, reason why we refer to the methodology section in our 2003 report for any question in this regard.

After the first project had been completed in 2003, the FNS sponsored the extension of the project to all Swiss cantons. However, to shorten the complicated data collection process and to make the project more manageable, we decided to take into consideration only completed homicides (and, therefore, to exclude attempted homicides¹) from 1980 to 2004. Moreover, the project only includes intentional homicides. This means that all authors in our database were, theoretically at least, guilty of one of the sections concerning intentional homicide (sections 111 to 116 of the Swiss Penal Code). Negligent manslaughter or assaults followed by death were generally not taken into consideration. However, there are a few exceptions to this rule. Cases of homicide where the offender's intent was unknown at the beginning of the investigation were included. There are 30 such cases in our database.

1.3 Data collection

Homicide cases were identified through the registers of autopsies performed at the Institutes of Legal Medicine of Lausanne, Geneva, Berne, Basle, Zurich, St. Gallen, Chur and Lugano. As far as possible, all data for the period of 1980 to 2004 were collected. However, archives at the Institute of Legal Medicine of Berne were no longer available for the years of 1990 and before. This concerns the cantons of Berne, Aargau and Solothurn. A few cases where no autopsy has been performed may also have escaped our searches.

The legal medicine files contain mostly information on the victim. Therefore, police as well as court data were used to collect data on offenders and the circumstances of the act.

¹ Data on attempted homicide are usually not recorded in the files of coroners' institutes.

Concerning suicide, we have first listed all suicides recorded in either the Institutes of Legal Medicine or by the police². In a second step, a random sample of 10 percent was drawn from this list. The reason of this choice was to reach samples of similar sizes for suicide and homicide and to use resources as efficiently as possible, comparisons between these two types of events gaining nothing in precision by disproportionately large numbers of suicide.

In order to update the earlier data collection in the four French-speaking cantons (that had ended with the year 2001), all eligible cases up to 2004 were included into our database as part of the second initiative.

1.4 Coding of the data

The data from legal medicine, police or court files were coded electronically. The homicide cases were collected using 3 different coding lists, the first containing general case information, the second information about the victim(s) and the third information about the offender(s). Data on suicide cases were recorded in a general case information as well as in a suicidee code list. Additional information about the suicidee and the circumstances were recoded whenever available through police files.

Although our research project combined several data sources in order to obtain a complete dataset, the problem of missing data could not be avoided completely. This means, legal medicine and court data do not systematically report all the requested information in our coding list. Especially variables that are dispensable to the police investigation are hardly found in the files. Therefore, it is essential to deal with missing cases in a coherent way. We decided

² Concerning the first project, only suicide cases registered in the Institute of Legal Medicine in Lausanne were collected.

to apply the technique of complete case analysis (or listwise deletion) and therefore excluded for the analysis all cases with no relevant information available. This technique is one of the most commonly used techniques to deal with missing data in homicide research (Riedel & Regoeczi 2004). However, when it comes to questions in our coding list that could be negated, the questions left unanswered and the “No” answers were rejoined, as it is usually hard to distinguish between the negation of a variable and a non-existing information. In these cases, the missing values only consist of cases with unknown offenders, cases where the court files were not accessible and cases from the 2001 project that sometimes do not provide information that are requested in the 2004 coding list.

2. HOMICIDE

2.1 General information about homicide cases in the database

2.1.1 Number of offenders and victims

Fortunately, homicide is a rare event in Switzerland. Our database only counts completed 1321 homicide cases that occurred during the 25 years from 1980 to 2004. Even if these cases are not complete for the earlier years, due to the destruction of archives, Swiss homicide rates are low in an international comparison, with less than 100 cases of completed homicides per year over the last 20 years. In 2004, the country presented the 6th least number of homicides among 37 European nations within relevant police-recorded data (European Sourcebook of Crime and Criminal Justice Statistics 2006, Table 1.2.1.3). The 1321 homicide cases recorded in our database concerned 1416 offenders and 1472 victims. Three cases with the same person as author have been counted twice, because considerable time span separated the several murders; therefore, we considered those cases to be separated from each other, although the offender is the same. The distribution of the number of offenders and victims in each case can be visualized from Table 1³.

³ In one case with two victims, one victim has been autopsied in France, reason why the general number of victims does not match the number of victims in table 1.

Table 1: Distribution of the number of offenders and victims, in % of cases

		Number of offenders					
		Offender unknown	1	2	3	4	Total
Number of victims	1	12.3% (N=163)	75.9% (N=1002)	3.5% (N=46)	0.8% (N=11)	0.5% (N=7)	93% (N=1229)
	2	0.7% (N=9)	4.2% (N=55)	0.2% (N=2)	0.2% (N=3)	0% (N=0)	5.2% (N=69)
	3	0.1% (N=1)	1.1% (N=15)	0% (N=0)	0% (N=0)	0% (N=0)	1.2% (N=16)
	4	0.1% (N=1)	0.2% (N=2)	0% (N=0)	0% (N=0)	0% (N=0)	0.2% (N=3)
	5	0% (N=0)	0.2% (N=2)	0% (N=0)	0% (N=0)	0% (N=0)	0.2% (N=2)
	14	0% (N=0)	0.1% (N=1)	0% (N=0)	0% (N=0)	0% (N=0)	0.1% (N=1)
	22	0% (N=0)	0.1% (N=1)	0% (N=0)	0% (N=0)	0% (N=0)	0.1% (N=1)
	Total	13.2% (N=174)	81.6% (N=1078)	3.6% (N=48)	1.1% (N=14)	0.5% (N=7)	100% (N=1321)

As it can be seen, most of the homicide cases in our database imply one offender and one victim (76%). Cases with two or more victims or two and more offenders involved are therefore fairly rare.

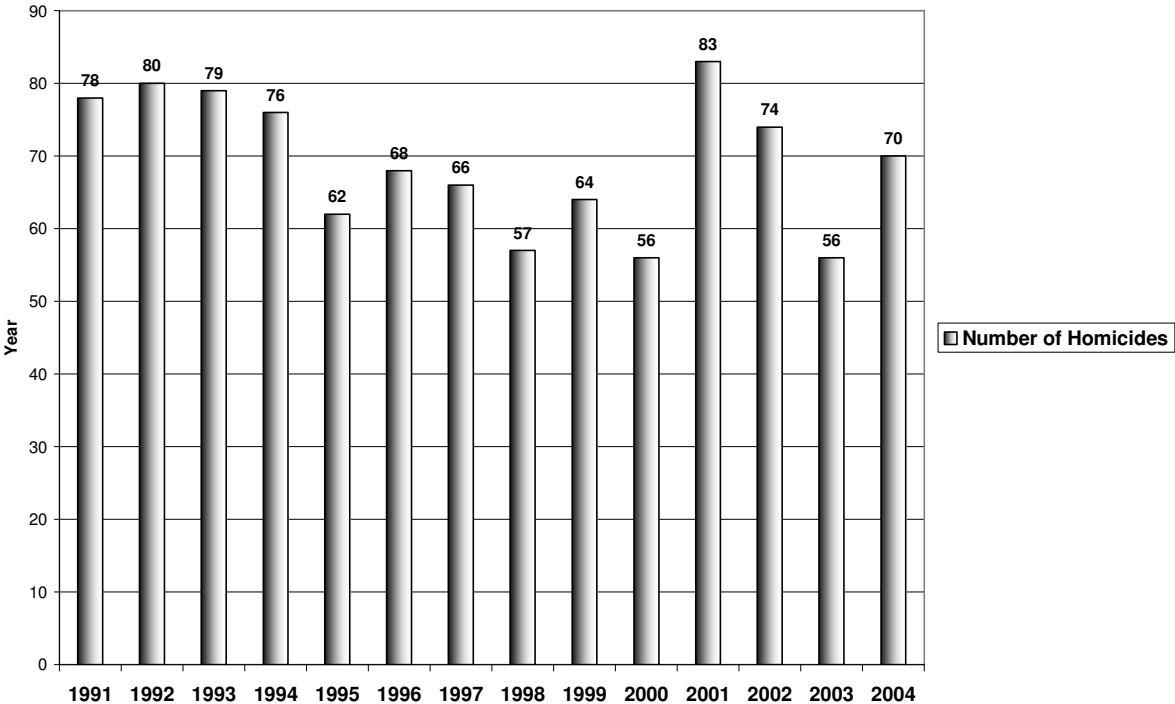
2.1.2 Historical development of homicide in Switzerland

The longitudinal distribution of the homicide cases is presented in the following figure. To determine in which year a homicide has taken place, the date of discovery of the victim's body has been considered, as this date was generally available for all cases. There might be a few cases where the victim has been found long after the homicide had taken place. However, such cases are very rare.

It has been already pointed out that we were not able to collect data from several cantons before 1991, due to the fact that archives had been destroyed at the Forensic Medicine Institute of the University of Berne. We are, therefore, restricting the longitudinal observation of the number of homicide cases to the years 1991 to 2004

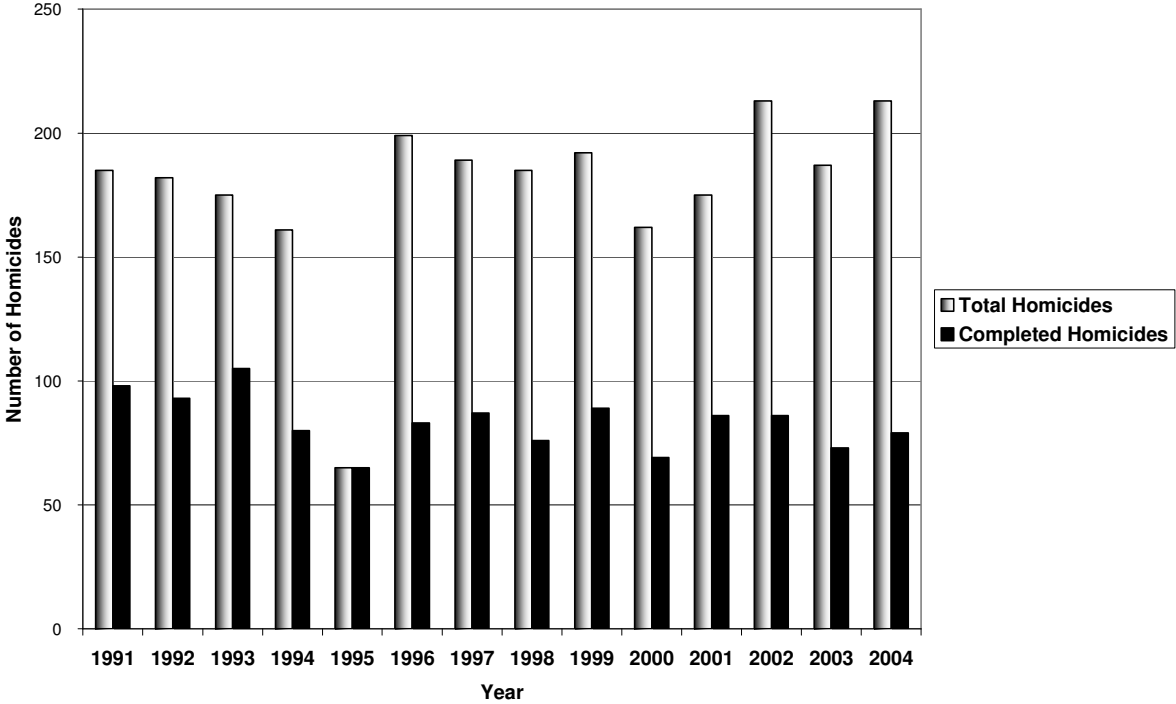
As it can be seen in Figure 1, homicide is a relatively stable phenomenon in Switzerland, as the number of cases varies between 56 and 83 during the observed years. Therefore, a real (upwards or downwards) trend cannot be observed. However, the time span might not be sufficiently long to discover any longitudinal trends.

Figure 1: Absolute number of completed homicide cases between 1991 and 2004 in our database



For the sake of comparison, Figure 2 gives the absolute numbers of completed as well as of total homicides (i.e. including attempts) for the same period.

Figure 2: Absolute number of police-recorded total completed and total homicides, 1991-2004 (Source: PKS)



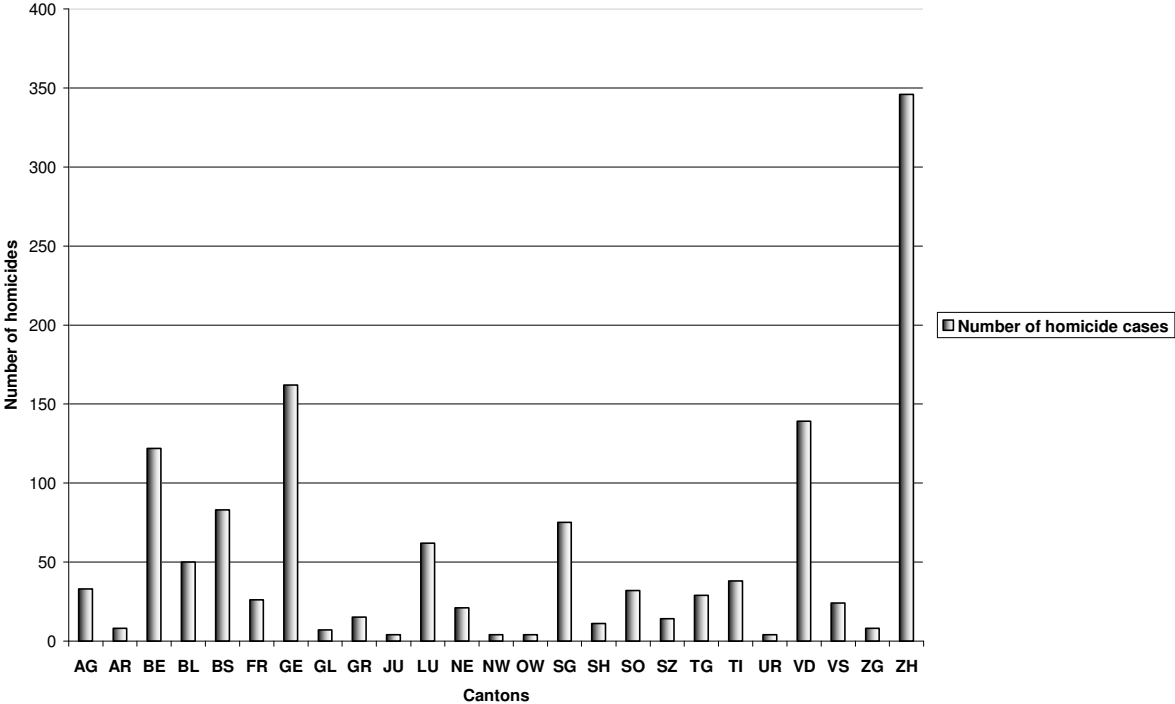
The number of police-recorded homicides exceeds the number of completed homicides recorded in our database. Whereas total homicide continues to increase overall, completed homicides seem to have remained fairly stable. This may probably reflect much improved emergency services throughout the country during this period that allowed to save many lives of severely wounded victims. In the USA, it is assumed that two in three severely injured victims who would have died in the 1960ies survived due to improved emergency services by 1990.

2.1.3 Cantons

The results of the distribution of the homicide cases by canton are not surprising. Populated cantons with big cities, such as Zurich, Geneva, Bern and Vaud, present the highest number of cases in Switzerland, whereas rural cantons, especially the central Swiss Cantons, have a very

low number of homicide cases in their area. Unfortunately, published police statistics do not indicate number by canton. Therefore, no such comparison between police-recorded homicides and cases in our database is possible.

Figure 3: Homicide distribution by Swiss cantons, in absolute numbers of homicide cases



2.1.4 Type of homicide

The following Table gives the frequency in absolute numbers of homicide by circumstances of the event. Most homicides take place in a setting of private life-related conflicts (54%), followed by vengeance (15%) and robberies/hold-ups (9%).

Table 2: Typology of homicide cases in our database

<i>CIRCUMSTANCES OF THE HOMICIDE</i>	<i>SWITZERLAND (IN % OF CASES)</i>
Conflicts related to private life	53.8 (N=615)
Revenge/reckoning, conflicts (other than sentimental conflicts)	14.5 (N=166)
Robbery, hold-up, theft	9.0 (N=103)
Psychological troubles	4.1 (N=47)
Self-defense/ Emergency Situation	2.7 (N=31)
Circumstances/Reasons not clear	2.7 (N=31)
Amok / Mass murder	0.7 (N=8)
War	0.2 (N=2)
Hostage taking	0.3 (N=3)
Other	12.1 (N=138)
<i>No information available</i>	<i>13.4 (N=177)</i>

2.2 Victim and offender characteristics

2.2.1 Gender

Homicide victimisation seems to be equally distributed according to gender. Our database contains 56% male and 44% female victims. The high proportion of female homicide victims is, in a historic perspective, a relatively new phenomenon (Killias 2002).

Table 3: Gender of homicide victims and offenders

<i>GENDER</i>	<i>HOMICIDE VICTIMS (IN %)</i>	<i>HOMICIDE OFFENDERS (IN %)</i>
Male	56.3 (N=827)	90.1 (N=1119)
Female	43.7 (N=643)	9.9 (N=123)
Unkown/No information available	0.1 (N=2)	12.3 (N=174)

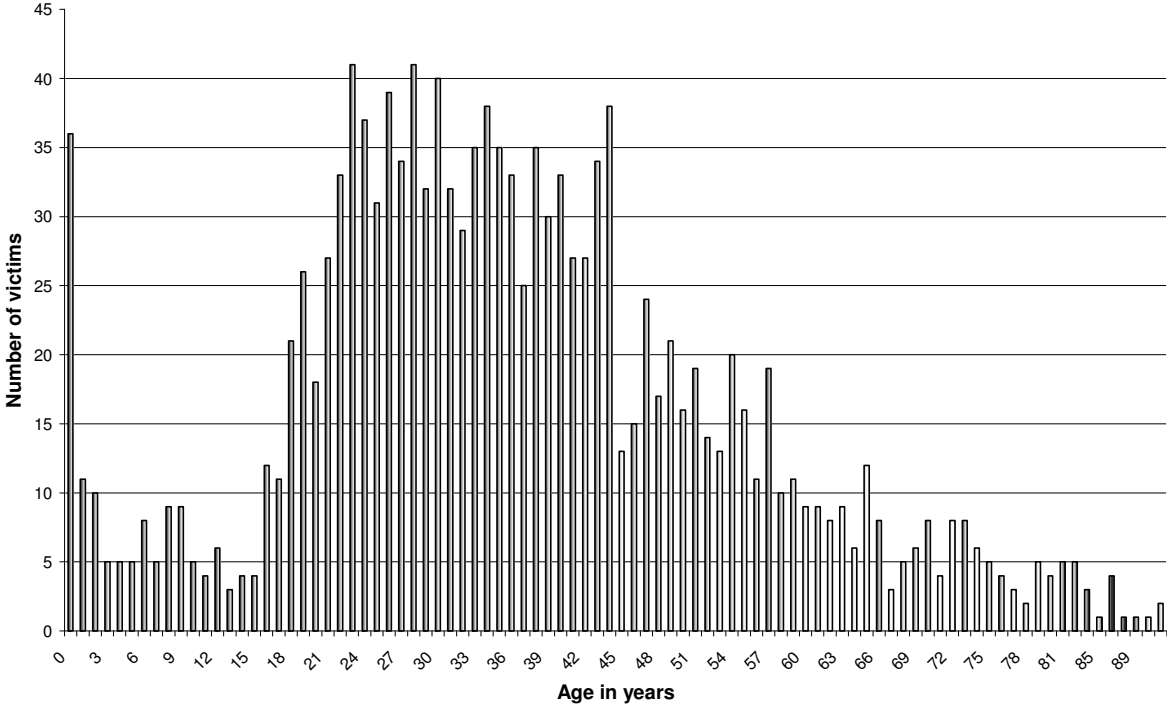
The large majority of offenders (90%) are male, whereas only 10% of offenders are female. This finding can be corroborated by most of the research in this field (see Nieuwbeerta & Leistra 2007, Brookman 2005). In our sample, 12% of the offenders are unknown therefore, their gender could not be determined.

2.2.2 Age

It is a well known fact in criminology that offending peaks at a young age and that it subsequently decreases over the life-span (Killias 2002). In connection with homicide, we shall find the same pattern (see below). Interestingly, however, and not unlike what is known for other offences (Killias 2002), the risk of victimisation also peaks at a relatively young age. Not surprisingly, the following figure 4 shows that cases recorded in our database follow a similar pattern. Contrary to violent offences in general, infants of less than one year of age constitute a high risk group, beyond infanticides (Article 116 of the Swiss Penal Code) probably as a result of the “Shaken Baby Syndrom”. Homicide victimization then stays relatively stable on a low level during childhood and increases dramatically between the age of 18 and 24. Victims aged 25 to 45 constitute the majority of our sample; after 45 the number of victims decreases considerably and stays then more or less on the same level as child victimisations.

Earlier research in the United States (Maxfield 1989) has found a very similar age curve for homicide victims.

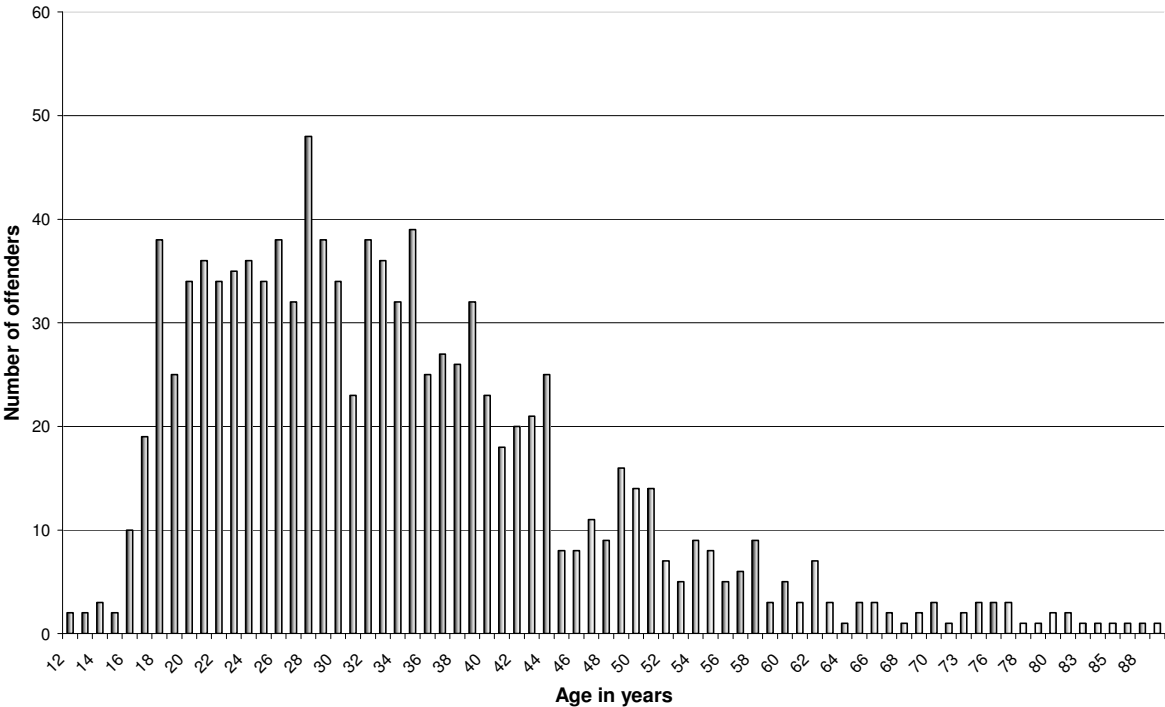
Figure 4: Age of homicide victims



Of course, absolute numbers of victims (as in Figure 4) should be transformed into rates per 100,000 in the general population of the same age. In the present case, we have preferred giving the raw data because the database includes over 20 years. Therefore, it would not be easy to decide for which year eventual demographic data should be considered. In addition, it is well known that Switzerland’s population is characterised by a relatively even age-distribution. The detailed indication for every year (in Figure 4) gives, therefore, an adequate picture of the distribution of risks of homicide victimisation across the lifespan. As the data suggest, this risk remains relatively constant between 20 and 45 years, and decreases steadily between 45 and 65. During the “risky” years, it is about 10 times higher than after 65 and about 7 times higher than during childhood.

The age curve of the offenders, however, increases considerably at the beginning of adulthood, and reaches its peak in the late 20ies. After the age of 40, a steady decrease can be observed, and the curve levels off after 65.

Figure 5: Age of homicide offenders



In comparison to the age of offenders, victims’ age-curve seems more evenly distributed across ages, despite a certain peak between 20 and 45 years. This is not much different from what is known for other forms of violent victimisation. Indeed, very young and elderly people are, as well as females (see below), by no means exempt of risk, even if their odds are somewhat lower than during late adolescence and young adulthood (Killias, Haymoz & Lamon 2007). Offending, however, is much less evenly distributed over the lifespan, since it clearly peaks at late adolescence and early adulthood (Killias 2002). Compared with offending in general, the age-curve of homicide offenders is somewhat “broader” in shape. It starts with a very sharp increase after the age of 18, and remains at a high level until beyond the age of 45.

In other words, murderers are, compared to other violent offenders, substantially older. As we shall see, this difference may largely be related to homicide of intimates, i.e. a risk that is far less present before the age of 30 when other offences have already decreased.

2.2.3 Marital status

Most of the homicide victims are single (42%) or married (41%), with a minority of victims being divorced (9%) or separated from their partners (4%). 4% of all victims are widowed. In comparison to the general population, homicide victims are less often married. According to census figures for 1995 (a medium year of our database), 42% were single, 47% were married, 5% divorced, and 6% widowed (BFS 2009b).

Offenders' marital status does not differ substantially from that of their victims, with 41% being single, 41% married, 12% divorced, and 5% separated. However, they are less likely to be widowed (0.6%).

Table 4: Marital status of homicide victims and offenders

MARITAL STATUS	<i>HOMICIDE VICTIMS (IN %)</i>	<i>HOMICIDE OFFENDERS (IN %)</i>
Single	41.7 (N=526)	41.2 (N=450)
Married	41.1 (N=519)	41.2 (N=450)
Divorced	9.4 (N=119)	11.5 (N=126)
Separated	3.6 (N=45)	5.3 (N=58)
Widowed	4.2 (N=53)	0.6 (N=7)
<i>No information available</i>	<i>14.3</i> <i>(N=210)</i>	<i>23.0</i> <i>(N=325)</i>

In sum, the marital status mostly reflects age. There is a remarkable difference with respect to the category of widowed persons who make up for 13% of all suicide victims.

2.2.4 Nationality

No information is available on the residence of 276 victims (18.8%) and 477 offenders (33.7%) and the national background of 196 victims (13.3 %) and 308 offenders (21.8 %). Among those with known background, 96% of victims and 92% of offenders are living in Switzerland. 42% of victims and over one half (52.5%) of offenders are foreign nationals. In Switzerland, the population of foreign citizens varied over the years between 20 and 25% of the total resident population (BFS 2009c). Therefore, foreign nationals are more at risk of becoming a victim of homicide, and also much more likely to commit homicide.

Table 5: Nationality of victims and offenders of homicide

<i>NATIONALITY</i>	<i>HOMICIDE VICTIMS (IN %)</i>	<i>HOMICIDE OFFENDERS (IN %)</i>
Swiss nationals	57.9 (N=739)	47.5 (N=526)
Foreign nationals	42.1 (N=537)	52.5 (N=582)
<i>No information available</i>	13.3 (N=196)	21.8 (N=308)

The next table shows, based on cases with known national background of both victims and offenders only, whether homicide is more of an intercultural or rather an intra-cultural nature. When the victim's nationality is analysed by offender's nationality, it turns out that murderers of Swiss victims are slightly more often foreign nationals than one would expect based on the proportion of foreigners in the general population (29% versus 20 to 25%). Foreign victims

have, on the other hand, a far higher probability of being murdered by an offender of foreign rather than of Swiss background (83 versus 17%). When we look at this distribution from the offenders' side, it turns out that 85% of Swiss offenders kill a victim of Swiss background, whereas foreign nationals have a more equal probability of killing a foreign (67%) or a Swiss victim (33%). As a result, homicide in Switzerland tends to be an intra-cultural phenomenon for Swiss offenders (85%) as well as for foreign victims (83%), as observed on the base of police data in Basle during the early 1990ies (Eisner 1997). On the other hand, foreign offenders choose their victims more or less equally among the nationalities (17% of cases with Swiss victims against 35% cases with foreign victims). However, there are quite a few cases where no information is available. In addition, a more detailed (and meaningful) analysis by looking at particular national backgrounds of victims and offenders might reveal even more convincing evidence of the intra-cultural aspect of homicide.

Table 6: Nationality of offenders, by victims' national background

		<i>NATIONALITY OF OFFENDER (IN % OF CASES)</i>	
<i>NATIONALITY OF VICTIM (IN % OF CASES)</i>		Swiss	Foreign
Swiss	Within victim nationality	71.1	28.9
	Within offender nationality	85.0	32.6
	Total	41.3 (N=397)	16.6 (N=161)
Foreign	Within victim nationality	17.4	82.6
	Within offender nationality	15	67.4
	Total	7.3 (N=70)	34.7 (N=333)

2.2.5 Relationship between victim and offender

An important and interesting aspect in homicide cases consists of the relationship between offender and victim. It is, after all, crucial to understand in which personal setting homicide can take place. This aspect is particularly important for prevention, since any measures should respond specifically to particular “risk constellations”. Not surprisingly, most cases in our database concern homicide within intimate relationships (32%). This category is found to be the most frequent one in Europe, whereas the United States are more frequently concerned by street crime related homicide (Killias, Dilitz & Bergerioux 2007). Homicide among private acquaintances is the second most common setting (22%), followed by homicide within the family (18%) in its large sense (all relatives being included).

Table 7: Distribution of homicide, by victim-offender relationship

<i>KIND OF RELATIONSHIP</i>	<i>BETWEEN VIC-TIM AND OF-FENDER⁴(IN %)</i>	<i>BETWEEN OF-FENDER AND VICTIM (IN %)⁵</i>
Sentimental partner or ex-partner (husband/wife, boy/girlfriend, sexual partners etc.)	31.7 (N=390)	33.1 (N=391)
Private acquaintance	21.7 (N=267)	23.1 (N=273)
Family relatives (son, daughter, mother, father, brother, sister or other family)	18.2 (N=224)	15.0 (N=177)
Stranger	14.9 (N=183)	16.2 (N=192)
Professional acquaintance	8.0 (N=98)	5.3 (N=63)
New sentimental partner of the ex-partner	2.1 (N=26)	0.7 (N=8)
Prostitution relationship	1.7 (N=21)	1.9 (N=22)
Other relationship	1.9 (N=23)	4.7 (N=56)
<i>No information available</i>	<i>16.3</i>	<i>16.5</i>

⁴ In case of multiple offenders, the relationship to only one of them is taken into account (usually, the relationship is the same between a victim and its several offenders).

⁵ In case of multiple victims, only one victim has been taken into account.

	(N=240)	(N=234)
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As mentioned above, homicide most frequently takes place among sentimental partners or ex-partners. Therefore, it is important to analyse this setting more into detail.

Cohabitation is a first aspect of interest in this connection. This variable does not only concern sentimental partners, but also family members or acquaintances living in the same housing place. In general and taking only cases with known information into account, around one third (31%) of all victims lived together with their offender at the moment of the homicide.

Table 8: Cohabitation between victim and offender (all constellations)

<i>VICTIM AND OFFENDER LIVING TOGETHER?⁶</i>	<i>HOMICIDE OFFENDERS (IN %)</i>
Yes	31.1 (N=384)
No / No indication in file	67.6 (N=836)
Other	1.3 (N=16)
<i>No information available</i>	<i>12.7</i> <i>(N=180)</i>

In the following tables, we look only at the category of sentimental (ex)partners. As we can see in Table 9, two in three (63%) homicide victims who were sentimentally related to their offenders lived together with him/her at the moment of the crime.

⁶ This category is based on an offender variable: Therefore, in case of several victims, only one victim was chosen for this question.

Table 9: Cohabitation between victim and offender (only sentimental relationships)

<i>VICTIM AND OFFENDER LIVING TOGETHER?</i> ⁷	<i>IN % OF OFFENDERS BEING IN A SENTIMENTAL RELATIONSHIP WITH THE VICTIM</i>
Yes	62.7 (N=239)
No / No indication in file	37.0 (N=141)
Other	0.3 (N=1)
<i>No information available</i>	0.8 (N=3)

Also, most of the offenders are married to their victims (63%).

Table 10: Marital and other types of sentimental relationships

<i>TYPE OF RELATIONSHIP</i> ⁸	<i>IN % OF OFFENDERS BEING IN A SENTIMENTAL RELATIONSHIP WITH THE VICTIM</i>
Marriage	62.5 (N=195)
Cohabitation (“common law marriage”)	12.8 (N=40)
Intimate friendship without living together	20.5 (N=64)
Only sexual relationship	4.2 (N=13)
<i>No information available</i>	18.8 (N=72)

⁷ This category is based on an offender variable: Therefore, in case of several victims, only one victim was chosen for this question.

⁸ This category is based on an offender variable: Therefore, in case of several victims, only one victim was chosen for this question.

When it comes to the actual state of the relationship at the time of the homicide, half of the offenders (50%) were still in the relationship with the victim, whereas 32% were in the stadium of splitting up, and 17% were ex-partners of the victim, their relationship being over before the homicide happened.

Table 11: State of the relationship at the moment of the crime

<i>STATE OF THE RELATIONSHIP AT TIME OF HOMICIDE?⁹</i>	<i>IN % OF OFFENDERS BEING IN A SENTIMENTAL RELATIONSHIP WITH THE VICTIM</i>
Relationship is still going on	50.3 (N=145)
Relationship is in the splitting up phase	32.3 (N=93)
Relationship is already over	17.4 (N=50)
<i>No information available</i>	25.0 (N=96)

It is difficult to find demographic data on the proportion of these several types of constellations in the general population. According to the International Violence against Women Survey (thereafter IVAWS), 63% of the surveyed women indicated to be married, 1.4% were separated, 11% lived together with a boyfriend without being married, and 9.2% were in a relationship without living together with the sentimental partner. Besides low proportion of women in the IVAWS that are in a relationship without living together with their partner and the high proportion of relationships in the splitting up phase in our sample, these findings correspond fairly well with the distribution in our sample. It seems, however, obvious that a disproportionate number of offenders and victims lived in a relationship where the splitting up

⁹ This category is based on an offender variable: Therefore, in case of several victims, only one victim was chosen for this question.

was immediate or fairly recent. As with violence against women in general, periods of separation seem to be disproportionately risky particularly for female partners (Killias, Simonin & de Puy 2005).

Not surprisingly, two third of the offenders (63%) were living in a relationship characterised by conflict with the victim. Moreover, 18% of the relationships already experienced conflicts where the police had to intervene.

Table 12: Conflict and violence in couples ending in homicide

<i>NATURE OF THE RELATIONSHIP AT TIME OF HOMICIDE¹⁰</i>	<i>IN % OF OFFENDERS BEING IN A SENTIMENTAL RELATIONSHIP WITH THE VICTIM</i>
Harmonic relationship	18.8 (N=46)
Conflictual relationship	63.3 (N=155)
Conflictual relationship with intervention of the police	18.0 (N=44)
<i>No information available</i>	36.2 (N=139)

An important question is whether homicide was preceded by threats by the offender towards the victim and whether the act might have been predictable. According to many writers on the subject, domestic violence tends to start with low-scale aggressive behaviour and to grow in intensity over time, and ending in the killing of the partner. Alternatively, partner homicide might also be an isolated act of violence of persons without history of violence

¹⁰ This category is based on an offender variable: Therefore, in case of several victims, only one victim was chosen for this question.

Unfortunately, relevant information is missing on almost half of offenders. Among offenders with relevant information, 32% threatened their victim(s) some time before the act, whereas 68% did not show any threatening behaviour.

Table 13: Presence of threats preceding homicide

<i>HOMICIDE PRECEDED BY THREATS?</i>	<i>IN % OF OFFENDERS BEING IN A SENTIMENTAL RELATIONSHIP WITH THE VICTIM</i>
No threats before homicide / no information in file	68.1 (N=145)
Threats expressed by aggressor before the homicide	31.9 (N=68)
<i>No information available</i>	44.5 (N=171)

2.2.6 Job situation of offenders and victims

The job situation of a person is an important indicator of social integration. The results show that, keeping in mind Switzerland’s low unemployment rate (that varied over the 25 years between 1 and 5%, BFS 2009d) the number of victims and offenders without a job is surprisingly high. According to census data for the year 2008, 76.6 percent of women and 88 percent of men between 18 and 65 years are in the workforce in Switzerland (BFS, 2009e).

Table 14: Job situation of victims and offenders of homicide

<i>DOES THE VICTIM / OFFENDER HAVE A JOB?</i>	<i>VICTIMS (IN %)</i>	<i>OFFENDERS %</i>
Yes	45.6 (N=657)	49.2 (N=589)
No / no indication in file	54.4 (N=784)	50.8 (N=607)
<i>No information available</i>	2.1 (N=31)	15.5 (N=220)

The percentage of male and female victims that do not have a job is far higher than in the general population. It should be kept in mind that homicide hits only occasionally persons beyond the age of retirement (Figure 4).

The proportion of offenders without a job (51%) is almost equal to the number of victims that do not work. However, since 90% of offenders are male, the disproportion is even more evident given a rate of 88% active men in the general population. As stated above, offenders are only exceptionally beyond the age of retirement.

2.2.7 Criminal record

On 5% of victims of homicide and on 18% of offenders no information is available on whether or not they have a criminal record. This may seem surprising, but is easily explained by the fact that the police's attention is focused on clearing the crime. For that purpose, the victim's criminal record is usually not helpful, except in a few circumstances. The same may be true regarding the offender's record if he/she committed suicide after the act, and if the event seems unrelated to any criminal history, but rather to a conflicting relationship. Finally, nothing will be known about the offender's record if he/she remains unknown. Our sample consists of 174 cases with an unknown offender.

Table 15: Proportion of victims and offenders with a criminal record

CRIMINAL BACKGROUND	HOMICIDE VICTIMS (IN %)	HOMICIDE OFFENDERS (IN %)
No criminal background / no information in file	86.7 (N=1214)	55.5 (N=647)
Police record	8.0 (N=112)	11.8 (N=138)
Justice record	5.4 (N=75)	32.6 (N=380)
<i>No information available</i>	4.8 (N=71)	17.7 (N=251)

The proportion of offenders with previous convictions is far higher than among victims. This is not surprising since violent offences of some seriousness rarely are isolated events in a life history (see references in Killias 2002, 269). It should be kept in mind, however, that nearly half of the homicide victims are females and that women have far less often been previously convicted than men. On the other hand, it seems plausible that the police are more often checking the criminal record of victims whenever they suspect deviant activities on his or her side. Therefore, it might be that the proportion of previously convicted victims is inflated by the fact that less problematic victims' records may have been less systematically checked.

Beyond the comparison of victims and offenders, 33% of the offenders in our sample have been given a court sentence. This finding seems to corroborate earlier estimates in Switzerland and extrapolations from conviction statistics (Killias 2002, 365), which assume that more than one third of men are convicted at least once during their life-time. Given that no detailed data are available on the prevalence of convictions for every period of life, and that for a substantial (and possibly less criminal) proportion of offenders no criminal history information is available, we can conclude that offenders of homicide have probably not much more often been convicted than ordinary men of similar age, and probably far less so than other violent offenders. This result conflicts with findings from England (Soothill et al. 2002) according to which murderers very often have been previously convicted even of serious offences. The

likely reason for this difference may be the far higher proportion of homicides within a private setting in Switzerland.

When we look more specifically at earlier prison records, the proportion of offenders and, surprisingly, also of victims with previous (unsuspended) incarcerations (including stationary therapeutic measures) reaches 52% and 36%. These percentages are far higher than the prevalence of previous custodial experiences in the male general population younger than 33 (between 6 and 7%, Killias 2002, 366).

Table 16: Previous custodial experience among victims and offenders with a criminal record

<i>PRISON SENTENCE</i>	<i>HOMICIDE VICTIMS (IN % OF VICTIMS WITH A JUSTICE RE- CORD)</i>	<i>HOMICIDE OF- FENDERS (IN % OF OFFENDERS WITH A JUS- TICE RECORD)</i>
No prison record / no information in file	26.2 (N=17)	25.6 (N=91)
Sentenced to prison, on probation	21.5 (N=14)	38.0 (N=135)
Sentenced to prison, without probation	47.7 (N=31)	33.5 (N=119)
Sentenced to prison, replaced by a therapeutic measure	4.6 (N=3)	2.8 (N=10)
<i>No information available</i>	<i>13.3 (N=10)</i>	<i>6.6 (N=25)</i>

This finding points to the possibility that, although victims and offenders may not all too often have a history of previous convictions, among those who do, the proportion of serious offences may be more substantial. A relatively high prevalence of previous experiences of incarceration is in line with former research showing that criminal (and correctional) populations face substantially higher risks of homicide (Sattar & Killias 2005). On the other hand, offenders and victims with serious previous convictions may also have a far higher chance that their record will be checked whenever they are involved in a fatal event.

2.2.8 Substance abuse among victims and offenders

A history of substance use and alcohol abuse seems fairly common among victims and offenders of homicide. In general, alcohol abuse and consumption of illegal substances is more common among offenders and this throughout all substances. Especially alcohol consumption is common among offenders, and they also use more often soft and hard drugs than victims.

Table 17: History of substance (ab)use among homicide victims and offenders

HISTORY OF SUBSTANCE (AB)USE	<i>Homicide victims (in %)</i>	<i>Homicide offenders (in %)</i>
No history of substance (ab)use / no indication in file	76.8 (N=968)	55.5 (N=543)
History of substance (ab)use	23.2 (N=293)	44.5 (N=436)
<i>No information available</i>	<i>14.3</i> <i>(N=211)</i>	<i>30.9</i> <i>(N=437)</i>

Table 18: Substances consumed by homicide victims and offenders in the past

HISTORY OF SUBSTANCE (AB)USE	Homicide victims (in %)	Homicide offenders (in %)
Alcohol	12.8 (N=162)	29.6 (N=290)
Soft drugs	3.2 (N=40)	11.0 (N=108)
Hard drugs	7.9 (N=100)	13.5 (N=132)
Other drugs	0.1 (N=1)	0.0 (N=0)
Psychotropic medication	1.3 (N=17)	4.1 (N=40)
Other medication	1.3 (N=16)	1.8 (N=18)
Other	0.2 (N=3)	0.0 (N=0)
<i>No information available</i>	<i>14.3</i> <i>(N=211)</i>	<i>30.9</i> <i>(N=437)</i>

Double answers were possible.

Another important aspect of substance use is whether or not victims and offenders were intoxicated during the offence. It is striking that in this regard, the alcohol consumption of the victims is almost equal to that of the offenders. In general, alcohol is frequently present during the offence, with around one in five victims and offenders being under the influence during the homicide.

Table 19: Substance (ab)use among homicide victims and offenders during the hours preceding the homicide

SUBSTANCE (AB)USE DURING THE HOMICIDE	<i>Homicide victims (in %)</i>	<i>Homicide offenders (in %)</i>
No substance (ab)use / no indication in file	56.4 (N=828)	57.9 (N=685)
Substance (ab)use	31.9 (N=172)	31.6 (N=374)
No analysis made	0 (N=0)	10.6 (N=125)
<i>No information available</i>	<i>0.3</i> <i>(N=4)</i>	<i>16.4</i> <i>(N=232)</i>

Table 20: Substances consumed by homicide victims and offenders during the hours preceding the homicide

SUBSTANCE ABUSE DURING HOMICIDE	<i>Homicide victims (in %)</i>	<i>Homicide offenders (in %)</i>
Alcohol	22.8 (N=335)	24.0 (N=284)
Soft drugs	1.8% (N=26)	4.0 (N=47)
Hard drugs	5.2% (N=76)	5.2 (N=61)
Other drugs	0% (N=0)	0.0 (N=0)
Psychotropic medication	4.2% (N=62)	2.9 (N=34)
Other medication	1.6% (N=24)	1.5 (N=18)
Others	1.1% (N=16)	0.1 (N=1)
<i>No information available</i>	<i>0.0</i> <i>(N=0)</i>	<i>16.4</i> <i>(N=232)</i>

Double answers were possible.

The data in Table 20 show that a substantial number of offenders and victims are under the influence during the fatal event.

2.2.9 Health problems among victims and offenders

Overall, a considerable part of victims and offenders suffer from health problems. Homicide offenders are far more often affected by a mental disease (22%) than victims (4%). On the other hand, victims are more likely to suffer from a physical illness (9%) than offenders (6%).

Table 21: Health problems among victims and offenders of homicide

ILLNESS	<i>HOMICIDE VICTIMS (IN %)</i>	<i>HOMICIDE OFFENDERS (IN %)</i>
No illness / no indication in file	84.4 (N=1184)	66.6 (N=784)
Physical illness	8.9 (N=126)	5.8 (N=68)
Mental illness	3.9 (N=55)	21.7 (N=257)
Psychical and mental illness	1.7 (N=24)	4.1 (N=48)
Other illness	2.2 (N=31)	1.9 (N=22)
<i>No information available</i>	3.5 (N=52)	16.8 (N=238)

The high prevalence of mental health problems among offenders is noteworthy in view of the controversy regarding the connection between psychiatric disorders and homicide.

2.2.10 Behavioural disorders

A different aspect of mental health is whether or not offenders or victims have shown any symptoms of behavioural disorders. However, it should be kept in mind that relevant information in this regard is often not available. If it is, it may not be the result of a diagnosis by a specialist, but often descriptive in nature and stem from family members and other proxies.

Table 22: Behavioural disorders in the biography of victims and offenders of homicide

Behavioural disorders	<i>Homicide victims (in %)</i>	<i>Homicide offenders (in %)</i>
No disorders / no indication in file	88.0 (N=1110)	54.4 (N=636)
Disorders	12.0 (N=151)	45.6 (N=533)
<i>No information available</i>	<i>14.3</i> <i>(N=211)</i>	<i>17.4</i> <i>(N=247)</i>

Table 23: Types of behavioural disorders in the biography of victims and offenders of homicide

Behavioural disorders	<i>Homicide victims (in %)</i>	<i>Homicide offenders (in %)</i>
Suicidal tendencies	2.1 (N=27)	11.9 (N=139)
Violent tendencies	6.2 (N=78)	26.9 (N=314)
Risky behavior	1.0 (N=13)	4.4 (N=51)
Stress symptoms	1.0 (N=12)	5.6 (N=65)
Other symptoms	2.1 (N=27)	5.6 (N=65)
<i>No information available</i>	<i>14.3</i> <i>(N=211)</i>	<i>17.4</i> <i>(N=247)</i>

Double answers were possible.

The finding that more than one forth of homicide offenders is likely to have violent tendencies (27%) is not very surprising. However, there are 12% of the homicide offenders who were also showing suicidal tendencies before the act. This finding points, once more, to a possible link between suicide and homicide (or violence in general, Escard, Haas & Killias 2003).

Suicidal tendencies are more wide-spread among murderers than the actual number of homicide followed by (actual or attempted) suicide might suggest. Indeed, those murderers who

committed or attempted suicide make up only 35% (N=45) of all offenders in our database with suicidal tendencies.

2.3 Circumstances of the act

2.3.1 Forensic-medical examination

There has been some controversy a few years ago regarding the number of homicides that remain undiscovered, or where the true cause of the victim's death remains unknown or misunderstood (Brinkmann 2002). It is most relevant, therefore, to see to what extent the forensic-medical examination has allowed to change an eventual first impression.

Table 24: First-sight diagnosis of cases finally classified as homicides

THE FIRST EVIDENCE LED TO THINK IT WAS...	VICTIMS (in %)
Intentional homicide	88.1 (N=1056)
Assault leading to death	5.6 (N=67)
Natural cause of death	1.9 (N=23)
Negligent manslaughter	1.0 (N=12)
Suicide	0.7 (N=8)
Other	2.7 (N=32)
<i>No information available</i>	<i>18.6 (N=274)</i>

The most striking result is that murder is almost always correctly diagnosed even before the forensic-medical examination. The category of “assault leading to death” does not necessarily point to an error of the first assessment, but to the fact that the penal qualification of the act (“assault”) may have changed when all the other elements (especially the autopsy report) were

known. More troubling are errors where, at first sight, the death was attributed to a natural cause (1.9%), to an accident (1.0%), to suicide (0.7%) or to any other cause (2.7%). Taken together, this means that about 7% of all homicides in our database might not have been correctly classified as such if no autopsy had been performed. This rate is far lower than the estimates sometimes expressed in the literature (e.g. Brinkmann 2002) might have made believe, but still far from trivial. Unfortunately, we have no information on how many cases that were first suspected to be homicides ended being re-classified into something less dramatic.

2.3.2 Weapons and other deadly instruments

Firearms are the most commonly used weapon for homicide, with almost half of the victims (46%) being killed with a firearm. Killing someone with a knife (30%) comes second, followed by strangulation, suffocation or hanging (16%). All other types of instruments are relatively rare.

Table 25: Weapons and other deadly instruments used

<i>WEAPONS USED</i>	<i>(IN % OF VICTIMS)</i>
Firearms	45.6 (N=671)
Knives / stabbing	30.0 (N=442)
Strangulation, suffocation, hanging	16.0 (N=235)
Blunt object	9.2 (N=135)
Poison	1.2 (N=17)
Water / drowning	1.2 (N=18)
All other weapons / instruments	8.2 (N=122)
<i>No information available</i>	<i>0.9%</i> <i>(N=13)</i>

Double answers were possible

First of all, information is missing only on 13 cases. Obviously, determining the method of killing is considered crucial in investigations on homicides.

As almost half of all victims are killed with a firearm, we shall have a closer look at this category. Therefore, the following tables concern only cases where the victim has been killed with a firearm.

The following table shows where firearms came from and their status. Unfortunately, no information on this is available in 40 % of all gun-related cases. The police investigation being focused on clearing cases, the origin of the weapon may be of little interest if the situation is obvious (as in nearly all cases of homicide followed by suicide), or it may not be recorded whenever its origin is trivial, as in cases where it legally belonged to the victim or the author of a family homicide. Beyond the unknown cases (40%), a large proportion of firearms have an illegal origin (38%) or are private weapons (32%). Military and service weapons make up 22%. However, military weapons released to former soldiers are privately owned, and it is unclear as to what extent police officers categorised such weapons under private guns. The proportion of illegal weapons might also be inflated because this information, being less trivial from an investigator's point of view, might be recorded more regularly in police or court files.

Table 26: Origin and status of firearms used

ORIGIN OF FIREARMS	(IN % OF VICTIMS BEING KILLED BY A FIREARM)
Legal military gun	12.9 (N=52)
Legal private gun	32.4 (N=131)
Legal service gun	9.2 (N=37)
Illegal	38.1 (N=154)
Legal but no other specifications	3.2 (N=13)
Other	4.2 (N=17)
<i>No information available</i>	39.8 (N=267)

The majority of firearms – as far as information on this is not missing (19%) – are in possession of the offender (91%). Very few belonged to the victim (2%) or a third person (3%) or were found by the offender on the spot (1%). This finding could indicate that homicide is generally planned in advance and therefore often premeditated.

Table 27: Ownership of the firearm

PROVENANCE OF FIREARMS	(IN % OF VICTIMS BEING KILLED WITH A FIREARM)
In possession of victim	2.4 (N=13)
Provided by a third person	3.1 (N=17)
Found on the spot	0.9 (N=5)
In possession of the author	91.0 (N=498)
Other	2.6 (N=14)
<i>No information available</i>	18.5 (N=124)

2.3.3 Type of homicide

On other acts – suicide or cruelty or other offences – that surrounded the homicide, more details can be found in the following Table. In only 5% of the cases, no information was available. Among the remaining cases, 69% were “standard” homicides, i.e. the victim was killed without additional acts. In 13% of all cases, the offender committed suicide after having killed the victim, and in another 5%, he tried to do so. With nearly 18% of homicide-suicide cases, Switzerland ranks among the highest in Europe. The importance of the HS cases in Switzerland calls for further research which is currently undertaken by two international projects (European Homicide-Suicide Study, Liem et al., forthcoming) of which our project is part.

Table 28: Type of act

<i>TYPE OF ACT</i>	<i>(IN % OF VICTIMS)</i>
“Standard” homicide	68.5 (N=959)
Homicide-Suicide	13.2 (N=185)
Attempted Homicide-Suicide	5.1 (N=72)
Torture, slaughter	3.8 (N=53)
Multiple non lethal strokes and injuries	3.1 (N=44)
Rape	0.8 (N=11)
Poisoning	0.7 (N=10)
Other	4.6 (N=65)
<i>No information available</i>	<i>5.0</i> <i>(N=73)</i>

2.3.4 Location of the homicide

Where does homicide take place? In our sample, more than half of the victims (59%) were killed in a private residence, followed by homicide on the streets/in the city (17%).

Table 29: Place where the homicide occurred

<i>PLACE OF HOMICIDE</i>	<i>(IN % OF VICTIMS)</i>
Private home	58.6 (N=831)
Street/City	16.6 (N=236)
Public space/public building	10.5 (N=149)
Nature	5.1 (N=73)
Workplace	5.1 (N=73)
Private transportation	2.2 (N=31)
Public transportation	0.8 (N=12)
Other	1.0 (N=14)
<i>No information available</i>	3.6 (N=53)

Obviously, the body is not necessarily found at the place where the homicide had been committed. The following Table informs on whether or not the body had been moved to a different place before it was found.

Table 30: Place where the body was found

PLACE WHERE BODY WAS FOUND	(IN % OF VICTIMS)
Same place where homicide took place	88.3 (N=1270)
Body had been moved to another location	7.6 (N=109)
Other	4.2 (N=60)
<i>No information available</i>	2.2 (N=33)

As one can see, bodies are not so often moved to a different place. However, this should, once more, be seen in the context of an extremely high frequency of family-related homicides including homicide followed by suicide where the offender has not much to gain from moving the body to a different location.

2.3.5 Time of the homicide

No clear tendency can be observed when it comes to the time of the homicide. However, if we dichotomize the categories, there seems to be more homicides during evening and night hours than during daytime (61.2% vs. 37.5%).

Table 31: Time when the homicide occurred

TIME OF HOMICIDE	(IN % OF VICTIMS)
Morning, 6 am to 11.59 am	18.4 (N=235)
Afternoon, 12 pm to 5.59 pm	19.1 (N=244)
Evening, 6 pm to 11.59 pm	34.3 (N=438)
Night, 12 am to 5.59 am	26.9 (N=343)
Not precisely known, over more than one span of time	1.3 (N=17)
<i>No information available</i>	<i>13.2</i> <i>(N=195)</i>

When one considers the volume of human activities over the 24-hours-circle, the disproportionate number of victims killed during late night or early morning hours becomes even more apparent. This matches research on going out during late night-hours and risks of victimization in general (Killias 2002, 306).

2.3.6 The role of bystanders

Most of the time, the homicide happened without witnesses (72%), certainly because the largest number of cases are intimate partner homicide and happen at home.

Table 32: Number of witnesses

NUMBER OF WITNESSES	(IN % OF VICTIMS)
No witnesses	71.6 (N=908)
One witness	10.0 (N=127)
Two witnesses	5.3 (N=67)
Several witnesses	13.2 (N=167)
<i>No information available</i>	<i>13.8</i> <i>(N=203)</i>

Given that homicide often occurs in a private setting, it is not surprising that victims are not easily detected by third parties.

Table 33: The person who discovered the victim's body

<i>PERSON WHO DISCOVERED THE BODY</i>	<i>(IN % OF VICTIMS)</i>
Authorities/officials	31.5 (N=389)
Third party	29.2 (N=360)
Family member	13.9 (N=172)
Friend/someone who's close to the deceased	8.1 (N=100)
Neighbour	6.6 (N=81)
Spouse/intimate partner	3.2 (N=39)
Other	7.5 (N=92)
<i>No information available</i>	<i>16.2</i> <i>(N=239)</i>

In most cases, the police have been called to the scene by other officials or authorities.

Table 34: Who has called the police?

PERSON WHO HAS RE- PORTED THE HOMICIDE TO THE POLICE	(IN % OF VICTIMS)
Authorities/officials	65.8 (N=764)
Offender himself	12.4 (N=144)
Offender found uncon- scious/dead	8.2 (N=95)
Third party	5.3 (N=61)
Family member	3.1 (N=36)
Friend/someone who's close to the deceased	1.3 (N=15)
Neighbour	1.3 (N=15)
Spouse/intimate partner	1.0 (N=12)
Other	1.6 (N=19)
<i>No information available</i>	<i>21.1%</i> <i>(N=311)</i>

3. SUICIDE

3.1 Introduction

In an international perspective, Switzerland has one of the highest suicide rates in the world (WHO 2009). This justifies in itself the collection of data on the circumstances of such events. In addition, suicide has often been presented as a kind of an “alternative” to homicide. It will be interesting to compare suicide with homicide on a number of aspects in order to see what is common and what distinguishes these two kinds of events.

Keeping in mind that second purpose, we tried to select, randomly, a number of suicides that comes close to the (absolute) number of homicides in our database. Indeed, statistical power does not increase by considering a higher number of one of two kinds of events alone. Given that we have taken into account all instances of homicide and that suicide is about ten times as frequent in Switzerland, the appropriate way to obtain approximately equal numbers was to include only 1 in 10 suicides. In the Western part of Switzerland, selection was done randomly, by taking every tenth case on the list of autopsies performed at the several institutes of forensic medicine. In the Eastern part of Switzerland, due to the very low number of suicide victims being autopsied, we tried to obtain lists of suicides from local police and from the prosecutor’s office. From those lists, every tenth case was randomly chosen. However and beyond random selection, all cases of suicide related to homicide were included.

As for homicide, an autopsy of suicide victims is generally ordered by the police (13%), an examining magistrate (52%) or a prosecutor (26%). However, an autopsy is not ordered in all cases of suicide, particularly in obvious cases where the victim’s intent to commit suicide is

beyond doubt. Whereas an autopsy is ordered in almost all cases of homicide or doubtful circumstances of death, registers of autopsies will, therefore, be less complete when it comes to suicide. In order to have a more complete sample, we have checked also police records in order to find cases of suicide that could not be located in the files of institutes of forensic medicine. All in all, our database contains 1,202 victims of suicide.

Table 35: Person who ordered the autopsy

AUTOPSY ORDERED BY	<i>Suicide victims (in %)</i>
Examining magistrate	51.6 (N=560)
Prosecutor	26.1 (N=283)
Police	12.6 (N=137)
No autopsy ordered	7.5 (N=81)
Other magistrate („Préfet“)	0.6 (N=6)
Family of the deceased	0.1 (N=1)
Other	1.7 (N=18)
<i>No information available</i>	<i>0.2</i> <i>(N=2)</i>

Nine in ten of all cases in our database are “normal” suicides, 3% concern homicides-suicides, 6% are assisted suicides (with the help of organisations such as EXIT, Dignitas), and 0.5% have other characteristics, such as common suicides.

Table 36: Types of suicide in our database

TYPE OF SUICIDE	SUICIDE VICTIMS (IN %)
„Normal“ suicide	90.1 (N=1081)
Homicide-Suicide	3.2 (N=38)
Assisted suicide	6.3 (N=75)
Other type of suicide	0.5 (N=6)
No information available	0.2 (N=2)

3.2 Victim characteristics

3.2.1 Gender

In our sample, 70% of the suicide victims are male, whereas 30% are female. According to demographic data, the proportion of men and women committing suicide is of the same order of magnitudes over the last 25 years (BFS 2009f).

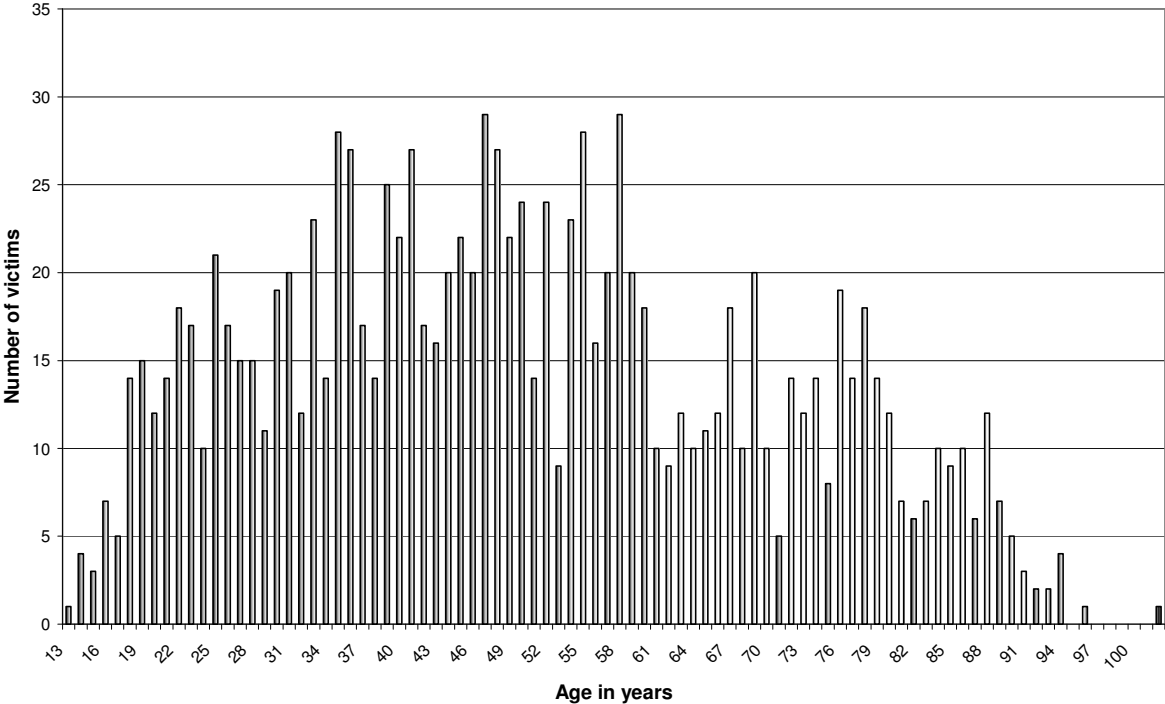
Table 37: Suicide cases in our database, by gender

GENDER	SUICIDE VICTIMS (IN %)
Male	69.9 (N=840)
Female	30.1 (N=362)
No information available	0.0 (N=0)

3.2.2 Age

The age curve of suicide victims in our database can be visualized by the following Figure:

Figure 6: Suicide cases in our database, by age



As in the general population, suicide is more frequent between the ages of 30 and 60 years. It is also relatively frequent among the elderly, particularly if their lower numbers are taken into account. In comparison with the age of victims of homicide (Figure 4), suicide is remarkably evenly distributed across the entire lifespan. Thus, suicide does not share the typical concentration on younger age-groups, as crime and violence in general. Even in comparison to the age of offenders of homicide (Figure 5), the contrast is striking, despite the fact that murderers tend to be relatively older than other violent offenders.

3.2.3 Marital Status

The marital status of suicide victims does not differ essentially from those of homicide victims and offenders, as the next graphic shows. However, the category of suicide victims that are widowed is far higher than among victims of homicide. This might be due to the older age of victims of suicide compared to homicide victims and offenders.

Table 38: Victims of suicide in our database, by marital status

MARITAL STATUS	<i>SUICIDE VICTIMS (IN %)</i>
Single	34.2 (N=362)
Married	36.3 (N=384)
Divorced	12.6 (N=133)
Seperated	4.3 (N=45)
Widowed	12.7 (N=134)
<i>No information available</i>	<i>12.0</i> <i>(N=144)</i>

3.2.4 Place of residence and nationality

The large majority of victims of suicide (96%) are Swiss residents. Only few live in another country, mainly in Germany (1%), France (0.7%), Great Britain (0.3%) and Liechtenstein (0.2%). Although assisted suicide is a new phenomenon that only affected the number of such events during the most recent years included in our database, the numbers given here point to a possible emergence of “suicide tourism” to Switzerland, due to this country’s more liberal laws regarding assisted suicide.

Table 39: Victims of suicide in our database, by country of residence

COUNTRY OF RESIDENCE	Suicide victims (in %)
Switzerland	95.7 (N=941)
Germany	1.0 (N=10)
France	0.7 (N=7)
Great Britain	0.3 (N=3)
Lichtenstein	0.2 (N=2)
Other	2.0 (N=20)
<i>No information available</i>	18.2 (N=219)

Most victims of suicides are Swiss citizens (85%), and only 16% are foreign nationals. In 7% of the cases, the nationality of the suicides is unknown. Compared to homicide, suicide is far more frequent among the Swiss population.

Table 40: Victims of suicide in our database, by nationality

NATIONALITY	Suicide victims (in %)
Swiss nationals	84.5 (N=946)
Foreign nationals	15.5 (N=173)
<i>No information available</i>	6.9 (N=83)

3.2.5 Job situation

Among the victims of suicide included in our database, 44% have a job, 56% are not working (68 % of which are retired), and 5% are still in school or in education. The distribution across

economic sectors largely corresponds to the structure of Switzerland's labour market, perhaps with the exception of medical and pharmaceutical (chemical) professions (8.7%, n=47) that are probably over-represented. Overrepresented are also unemployed persons (7%), the Swiss unemployment rate oscillating during the years at stake between 2 and 3 percent. Inmates of prisons and psychiatric hospitals make up for 2.5% respectively 3.2% each, reflecting the high frequency of suicide among such populations (Sattar & Killias 2005).

Table 41: Victims of suicide in our database, by job situation

<i>DOES THE VICTIM HAVE A JOB?</i>	<i>TOTAL (IN %)</i>
Yes	44.1 (N=445)
No / no information in file	55.9 (N=565)
<i>No information available</i>	<i>16.0</i> <i>(N=192)</i>

3.2.6 Religion

Durkheim and other writers had observed that suicide is far more common among protestants than among catholics. The data collected to not allow studying this issue further, due to the very higher number of cases with missing information (83%).

3.2.7 Criminal history

How many victims of suicide have a criminal history? As for homicide victims, this information is generally hard to find in the files, since often it is not useful for clearing the case and, therefore, of little interest to the authorities. Nevertheless, about 4% of the suicide victims in our database have a police record, and the same percentage has already been convicted.

Table 42: Criminal background of suicide victims

CRIMINAL BACK- GROUND	SUICIDE VICTIMS (IN %)
No criminal record/ no information in file	91.6 (N=1101)
Police record	4.1 (N=49)
Justice record	4.3 (N=52)
<i>No information available</i>	<i>0.0</i> (N=0)

Considering, however, that criminal records may be checked, in cases of suicide, only if this information may seem to be of some relevance, we can assume that persons with a criminal history may be overrepresented among those, whose record was checked. With 4% having been known to the police and 4% who were previously convicted, suicide victims seem to be similar to the victims of homicide (with records in 8% and 5% of cases, see Table 15). They have far less often a criminal history than murderers (among whom 33% had been previously convicted), and even less so than the average male population in Switzerland (with more than one in three having at least one previous conviction, Killias 2002, 365). Probably the relatively high average age of victims of suicide, as well as the substantial proportion of females, both lower the percentage having a criminal background.

3.2.8 History of substance abuse and psychiatric symptoms

Information on the eventual history of substance abuse by the victim of suicide is missing in 17% of all cases, obviously because no one has considered such data relevant in the particular case. As in the following Tables, up to two “symptoms” could be recorded in our database.

Table 43: History of substance (ab)use among victims of suicide

HISTORY OF SUBSTANCE (AB)USE	Suicide victims (in %)
No history of substance (ab)use / no information in file	68.8 (N=689)
History of substance (ab)use	31.2 (N=312)
<i>No information available</i>	16.7 (N=201)

Table 44: Substances consumed by suicide victims in the past

HISTORY OF SUBSTANCE (AB)USE	Suicide victims (in %)
Alcohol	9.2 (N=111)
Soft drugs	1.8 (N=22)
Hard drugs	3.6 (N=43)
Other drugs	0.2 (N=2)
Psychotropic medication	9.0 (N=108)
Other medication	5.6 (N=67)
Others	0.6 (N=7)
<i>No information available</i>	16.7 (N=201)

Double answers were possible.

To the extent information is available, the victims of suicide had a history of substance use/abuse comparable to victims of homicide. However, the use of psychotropic medication is considerable (9%) more common, which underlines that many suicide victims suffered from psychological problems (see below).

During the hours immediately preceding suicide, the use of psychotropic or other medication is fairly common (9.1% and 13.3%). However, the high number of victims having used any “other medication” might be due to cases of suicide by medication overdose. In this category, 20% (N=44) of the suicides killed themselves by medication or drug overdose.

Table 45: Substance (ab)use among suicide victims during the hours preceding the suicide

SUBSTANCE (AB)USE DURING SUICIDE	<i>Suicide victims (in %)</i>
No substance abuse during suicide / no information in file	55.5 (N=667)
Substance abuse during suicide	27.1 (N=326)
No analysis effectuated	17.4 (N=209)

Table 46: Substances consumed by suicide victims during the hours preceding the suicide

SUBSTANCE (AB)USE DURING SUICIDE	<i>Suicide victims (in %)</i>
Alcohol	13.3 (N=160)
Soft drugs	1.2 (N=14)
Hard drugs	2.1 (N=25)
Other drugs	0.0 (N=0)
Psychotropic medication	9.1 (N=109)
Other medication	13.3 (N=160)
Other	18.6 (N=223)
<i>No information available (no analysis effectuated)</i>	<i>17.4 (N=209)</i>

Double answers were possible.

3.2.9 Health problems

The following Table lists the mental and other health problems that were observed among the victims of suicide. The relatively high recording rate points to the possibility that doctors and other persons involved attribute suicide more often to health problems.

Table 47: Mental and other health problems among victims of suicide

ILLNESS OF THE SUICIDE VICTIM	<i>Suicide victims (in %)</i>
No illness / no information in file	39.7 (N=477)
Physical illness	17.0 (N=204)
Mental illness	36.3 (N=436)
Psychical and mental illness	6.6 (N=79)
Other illness	0.5 (N=6)
<i>No information available</i>	<i>0.0</i> (N=0)

A large number of suicide victims were mentally ill (36%) or suffered from psychiatric symptoms (7%). Therefore, suicide seems to be a frequent correlate of mental health problems. This is comparable to what has been found among offenders of homicide (Table 21), and far more than among victims of homicide. Physical health problems are also more frequent among suicide compared to homicide victims (17 % vs. 9 %), probably due to their higher age and the emergence of suicide as an “answer” open to fatally ill persons.

3.2.10 Behavioural disorders

As for homicide, we have recorded whether any indications on behavioural problems can be found in the files of suicide victims. Table 48 gives the details.

Table 48: Behavioural disorders in the biography of suicide victims

SYMPTOMS OF BEHAVIOURAL DISORDER	Suicide victims (in %)
No symptoms / no information in file	56.8 (N=683)
Symptoms	43.2 (N=519)
No information available	0.0 (N=0)

Table 49: Types of behavioural disorders in the biography of victims and offenders of homicide

SYMPTOMS OF BEHAVIOURAL DISORDER	Suicide victims (in %)
Suicide tendencies	35.7 (N=429)
Violence tendencies	3.0 (N=36)
Risky behavior	0.8 (N=10)
Stress symptoms	4.2 (N=51)
Other symptoms	2.4 (N=29)
No information available	0.0 (N=0)

Double answers were possible.

Not surprisingly, persons who committed suicide often suffered from suicidal tendencies in the past (36%). This is far more than among homicide victims (2%), and even more than among murderers (12%). On the other hand, victims of suicide have far less often a history of previous violent behaviour (3%, vs 27% among murderers).

How many of the suicides already have actually tried to commit suicide before? One in four victims of suicide had unsuccessfully attempted to commit suicide at least once among those for whom information is available.

Table 50: Previous suicide attempts among suicide victims

SUICIDE ATTEMPTS	Suicide victims (in %)
Victim attempted to commit suicide before	14.7 (N=177)
Victim did not attempt to commit suicide before / No information in file	85.3 (N=1025)
No information available	0.0 (N=0)

The proportion of suicide attempts seems impressive, but it also shows that many victims of actual suicide have never committed such an attempt in their past. From other studies (De Moore & Robertson 1999), it is also true that an overwhelming majority of persons who unsuccessfully attempted to commit suicide do not relapse in the future. Thus, actual and attempted suicide are not perfectly related with each other, and fatalistic attitudes (“they will do it again anyhow”) are absolutely ill-suited.

3.3 The circumstances of suicide

3.3.1 Forensic-medical examination

The first evaluation of a case is often important to determine the further direction of the inquiry. Therefore, it is important to know whether suicides are generally easy to classify or not. The following table shows how the suicide cases were first categorized. Generally, the majority of suicide cases are recognized as such from the beginning (98%); however, there are a

few instances where authorities first believed to be an accident (manslaughter, 0.6%), assault leading to death (0.1%), homicide-suicides (0.5%) or other categories (0.8%).

Table 51: First-sight diagnosis of cases finally classified as suicides

THE FIRST EVIDENCE LED TO THINK IT WAS...	SUICIDE VICTIMS (IN %)
Suicide	98.0 (N=965)
Intentional manslaughter	0.6 (N=6)
Homicide-Suicide	0.5 (N=5)
Assault with deadly ending	0.1 (N=1)
Other	0.8 (N=8)
<i>No information available</i>	<i>18.1 (N=217)</i>

The accuracy of first-sight assessments is higher than in the case of homicide, with misclassifications reaching only 2 % of all cases (compared to 7 % in the case of homicide). Misclassifications might even be overestimated here, since cases which are not entirely clear from the beginning probably have a higher chance of being subject to an autopsy. Therefore, misclassifications are more likely to be found in an autopsy-based sample than among cases without autopsy.

3.3.2 Method of suicide

The type of method involved in a suicide is an important variable and has generated a considerable amount of research. Our database gives a fairly representative picture of the importance of the most common methods over the last two decades.

Table 52: Method of suicide

TYPE OF DEATH	Suicide victims (in %)
Firearms	28.5 (N=343)
Hanging, Suffocation	21.9 (N=263)
Poison	18.3 (N=220)
Precipitation	12.1 (N=146)
Vehicle / Train	6.9 (N=83)
Drowning	7.2 (N=87)
Gas	2.1 (N=25)
Knives / Stabbing	2.5 (N=30)
Plastic bag	1.5 (N=18)
Other (including fire, electrocution usw.)	1.8% (N=24)
No information available	0.3 (N=4)

Shooting is the most prominent method of suicide in Switzerland, followed by hanging, poison (including by medication), precipitation and killing by a vehicle (or a train). Information is missing in only 4 cases – determining the method is obviously considered an essential goal in investigations on suicide. Compared to homicide, the share of shooting is less prominent here (29% vs. 46%), but still much more commonly used than the next cause in importance (hanging, 22%). Suicide by gas (2%) has become rare, probably due to the disappearance of cars without catalysators. In Switzerland, this used to be a common suicide method in the 1970ies and 1980ies. A detailed analysis of eventual changes in suicide methods over the last 25 years will be undertaken later.

3.3.3 Characteristics of firearms used in suicide

In cases of suicide, the kind, legal status and origin of firearms is less relevant to the investigation. Therefore, this kind of information is often missing in our files (42%). The following Table gives some details on cases with relevant information.

In cases of suicide by firearms, there is a large amount of persons that kill themselves with a military gun (53%) or a legally owned private gun (40%). On the other hand, illegal guns are rarely involved (4%) in suicide, unlike in cases of homicide where they make up for 38%.

Table 53: Origin and status of firearms used in suicide

ORIGIN OF FIRE-ARM	<i>Suicide victims (in % of victims having killed themselves with a firearm)</i>
Legal military gun	52.5 (N=105)
Legal private gun	39.5 (N=79)
Legal service gun	4.5 (N=9)
Illegal	3.5 (N=7)
<i>No information available</i>	41.7 (N=143)

Obviously, victims of suicide tend to use weapons (or other fatal methods) that are immediately available. Military and private guns being usually kept at home, and suicide often occurring at home (see below), the prominent role of guns available at the scene is easy to understand.

3.3.4 Location of suicide

As well as for homicide, suicide mostly takes place in a private accommodation (58%), followed by public buildings or places (14.3%) as well as in nature (14.2%).

Table 54: Location of suicide

PLACE OF SUICIDE	<i>SUICIDE VICTIMS (IN %)</i>
Private home/apartment	58.3 (N=696)
Public building/place	14.4 (N=172)
Nature	14.2 (N=170)
Street/City	5.3 (N=63)
Working place	2.6 (N=31)
Public transportation	2.1 (N=25)
Private transportation	1.9 (N=23)
Other	1.1 (N=13)
<i>No information available</i>	<i>0.7</i> <i>(N=9)</i>

Even if the act of suicide takes place outside home, the clinical experience shows that most suicide victims go home before actually killing themselves. Several methods imply necessarily to commit the final step outside one's home, such as in cases of precipitating or jumping before a train.

3.3.5 Time of suicide

Interestingly, suicide generally takes place earlier than homicide, with 60% of the victims killing themselves during daytime (morning or afternoon) and only 40% happening in the evening or at night This could be explained by the fact that homicide needs first of all an interaction between two or more people, which usually happens when they're off work or having free time, meaning evening/night.

Table 55: Time of suicide

TIME OF DAY	SUICIDE VICTIMS (IN %)
Morning (6 am -11.59 am)	30.6 (N=261)
Afternoon (12 pm – 5.59 pm)	29.2 (N=249)
Evening (6 pm – 11.59 pm)	24.4 (N=208)
Night (12 am – 5.59 am)	15.7 (N=134)
No information available	29.1 (N=350)

In the course of further analyses, we shall have a look at week-ends and evenings/nights when it comes to understand the precise location of homicide and suicide over the week and around the clock.

3.3.6 The role of third parties

The following Table gives the details on who actually had discovered the victim's body.

Table 56: Person who has discovered the body

BODY DISCOVERED BY	Suicide victims (in %)
Unspecified third-parties	28.2 (N=292)
Police / Authorities	19.8 (N=205)
Family members	19.7 (N=204)
Spouse/sentimental partner	16.2 (N=168)
Neighbours	6.3 (N=65)
Nurse/ care personnel	4.8 (N=50)
Acquaintances/friends	3.4 (N=35)
Co-worker	1.5 (N=15)
No information available	14.0 (N=168)

For obvious reasons, family members and partners dominate among those who discover the body (36%), followed by unspecified third-parties (28%) and police and (investigating) authorities (20%).

3.3.7 Letter of good-bye

More than four in five victims of suicide leave a letter of good-bye or some other message explaining their decision. These letters greatly facilitate the police inquiry and explain, to some extent, the often lacking information on other aspects of the event, such as the origin of the gun.

Table 57: Letter of good-bye or other messages

LETTER OF GOOD-BYE	Suicide victims (in %)
No letter of goodbye discovered / no information in file	69.0 (N=829)
Letter/text message, other message	28.5 (N=342)
Phone call	1.4 (N=17)
Diary	0.7 (N=8)
Testament	0.5 (N=6)
No information available	0.0 (N=0)

Most of the suicides addressed their letter, if any, to family members (35%) or their intimate partner (24%).

Table 58: To whom was the good-bye letter addressed?

LETTER ADRESSED TO	Suicide victims (in % of victims having left a type of goodbye message)
Family	34.6 (N=129)
Intimate partner	24.1 (N=90)
Nobody special	18.0 (N=67)
Friends	8.6 (N=32)
Authorities	5.6 (N=21)
Other persons	5.6 (N=21)
No information available	0.0 (N=0)

Double answers were possible.

3.3.8 Circumstances of suicide

Investigations on suicide tend to document carefully the factual circumstances. For this reason, information is missing in less than 3% only.

Table 59: Circumstances of suicide

CIRCUMSTANCES OF THE SUICIDE	<i>SUICIDE VICTIMS (IN %)</i>
Isolated act	90.1 (N=1081)
Homicide-Suicide	3.2 (N=38)
Suicide assisted by an organisation	6.0 (N=72)
Common suicide	0.5 (N=6)
Assisted suicide	0.3% (N=3)
<i>No information available</i>	0.2 (N=2)

As the Table shows, suicide is, in the overwhelming number of cases (90%), an isolated act, concerning only one person. In our database, we have only 6 cases (0.5%) of common suicides, but 38 cases (3%) of homicide-suicide. In 72 cases (or 6%), the victim of suicide was assisted by an organisation specialised in this field, and in 3 (0.3 %) cases by other third-parties. The proportion of assisted suicides is low, but it should be kept in mind that our database includes cases that occurred since 1980, whereas assisted suicide is a fairly recent phenomenon.

3.3.9 The motives of suicide

The investigation successfully identified the motives of suicide in two third of the cases. Information is missing in 370 cases (31%). It should be kept in mind that the motives indicated in the following Table reflect what the investigation allowed to find out, not what the reasons actually may have been from the victim’s perspective. Several ones, such as “depression”, are unspecific and may be related to other problems, such as physical health problems, sentimental or financial problems.

Table 60: The reason of suicide

REASON FOR SUICIDE	Suicide victims (in %)
Depression	32.8 (N=394)
Physical health problems	16.0 (N=192)
Sentimental problems	14.7 (N=177)
No reasons indicated	11.1% (N=133)
Financial/professional reasons	7.5 (N=90)
Feeling miserable	1.9 (N=23)
Justice problems/incarceration	1.7 (N=21)
Other motivation	1.9 (N=23)
No reason indicated / no information available	30.8 (N=370)

Double answers were possible.

Not surprisingly, suicide seems mostly motivated by severe biographic problems, such as sentimental problems, health problems and generally “depression”. Problems related to criminal prosecution and financial trouble are also causes of some importance.

In a few cases, suicide was followed by some (unspecified) legal problems, but this was clearly the exception (7 %, no such problems in 93%).

4. FUTURE ANALYSES

The main goal of the SNF-project was to build up a database that will allow many related analyses for criminologists, forensic scientists and specialists of legal medicine. This kind of goal has been achieved. With 1,202 cases of suicide, 1321 cases of homicide (involving 1472 victims and 1416 authors), and with a restricted sample of 121 attempted homicides, this database contains an unusually large sample of cases that allow many relevant analyses. A few examples are being attached to this report. So far, analyses (including several student dissertations) were conducted only based on the French Swiss sub-sample where the data collection had been achieved already in 2003.

By setting up (and cleaning) the national database, the ground has been prepared for many international comparisons. Such international studies will not be restricted to the most “obvious” comparisons, such as the role played by family-related homicide or homicide-suicide, but will include also analyses on more rare constellations, such as the characteristics of unresolved homicide cases, infanticide, the criminal and mental health histories of offenders and victims of homicide (or suicide), etc. The present database will allow such analyses due to the large sample that includes in sufficient numbers even far less common constellations. It also contains information on variables usually not covered in official statistics, but that are crucial in making meaningful any research on such issues. These two characteristics make it really valuable, beyond data collections (such as the one by Zoder & Maurer 2006) based on official statistical data of a very limited number of years.

Several studies in this line are already in preparation, as the one coordinated by Oberwittler (forthcoming) or a new one by Liem (forthcoming). We shall keep the SNF updated on any such further developments.

The present report has been limited to an overview of what kind of information is available in the database and what frequencies can be observed. Thus, the intent was to document the SNF as well as Colleagues and researchers from other centres with the potentials of this database. Even with this limited purpose in mind, we hope that the information given in this report illustrates the perspectives of more detailed analyses based on detailed case information concerning substantial numbers of events of homicide and suicide. The report has been prepared in English, since it should serve as a guide to researchers abroad who would like to work on these data. Of course and as stated in the beginning, the data will be available, either directly from our centre or through data archives.

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6. ANNEX

1. Victim and offender code list

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