

Data Collection on Intentional Injuries

**National Institute of Public Health
Denmark**

Data Collection on Intentional Injuries

Final Report

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The contents of this publication do not necessarily reflect the opinion or position of the European Commission, Directorate-General for Health and Consumer Protection.

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Preface

This report presents the results of the project **Data Collection on Intentional Injuries (IPP/2000/1062)**. The European Commission supported the project under the Injury Prevention Programme 2000, by contractual agreement with the National Institute of Public Health, Denmark. The main objective of the project was to evaluate the feasibility of systematic medical data collection in a limited number of emergency departments in selected EU partner countries, namely Denmark, the Netherlands, Italy and the United Kingdom, and to achieve information herein about ethical and practical issues of such data collection. The following Member States were thus signed as contractual partners:

- The Netherlands, represented by Saakje Mulder, Consumer Safety Institute, Amsterdam.
- Italy, represented by Raffaello Raboni, Ministry of Health, Rovigo.
- The United Kingdom, represented by David Stone, University of Glasgow, Scotland.

France was signed as a sleeping partner, represented by Marie-Jo Saurel-Cubizolles, Institute of National Health and Medical Research, Paris.

The partner countries were asked to describe the data they collected and the experiences they encountered in testing the feasibility of routine data collection on violence in selected hospitals.

In Denmark, the implementation and coordination of the project was carried out by Vanita Sundaram and Karin Helweg-Larsen, who were also responsible for the analysis of data and writing of the final report. Bjarne Laursen performed the statistical analyses and Marianne Mustill created the layout for the report.

The project team wishes to thank all its partners and all contributors to the undertaking of the project and the writing of the final report.

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Executive summary

Introduction

The project Data Collection on Intentional Injuries (ININS) was supported by the European Commission under the Injury Prevention Programme (IPP). The project complied with the priority areas stated in the IPP Work Programme for 2000, which emphasised that both unintentional and intentional injuries constitute major public health issues. The Workplan pointed out that injury is a broad concept, which comprises various forms of ill health resulting from external causes, albeit without distinction as to the cause of the external event. It was therefore essential to improve knowledge about intentional injuries that are caused specifically by interpersonal violence, as both its causes and preventative strategies differ greatly from those of unintentional injuries. The IPP Workplan 2000 furthermore emphasised the need for comparability of information on intentional injury between European Union Member States, which is facilitated by the improvement of national data collection.

Method and material

The present project sought to implement a routine system of data collection on intentional injuries in a limited number of hospitals in selected Member States, thus improving knowledge of the prevalence and nature of intentional injuries and the comparability of data across the EU. A pilot study was implemented, whose aim was to test the feasibility of systematically gathering data on violence from emergency departments. The partners in the project were Italy, the Netherlands, the United Kingdom and Denmark. The selected Member States differed in data registration systems and presumably also in cultural attitudes concerning intentional interpersonal injury, thus strengthening the need for a standardised system of data collection.

Denmark has been the principal coordinator of the work related to the project. All the selected Member States implemented standardised prospective data collection in specified hospitals, with the exception of the United Kingdom, where retrospective data collection on intentional injuries was conducted. France was a sleeping partner in the project and did not participate in data collection. The partners were asked to collect data on the current registration of intentional

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injuries at national, regional and local level in their respective countries and to provide injury data from a limited number of emergency departments, including information about age, gender, mechanism of injury, place of occurrence and perpetrator details. These variables were included in order to obtain information about the type and nature of the violence. The partners were also asked to provide information about the current routines in place for treatment and referral of patients who present with intentional injuries.

The United Kingdom was unable to collect prospective data on intentional injuries, but provided retrospective data on intentional injuries for the foregoing calendar year instead. The United Kingdom's data could be used to assess the number of hospital contacts due to intentional injuries during a calendar year, as well as information about treatment and referral of patients. The data was collected routinely as part of an emergency surveillance system, but were limited in terms of the detail provided on any one type of injury, including intentional injury.

The data provided by the Netherlands, Italy and Denmark were analysed and data on intentional injuries, as well as experiences in obtaining the data were compared.

Results

Financial support from the European Injury Prevention Programme facilitated the conduction of a pilot study on systematic medical data collection in a limited number of emergency departments in selected Member States of the European Community. Thus, information could be gathered regarding the feasibility of implementing routine registration of emergency contacts due to intentional interpersonal injury, including information about the broader context of assault. Furthermore, information was specifically obtained about the potential of expanding the present data collection in the Danish emergency departments.

The project furthermore obtained valuable information concerning the Nordic Classification of External Causes of Injuries (NCECI) from the Danish Injury Register and information regarding the development and implementation of the violence module in the International Classification of External Causes of Injury

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(ICECI), from the co-ordinator of the ICECI Technical Group, Saakje Mulder. The ICECI is a WHO classification, which is supported worldwide.

The study was primarily based upon the experiences of routine data collection of emergency contacts due to intentional injury in the Netherlands, Italy and Denmark. Information was additionally obtained from the Netherlands regarding different types of registration of injuries due to violence and about their enduring system of routine injury registration.

The EU Injury Prevention Programme currently comprises data collection only on home and leisure accidents under the collective EHLASS programme (European Home and Leisure Accident Surveillance). The current project aimed to test methods of supplementing EHLASS data with information on intentional injuries by integrating a suitable classification of violence, either the NCECI or the ICECI, into the existing EHLASS data collection structure.

A methodology for specifically registering contacts to hospital emergency departments due to intentional injury was developed in the present project. Consequently, national data collection was also strengthened. The priorities outlined by the IPP Workplan 2000 for identifying new data requirements and including new variables in existing data collection structures, respectively, were fulfilled.

It proved feasible to conduct systematic medical registration of data on intentional injuries, which may describe patterns of injuries within the EU. This includes information about lesions incurred, place of occurrence and mechanism of injury. It was not feasible to implement systematic medical data collection on perpetrator information in the 4 partner countries. Furthermore, the project illuminated the ethical and legal issues related to obtaining such information.

To the authors' knowledge, this was the first cross-national project to test the systematic collection of prospective data on violence, including perpetrator information and thereby to strengthen knowledge of the magnitude and character of violence in the EU, as well as to provide comparable data on intentional injury.

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There were national differences in the rates of annual emergency department contacts due to intentional interpersonal injury. The rates of contact per 1000 population were higher in Denmark, both in the Copenhagen area and in Jutland, than they were in the Frascati and Rovigo regions of Italy. The rates of contact in Denmark and the Netherlands were similar. We recognise that many victims of violence may not attend a hospital following exposure to intentional injury, and there may exist national differences in which health care units victims of violence most often contact in case of injuries. Victims of violence may also report their injury as accidental or self-inflicted upon arrival to the emergency department.

Despite the discrepancies in contact rate, it was found across all the partner countries, that men contacted the hospital due to violence more often than did women. This discrepancy remained salient across all age groups and was consistently most significant amongst men aged 15-29 years.

The most frequent place of occurrence of violence was consistent across all partner countries; women were most frequently subjected to violence in the home, while males were exposed to violence in public areas. Adult male(s) were the perpetrator of violence in most cases for both men and women.

The mechanism of injury was typically blunt force by object or person for women, whereas the assault weapon tended to vary more for men. This difference was observed in all partner countries. Female contacts were registered as having fallen on, or down the stairs more frequently than male contacts across all age groups. The lesions incurred by men and women differed, such that women presented with bruising and lesions in the face area, whereas men typically presented with open wounds, possibly attributable to the different mechanisms of injury. The discrepancies in mechanism of injury were consistent for all countries.

The collection of perpetrator data was incomplete; the UK statistics contained no perpetrator information whatsoever and the Dutch data contained only partial perpetrator information. Bearing in mind these reservations, it was found that the perpetrator of assault was most frequently an adult male, regardless of the victim's gender. For female contacts, the perpetrator tended to be someone known to the victim, either as a former/present partner or as an acquaintance,

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whereas male contacts reported being assaulted by a stranger more frequently than not.

The above findings are reflective of the differing characters and contexts of violence that male and female contacts report.

Conclusions and recommendations

Based on the results of the present project, it can be concluded that the implementation of systematic data collection on intentional injuries in emergency departments may constitute a valuable tool in improving knowledge about the magnitude and character of violence in the EU. The WHO classification of external causes of injuries (ICECI) was found very suitable for description of the event of violence. The Nordic classification possesses the same potential.

European Women's Lobby has specified a number of indicators regarding domestic violence prevention in **Towards a Common European Framework for Monitoring Progress in Combating Violence Against Women** (European Women's Lobby, 2001a). EWL has specifically pointed to the need for improved statistics on, and systematic recording of the incidence of violence against women.

The present project contributes to this aim and suggests that as a minimum standard for EU Member States, data collection on intentional injuries be implemented in at least a limited number of representative emergency departments in each country. The ININS project demonstrated that the implementation of systematic data collection on violence is indeed possible, in a number of widely differing countries. Additionally, our limited medical data collection rendered it possible to compare differences in the characteristics of intentional injuries amongst men and women in 4 partner countries.

A routine system of data collection will achieve a more accurate picture of the prevalence and nature of intentional injury, than spot-checks conducted only if it is apparent that a person has been assaulted. It is therefore recommended that systematic collection of data on intentional injuries be implemented in the EU, as

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it will contribute significantly towards improving the prevention and treatment of intentional injuries.

The results of the present study will be disseminated both to health care professionals and to the general public, in order to increase awareness of the potential of routine data collection at emergency departments in the Community as a tool for gaining information about the prevalence and character of interpersonal violence, and its damaging health consequences.

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1. Introduction

Intentional injuries constitute a large part of all injuries and present a serious health threat particularly to children, young people and women. Globally, it is estimated that intentional injury ranks fifth amongst the leading causes of burden of disease amongst younger adults (World Health Organisation, 2001), and violent acts, including sexualised violence, are estimated to be responsible for one out of every five healthy days of life lost to women of reproductive age (Heise et al., 1994).

The European Union Injury Prevention Programme (IPP) Workplan 2000 emphasises that both unintentional and intentional injuries constitute major public health issues. The Workplan points out that "injury" is a broad concept, which comprises various forms of ill health resulting from external causes, albeit without distinction as to the cause of the external event. It is therefore essential to improve knowledge about intentional injuries that are caused specifically by interpersonal violence, as both its causes and preventative strategies differ greatly from those of unintentional injuries.

The IPP Workplan furthermore emphasises the need for comparability of information on intentional injury between European Union Member States, which is facilitated by the improvement of national data collection.

In 1998, a European Policy Action Centre on Violence Against Women was established with financial support from the EU. The European Parliament named 1999 the European Year on Violence Against Women (VAW), thus signalling a move to increase awareness of the prevalence and impact of VAW. Four years on, the Action Centre continues to report a serious lack of violence data and has urged the collection of comparable data from the EU Member States. World Health Organisation too, urges improved data collection on violence, however it is itself incapable of improving the national registration of intentional injuries by individual Member States.

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European Women's Lobby has pointed out that data collection on violence is vital for assessing the needs and gaps in prevention and survivor services, as under-reporting and normalisation of interpersonal violence distorts the true picture.

It has been documented that violence has both physical and mental health consequences for both genders (Breslau, 2002;Coxell et al., 1999;Fikree and Bhatti, 1999;Forjuoh et al., 1997;J Campbell et al., 1996). However, it appears that poor physical and mental health disproportionately affects women who have experienced violence, across age groups, ethnic groups and socio-economic classes (Lown and Vega, 2001;Mouton et al., 1999).

Violence against women is associated with a range of health problems, such as injuries; sexually transmitted diseases and HIV; pregnancy complications and mental health problems and a high prevalence of headaches, chronic pain and sleep problems (Frank and Rodowski, 1999;Roberts et al., 1998). The possible correlation between male violence and health is less illuminated.

An accurate estimation of the global health burden of violence is hampered by lack of data on the incidence and physical and psychological health impact of abuse. Due to significant underreporting of interpersonal violence, criminal statistics are inadequate for estimating the prevalence and nature of violence and consequent victimisation(Heise et al., 1994).

Recently, attention has been drawn to the potential for collecting data on violence from emergency department contacts and hence, for achieving nationally representative data on violence (Shepherd et al., 2000). In Nordic countries, routine data collection of health care contacts is integrated in the national health care system. Since 1995, data on both in-patients and emergency department contacts have been available in the Danish National Patient Register. It is possible to identify the reason for any hospital contact and thus to measure the frequency of contacts due to intentional injury. Contacts due to intentional injury are specified by place of occurrence and mechanism of injury. Furthermore, the data are linked to the patient's unique personal number, which makes it possible to perform analyses of possible associations between victimisation by violence and any hospital contact due to illness and to describe the national and regional

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prevalence of intentional injuries by age and sex. The magnitude and character of hospital contacts due to intentional injury can be monitored by collection of information on the context of assault, such as mechanism of injury, body region injured and place of occurrence of injury.

Injury data from emergency departments may be very useful tools in violence prevention. However, it requires that data are routinely recorded with clear distinctions made between non-intentional injuries and intentional injuries, the latter being further delineated as interpersonal violence and self-harm. Furthermore, if the routine recording of hospital contacts included information about the event of violence, valuable knowledge would be available on exposure to non-domestic and domestic violence.

In a number of Nordic countries, the Nordic Classification of External Causes of Injuries (NCECI) is used for the registration of the reason for contact, mechanism and place of occurrence of injury. In Denmark, information about all hospital contacts, including contacts to emergency departments, are routinely registered by WHO's International Classification of Diseases, 10th Revision and NCECI. The classification possesses the potential to register different types of intentional injuries, both interpersonal and self-inflicted injuries. Interpersonal injuries may be specified as fight, sexual assault, neglect, other specified violence and unspecified violence. Furthermore, place of occurrence may be delineated to indoor and outdoor residential areas, for example. At present, the reason for hospital contact, the mechanism and the place of occurrence of injury are coded only at single-integer level, which does not allow for detailed distinction between different patterns of intentional injuries.

The NCECI classification further contains codes for event of violence, including information about perpetrator, number of perpetrators and specification of place of occurrence, e.g. injured person's home or perpetrator's home. However, at present the registration of hospital contacts due to intentional injury in Denmark does not include this information. The lack of data collection on the perpetrator of violence and on specified place of occurrence diminishes the possibility of identifying data about hospital contacts due to partner violence or domestic violence in the National Patient Register.

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Recent data from the Danish National Patient Register enabled the estimation of the frequency of intentional interpersonal injury in the female population, and furthermore, the quantification of the impact of such injury on women's health (Helweg-Larsen K and Kruse M, 2002b). Significant correlations were found between violence victimisation and consequent hospital contacts due to any illness. Men are exposed to violence to a greater extent than are women. But significant gender differences exist in correlations between victimisation by violence and the amount of consequent hospital contacts due to any illness. Women victimised by violence present many more health problems that require hospital contacts, than do non-victimised women; a corresponding relationship is not found amongst men. (Helweg-Larsen K and Kruse M, 2002a).

During recent decades, a number of regional British studies on registration of hospital contacts due to intentional interpersonal injury have been conducted based on data collected either by interviews (Goodwin and Shepherd, 2000) or by prospective data collection at emergency departments. (Sivarajasingam and Shepherd, 2001). Similarly, the past two decades have seen systematic data collection on emergency department contacts due to violence being carried out on a regional level in Denmark (Brink et al., 2002).

To the authors' knowledge, the present study was the first to conduct a cross-national comparison of medical data collection on intentional injury in emergency departments, and also the first population-based study to test the feasibility of collecting prospective data on the perpetrator of the violence in a limited number of emergency department records. Previous studies on the registration of intentional injuries in emergency departments have focused on specific tasks, such as improving detection of child abuse cases or strengthening collaboration with local police to prevent community violence (Benger and Pearce, 2002; Shepherd, 2001). Specific measures have thus been taken, typically for a limited amount of time, in order to achieve the given aim of study.

Accurate data on hospital contacts due to intentional injury are crucial both for the implementation and validation of violence prevention and health planning. Internationally, the current lack of data on exposure to and health consequences

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of violence is therefore viewed as an obstacle to a targeted prevention of intentional injuries.

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2. Objectives

The Data Collection on Intentional Injuries project (ININS) had three major aims:

- To develop a standardised methodology with which to document the current magnitude and character of violence in the European Community.
- To test the feasibility of implementing a systematic medical data collection procedure on intentional injuries and information about the event of violence in emergency departments.
- To obtain comparable intentional injury data by conducting a pilot project.

The overall study objective was to provide comparable data on intentional interpersonal injuries in the EU-member states and to improve the knowledge of the incidence of violence, which constitutes a significant portion of injuries in the EU, and thereby promote and improve specific prevention/intervention strategies against violence in the EU.

The intermediate objective was to implement systematic medical data collection in a number of emergency departments in selected EU partner countries, namely Denmark, the Netherlands, Italy and the United Kingdom, and to achieve information herein about ethical and practical issues of such data collection.

Thereby, the Data Collection on Intentional Injuries project tested the feasibility of implementing a system to collect a core set of data, which can be routinely applied in regular hospital systems.

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3. The project

A project aim was to conduct a cross-national study, which comprised EU Member States representing different regions of Europe, with dissimilar routines for medical data collection. These were the United Kingdom (Scotland), Italy, the Netherlands and Denmark. France was a sleeping partner in the project and provided information about the current practices for routine registration of hospital contacts due to intentional injuries in France.

We utilised the established EHLASS network in the selection of our partners, which facilitated the implementation of our project. Italy, the Netherlands and the UK had prior experience in routine collection of data on home and leisure accidents by emergency contact registration.

The project comprised six components:

1. Description of the current registration of health care contacts due to intentional injury in the respective partner countries, with a focus upon registration in emergency departments.
2. Comparison of relevant classification models for medical data collection regarding intentional injuries (NCECI and ICECI).
3. Illumination of ethical issues concerning medical data collection on intentional injuries.
4. Conduction of a pilot project to evaluate the potential for implementing medical data collection in a limited number of emergency departments during a 6-month period in each partner country.
5. Comparison of the results between the four countries.
6. Establishing visions for a future routine system of data collection on violence in the European Union.

3.1. Current practice for registration of health care contacts due to intentional injury

Information was gathered about the current registration of national data on hospital contacts due to intentional injury in the respective Member States (Appendix 1). The partner countries were also asked to specify where possible,

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their routines for handling victims of violence upon arrival at the hospital. For an optimal monitoring of hospital contacts due to intentional injury, all victims of violence should be referred to the emergency department. In many instances, hospital contacts due to intentional injury are not registered if patients are directly admitted to the hospital, referred to outpatient treatment, or bypass registration at the emergency department in another way.

Information was asked regarding the type of referral systems that operate at local, regional and national hospitals. Additionally, the amount of initiatives to ensure safety and well being of particularly female victims of violence was screened. Information was asked regarding the routine level of cooperation between hospitals and local women's shelters, the rate of reporting to the police, and the possibility for psychological and psychosocial counselling for the victim.

Data on treatment and referral of contacts due to violence was incomplete in the present study. However, an overall impression may be obtained from further analyses of the available data.

3.1.1 The Netherlands

Victims of intentional injuries in the Netherlands most often contact emergency departments in hospitals. It is therefore opportune to utilise emergency department data in order to monitor the magnitude and character of intentional injuries in the Netherlands.

The Netherlands has a comprehensive set of data sources on intentional interpersonal injuries.

Dutch Injury Surveillance System; Consumer Safety Institute

Until 1997, the Consumer Safety Institute housed a surveillance system on home and leisure contacts made to A&E departments in a sample of hospitals in the Netherlands. This surveillance system was called PORS and it contained no information regarding intentional injuries, either interpersonal or self-harming.

Hereafter, the Consumer Safety Institute initiated the registration of emergency department data on contacts due to all injuries. This surveillance system, called

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LIS, operates in fifteen hospitals in the Netherlands. These hospitals constitute a representative sample of approximately 15% of all general and academic hospitals in the Netherlands at which emergency departments are continuously open, which makes it possible to extrapolate the registered cases into national estimates. Between 130.000 and 140.000 emergency department contacts are registered annually in LIS. Information gathered between 1997 and 2000 reveals that approximately 3% of emergency department contacts registered were injuries due to violence.

The basic data set comprises largely administrative information, including patient details and admission time, however the following variables are also recorded in LIS:

- Cause of injury
- Type of injury
- Location of injury
- Treatment method

A violence module is included in LIS, which comprises basic demographic and administrative information, as well as the following variables:

- Injury mechanism
- Place of occurrence
- Victim activity at time of injury
- Relationship between victim and perpetrator
- Object of injury

A complete LIS data-year is available for analysis after one year. Information on case-level (without person-identifiable variables) can be presented as well as aggregated information in tables (frequencies and cross-tabulations). The information in the Results chapter are national estimates of the data.

Hospital Discharge System; Prismant Consultancy

Although Prismant is formally the responsible managing organisation of the Hospital Discharge System (LMR), the Dutch Consumer Safety Institute also has access to the

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accident data from 1997-1999, which is contained in the LMR. The LMR is a Hospital Discharge Registration System, in which data on all hospital admissions to all Dutch hospitals are registered. Within the LMR, external causes of morbidity and mortality are coded using ICD 9 codes.

Between 170.000 and 180.000 hospital admissions are annually registered in LMR. Data gathered between 1997 and 2000 reveals that approximately 1,4% of hospital admissions registered in this period were injuries due to violence.

The variables recorded in LMR largely comprise administrative information; however, the following variables contain information on injury category:

- Type of accident (category > injury due to violence):
- Type of injury
- Intentional injury (category > homicide and injury purposely inflicted by other person)
- Cause of injury

A complete LMR data-year is available for analysis after one year. Information at case-level is not available. Information can be presented at aggregated level in tables (frequencies and cross-tabulations).

Mortality statistics; Statistics Netherlands

Although Statistics Netherlands is formally the responsible managing organisation of the Mortality statistics, the Dutch Consumer Safety Institute also has access to the accident data from 1979-1999, which is contained in the Mortality statistics. The Mortality statistics comprise data on deaths of all cases resident in the Netherlands. From 1996 onwards, cause of death is coded using ICD 10 classification; previously, ICD 9 codes were employed.

The Mortality statistics register between 4.900 and 5.300 deaths due to external causes on an annual basis. Data gathered between 1996 and 2000 reveal that approximately 0,1% of death registered in this period are fatalities caused by violence.

The following information on the type of injury is included in the core set of data:

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- Primary cause of death
- Type of accident (category > fatality due to violence)
- Type of injury
- Intentional injury (category > homicide and injury purposely inflicted by other person)
- Cause of accident

A complete Mortality statistics data-year is available for analysis after two years. Information at case-level is not available. Information can be presented in aggregated form in tables (frequencies and cross-tabulations).

Police Monitor Population – registration of violent incidents

The Police Monitor Population (PMB) is a national survey commissioned by the Ministerial Departments of Home Affairs and Justice, respectively. The survey concerns criminality, insecurity and the quality of standard policing. Interviewed persons are asked about crime victimisation, feelings of insecurity and experiences with the police. The biannual survey has been conducted since 1993 via computer-assisted telephone interviews, targeting approximately 6000 Dutch adults aged 15 years and above.

Survey on Legal Protection and Safety – regarding victims of certain criminal offences; Statistics Netherlands

The Legal Protection and Safety (ERV) survey conducted by Statistics Netherlands collects data on the experiences and feelings related to criminality. Topics included in the ERV are victimisation, feelings of insecurity, measures taken to avoid being victimised, assistance and crime reporting behaviour, and perceived problems in crime legislation. The ongoing survey targets approximately 6000 Dutch adults aged 15 years and above and interviews are conducted using the computer-assisted telephone interviewing method.

3.1.2 The United Kingdom (Scotland)

In the United Kingdom, most victims of violence contact emergency departments in hospitals. However, emergency department contacts due to intentional injuries

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are not registered on a routine basis. In the United Kingdom data registration systems differ widely regionally. While data on intentional injuries may be recorded at national level, it must be considered that national data actually comprises that of Northern Ireland, Scotland, Wales and England, all with differing data registration systems. Therefore, data collected on intentional injuries cannot be extrapolated to obtain truly nationally representative estimates.

The responsible managing authority for intentional injury data in Scotland is the National Centre for Statistical Analysis, Information and Statistics Division (ISD). The ISD registers only in-patient contacts due to intentional injury, thus excluding contacts to the emergency department, as well as ambulatory contacts. Additionally, registration of intentional injuries at emergency departments is not conducted systematically.

The variables recorded at ISD comprise largely administrative information, including patient details. Additional variables include:

- Reason for contact
- Type of injury

Thus far, no national survey has illuminated the magnitude and nature of hospital contacts due to intentional injuries and it appears to be extremely difficult to systematically obtain information on the injury itself, as well as the context of assault at emergency departments.

3.1.3 Italy

In Italy, the practice for registration of data on intentional injuries appears to vary from one data source to another, depending on organisational structure. Victims of violence most often contact emergency departments, general practitioners and gynaecologists. Enquiries regarding the prevalence and nature of intentional interpersonal injury are often conducted by specialist agencies or associations e.g. women's resource centres, whose main concern is the well being of the victim of the violence. Thus, a systematic and standardised data collection system is still lacking at the institutional level, which is the victim's first contact

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following the assault. This disparity should be bridged by interventions at a central level (governmental or parliamentary) or at local level (regional or district).

The following national organisations register contacts due to intentional injuries:

Associazione donne contro la violenza

Contact is primarily initiated by phone. Statistics are compiled on an annual basis and the main variables included demographic and administrative information, with supplementary variables regarding the violence:

- Type of violence (physical, economic, psychological)
- Place of occurrence
- Perpetrator information

Il centro SVS

The staff at the centre have technical backgrounds specifically relevant to the psychological, medico-legal and judicial aspects of intentional interpersonal violence. The clinic comprises an emergency department centre as well as numerous gynaecological, medico-legal and social services for victims of violence attending the centre. The centre registers contacts that are specifically due to sexual violence, and statistics are compiled to include administrative information, as well as data on the perpetrator.

Telefono rosa di Torino

Voluntary agency whose staff monitor the amount of contacts received due to sexual violence. The same information as outlined above is registered.

Istat

Conducted an enquiry on sexual harassment and sexual violence in Italy between 1997 and 1998, based on a representative sample of 20,064 women aged 14-59 years. The study was conducted by telephone interview.

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3.1.4 France

At present, there exists no national system for data collection of hospital contacts. Recently, initiatives were taken to establish systematic registration of emergency contacts in a number of emergency departments in the Paris region and several provinces. In 2000, a nationally representative survey on violence against women was conducted. It comprised approximately 8,000 adult women and served to illuminate the magnitude and character of gender based violence.

At present, a EU project aims to describe the health care needs of women victimised by domestic violence, and the current response of the health care system to their demands.

France is a member of the European Women's Lobby Observatory on Violence Against Women and is going to establish a national observatory that will promote more consistent data collection on violence. It may be expected that national or regional systems for registration of emergency contacts due to intentional violence will be established in the near future.

3.1.5 Denmark

In Denmark, medical care for victims of intentional injuries is offered primarily by the emergency departments in the national health care system. Minor injuries are also treated either by the patient's general practitioner or an emergency service doctor. The treatment is free of charge. All victims of injuries that require medical treatment are thus in contact with the national health care system, and most will be treated in a hospital emergency department. The registration of hospital contacts in the Danish National Patient Register will therefore comprise the major part of these victims.

During recent years, increasing attention on the possible psychological consequences of violence has resulted in the establishment of special care units in the national health care system for victims of violence, primarily rape victims and victims of sexual abuse in childhood and youth. The victims are offered free counselling from specially trained medical staff, psychologists and social workers. An established cooperation with the Danish women shelters ensures that the

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victim of violence does not need to return to a place where she or he will be in danger of being re/victimised.

Similarly, a number of emergency departments have established links to regional shelters and provide access to social and psychological counselling of victims of violence.

Since 1977, the Danish National Hospital Register has collected nationwide data on all somatic hospital admissions, as well as data on outpatients and emergency patients since 1995. The primary purposes of the Register are to provide information for production of statistical data, to monitor utilisation of health care services and to support the process of health care planning. The availability of the unique person identification number as a means of data linkage at the individual level renders the Register a powerful source of data for monitoring long term outcomes in cohorts of individuals under study. It is thus possible to analyse the occurrence of specific hospital related outcomes and to estimate their possible association with the exposure at hand.

Medical personnel cannot report an act of violence to the police without the informed consent of the patient. However, if any other person is in immediate danger of being victimised or there is a high risk of a serious crime being committed in the near future, the professional secrecy may be disregarded.

Other data sources than the National Patient Register are available, which may describe the magnitude and character of violence in Denmark:

1. The National Criminal Statistics
2. Population based surveys on living conditions
3. Health surveys
4. Statistics collected by women organisations, the national crisis centre organisation
5. Regional data collection at emergency departments

The Criminal statistics contain information about all police reported offences stratified by police district, criminal offence, legal outcome and registers some

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information about the alleged offender. By 2003, the register will include information about sex and age of the victim. This will allow for monitoring of trends in gender specific violence.

Population-based surveys on living conditions are conducted among adults every few years. In 1987, 1991, 1995, 1996, 1998 and 2000, they included questions about physical violence and threats of violence. Thereby, the trends in male and female violence are well illuminated. The surveys do not include any information about health and hence, they do not measure the possible health consequences of violence.

With support from the EU Daphne Programme, the 2000 Danish national health survey included a number of questions about physical violence, threats of violence and sexual assault. A self-administered questionnaire containing this information was completed by about 11,000 adults, aged 16 years and above. The response rate was approximately 86% and the random sample represented all regions and social groups in Denmark. These data enable the analysis of correlations between social factors, health, well being, health behaviour, contact to the health care system and victimisation by physical violence and/or sexual abuse.

In Denmark, the shelters for victimised women and their children are financed by the government, but run by the national crisis centre organisation. A budget of approximately 10 million Euro covers the costs of about 60 shelters. These shelters register all contacts and publish the number of contacts made on an annual basis, the length of each stay and the number of accompanying children per case. Data are not person-identifiable, as any woman may attend a shelter anonymously.

Since the early 1980's, a number of emergency departments in different regions of Denmark have collected prospective data about the number and character of contacts due to intentional injuries.

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4. Comparison of relevant models for medical data collection about intentional injuries (violence)

At the first partner meeting in 2001, discussions focused upon the different types of classification used by the respective countries, for recording injury data.

The new international classification (ICECI) had just been acknowledged by WHO. It was recommended that a coding manual for intentional injuries be developed that could be used at emergency departments throughout the EU. This manual could be based on ICECI, such that injury surveillance in the EU would be standardised in accordance with a global standard. The standardisation of European classification forms the basis for comparability of injury data between Member States.

The NOMESCO classification, NCECI, was first published in 1980 and has since been used in a number of Nordic countries for routine medical data collection on injuries. Registration of hospital contacts due to unintentional, intentional injuries and self-harm comprise both coding of the location and type of injury by the International Classification of Diseases and Related Disorders, ICD, and of the intent, mechanism and place of occurrence of injury by NCECI. At present a combination of ICD 10 and a limited number of core elements of the third edition of NCECI, 1997 is used for the routine registration of injury data in the Danish National Patient Register.

4.1 ICECI coding

The ICECI is a WHO classification, which is supported worldwide. Traditionally, injury data have been presented using WHO's International Classification of Diseases (ICD). However, the ICD codes lack the scope and specificity needed to illuminate injuries. ICECI was developed over the last ten years, and was first tested in 1999. The aim of developing a tool for registering injury data was to help prevention practitioners and researchers to define more precisely the domain of injuries, to answer questions about the circumstances of the injuries, and to provide more detailed information about specific accident categories.

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ICECI can optimally be used as a companion to ICD-10, allowing for more detailed data capture in emergency departments, clinics, and in-patient hospital settings; and in surveys ¹. ICECI is a multi-axial classification system with hierarchical code sets. Detailed codes can be aggregated to a lesser level of detail. By registration of the intent, place of occurrence, activity when injured and mechanism of injury, including object of injury, distinctions can be made between different types of injury events.

ICECI has a violence module that provides additional information about intentional injuries, both self-inflicted and interpersonal. It consists of seven data elements, of which three are relevant to the present project:

1. Perpetrator/victim relationship
2. Sex of perpetrator
3. Context of assault

4.2 NCECI

NCECI provides codes for registration of reason for contact: accident and injury, either violence or self-harm. In the routine registration of all hospital contacts due to injuries in the Danish National Patient Register, data on place of occurrence and mechanism of injury is included. Place of occurrence is classified in 8 different areas:

1. Transport area
2. Residential area
3. Production and workshop area
4. Retail, commercial and service area
5. School, institutional area and public premises
6. Sports area
7. Amusement and entertainment area
8. Open nature
9. Sea, lake and river

¹ Data Dictionary International Classification of External Causes of Injuries (ICECI). Version 1.0. WHO Collaborating Center of Injury Surveillance. Amsterdam, The Netherlands March 2001. <http://www.iceci.org>

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10. Place, other and unspecified

Each area is further delineated into well defined areas using two-integer codes. In the routine registration, only single-integer coding is used.

The mechanism of injury is specified in 9 groups, including struck by fall, hit by other object and suffocation. Routine registration is done using single-integer codes; higher level of specification of mechanism is possible with two-integer codes.

NCECI contains codes for event of violence. This element is not incorporated in the routine registration in Denmark. By these codes it is possible to define:

1. Perpetrator in 9 categories
2. Number of perpetrators
3. Perpetrator's sex
4. Perpetrator's age
5. Specification of residence (own, of perpetrator or other person).

4.2.1 The current status for NCECI classification of injuries in the Nordic countries

Denmark: The NCECI 2nd revised edition is used in the National Patient Register (NPR) for both admissions (since 1987) and Emergency department visits (since 1995). In the NPR the classification is used at an aggregated level in a minimum data set. In the Accident Analysis Unit of the Odense University Hospital and in the Injury Register at the National Institute of Public Health (NIPH), the classification is used at its detailed level, including coding at two-integer level. Since 1998, the National Institute of Public Health has applied the 3rd revised edition of NCECI in the registration of home and leisure accidents. The national monitoring system is thus supplemented by databases, which can be utilised for research purposes.

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Finland: The NCECI is not being used in Finland. A Finnish modified version of ICD-10, Chapter XX has replaced the full ICD-version, because this entailed an increase in missing data (60%).

Iceland: In 1998, the NCECI, 3rd revised edition was introduced in a nationwide computerised registration system of injuries. The registration system now relies on specially trained coders, and will be further developed to include sector specific registration (insurance, police, occupational systems etc.) along with data from the health care system in an online database.

Norway: The NCECI has been used for registration of home and leisure accidents in emergency departments of 4 hospitals since 1985. At present, the 2nd revised edition is being used. Trained secretaries perform the coding, and data are processed and analysed by the Norwegian National Institute of Public Health. The future plan is to collect data at municipal level by including primary care. The system would be a short version based partly on ICPC (the International Classification on Primary Care), partly on certain elements of the NCECI.

Sweden: Whereas mortality and morbidity (discharges) are covered at national level (ICD-10), there is no emergency department register at national level. Many local regions use the NCECI, 2nd revised edition, for emergency department registration, albeit not in a uniform system. At present, the EHLASS system of registration of home and leisure accidents is employed in hospitals covering a small percentage of the population. There is no routine data collection on violence.

4.3 EHLASS coding

The EU has a long history of emergency department based injury surveillance using EHLASS data. These data are classified by a coding manual, which has been updated twice since 1986, from V 1986 to V 1996 and very recently, to Version 2000. The data elements included in the coding manual and the level of detail at which they are registered, has proved to be very useful for data recording and analyses.

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4.4 Comparison of ICECI and NCECI

The classification principles of NCECI and ICECI do not differ greatly. However, ICECI contains further possibility for registration of activity at time of injury, alcohol and drug use. Furthermore, ICECI facilitates medical data collection in armed conflicts. Type of legal intervention and type of conflict can be classified using specific codes, and also a more precise classification of object, e.g. type of weapon. At present, the module for event of violence in ICECI and NCECI has not been implemented in any routine registration of intentional injuries.

The full potential of ICECI was tested in a pilot study in the Occupied Territories in Palestine. It comprised retrospective registration of emergency department contacts due to intentional interpersonal injuries in three periods before and during the present Intifada. The classification could illustrate, realistically monitor and quantify mechanisms of injury and health effects of armed conflicts².

At present, the module of intent of violence in NCECI is used in a retrospective registration of emergency contacts due to intentional injuries in five different regions in Denmark. The aim is to obtain experiences about the possibility for more specific information about injuries due to violence in the future.

In the present study, we performed a comparison of the relevant data elements of the two classifications. An integrated set of data categories was developed (Appendix 2); these were subsequently transposed into a standardised classification table, which was developed by Italy (Appendix 3).

² Systematic medical data collection of the health consequences of armed conflicts. A pilot study conducted in West Bank, Palestine, during the present Intifada. Helweg-Larsen K, Abdel-Jabbar Al-Qadi A, Brønnum-Hansen.H. National Institute of Public Health, Denmark and Legal Medicine Institute, Al-Quds University, Palestine Authorities West Bank.

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5. Illumination of ethical issues concerning medical data collection

There were a number of ethical considerations that had to be accounted for prior to, and during the course of the project.

In the United Kingdom particularly, ethical issues posed a hindrance to the collection of data on intentional injuries. Any compilation of data that is termed a "register" is governed by strict guidelines concerning ethical issues, such as fully informed consent, written explanation of what data is to be used for, a confidentiality guarantee, and an opt-out clause amongst other conditions.

The European Women's Lobby has also pointed out that the issue of data collection on violence against women is a sensitive one and that care must be taken not to undermine the woman in question. In the United States for example, the systematic recording of incidences of domestic violence by the police has in some cases, led to children being removed from the mother's care by child protection agencies (European Women's Lobby, 2001b).

The above-mentioned issues are particularly pertinent to collection of data on intentional injuries, as the importance of protecting victim confidentiality is countered against convicting the perpetrator of the violence. The quandary arises of which issue is of greatest consequence, a concern that is emphasised by the British Data Protection Act and the British General Medical Council.

The issue of patient anonymity was salient to the present project. The project group discussed whether to exclude such person-identifiable details as postal address from the questionnaires to be administered at the respective emergency departments. It was proposed that sex and age should be the only patient details to be recorded in order to maintain person anonymity in the study.

In the United Kingdom, postal code information was revealed to be highly person-identifiable information, as the postcode could vary within a very small area e.g. from street to street. Therefore, the inclusion of address details could pose a threat to full patient anonymity.

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In the Netherlands, the postal code is recorded for Dutch patients. However, due to privacy legislation the postal codes must be kept confidential. The specificity of the postal code could also result in identification of patients, thus bringing into question the merits of including this information in the present project. Due to the density of the population in the Netherlands, catchment areas for hospitals cannot be defined, therefore the alternative of asking the patient whether he/she is resident outside a given catchment area does not present itself.

In Denmark, all hospital contacts are registered using the patient's unique citizen number (CPR-number). Data regarding address, reason for contact, referral, treatment and related diseases/conditions of the patient are contained within the National Patient Register, which is linked to the patient's CPR-number. However, specific legislation regulates both registration of, and access to data in the National Patient Register. Furthermore, research projects utilising Register data must be evaluated and approved by an Ethics Committee. However, most register-based analyses are performed using encrypted data, thus without access to the personal identification number.

The above-mentioned were pertinent issues that had to be considered and taken into account before embarking on data collection. In some cases, ethical consideration proved to be an obstacle to collecting prospective data on intentional injuries altogether.

The sensitive nature of the topic of violence also constituted an ethical concern, as well as a factor in low response rate from patients. Patient anonymity necessarily had to be secured, from the view of both the patient and the project team. Patients may have been worried about implicating the perpetrator, particularly if it was a relative or partner. They may also have been worried about perpetrator retaliation in instances of police involvement in the case. It was difficult to gather information about such sensitive variables as perpetrator, context of assault and place of occurrence from medical records in all partner countries.

In Denmark, regulations allow for registration of injury data regarding unintentional, intentional and self-inflicted injuries. At present, data collected at

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five emergency departments involved in the EHLASS project, are registered in the National Register of Accidents at the National Institute of Public Health. In the future, the register will also be updated by data retrieval from the National Patient Register.

In the present project, the Medical Ethical Research Committee examined the project protocol and found no objections to the data collection, which in Denmark comprised information about perpetrator and alcohol intake.

In The Netherlands, collection of data on perpetrator was estimated to be irrelevant for the medical treatment, and therefore medical staff were reluctant to routinely collect this information.

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6. The pilot project

The first major outcome of the Data Collection on Intentional Injuries project was a meeting of the partners in April 2001, held in Copenhagen. Several decisions on the implementation of the project were made at the partners meeting.

Inter-country comparisons of the current registration of hospital contacts due to intentional injuries were made based on a pre-distributed questionnaire (Appendix 1). It emerged that status quo for data collection was similar in all partner countries, with the exception of the United Kingdom. Most hospitals collected data on injuries, but it was often difficult to differentiate between intentional and non-intentional injuries from the records made. In the Netherlands, hospitals already collected data on the perpetrator of the injury, however, this was not performed on a national scale and was therefore not nationally representative.

In the United Kingdom, there were large regional discrepancies in collection of data by hospitals. The United Kingdom is viewed as a collectivised nation, when it actually comprises four different countries – Scotland, Wales, Ireland and England. National discrepancies in execution of data collection and consequent registration were therefore anticipated. The United Kingdom was unable to provide prospective national data on violence, largely due to such national discrepancies in procedure, but also due to ethical and practical hindrances to data collection on intentional injuries, as were discussed in the previous chapter.

It was agreed that even a minimal system of data collection would form a valuable tool for monitoring the national and European prevalence of violence and targeting prevention strategies for different injuries i.e. non-intentional, intentional and self-inflicted.

The project group delineated the main variables to be included in the data collection system: Reason for contact; Mechanism of injury; Place of occurrence and Perpetrator.

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Furthermore, it was decided that it would be of great value to collect information regarding the temporal context of injury and contact to emergency department, as well as the type and severity of the injury itself. However, it was emphasised that the data collection should be incorporated into the daily routine of the respective emergency departments. Hospitals that had prior experience of data collection, such as EHLASS hospitals were considered to be ideal candidates, not least because ethical issues would not have to be considered anew.

It was decided that it was the responsibility of each of the partner countries to contact suitable emergency departments, the suggested number being two departments in each partner country. Data collection was set to commence on 1st September 2001 for a 6-month period.

The present study was implemented during a 6-month period, spanning from September 2001 to March 2002. In the following, the emergency departments selected for each country, the length of data collection and the implementation of the selected variables will be described for each of the partner countries.

6.1 The Netherlands

The Netherlands collected data for a period of 3 months at three emergency departments of varying sizes, from 1st September to 30th November 2001. The data collected were neither representative for the respective hospitals nor nationally representative, as data registration was only conducted for a period of 3 months.

Diaconessenhuis Eindhoven was the smallest of the three hospitals, with a total of 365 beds and 16, 626 patients at the emergency department for the year 2001. Of these, 8, 761 were injury patients and in the data collection period, a total of 110 contacts due to violence were registered.

Ziekenhuis de Gelderse Vallei housed 605 beds, with a total of 16, 955 emergency department patients in the year 2001. Of these 9, 455 were injury patients and in the project data collection period, 147 contacts due to violence were registered.

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At **Academisch Medisch Centrum**, there were 1000 beds and 33, 500 emergency department contacts in the year 2001. Of these, 16, 750 were injury patients and in the data collection period, 293 contacts due to violence were registered.

As well as administrative information and data on severity and location of the injury, specific variables relating to violence were selected:

- Relationship of person committing the injurious act on victim
- Sex of perpetrator
- Age of perpetrator
- Number of perpetrators

It was very difficult to obtain any complete data on the violence variables for reasons that have been discussed in the previous chapter.

6.2 Italy

Data collection in Italy was implemented for 4 months at two emergency departments in Rovigo and Frascati, between 1st August and 31st December 2001.

Frascati has a denominator population of 474, 275 inhabitants. The area encompasses 9 smaller hospitals comprising 6 emergency departments; of 1, 278 hospital beds, 60 are located in the emergency department. A total of 34, 438 surgeries are performed at the emergency department each year, with an average of 95 contacts per day.

In **Rovigo**, data collection was performed at 2 hospitals. The area has a denominator population of 169, 760 inhabitants. The emergency department comprises 4 beds and performs 37, 000 surgeries a year. There are an average of 100 contacts made to the emergency department per day.

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As well as administrative information regarding patient details, time of admission to hospital and reason for contact data, selected violence variables were included on the emergency department data sheet for the data collection period:

- Relationship of perpetrator to victim
- Age of perpetrator
- Sex of perpetrator
- Number of perpetrators

6.3 United Kingdom

It was not possible to conduct prospective data collection on violence in the United Kingdom, due to practical and ethical obstacles encountered at emergency departments that were contacted about the present project. However, retrospective data collection on emergency contacts made during the year 2000 was conducted, in order to contribute to the project in terms of an overview of the magnitude of hospital contacts due to intentional injury.

Retrospective data collection was conducted at the emergency department of St. John's Hospital, which was chosen because it served a geographical area that had a clearly defined denominator population of 44, 224 inhabitants and therefore enabled the calculation of epidemiological rates of violence.

The annual injury attendance rate was recorded at 10.18 per 1000 population, and a total of 1, 316 contacts due to violence were registered over a one-year period from 1st January to 31st December 2001.

6.4 Denmark

Data collection in Denmark was implemented at two emergency departments for 6 months, between 1st September 2001 and 28th February 2002.

Randers hospital has a catchment population of 134, 180 inhabitants and in the year 2001, a total of 18, 177 injury registrations were made at the emergency department.

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Herlev hospital has a catchment population of 200, 493 inhabitants and approximately 35,000 emergency department contacts due to injury were registered in the year 2001.

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7. Analyses of data collected during by the pilot project. Comparison of results achieved in the four partner countries.

Two of the partner countries collected intentional injury data on intentional self-inflicted injuries, as well as intentional interpersonal injuries. It should be noted that only data concerning intentional interpersonal injuries have been included in the present comparisons of intentional injury data.

7.1 Italy

Data sources were emergency departments in two different districts located in the Northeastern part of Italy, Rovigo, and Frascati in the Rome area. As presented in the Chapter 6, the emergency departments served a population of 644,035 individuals, 169,760 in Rovigo and 474,275 in Frascati.

During the 6-month period of data collection from August 2001 to January 2002, a total of 291 contacts due to intentional injuries were registered, 173 in Frascati and 118 in Rovigo. The characteristics of the 291 hospital contacts are presented in Table 7.1.1.

Table 7.1.1

Reason for contact	Roma	Rovigo	Total
Assault, fight	161	78	239
Sexual assault	1	6	7
Violence, other specified	9	1	10
Violence, unspecified	2	33	35
Self-inflicted injury	0	20	20
Total	173	118	291

Six contacts were classified as being possible due to accidental violence and 20 contacts were made following self-injury. Seven cases dealt with sexual assaults. The annual rate of emergency contact due to intentional injuries was 1.4 per 1000 in Rovigo area and 0.7 per 1000 in Frascati area. Omitting the 20 contacts due to self-inflicted injuries registered in Rovigo, the contact rate was 1.1 per 1000 in Rovigo.

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In Rovigo, suicide attempts represent approximately 14.4% of the data collected, while they do not appear in the data for the other area, in which bag-snatching, extortion and robbery are frequent. Sexual violence cases appear only in the Veneto data, which may be attributable to the high prevalence of prostitution in the area.

Men were victimised slightly more frequently (54%) by injuries that caused contact to an emergency department than women (46%). Only 16 (5.5%), persons who were registered at the emergency department were below 20 years of age (Tables 7.1.2 and 7.1.3).

Table 7.1.2

Victims	Roma	Rovigo	Total
Male victims	104	53	157
Female victims	69	65	134
			291

Table 7.1.3

Age groups	Roma	Rovigo	Total
Child- teenager (0-19 years)	13	3	16
Adult (20-64 years)	150	103	253
Old people (65+ years)	9	12	21
Not collected	1	0	1
	173	118	291

The home was identified as the most common place of occurrence of injury (29% of cases), however in about 31% of cases, the place of occurrence was not specified. In 29% of cases, aggression occurs most frequently in the home and in the majority of cases, the victim is a woman. This confirms that a large part of violence occurs within the confines of the home. It is notable that the prevalence of domestic violence in Rovigo is approximately 37%, whereas in Rome the percentage is lower at 23%.

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Street or road is the second most common place of occurrence for violence, at 15%. In Rovigo, it is noted that many violent incidents occur in bars and restaurants, whereas these are seldom venues for violence in Rome. This could be symptomatic of the fact that cities are more populated with public places in which people consume alcohol, which may influence their behaviour and cause them to be aggressive (Table 7.1.4).

Table 7.1.4

Place of occurrence	Roma	Rovigo	Total
Bar/pub- restaurant	3	14	17
Public parkings	0	3	3
Public gardens – park	9	3	12
Hospital	2	0	2
Own home	39	44	83
Courtyard-garage	1	14	15
In the street	22	23	45
In the car	7	0	7
Public places	8	2	10
At work	8	0	8
Others	74	15	89
Total	173	118	291

The head and face was the most common location of injuries, in 19.2% of cases and the lesions were most often contusion or ecchymosis, in 58.4% of cases (Tables 7.1.5 and 7.1.6).

Data Collection on Intentional Injuries

Table 7.1.5

Location of injury	Roma	Rovigo	Total
Abdomen	2	0	2
Superior limbs	12	11	23
Cervical spine – neck	14	7	21
Skull	12	6	18
Anxiety crisis	2	0	2
Knee	10	4	14
Hand	12	5	17
Wrist	3	3	6
Shoulder	10	4	14
Head – face	40	16	56
Thorax	30	11	41
Other	26	51	77
Total	173	118	291

Table 7.1.6

Type of injury	Roma	Rovigo	Total
Abrasion	5	9	14
Contusion-ecchymosis	98	72	170
Wounds	16	10	26
Fracture	3	5	8
Shock	22	0	22
Tumefaction	2	0	2
Hypertension	2	0	2
Excoriations	12	0	12
Hematoma	5	0	5
Poisoning	0	14	14
Other	8	8	16
Total	173	118	291

It was possible to collect data about the sex of the perpetrator in all but one of the cases, and about the relationship between victim and perpetrator in all cases. In 1/3 of all cases there was no previous relationship between victim and

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perpetrator, and this was more often registered in Frascati than in Rovigo. A partner or boyfriend was relatively seldom registered as the perpetrator, 4.8%.

In 49.4% of the cases, the victim knew his/her assailant, and in 55.5% of cases there was no prior relationship. It is notable that not only do the numerous cases of domestic violence occur in the home, the assailants are very often family members. The assailant in this scenario is typically an adult man, in 88.9% of cases (Table 7.1.7 and 7.1.8).

Table 7.1.7

Perpetrator-victim relationship	Roma	Rovigo	Total
Spouse	4	9	13
Partner	1	0	1
Family member	1	6	7
Patient	1	0	1
Relative	10	3	13
Friend	0	6	6
Known people	69	65	134
None	86	9	95
Total	173	98	271

Table 7.1.8

Perpetrator's sex	Roma	Rovigo	Total
Male assaulters	137	88	225
Female assailants	36	29	65
Unknown	0	1	1
Total	173	118	291

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7.2 Netherlands

The data collection comprised all emergency contacts due to intentional injury during the period 1st September to 30th November 2001 in three different emergency departments located in Amsterdam, Eindhoven and Ede. A total of 550 contacts were registered, of these 424 were due to intentional interpersonal injuries (violence) and 126 (22.9%), due to intentional self-inflicted injuries. The annual rates of contacts in the Netherlands is 3.4 per 1.000 of the population.

The level of information about the different characteristics of injuries varied greatly. Data about age, sex, and reason for contact was available in all cases. The location and severity of injury, mechanism of injury and place of occurrence were indicated in most cases. Information about the perpetrator was lacking in about $\frac{3}{4}$ of all cases and was characterised by gender differences in the level of information available. Thus, perpetrator-victim relationship was not indicated among $\frac{3}{4}$ of all male contacts due to violence and among $\frac{2}{3}$ of the female contacts.

The reason for contact was specified as injuries that occurred due to a fight in 51.8% of all contacts, and in 67.3% of all contacts due to violence. About 0.5% of contacts were due to sexual assault. Among all contacts due to intentional injury, including self-inflicted injury, 59.6% were men. Among the 424 contacts due exclusively to interpersonal violence, 290 or 68.4% were men (Tables 7.2.1 and 7.2.2).

Table 7.2.1

Reason for contact		Frequency	Percent
	Assault, fight	285	51,8
	Sexual assault	2	0,4
	Violence, other specified	116	21,1
	Violence, unspecified	21	3,8
	Intentional self-harm, other specified	122	22,2
	Intentional self-harm, unspecified	4	0,7
	Total	550	100

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Table 7.2.2a

Age distribution among victims of violence

Age-groups	Women	Men
Not informed	.	1
Child-teenagers	24	63
Adults (20-64)	107	222
Old people (65+)	3	4
Total	134	290

Table 7.2.2b

Age distribution among victims of self-inflicted injuries

Age-groups	Women	Men
Not informed	.	1
Child-teenagers	13	63
Adults (20-64)	69	33
Old people (65+)	4	2
Total	86	40

Information about place of occurrence was not obtained in all cases (Table 7.2.3). It was not registered specifically in 62.2% of the contacts. Among the rest, the home or a residential area was the most frequent place of occurrence. When only contacts due to violence are included, a lower percentage of injuries occurred in a residential area, 11.5% compared to 16.9% among all contacts.

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Table 7.2.3

Place of occurrence			
		Frequency	Percent
	Home	87	15,8
	Residential institution	6	1,1
	School, educational area	7	1,3
	Sports and athletics area	2	0,4
	Transport area: Public street and highway	45	8,2
	Trade and service area	11	2,0
	Entertainment and catering premises	46	8,4
	Recreational and playground area	1	0,2
	Scenic area	1	0,2
	Other specified place of occurrence	2	0,4
	Unspecified place of occurrence	342	62,2
	Total	550	100

In contrast, information was obtained about the specific mechanism of injury in 95.5% of all cases. Among the 126 contacts due to self-harm, $\frac{3}{4}$ resulted from poisoning, and among contacts due to violence, blunt force or penetrating force was most commonly specified as the mechanism of injury (Table 7.2.4).

Table 7.2.4

Mechanism of injury			
		Frequency	Percent
	Blunt force	40	7,3
	Penetrating force	83	15,1
	Thermal force	4	0,7
	Threat to breathing	1	0,2
	Poisoning	95	17,3
	Unknown	25	4,5
	Other specified mechanism	302	54,9
	Total	550	100

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The localisation and type of the injury was classified as shown in Table 7.2.5 and 7.2.6. Head, face and neck were the most frequent location of injuries, 40.9%, and most frequently the face was injured. The wrist, hand and fingers were injured in 16% of all cases. Nearly 10% of the injuries comprised several regions of the body.

Table 7.2.5

Location of injury	Frequency	Percent
Hair-covered head	39	7,1
Brains	12	2,2
Ear	8	1,5
Eye	14	2,5
Face	83	15,1
Nose	42	7,6
Jaw	14	2,5
Oral cavity, tongue, teeth	4	0,7
Neck, back of the neck	9	1,6
Thorax	15	2,7
Abdomen, lumbar region, pelvis	21	3,8
Shoulder, upper arm	18	3,3
Elbow, lower arm	22	4,0
Wrist, hand, finger	88	16,0
Hip, upper leg	17	3,1
Knee, lower leg	15	2,7
Ankle, heel, foot and toe	7	1,3
Multiple parts of the body	52	9,5
Other specified	52	9,5
Unknown	18	3,3
Total	550	100

Among all 550 contacts, 33.1% dealt with superficial injuries, 28% with open wounds and 11.6% with fractures.

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Table 7.2.6

Type of injury		Frequency	Percent
	No injury after examination	5	0,9
	Superficial injury	182	33,1
	Open wound	154	28,0
	Fracture	64	11,6
	Other specified	132	24,0
	Unknown	13	2,4
	Total	550	100

Information about perpetrator-victim relationship was relatively sparse and covered only some data about perpetrators. The results will be shown in the comparison of Italian, Dutch and Danish data.

Data Collection on Intentional Injuries

7.3 Denmark

Data about all emergency contacts due to intentional interpersonal injury were registered at two hospitals, one in the capital area and one in Jutland. The data collection period comprised 6 months, 1st September 2001 to 28th February 2002. A total of 587 contacts were registered, 291 in the Copenhagen area and 297 in Jutland. The annual rate of contacts due to intentional injury was calculated to be 2.9 per 1000 in the Copenhagen area and 4.4 per 1000 in Jutland.

Information was obtained about age, sex, weekday of injury, time of day, reason of contact, localisation, severity and mechanism of injury in all cases. Data about specific place of occurrence were lacking in about ¼ of male contacts and 1/6 of female contacts. Gender differences also existed in the level of information obtained about perpetrator-victim relationship; no information was obtained among 38.6% of male contacts and 18.8% of female contacts. Detailed information about place of occurrence was obtained in the majority of relevant cases, whether it was own home, perpetrator's home or other person's home.

The tables below present a number of registrations by sex. The results of more analyses are presented together with data from Italy and The Netherlands.

The reason for contact was registered as a fight in 16.5% of male contacts and 6.1% of female contacts. Three female contacts were due to sexual assault, and the remaining contacts were made due to other violence (Table 7.3.1)

Table 7.3.1

Reason for contact	Men	Women	Total
Fight	67	11	78
Sexual assault	.	3	3
Other violence	339	167	506
Total	406	181	587

In the two emergency departments, a total of 181 women and 406 men were examined for injuries by violence. Nearly 1/3 of the men and ¼ of the women respectively, were below 20 years of age (Table 7.3.2). More than half the

Data Collection on Intentional Injuries

contacts registered (54.7%) were due to injuries occurring during Friday, Saturday and Sunday; a higher percentage (57.8%) of these contacts were registered among men than among women (47.5%).

Table 7.3.2

Age groups	Men	Women
Children and teen-agers	118	41
Adults (20-64)	285	137
Old people (65+)	3	3
Total	406	181

Table 7.3.3 presents detailed information about the place of occurrence. In broader terms, about ¼ of all injuries occurred in a residential area; 1/5 occurred in a transport area; 1/8 occurred in an entertainment or recreational area; 1/10 took place in public institutions or sports areas, and in ¼ of cases, no information was registered about specific place of occurrence.

Table 7.3.3

Place of occurrence	Men	Women	Total
pavement, footpath	72	16	88
cyclepath	2	1	3
public road inside/outside urban area	12	3	15
coach station, freight terminal			
railway area	13	2	15
transport area, other specified	3	3	6
kitchen	1	.	1
living room, bedroom	56	87	143
residence inside, other	.	1	1
residence, outdoors	1	1	2
residential area, other and unspecified	10	5	15
shop, retail area, auction building	8	2	10
school, university, college	18	8	26
playground in institutional area	5	.	5
publicly accessible office buildings, offices	.	2	2
hospital, outpatient clinic, health centre	1	2	3
nursing home, home for the sick and disabled	1	1	2
school, institutional area and public premises, other specified	5	2	7
sports hall, gymnasium	8	2	10
restaurant, pub	64	10	74
discotheque, jazz club, dance hall	6	.	6
public garden	.	1	1
open nature, other specified	1	.	1
place, unspecified	119	32	151

Data Collection on Intentional Injuries

Approximately 1/5 of all injuries took place in the home or residential area. When this information was registered using codes for event of violence in the home, in nearly half of the cases among women, violence occurred in the home and less than 1/10 of violence against men occurred in their own home (Table 7.3.4).

Table 7.3.4

Context of assault	Men	Women	All
Event of violence in home			
Injured person's home	34	82	116
Counterpart's home	7	6	13
Other person's home	19	5	24
Unspecified	346	88	434
Total	406	181	587

Information about the mechanism of injury was obtained in all cases, and was most often classified as blunt force: either being hit with, or thrown against an object. Women were relatively more frequently victims of blunt force compared to men, and falls on or down staircases were only registered among women (Table 7.3.5).

Table 7.3.5

Mechanism of injury	Men	Women	Total
fall on, or down staircase	.	1	1
contact with moving object	32	7	39
contact with static object	1	.	.1
contact with person	356	173	529
crushing	2	.	.2
piercing, puncture, other specified	13	.	.13
bite/sting by animal/human/insect	2	.	.2

Table 7.3.6 describes the localisation of the injuries. The head, face and neck were most frequently injured body regions; 69.5% of all lesions were localised in these regions, and the face being the most frequent injured. In the upper

Data Collection on Intentional Injuries

extremities, most lesions were localised in the wrist, hand or fingers, these regions comprising 1/8 of all lesions.

Table 7.3.6

Location of injury	Men	Women	All
Head, face, neck	273	115	408
Thorax	23	9	32
Abdomen	13	8	21
Upper extremity	74	29	103
Lower extremity	11	16	27
Other specified region	1	1	2
Unspecified region	1	3	3
Total	406	181	587

Half of the Danish cases had non-serious injuries, either minor subcutaneous bleedings or excoriations, and about 1/3 of the cases involved fractures or open wounds (Table 7.3.7).

Table 7.3.7

Type of injury	Men	Women	All
Commotion	16	7	23
Ecchymoses	183	118	301
Excoriations	23	6	29
Open wound	124	18	142
Fracture	41	11	52
Dislocation	7	6	11
Contusion	2	1	3
Ambustio		1	1
No lesion	10	7	17
Other specified lesion	2	4	6
Unspecified lesion	.	2	2
Total	406	181	587

Information about perpetrator-victim relationship is not included in routine medical data collection in the Danish National Patient Register. In the present study, the attending physician obtained this information during the examination

Data Collection on Intentional Injuries

and treatment of the patient in the emergency room. However, this information was not obtained in some cases because the physician was not adequately informed about the procedure. Additionally, it is notable that more male victims declined to give information about the context of assault and perpetrator, than did female victims. Thus, there is inadequate data about perpetrator in about 1/3 of the cases, this occurring more frequently among male contacts, 38.7%, than among female contacts, 18.8% (Table 7.3.8).

A current or ex-partner was most frequently the perpetrator of violence against women in 44.7% of all cases and in 55.1% of cases that included information about perpetrator. An unknown person, an acquaintance or other person without any close relationship was most often the perpetrator of violence against men, in 34.5%, 15.8% and 6.2% of cases, respectively.

Table 7.3.8

Perpetrator	Men	Women	All
Unknown person	140	28	168
Spouse/partner	7	53	60
Ex-partner	.	27	27
Child	1	2	3
Parents/grandparents	1	.	.1
Other relatives	4	2	7
Friend	.	1	1
Acquaintance	64	23	87
Person in dependence	1	3	4
Other known person	25	8	43
Police	6	.	.6
No information	157	34	191
Total	406	181	587

Among both male and female contacts, the perpetrator was most frequently male. In more than half of the cases, a man was identified to be the perpetrator of the injury. Information about the sex of the perpetrator was lacking in about 1/3 of cases (Table 7.3.9).

Data Collection on Intentional Injuries

Table 7.3.9

Sex of perpetrator	Men	Women	All
Man	234	117	351
Woman	9	26	35
No information	163	38	201
Total	406	181	587

Data Collection on Intentional Injuries

7.4 United Kingdom

Data were collected at the emergency department of St. John's Hospital in Livingston, West Lothian district in Scotland. The hospital serves a district with a clearly defined denominator population and has extensive experience in medical data collection.

Retrospective data were presented that cover a total of 1316 registrations of emergency contacts due to intentional interpersonal injuries during the period 1st January to 31st December 2000. The annual rate of injury attendance due to assaults was 10.8 per 1000, based upon the number of registrations among individuals living within the Livingston area: 450 registrations in a population of 44,224.

The following figures were drawn from the registration:

1. Men were more frequently victims of assault, $\frac{3}{4}$ of all contacts were by men.
2. The risk of being victimised by violence was highest among the young adults; $\frac{1}{3}$ of all victims were aged 17-21 years, $\frac{1}{2}$ were 25 years and younger.
3. Lesions were most frequently located in the head region.
4. The severity of the lesions required in admission to the hospital in 9.6% of cases; 24.7% of cases were reviewed or monitored by other medical care units, mostly clinics; and 64.1% of cases were discharged without further follow-up in the hospital system.

Based on these retrospective data, no information was obtained about the relationship between the victim and the perpetrator and no information was provided about the place of occurrence and mechanism of injury.

Data Collection on Intentional Injuries

7. 5 Similarities and discrepancies in patterns of injuries in Italy, The Netherlands and Denmark

We compared the data collected in Italy, The Netherlands and Denmark, as well as the retrospective data presented by the United Kingdom. Both intentional interpersonal and self-inflicted injuries were included in the Dutch data and Rovigo data, however, only contacts due to the former are included in the inter-country comparisons.

In all four countries, the number of emergency contacts due to violence was higher among men than among women in all age groups. The retrospective data from the United Kingdom confirmed this finding; in the UK sample $\frac{3}{4}$ of violence victims were male.

Most violence involving female victims occurred in residential areas, and Italian and Danish data specified that the woman's own home was the place of occurrence in about half of the injury cases. Among men, there were national differences. In Denmark less than 1/10 of the male injuries occurred in the victim's own home, whereas 1/3 of injuries in Rovigo, Italy occurred in the victim's own home. This corresponds to the finding that in Denmark the majority of men are exposed to violence committed by an unknown person (34.5%), while in Italian data, the perpetrator is more often a known person (49.44%) than a stranger (20%).

The Dutch data revealed that the home was the place of occurrence in 1/5 of female injuries, of which 5.22% were committed by a former spouse/partner and 21.64% were committed by a present spouse/partner. Among male victims, 1/7 of injuries occurred in the home, while only 0.3% were perpetrated by a former spouse/partner and 1.7% were committed by a present spouse/partner.

Differences in registered place of occurrence of injury, by residence, place, other specified and place, unspecified, among male and female victims are indicated in Figure 7.5.1 and 7.5.2.

Data Collection on Intentional Injuries

Figure 7.5.1

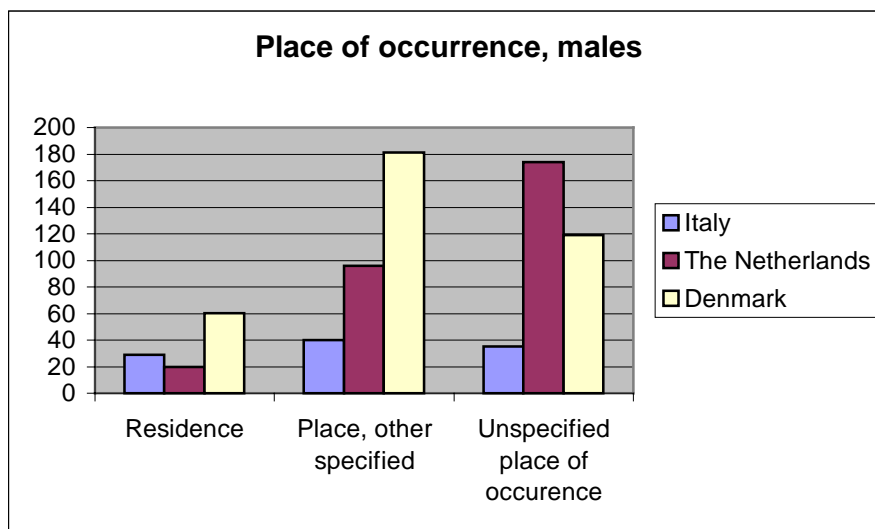
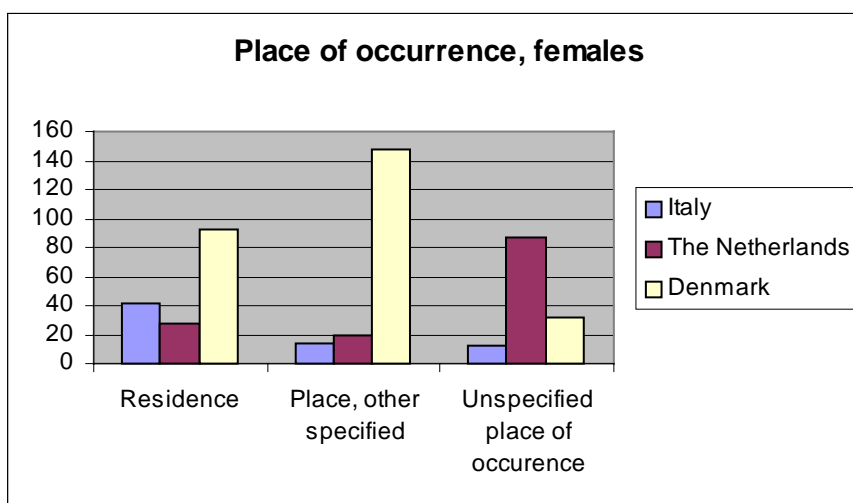


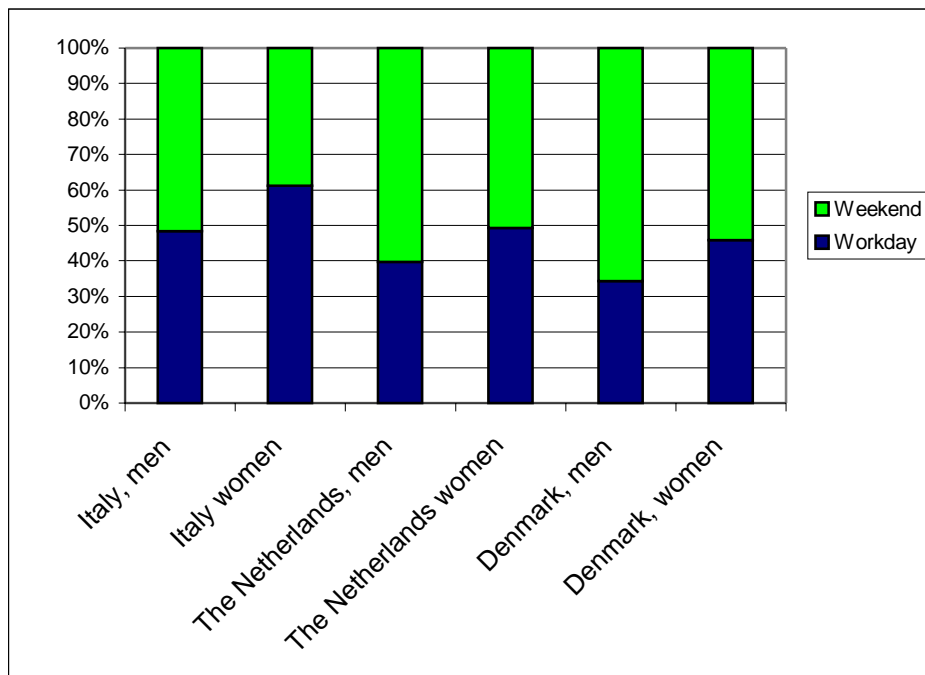
Figure 7.5.2



National differences are found in the relative distribution of injuries by workday and weekend. In Italy, an approximately equal number of injuries occurred on workdays and during the weekend. In The Netherlands and Denmark, male injuries occurred more frequently in the weekend (Figure 7.5.3).

Data Collection on Intentional Injuries

Figure 7.5.3 Relative distribution of emergency contacts due to violence by workday and weekend (Friday – Sunday).



Comparable and reliable data on intentional injuries have been achieved in the ININS project. Further and numerous statistical analyses of the dataset are possible. Results of these will be published in scientific journals, with the collaboration of all 4 partner countries.

Data Collection on Intentional Injuries

8. Setting up visions for a future routine data collection on violence in the European Union.

Based on the major results of the present project, it can be concluded that the implementation of systematic data collection on intentional injuries in emergency departments may constitute a valuable tool in improving knowledge about the magnitude and character of violence in the EU. European Women's Lobby has specified a number of indicators regarding domestic violence prevention in **Towards a Common European Framework for Monitoring Progress in Combating Violence Against Women** (European Women's Lobby, 2001a).

EWL has specifically pointed to the need for improved statistics on, and systematic recording of the incidence of violence against women. EWL points out that data collection on violence is vital for assessing the needs and gaps in prevention and survivor services, as under-reporting and normalisation of interpersonal violence distorts the true picture.

Additionally, comparable and reliable data on violence against women serve to dissolve the existing taboo surrounding VAW, and its marginalisation as a "private issue". Based on such data, EU Member States can share examples of good practice regarding models for prevention of violence and services for its survivors.

The present project contributes to this aim and suggests that as a minimum standard for EU Member States, data collection on intentional injuries be implemented in at least a limited number of representative emergency departments in each country. This was shown to be possible in at least 3 countries in the ININS project.

Previous experiences of systematic data collection in emergency departments, namely under the EHLASS programme, could be utilised in the implementation of data collection on violence. It is suggested that EHLASS hospitals could expand their already-existent routine registration of Home and Leisure Accidents with systematic registration of intentional injuries.

Both the International Classification for External Causes of Injuries (ICECI) and the Nordic Classification for External Causes of Injuries (NCECI) encompass the

Data Collection on Intentional Injuries

necessary codes for the registration of intentional injuries. However, the ICECI has been acknowledged and supported by the WHO and it can optimally be used as a companion to WHO's International Classification of Diseases. It is therefore recommended as a tool for classifying comparable intentional injury data on a European and global scale.

Prevention strategies, as well as services for victims of violence should be based on comparable and reliable data. It is therefore recommended that systematic collection of data on intentional injuries be implemented in all EU Member States, as it will contribute significantly towards improving the prevention and treatment of intentional injuries.

Data Collection on Intentional Injuries

Appendix 1. Current registration of hospital contacts due to violence And/or information obtained by routine surveys on violence

0. Which health care units do victims of violence most often contact?

Tick all that apply

- 0.1 General practice 1
- 0.2 Community Healthcare Centers 2
- 0.3 Emergency Departments outside hospitals 3
- 0.4 Emergency Departments in hospitals 4
- 0.5 Medical/Legal institutes/clinics 5
- 0.6 Coroners (Clinical Forensic Services) 6

1. From which point of view are you answering this questionnaire?

Please specify size of your sample population

- 1.1 Local 1
- 1.2 Regional 2
- 1.3 National 3

2. On which scale are hospital contacts due to intentional injuries recorded?

- 2.1 Local 1
- 2.2 Regional 2
- 2.3 National 3

3. On what basis is the registration of contacts to emergency departments conducted?

- 3.1 On a singular occasion 1
- 3.2 On an ad hoc basis 2
- 3.3 On a continual basis 3

Data Collection on Intentional Injuries

4. Which is the responsible authority for recording and registering various contacts to hospitals, consequent to intentional injury?

	Ministry of Health	National Center for Statistical Analysis	National Board of Health	Local Health Authority	Hospital Administrative Staff	Other Agency/Institution (specify)
All contacts made to hospitals as a result of violence						
In-patient contacts/hospital admissions						
Ambulatory contacts						
Emergency department contacts						
Contacts made through crisis centers/shelters						
Other (G.P.'s etc.)						

5. What categories are employed for registration of information pertaining to a given violent incident?

- 5.1 Reason for Contact 1
- 5.2 Place of Occurrence 2
- 5.3 Mechanism of Injury 3
- 5.4 Perpetrator of Injury 4
- 5.5 All of the Above 5
- 5.6 Other (specify) 6

Data Collection on Intentional Injuries

6. What model of classification is employed for registration of information relating to injury? Specify which ICD classification is employed (e.g. diagnosis or external causes)

- 6.1 ICECI and ICD 1
6.2 ICD exclusively 2
6.3 NOMESCO and ICD 3
6.4 Other (specify)..... 4
6.5 None 5

7. What type of personal information about a given patient is collated?

- 7.0 Hospital Registration Number..... 0
7.1 Personal Identification/ Social Security Number..... 1
7.2 Sex 2
7.3 Age 3
7.4 Place of Residence 4
7.4.1 *County*..... 5
7.4.2 *Municipality* 6
7.4.3 *Complete address*..... 7
7.5 Civil Status..... 8
7.6 Occupation..... 9
7.7 All of the Above 10
7.8 Other (specify) 11

8. Who is accorded with access to information concerning hospital contacts resulting from intentional injury?

- 8.1 National Health Authorities 1
8.2 Health Researchers..... 2
8.3 Administrative staff at respective health institution..... 3
8.4 Other..... 4

9. What forms of SPSS or SAS files exist, which are composed of data on hospital contacts due to intentional injury? List below

10. What form of data resources are available to relevant persons/institution?

- 10.1 Internet/ On-line Communication 1
10.2 Software diskette 2
10.3 Hard copy of clinical report 3
10.4 Printed form 4

Data Collection on Intentional Injuries

Appendix 2 Classification Codes

Information relating to injurious incident	Classification code
Patient details	
Age	1 Male
Sex	2 Female
ICECI code {	3 Other (transsexual)
	9 Unknown
Date of contact	dd.mm.yy
Time of contact LIS code {	hh.mm
Time of discharge from hospital	hh.mm
Time of injury	1 Morning (6-11:59 am)
	2 Afternoon (12-5:59pm)
	3 Evening (6-11:59pm)
	4 Night (12-5:59am)
LIS code {	9 Unknown
Referral	1 Own initiative
	2 Family/friends
	3 General practitioner
	4 Other national hospital
LIS code {	5 Fire service
	6 Police
	7 Ambulance paramedic
	8 Shelter/crisis centre
	9 Other specified
Additional {	10 Unknown
	1 Received treatment and discharged
Referred to	2 GP
	3 A & E out-patient clinic
LIS code {	4 Intensive care
	5 Another hospital
	6 Shelter/crisis centre
	7 Police
	8 Legal aid/intervention
Additional {	9 Short-stay hostel/home
	10 Other specified
	11 Unknown
Reason for contact	2 Accidental/non-intentional injury
	3 Interpersonal violence
	30 Assault, fight
	31 Sexual assault
	32 Neglect
	38 Violence, other specified
	39 Violence, unspecified

Data Collection on Intentional Injuries

NOMESCO code	{	4 Intentionally self-inflicted 43 Intentional self-harm, other specified 44 Intentional self-harm, unspecified
	Severity of injury	1 No injury after examination 10 Superficial injury 11 Open wound 12 Fracture 98 Other specified 99 Unknown
LIS code	{	S00 – S01 Hair-covered head S04 Brain S04.6 Ear S05 Eye S02 Face S02.2 Nose S02.5 – 6 Jaw S01 – S02 Oral cavity, tongue, teeth S11 – S13 Neck, back of the neck S20 – S25 Thorax S30 – S39 Abdomen, lumbar region, pelvis S14 Spinal column, neck S24 Spinal column, thorax S34 Spinal column, lumbar region S40 – S49 Shoulder, upper arm S50 – S59 Elbow, lower arm S60 – S69 Wrist, hand, finger S70 – S79 Hip, upper leg S80 – S89 Knee, lower leg S90 – S99 Ankle, heel, foot, toe T00 – T05 Multiple body parts T06 Other specified T07 Unknown
ICD-10 code	{	

Data Collection on Intentional Injuries

Information relating to injurious incident	Classification code
<p>Mechanism of injury</p> <p>ICECI code {</p> <p>NOMESCO code {</p> <p>Place of occurrence</p> <p>ICECI code {</p> <p>LIS code {</p> <p>ICECI code {</p>	<p>1 Blunt force 2 Penetrating force 3 Other mechanical force 4 Thermal 5 Threat to breathing 6 Poisoning 7 Physical over-exertion 8 Exposure to weather condition, force of nature 98 Other specified mechanism 98.2 Exposure to electricity, radiation 98.3 Exposure to sound, vibration 98.4 Exposure to air pressure 98.5 Exposure to low gravity 98.6 Neglect 9 Crushing force 10 Foreign body in natural orifice 11 Unknown</p> <p>1 Home 2 Residential institution (day care, nursing home) 3 Medical service area 4 School, educational area 5 Sports and athletics area 6 Transport area: public street and highway 7 Trade and service area 8 Industrial and agricultural area 9 Entertainment and catering premises 10 Recreational and playground area 11 Scenic area 98 Other specified place of occurrence 99 Unspecified place of occurrence</p>
<p><u>Perpetrator details</u></p> <p>Relationship of person committing the injurious act on victim</p> <p>NOMESCO code {</p>	<p>0 Person unknown 10 Present spouse/partner 11 Former spouse/partner 12 Child/grandchild 13 Parent/grandparent 14 Other family member 15 Friend 16 Acquaintance 17 Person in dependence 18 Person known, specified 19 Person known, unspecified</p>

Data Collection on Intentional Injuries

Sex of perpetrator		1 Male
		2 Female
		3 Other (transsexual)
ICECI code	{	4 Unknown
Age of perpetrator		1 Child
		2 Adolescent
		3 Adult
NOMESCO code	{	4 Old
Number of perpetrators		1 One person
		2 Two persons
		3 Three – five persons
		4 Six persons or more
NOMESCO code	{	9 Number unspecified

Data Collection on Intentional Injuries

Appendix 3 Scheme for classification of intentional injuries



REGIONE VENETO
SERVIZIO SANITARIO NAZIONALE
AZIENDA ULSS 18
UNITÀ LOCALE SOCIO SANITARIA
ROVIGO

REGIONE VENETO

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PROGETTO ININS

Anno 2001

SCHEME FOR CLASSIFICATION OF INTENTIONAL INJURIES

National code	1								
Number of hospital									
Case number									
Sex of patient	1	M							
	2	F							
	9	U							
Data of birth (year, month, day)									
Date of incident (year, month, day)									
Time of incident*									
*(Minutes to 5,59	0								
From 6,00 to 6,59; from 7,00 to 7,59 etc.	0	0							
From 10,00 to 10,59; from 11,00 to 11,59	1	1							
Date of admission (year, month, day)									
Length of stay in hospital (days)									
Date of discharge (year, month, day)									

Treatment and follow-up	1	examined and discharged without treatment
	2	examined and discharged with treatment
	3	received treatment at external unit/clinic
	4	received treatment as out patient
	5	received treatment and admitted
	6	referred to another hospital
	7	deceased
	8	unknown

Cause	of incident	of lesion
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Data Collection on Intentional Injuries

(specify precisely)

Reason for contact	1	Accidental/non-intentional injury
	2	Interpersonal violence
	3	Assault, fight
	4	Sexual assault
	5	Neglect
	6	Violence, other specified
	7	Violence, unspecified
	8	Intentionally self-inflicted injury
	9	Intentional self-harm, other specified
1	Intentional self-harm, unspecified	

Severity of injury	1	No injury after examination
	2	Superficial injury
	3	Open wound
	4	Fracture
	5	Other specified
	6	Unknown
Place of Occurrence/details	1	Home of victim
	2	Home of perpetrator
	3	Other person 's home
	4	Home or residence, unspecified

Place of Occurrence	
0	Pavement
0	Cycle way
0	Public road inside urban area
0	Transport area, public area
1	Kitchen
1	Living room, bedroom
1	Bathroom, washroom
1	Stairs, indoors
1	Residence indoors
1	Residence outdoors, stairs
1	Playground, public gardens
1	Garden
1	Private driveway, garage, walking

Activity done at the moment of injury	
10	domestic activity, cooking
11	cleaning
12	caring for children
13	shopping
14	gardening
18	domestic labour, other specified
20	repair work
40	play
41	hobby
48	leisure time activity, other specified
A0	jogging
A0	walking
A4	body-building

Data Collection on Intentional Injuries

2	Farm, market garden
2	Warehouse, storage
3	Auction building, market stall
3	Service area
3	Commercial area
4	Recreational centre, day-care inst.
4	School, university , college
4	School yard
5	Sportshall
5	Sportsground (outdoors)
5	Swimming pool
5	Skating rink
6	Bar, restaurant
7	Open nature, mountains,
7	Beach
7	Nature, other specified
8	Sea, inlet
8	Lake
8	River, stream, canal
8	Sea and wet area, other specified

A9	athletics, other specified
B0	gymnastics without appliance
B3	aerobics
C0	tennis
C1	baseball
C2	hockey
D0	football
D0	rugby
D0	American football
D1	handball
D2	volleyball
E0	boxing
E2	karate
F0	cycling on road
F0	mountain biking
F3	roller-skating
G9	motor sports, other specified
H0	horseriding
J0	cross-country skiing
K0	swimming in pool
	sport, other specified

Data Collection on Intentional Injuries

Type of Injury			
0	concussion	1	amputation
0	contusion, haematoma	1	drowning
0	abrasion	1	thermal effect
0	wound	1	chemical effect
0	fracture	1	electrocution
0	dislocation	1	combustion
0	sprain	1	congelation, frost-bite
0	nerve injury	1	asphyxiation
0	vascular injury	9	no diagnosed injury
1	tendon, muscular injury	9	injury, other specified
1	contusion of joint	9	injury, non specified
Body parts injured			
head, face, neck	2	hair-covered head	
	2	cranium	
	2	brain	
	2	sensory organs (eyes, nose, ears, mouth)	
	2	neck, back of the neck	
	2	other specified	
	2	other, non specified	
thorax, spinal column	3	internal organs (lungs, pleura, heart)	
	3	thorax	
	3	ribcage	
	3	sternum	
	3	spinal column	
	3	other specified	
	3	other, non specified	
abdomen, lumbar region	4	internal organs (liver, spleen, kidneys, organs of	
	4	abdomen	
	4	lumbar region	
	4	buttocks	
	4	genitals	
	4	other specified	
	4	other, non specified	
upper body region	5	shoulder blades	
	5	collar bone	
	5	humerus	
	5	elbow	
	5	forearm	
	5	wrist	
	5	hands, excluding fingers	
	5	fingers	
	5	other specified	
	5	other, non-specified	
lower body region	6	groin	
	6	hip, femur	
	6	knee	
	6	lower leg	
	6	ankle, heel	
	6	feet, excluding toes	
	6	toes	
	6	other specified	
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Data Collection on Intentional Injuries

	6	other, non specified
multiple parts of body/entire body	7	multiple parts of the body, entire body
other unknown part of body	9	region, other specified
	9	region, non specified

Perpetrator details		
Relationship with the victim	1	Person unknown
	2	Present spouse/partner
	3	Former spouse/partner
	4	Child/grandchild
	5	Parent/grandparent
	6	Other family member
	7	Friend
	8	Acquaintance
	9	Person in dependence
	1	Person known, specified
	0	
	1	Person known, unspecified
	1	
	1	Self
2		
Sex	1	Male
	2	Female
	3	Other (transsexual)
	4	Unknown
Age	1	Child
	2	Adolescent
	3	Adult
	4	Old
No. of perpetrators	1	One person
	2	Two persons
	3	Three-five persons
	4	Six persons or more
	9	Number unspecified

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