

Hondenbeten in perspectief

**Een evaluatie van de RAD en
aanbevelingen voor het terugdringen van bijtincidenten**

**Rapport van de Commissie van Wijzen
ingesteld door de minister van LNV**

8 mei 2008

DOG BITES IN PERSPECTIVE

May 8, 2008

PUBLISHER

Animal Sciences Group van Wageningen UR

Postbus 65, 8200 AB Lelystad

Telefoon 0320 - 238238

Fax 0320 - 238050

E-mail Info.veehouderij.ASG@wur.nl

Internet <http://www.asg.wur.nl>

Editor

Communication Services

Liability (in English next para.)

Animal Sciences Group aanvaardt geen

aansprakelijkheid voor eventuele schade

voortvloeiend uit het gebruik van de resultaten van dit

onderzoek of de toepassing van de adviezen.

Liability

Animal Sciences Group does not accept any liability

for damages, if any, arising from the use of the

results of this study or the application of the

recommendations.

Losse nummers zijn te verkrijgen via de website.

Abstract

Various characteristics of dog bites are analysed

over a period of two years. In addition, police

reports were studied to determine circumstances,

causes, injuries, and dog breeds involved in serious

dog bite incidents. Moreover, the number of

confiscated Pit bull type dogs within the framework of

the dangerous dogs act was analysed, as well as

their destination and the duration of the criminal and public lawsuit.

Keywords: Dog bites, dangerous dogs act, bite index

Referaat

ISSN 1570 - 8616

Auteur(s) Jessica Cornelissen

Hans Hopster

Titel: Dog bites in perspectief; bijlage feiten en cijfers

Title: Dog bites in perspective; facts and figures attached

Summary

Indicators of biting incidents involving dogs and the consequences of the Regulation of Aggressive Animals Bill.

Trefwoorden: dog bites, biting incidents, regeling agressieve dieren, RAD (keywords as shown in English above)

The certification according to ISO 9001 through DNV emphasizes our quality level. On already our research assignments the General Conditions of the Animal Sciences Group are applicable. These are deposited in the District court at Zwolle.

FOREWORD

Voorwoord

Foreword

Evaluation of policies is a difficult thing. The society in which the impact of policies should be adopted is exposed to many influences, even to influences that are not directly related to enacted policies. The mission of the Commission of Experts to conduct research to contribute to the evaluation of the Scheme for Aggressive Animals fits well with the mission of our institute. We are therefore pleased that we have been able to contribute to the advice provided by the Minister of Agriculture, Nature and Food Quality for the Committee of Wise Men as requested.

If the purpose of this report had been limited to determining the success of a policy aimed at the extinction of dogs of the type pit bull terrier, it would limit research to the elimination of dogs of this type. During the past five years however, more and more dogs of the type pit bull terrier have been confiscated

Therefore, extinct they are not. The committee has a mandate, in its wisdom that is not purely limited to this question.

Biting incidents with dogs are inextricably linked with the presence of some 1.9 million dogs in our densely populated country. The question of how the risk for a bite incident can best be minimized and how the seriousness of the injuries occurring in cases could be minimised calls for a thorough analysis of the nature and extent of the problem, of the circumstances under which such incidents occur and the race or type of dogs that might be involved. The relevant information that we highlight consists of different data sources we researched in order to gain an understanding of the dog bite problem in the Netherlands.

This review required the cooperation of many people who assisted our researchers and were of crucial importance to the project. Thank you very much to everyone who has worked loyally (Appendix 1).

The Aggressive Animals Scheme, since its introduction in 1993, has been a source of public debate. The emotions understandably every now and then ran high. We believe that this report will contribute to adequate and factual underpinnings for policies and thus to the advancement of research into the welfare of animals, which is one of the core goals of our organization.

Ir. P. Vriesekoop

Animal Sciences Group Wageningen University and Research

Business Unit Director of Livestock.

Dog Bites in Perspective; Facts and Figures

1 Introduction

The Minister of Agriculture, Nature and Food Quality (Agriculture) on October 17, 2007 struck a Committee of Wise Men set with the task of facilitating the Order Aggressive Animals (RAD) to evaluate it and give an opinion on any alternatives.

In its letter (DL 2007/2768), the Committee gives the Minister the mandate to consult experts outside their own area of expertise and experience to have additional research conducted.

The Animal Sciences Group (ASG) of Wageningen University and Research Centre (WUR), under mandate from the Commission and at the expense of Agriculture conducted this investigation.

In this report the results of our research are presented in their entirety.

Since 1993, the RAD (see Appendix 2) has been in force. Under this scheme the type of dogs known as pit bull terriers are banned because of potentially aggressive behavior.

The purpose of the institution of the RAD was twofold:

1. To prevent more dogs of this type from coming into the Netherlands than there were when the scheme was enacted
2. To prevent existing dogs of the type of pit bull terrier from causing harm to humans in public

The pit bull terrier is not a recognized breed in the Netherlands. Dogs are part of this type if they largely meet a number of characteristics or appearance (see Appendix 2). If a dog of the type of pit bull terrier is found it will be confiscated and, after evaluation by experts to determine whether it is indeed the type of dog known as pit bull terrier, the dog will be slain.

The enforcement of the RAD creates much resistance in society on the one hand, while on the other hand, there is concern about the safety of citizens. The question that has arisen in this tension is to what extent the RAD effective. For a correct assessment of this a factual understanding of the situation is of great importance.

During the process of the evaluation, the ASG asked the Committee of Wise Men that the following information be collected and sorted. Specifically, they were asked for information on three components:

A. H The incidence of Dog Bites in the Netherlands

- Family Doctor consult
- Emergency assistance
- Hospitalization
- Death
- Information on the victims (in any case of the deaths)
 - Age and sex
 - In what body part bitten
 - Significance
 - Expiration
- Data on the circumstances (in any case of the deaths)
 - Location
 - Reason
- Data on the varieties of dogs (in any case of the deaths)
- Comparison of the problem of dog bites in the Netherlands compared to other dangerous or potentially life threatening situation

B. Effectiveness of the RAD

- Number of seized dogs of the type pit bull terrier (from 1993)
- Destination and turnaround of seized dogs of the type pit bull terrier (from 1993)
- Operation of the administrative and criminal law in the field of RAD C. Legislation relating to the non-performance or conditions for keeping races/breeds in a number of other countries
- Preventing breed restrictive legislation
- A description of that legislation

2 Approaches and Guidance

The primary thrust of this research is desk research involving existing information about dog bites, seizures and legislation from various sources in an organized manner. In addition, new information was obtained from polling research.

The mapping of the incidence of dog bites in the Netherlands and the inventory of some details thereof (part A) was made using a variety of sources (Table 1). Some sources give insight only into numbers, without information about the details, while other sources are precisely detailed. With respect to numbers of biting incidents requiring medical treatment or leading to the death of the victim, a number of databases were consulted. In Appendix 3 we describe the structure of these databases.

Part B (Chapter 9) used the database of the implementing organization, Agriculture Service Arrangements (DR), documentation from a number of municipalities and criminal cases of the Public Prosecutor (OM).

In addition, there were discussions with stakeholders. Part C is via direct communication with agricultural attachés about the policy of various countries (Chapter 10).

Table 1: Summary of data sources used for biting incidents numbers, consequences, circumstances and details about victims and perpetrators (dogs)

Tabel 1: Overzicht van de gebruikte gegevensbronnen naar aantallen bijtincidenten, gevolgen, omstandigheden en details slachtoffers en daders (honden)

<u>Bijtincidenten</u>	Aantallen	Details slachtoffer	Omstandigheden	Details hond
Totaal	Publieksonderzoek 'Hondenbeten' (Hs. 6) en 'Hondenbezit' (Hs. 5)			
	CBS: doodsorzakenstatistiek (Hs. 3)			
Overlijden		Blueview: (Hs. 3) - Processen verbaal - Mutatieverslagen		
		LexisNexis (Hs. 3)		
Niet overlijden, wel medische behandeling	Publieksonderzoek 'Hondenbeten' (Hs. 6) en 'Hondenbezit' (Hs. 5)			
	NIVEL:LINH (Hs. 4)		Blueview : (Hs. 8) - Processen verbaal - Mutatieverslagen	
	SCV:LMR & CMR (Hs. 4)			
	SCV: PORS&LIS (Hs. 4)		Openbaar Ministerie: strafdossiers (Hs. 7)	
Niet overlijden, geen medische behandeling	Publieksonderzoek 'Hondenbeten' (Hs. 6) en 'Hondenbezit' (Hs. 5)			
			Blueview : (Hs. 8) - Processen verbaal - Mutatieverslagen	
			Openbaar Ministerie: strafdossiers (Hs. 7)	

3 Fatal biting incidents

3.1 Method

The Central Bureau of Statistics (CBS) maintains details of causes of death in the Netherlands. This statistical database thereby gives insight into the number of people in a given year who die from a particular cause. Only the sex and age of the deceased are known.

Details about deadly biting incidents were obtained in two ways:

1) After authorization by the Attorney General the staff of the Regional Information Node of the regional police, Flevoland from the national database Blueview of the police made a digital file of modification reports and verbal processes dealing with deadly dog-bites-man incidents. Blueview makes it possible to search all police records of the past five years. Search Blueview works in a similar way as search engines on the Internet; there is free text search with a query to establish itself. This means that the entire contents of the police records are being searched for words.

For the selection of police records with a fatal dog-bites-man incident is the following query:

```
[dog AND (OR bites bites bitten OR OR aggressive) AND ( "non-natural death" or "not natural death" OR "nietnatuurlijk death "or" not natural death ") NOT" bitten dog "NOT" 0 pv not a natural death "]
```

The total found files made available to researchers as PDF files, after signing an agreement of confidentiality. The files are then manually searched for detailed information. This study took place in the headquarters of the police in Lelystad.

2) The digital newspaper archive of LexisNexis Academic NL was also used, where virtually all main Dutch newspapers and news agencies are included. This archive is from rural and regional news collected by newspapers reporting a bite incident with a human victim through the following search phrases:

```
[bite incident AND deceased]
```

```
[bite incident AND death]
```

```
[dog bite OR dog bite AND death]
```

[dog bite OR dog bite AND deceased]

[bitten to death AND dog]

The newspaper articles about these deadly biting incidents were then verified by a confidential search through Blueview. The files were then manually searched for detailed information. This study took place in the headquarters of the police at Lelystad.

3.2 Results - deadly biting incidents

In Figure 1 is an overview of the number of dog-bites-man fatal incidents in the period 1982 till 2006 (CBS, death cases statistics). The number of people that die annually as a result of an attack or bite by a dog ranges from zero to two. This is a small fraction of the total number of deaths with a non-natural cause (in 2006 it was 0.04%). The number of deaths caused by a bite from a dog is almost equal to the number of people killed by a lightning strike. An overview of data from other causes of death for comparison can be used, is shown in Appendix 4.

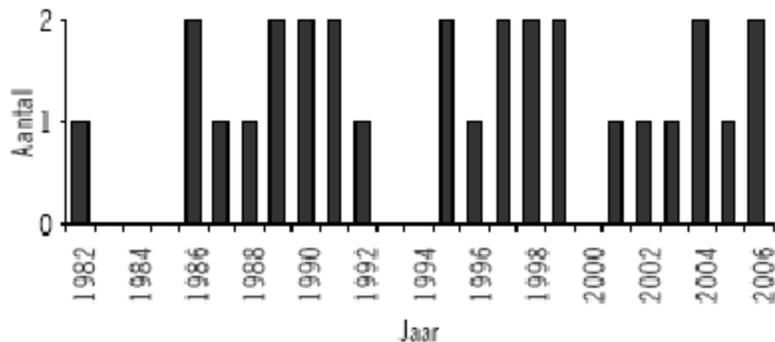


Figure 1: Dog-bites-man incidents involving fatalities, 1982 through 2006 (CBS, CBS, death cases statistics).

Of the 29 fatal victims almost three quarters (21 persons) are men. Furthermore, there are no incidents involving fatalities from 10 to 35 years. Juvenile victims are relatively rare: six of the 29 victims (more than 20%) of the victims are younger than five years, while those aged 6 and up represent 6.5% of the total population (CBS, population; Figure 2). The introduction of the RAD in 1993 seems to have had no effect on the number of fatalities as a result of dog bites. There were eleven deaths in the 10 years before the introduction of the RAD (1983 to 1992) and twelve from 1994 to 2003 (the year 1993 is not included).

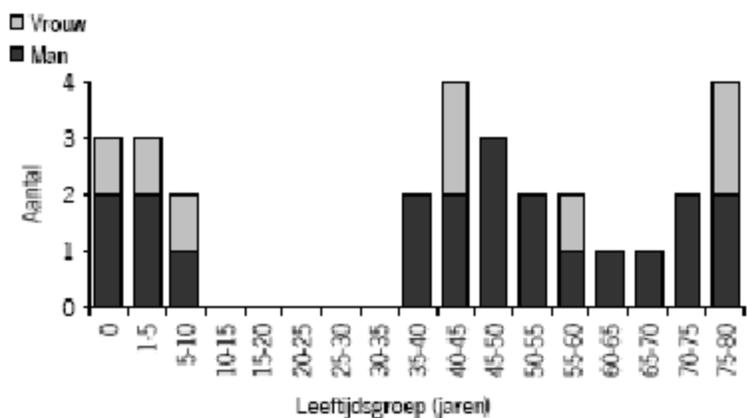


Figure 2: Dog-bites-man incidents involving fatalities, 1982 to 2006, breakdown by age (CBS, death case statistics) [Vrouw = woman; Leeftijdsgroep = Age Group]

A search through Blueview and LexisNexis revealed 14 fatal biting incidents but the details are obscure. Nine of the 14 incidents were found in both systems. Eight incidents relate to a youthful victim. Of the 14 fatal biting incidents whose details are known, nine victims (64%) were bitten to death by a dog from their own household. Eight of these nine cases happened in or around the house. In all 14 past deadly biting incidents death was caused by the victim's own dog or a dog known to the victim. One of the victims, an adult, was bitten to death by a dog of an unknown person).

The young victims were all killed as a direct result of the bite wounds. Four of the six adult victims later died as a result of a bite that developed an infection. In half of the cases with a young victim, there was at the time of the incident no adult in the immediate vicinity of the victim.

In Blueview there were two male victims aged 57 and 59 years and a female victim aged 53 years. According to the statistics, however, there were no female victims of 50 to 55 years and one male and one female victim of 55 to 60 years. In the case of a female victim of 76 years it is unclear whether the dog bite was actually the cause of death. It was not apparent how this death was registered in the Netherlands.

Below is a brief description of the deadly biting incidents through LexisNexis and its Blueview predecessor.

- ? 1990 Girl (3 years) has a quarrel with a friend in his house. The dog of the friend, a dog of the type pit bull terrier, bites the girl. She has serious head injuries and dies in the hospital.
- ? 1990 Boy (almost 2 years) is bitten to death by his own dog, a dog of the type pit bull terrier. The incident happens at home, while mother and three other children are elsewhere in the house. Reason unknown.
- ? 1991 Baby (2 months) bitten to death by the Saint Bernard of the family while in the pram. Reason unknown.
- ? 1992 Boy (6 years) is visiting with his grandmother. While in the garden playing with her dog, a dog of the type pit bull terrier, the child falls suddenly. The boy has serious head injuries and dies in the hospital.
- ? 1997 Six-week-old baby, for the first time at home from the hospital, is sitting on the mother's lap and is suddenly attacked by the family's Rottweiler. The baby is seriously injured and dies in hospital that evening.

- ? 1998 Three girls are playing on the streets and are attacked by three escaped Neapolitan mastiffs. The victim (5 years) presumably opened the back door of the house of the dog owner. The victim dies on way to the hospital.
Reason unknown.
- ? 1999 Two Rottweilers bite their owner (36 years) to death. Presumably this happened after the man touched one of the dogs during an epileptic attack.
- ? 2003 Boy (3 years) is bitten to death by the Malinois of the family in his own house. Reason unknown.
- ? 2003 Woman (76 years) tries to protect her dog from an attack by a Rottweiler is attacked and bitten by the Rottweiler. She dies a day later in hospital. The autopsy finds that the victim died as a result of the impact of the event.
- ? 2005 Woman (53 years) is bitten by the Bouvier of her friend. There is recurring domestic violence involving the man and his dog against the woman. The woman dies several days later in the hospital with an infection from the dog bite.
- ? 2005 Alcoholic man (57 years) is bitten by a mongrel and dies 15 days later in the hospital with an infection. The spleen of the man was previously removed as a result of an accident. The details of the bite incident unknown.
- ? 2006 Baby (8 days) is bitten to death by the Siberian husky of the family in the cradle. The dog itself opened the door to the baby's room at night. Reason unknown.
- ? 2006 Man (71 years) dies 3 days after being bitten by the dog of his son. Breed/race type of the dog and cause are unknown.
- ? 2006 Alcoholic man (59 years) dies a month after a bite by a Jack Russell terrier. Reason unknown.

The breed type of the dogs, who are responsible for deadly biting incidents varies (Table 2).

'Breed type' means purebred dogs and also in terms of appearance the most likely race-like crossings, the so-called look-alikes. In three of the cases the dog was recognized as a dog of the type of pit bull terrier. This is found only in newspaper reports, there are no witness statements in which the type is definitely confirmed.

Table 2: The breed types of the dogs involved in fatal dog-bites-man incidents in the period 1982 - 2006. 14 of the 29 fatal biting incidents could be traced (Blueview, LexisNexis)

Breed type	Children ¹	Adults ²	Total
Pit bull Terrier	3	0	03
Rottweiler	1	2 ³	03
Belgian shepherd	1	0	01
Bouvier	0	1	01
Jack Russell terrier	0	1	01
Mastino Napoletano	1	0	01
St. Bernard	1	0	01
Siberian husky	1	0	01
Mongrel	0	1	01
<u>Unknown</u>	<u>0</u>	<u>1</u>	<u>01</u>
Total	8	6	14

1: Up to 15 years; 2: 16 years and older; 3: two Rottweilers involved in bite incident with owner; wife of 76 deceased by the impact of bite incident.

4 Registration of dog bites in health care

This chapter follows the registration of people who have presented themselves to various providers of health care in the Netherlands, such as a doctor or Emergency

Aid, following a dog bite. The institutions each have their own recording methods and their own databases. The way the various institutions perform their data collection is shown in Appendix 3. The information was provided by the Administrators of the databases released for this research.

4.1 Family doctor visits

The number of patients in 2006 treated by a doctor for a dog bite is estimated at over 50,000 (NIVEL, LINH (2001-2006); CBS, population), see Figure 3. The number of patients that were treated by a doctor for a dog bite according to the Morbidity Continuing Registration (CMR) measured a lot lower than under the Data from the National Information Network College of Physicians (LINH). This discrepancy could be caused by a different recording method, but this has been removed from the data. Over the period 2001 - 2006 (only registration by LINH) is the number of treatments.

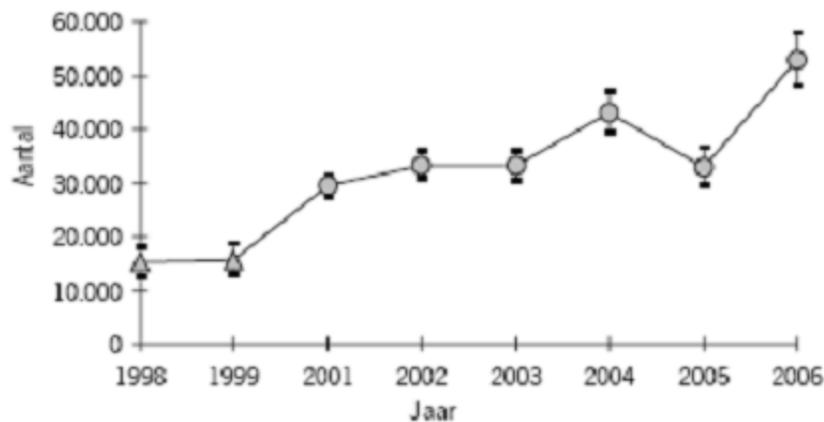


Figure 3: The number of patients treated annually by a doctor for a dog bite (NIVEL, LINH (2001-2006) and CMR (1998, 1999); CBS: population)

In Appendix 5, the number of patients is shown who visited the family doctor for a dog bite per year, distributed by age and sex. Also, the relative incidence rates (per 10,000 registered patients) for GP-treated dog bites by age group are shown for the years 2001 through 2006 alone. These Data are from the LINH of the NIVEL.

4.2 Review of the Emergency Division of the hospital

The number of people from 2001 until 2005 where an Urgent Aid (SEH) department had to deal with a dog bite has averaged 7,300 per year. The number of SEH treatments for a dog bite has decreased from 16,000 average per year during the period 1987-1991 to 6,900 on average per year during the period 2002-2006. These are results from two registration systems. From 1986 till 1996 the Private Accident Registration System (PORS) was used and from 1996 onward, the Injury Information System (LIS) was in use.

The number of SEH treatments for a dog bite covers about 1.5% of the total number of treatments at SEH with injury from a private accident. In comparison, during the same period on average about 160,000 incidents per year were reported. People with sports injuries and 30,000 people are treated for injuries acquired during do-it-yourself projects or gardening. The number of fatalities at an SEH during this period was 130.000 (Consument en Veiligheid, LIS).

Consumer Safety calculates the trend in the number of treatments per SEH-five year periods. Since 1987, except for the period 1992 through 1996, there has been a significant decrease in the number of SEH treatments because of a dog bite. For the last five years from 2002 - 2006, this decline was 27% (Consumer Security, personal communication; Consumer Safety, LIS 1997-2006) (Figure 4).

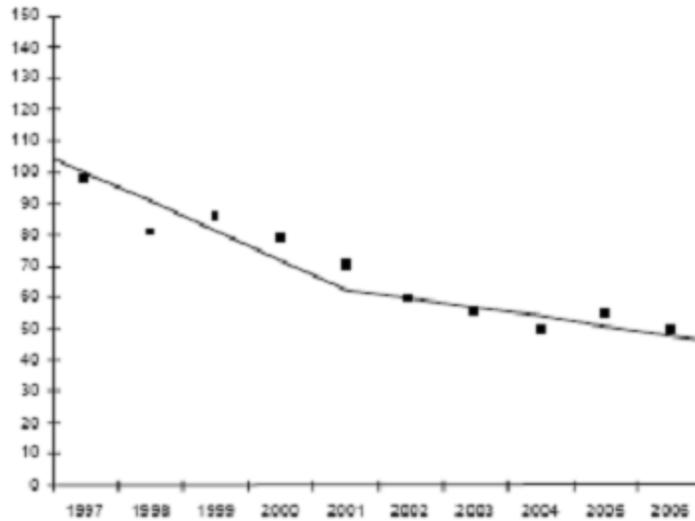


Figure 4: Trend analysis of the number of patients that visited an Urgent Help Division to receive treatment for a dog bite.

Index: January 1997 = 100. (Consumer Safety, LIS, 1997-2006)

The full set of data and Consumer Safety, including the breakdown by age and sex is given in Appendix 6.

4.3 Admission to the hospital

The number of hospital admissions after a dog bite, as with the treatment at an SEH, is lower than the number hospitalized as a result of sports and DIY; during the period 2001 to 2005 an estimated 230 persons per year were admitted to hospital following a dog bite. In comparison, annual admissions were respectively 12,000 and 1,500 persons with sports injuries and as a result of injuries from working around the home. The number of hospital admissions after a traffic accident is higher, with an average annual rate of 21,000 people. The number of hospital admissions after a dog bite over the period 1986 till 2005 ranges from 190 to 310 cases per year. The increase in hospital admissions during this period is not significant (Consumer Safety, personal communication; Consumer Safety, LMR).

The breakdown by age and sex of the patients in the hospital after a dog bite is shown in Appendix 7.

5 Dog Population in the Netherlands

5.1 Dog Population research method

In January and February of 2008, a survey was conducted by TNS NIPO for the possession of dogs in Netherlands to provide this Dog population Research. TNS NIPO uses its TNS NIPObase. The survey method has declined with the Computer Assisted Self Interview (CASI) method. For a description of the method by TNS NIPO we refer to Appendix 8. For the questionnaire, we refer to Appendix 9. In the TNS NIPObase are some basic data on registered households and individuals including dog population. For the initial dog population data we approached only those households which were known to possess one or more dogs.

5.2 Results of Research into dog population

TNS NIPO found that 20% of Dutch households owned one or more dogs. A total of 10,014 households were approached, and 7,682 households responded (77% response). The number of households that actually had one or more dogs at the time of the study is 6,139 (80%). The dog population research shows that there are dog owners in 6,139 households with a total of 7,926 dogs. We found that the average number of dogs kept per household is 1.29. When these data are multiplied by the total number of households in the Netherlands, 7,190,543 private households on 1 January 2007 (CBS, population), then the total number of dogs in the Netherlands is estimated at 1.9 million.

72% of the number of respondents in the Dog population Research indicated that their dog's breed type can be determined, while respectively 18% and 10% own a crossbreed or a mongrel. 52% of respondents with a purebred dog indicated that their

dog has a pedigree with the Board of Governors of Kynologische Area (RvB), the Executive Board pedigree registry in the Netherlands which is affiliated with the Federation Cynologique Internationale (FCI), an international umbrella organization. The dog population research indicates that in the Netherlands there are an estimated 700,000 purebred dogs with a pedigree.

A total of 184 breeds are recognized by the Executive Board. These are shown in Appendix 10.

5.3 Registrations of some varieties with the Board of Governors

The Executive Board registers only pedigreed dogs. According to their estimates there are about 800,000 to 900.00 purebreds spread over about 300 varieties, out of a total of 1.7 million dogs in our country². Table 3 shows the ten most registered breeds for the period 1993 till 2006. The Labrador retriever is the most popular with nearly 60,000 new registrations over this period. These ten varieties account for nearly 40% of the total number the RvB rashonden registered from 1993 to 2006.

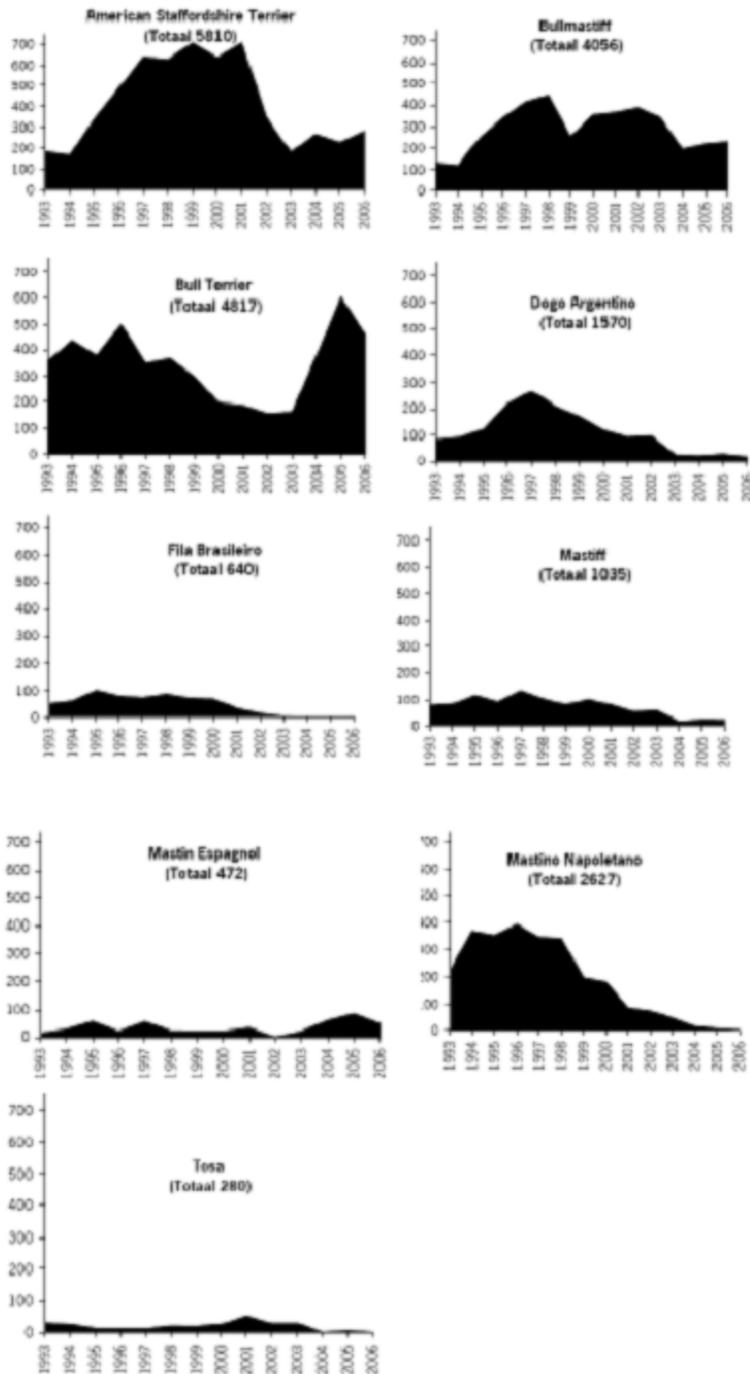
² <http://www.raadvanbeheer.nl>

Table 3: Highest number of newly registered dogs by race at the Board of Governors, 1993 till 2006 (RvB)

Breed	# Registered
1993 till 2006	
Labrador retriever	59,574
German shepherd	55,664
Golden retriever	47,011
Bernese Mountain Dog	28,503
Rottweiler	24,173
Bouvier	23,790
Boxer	23,537
West highland white terrier	15,971

Cavalier King Charles spaniel	15,148
Jack Russell terrier	14,945

For nine races, at the request of the Commission of Experts, we examined how many new registrations there have been per year in the period 1993 to 2006 (Figure 5). These varieties are listed in the legislation of several countries as restricted breeds where rules are applied (chapter 10.1). With the exception of the Bull terrier, the number of new registrations for the indicated varieties has dropped in recent years.



Figuur 5: Nieuwe inschrijvingen van rashonden bij de RvB, 1993 t/m 2006 (Raad van Beheer). De totalen per ras zijn in de figuren vermeld.

Figure 5: New registrations of purebred dogs by the Executive Board, 1993 to 2006 (Board of Governors).

The totals for each race are indicated.

6 Research into Dog bites

6.1 Method

In November and December 2007, survey was conducted by TNS NIPO into dog bites

among people who were bitten by a dog during the preceding 24 months. The dog bites research is divided into two phases: an initial screening of a sample of the Dutch population consisting of 141,058 people and a followup among all respondents in the screening who indicated that in their household during the specified period a bite incident has taken place (1,120 respondents). Together with the dog population survey (see paragraph 5.2) this study gives insight into the relative contribution of various dog breed types to dog bite problem in the Netherlands.

The survey asked whether the respondent or anyone in his / her household had been bitten by a dog in the previous 24 months and when the incident occurred. The survey was subsequently sent to the victim. When a victim was younger than 14 years an adult member of the household filled out the questionnaire on his or her behalf. The questions in the follow-up on relationship of the victim with the dog; characteristics of the dog; location of the incident, the body part affected; what happened following the incident; severity and treatment of the bite. This may provide an indication of the extent and severity of dog bites. In addition, a number of circumstances or characteristics of biting incidents were identified.

TNS NIPO made use of its TNS NIPObase. The survey has declined with the Computer Assisted Self Interview (CASI) method which for calibration and weighing of samples from the Dutch population is the Gold Standard, as well as data from the CBS. A description of the method of TNS NIPO is shown in Appendix 8, the questionnaires are presented in Attachments 11 and 12.

In the screening, 85,539 of 141,058 people responded (61%). In the follow up 1,087 responded of 1,120 people approached (97%). The results of the dog bite research give insight into the following characteristics (with corresponding response) of the bite incident.

- The age of the victim
 - Child: up to 15 years
 - Adult: 16 years of age
- The gender of the victim
 - Man
 - Female
- The relationship of the victim with the dog (or, from whom the dog bite was)
 - Own: The dog is the victim's himself or owned by someone in his household
 - Known: The dog is owned by a person known to the victim
 - Unknown: The dog belongs to an unknown person or the dog had no owner
 - Not owned: the group 'known' and 'unknown' together
- The location of the bite incident
 - Non-public space: the owner's property (eg home, garden). This may also be the territory of the dog.
 - Open space: places that were accessible to all (eg parks, playgrounds, shops, elevators or galleries of buildings).
- The behaviour of the dog, as the respondent that interprets
 - Occurred without warning, the dog attacked the respondent and gave no visible warning
 - Occurred after warning: the dog approached the respondent and gave a first visible warning
 - Through play: the dog was playing with the respondent or accidentally bit from reflex or a fright reaction

- The severity of the bite
 - Small: no damage to the skin, the clothing is damaged or there is a visible bruise or tooth imprint
 - Moderate: superficial damage to the skin resulting in a superficial wound
 - Serious: serious skin damage resulting in a deep wound or tissue loss
- The treatment sought by the victim after the bite
 - Not medically treated, the victim has not sought medical treatment because it is unnecessary or because the victim dealt with the wound
 - Medical treatment: the victim is treated short (at the GP, the Central GP Clinic, SEH of the outpatient clinic of a hospital) or the victim was admitted to hospital (hospitalisation)
- The cause of the bite incident according to the victim
 - Interaction: the victim interfered in any way with the dog
 - No interaction: the victim did not provoke the dog
 - Provoked: the dog was set against the victim by his owner or the dog bit the victim while a fight was provoked with his owner
- Body parts: the body where the victim is bitten
 - Head: head, face and neck and neck region
 - Trunk: abdomen, back, buttocks, shoulders or chest
 - Lower extremities: tibia, femur, feet, toes or knees
 - Upper extremities: upper arm, forearm, hands or fingers
- Race: breed type of the dog according to the respondent. These are both pure-bred dogs, and the most likely breed crosses, the so-called look-alikes.
 - The Executive Board approved varieties
 - Mongrel: When the respondent cannot name a particular breed type, but believes that the dog is a mongrel
 - Unclear: When the breed type of the dog is unknown or where a breed name is unrecognized by the Executive Board

6.2 Statistics

In processing the results based on the sample from the dog bite research we used the weighting methods supplied by TNS NIPO. This weighting corrects for the properties sex, age, training, family and region. After weighting the responses of the data set are representative of the entire Dutch population when it comes to these properties.

The Pearson Chi-square button is used to assess where differences between the results of significant variables lie. All calculations are performed with the SPSS 15.0 statistical software program for Windows. There is a significant relationship between the variables assumed when the P-value less than 0.01. The keys are only compared with the relevant reply groups. The values 'I do not know', 'ambiguous answer' or 'unknown' will not be included in the Chi-square test, unless they are a large part of the response. This means that the end totals per key may vary.

6.3 Incidence of dog bites in Netherlands

In the screening results 1,420 of the 85,539 respondents or a member of their household have been bitten by a dog at least once in the previous 24 months. However, when the results for a period of one year (November 2006 to October 2007) are extrapolated, this yields an annual incidence of dog bites of around 150,000. Because this incidence is calculated based on the number of people bitten at least once by dog, this is a conservative estimate of the total number dog bites. These include the answers 2, 3, 4, 7, 8, 9, 10, 11, 12 and 15 at the request of the followup-140 (Appendix 12). The response to this classified itself as being from the victim's perspective as to whether the dog was provoked. Therefore it is not considered whether or not the victim's behaviour was provocative.

4 These include the answers 5, 6, 13, 14 and 16 at the request of the followup 140 (Appendix 12). The response to this classified itself as being from the victim's perspective as to whether the dog was provoked. Therefore it is not considered whether or not the victim's behaviour was provocative.

5 This answer is often given in answer to question 17 of the 140 follow-up study (Appendix 12) and therefore as a separate category.

6.4 Characteristics of dog bites in Netherlands

We followed the 897 respondents who have participated. These are all victims of biting incidents with dogs. Of the victims (49% men and 51% female) 6% are younger than 4 years, 14% are 5 to 15 years old and 80% are 16 years of age or older. In the treatment of the results a division is made between children (0 to 15 years) and adults (16 years and older).

A number of variables compared with each other in significant differences through the Pearson Chi-squared button. For the characteristics bite location, severity and the body part, for example, we examined whether there were significant differences between children and adults. An overview of the significant differences is shown in Table 4. These differences are discussed in this paragraph.

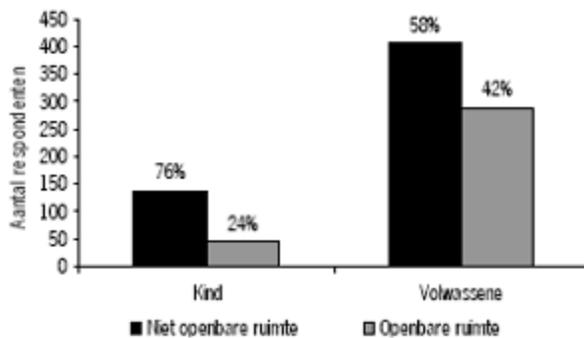
Table 4: Pearson Chi-square test between different characteristics (Dog bite factors)

Characteristics	P-value	df	N	Figure
Age Location	<0.001	1	875	6
Age * Body	<0.001	6	879	7
Age Severity	0.002	2	896	8
Age Treatment	0.112	3	892	--
Age Relationship	0.378	1	896	--
Age Reason	0,604	1	850	--
District Treatment	0.025	6	893	--

District Severity	0.037	4	896	--
Behavior Relationship	<0.001	2	840	9
Behaviour Severity	<0.001	4	839	10
Severity Consideration	<0.001	15	877	11

* Age is divided into 3 categories: 0 to 4 years, 5 to 15 years and 16 years and older

29% of the respondents were bitten by a dog which was their own or someone from his or her household's dog, An equally large number were bitten by the dog of an unknown person. The majority (71%) of the respondents were bitten by a dog they or someone from their household did not own (of dogs known or unknown). Two respondents indicated that they did not know what their relationship was with the dog. There is no difference between children and adults when it comes to the relationship with the dog (P = 0378). The bulk of the biting incidents took place in a private area (61%), 37% occurred in a public space and 2% of the biting incidents listed the location of the bite incident as unknown. Children are relatively less frequently bitten in a public space (24%) compared with adults (42%) (P <0001; Figure 6).



Figuur 6: Locatie van het bijtincident in relatie tot de leeftijd van het slachtoffer (Onderzoek Hondenbeten)

Figure 6: Location of the bite incident in relation to the age of the victim (Dog bite research)

[Kind=Child=black column; Adult grey column; Private property on left, public on right; numbers on left = number of respondents in survey]

A large number of the victims indicated to having been bitten in the upper (59%) and lower (26%) extremities. 9% of the victims were bitten in the head and 4% in the trunk. 2% of the respondents said the place on the body where the dog bit them was unclear or unknown. Children are bitten in the head relatively frequently (33% in

children younger than 4 years and 23% in children aged 5 to 15 years), more so than adults (5%) (P <0001; Figure 7).

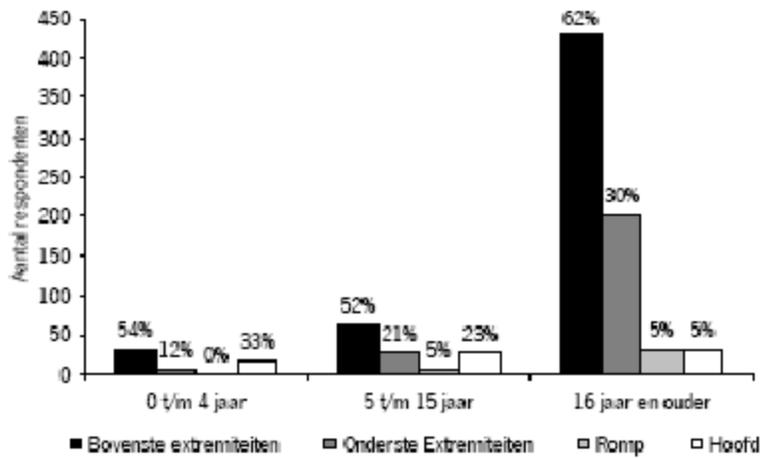
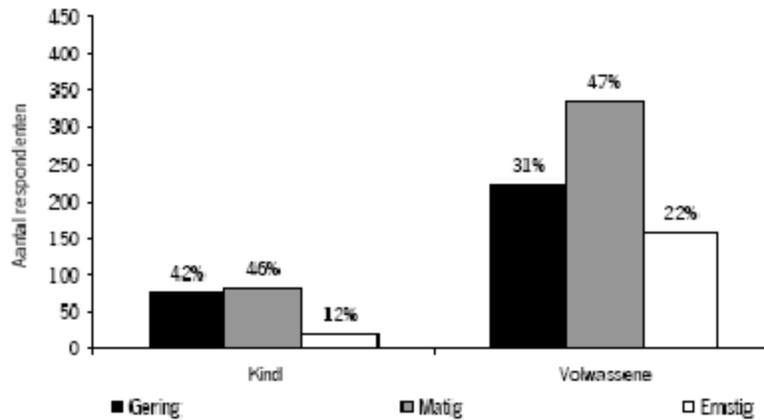


Figure 7: The place on the body where the victims are bitten in relation to the age (Dog bite Research)
 [left to right: Upper extremities, Lower extremities, Trunk, Head]

A fifth (20%) of respondents indicated serious injuries by the dog bite. Nearly half (47%) had moderate injuries from the dog bite. A third (33%) says no damage to the skin occurred and two respondents incurred an injury that was unknown. There is a significant difference between children and adults with regard to the seriousness of the injury (P = 0002; Figure 8). This difference is reflected in the number adults with serious injuries (22%) and minor injuries (31%) relative to children (respectively 12% and 42%).



Figuur 8: De ernst van de verwonding in relatie tot de leeftijd van het slachtoffer (Onderzoek Hondenbeten)

Figure 8: The severity of the injury in relation to the age of the victim (Dog bite research) [Minor; Moderate; Serious. Adult; Child]

Nearly one third (30%) of respondents indicated that the dog bit them accidentally at play or that the dog bit out of a reflex reaction of fear. 43% of the respondents said that the dog attacked them without warning and 20% say that the dog attacked them after warning. From 59 (6%) respondents the relationship or the behavior of the dog is not known. There is a link between the relationship of the victim to the dog and the behaviour of the dog ($P < 0.001$; Figure 9). Strange dogs bite relatively more often than a person's own dog while playing, according to the bite victims precisely targeted; they also bite more often without warning. It may be that the victims do not see or recognize warning signs from a strange dog.

That people who are bitten while playing with their own dog more often than while playing with a strange dog could be explained by the fact that people more often play with their own dog than a strange dog. The own dog might miss the toy and accidentally bite the person in the arm. Play can also turn into a warning, but this is still a game as seen by the person.

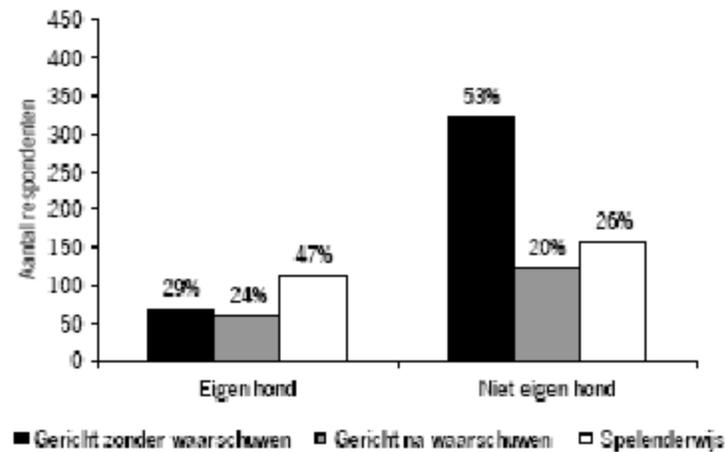
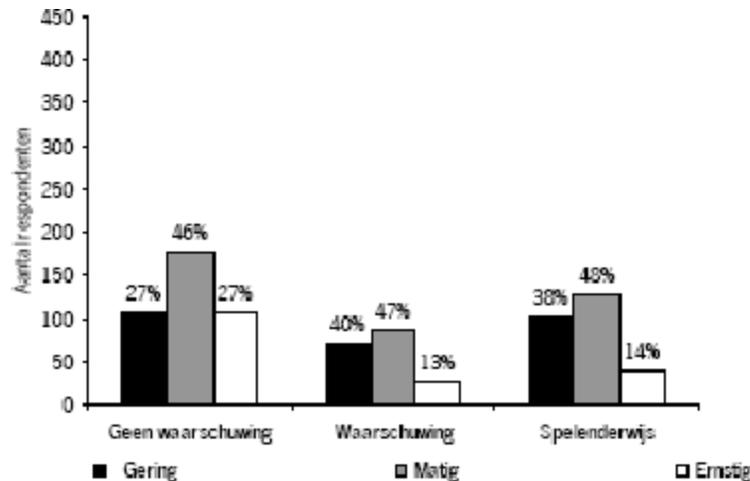


Figure 9: The link between the behaviour of the dog and the relationship of the victim to the dog [Left = known dog; right = unknown dog. Black = attacked without warning; grey = attacked with warning; white = through play]

When asked respondents about the cause of the bite incident the majority (57%) reported they had interfered with the dog before the bite. 38% of the respondents did not interfere with the dog and 5% said the reason was unknown. There is no correlation between the age of the victim and the response following the bite incident ($P = 0.604$).

The severity of the injury and the conduct of the dog are related to each other ($P < 0.0001$; Figure 10). Biting incidents by dogs that attack without warning result in relatively more serious injuries. Almost half (48%) of the biting incidents with dogs who play according to the victim or accidentally bite result nonetheless, in moderate injuries. Serious injuries were reported in 14% of the biting incidents. Even if a dog does not bite deliberately, this may in many cases still lead to moderate to even serious injuries.



Figuur 10: De ernst van de verwonding in relatie tot het gedrag van de hond (Onderzoek Hondenbeten)

Figure 10: The severity of the injury in relation to the behaviour of the dog (Dog bite research)
 [Left=no warning; middle=warning; right=play. Black=minor; grey = moderate; white=severe]

Approximately one third (34%) of people who are bitten by a dog reported having sought medical treatment after the bite incident. The largest portion (99%) received short-term medical treatment, for example by general practitioner or a SEH. Fewer than 1% had to be admitted to the hospital. There is no significant difference between children and adults when it comes to treatment ($P = 0112$). The severity of the dog bite and treatment after the bite logically have a relationship with each other ($P < 0001$; Figure 11). The number of people who say that treatment was not necessary decreases as the injury becomes more serious. Self treatment is the largest among the group of people indicating a moderate injury from the bite (49%). Half the number of people seriously injured are said to visit the doctor or the Central GP Clinic to be seen (52%). A visit to the Urgent Aid or admission to the outpatient clinic or hospital is highest among respondents who indicate serious injuries have occurred.

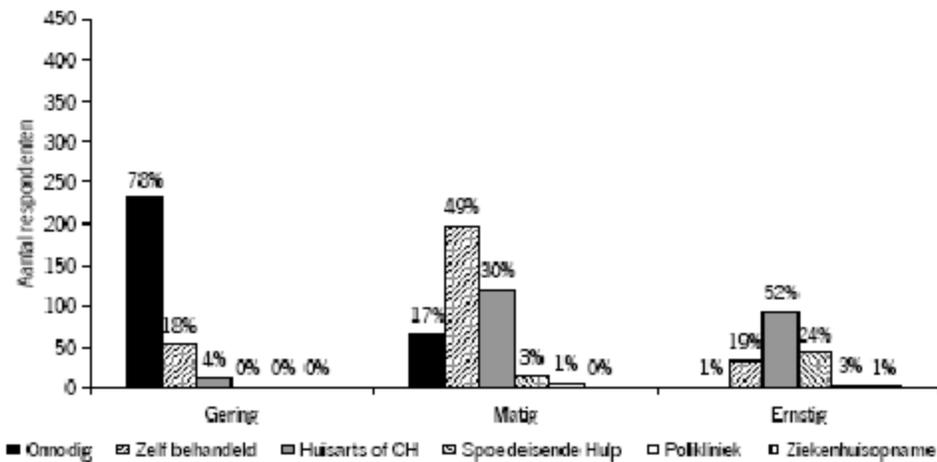


Figure 11: The treatment of the bite in relation to the seriousness of the injury [Left=minor; middle=moderate; right=severe. Categories, left to right: None; Self-treated; Family doctor or clinic; Urgent care (ER); Outpatient; Hospital admission]

On the basis of the data on treatment over the period november 2006 to October 2007 (re-weighted on sex, age, education, family and region) is an extrapolation into the total Dutch population (October 2007). Table 5 is the result plotted against data from the various providers of care in the year 2006. The results of the study of dog bites is in the same order of magnitude as the data submitted by the providers of care for dog bites.

Table 5: Research Dog population extrapolation of data on medical treatment, compared with data from providers of care (Research Dog population; NIVEL, LINH (2001-2006); Consumer Safety, LIS (2001-2005) and LMR) Treatment of dog bites [Row 1=treatment by GP; row 2=consultation at emergency; row 3=hospitalization. xtrapolitie=extrapolation from survey results; gegevens=data from care providers]

Tabel 5: Extrapolatie van gegevens Onderzoek Hondenbezit over medische behandeling, vergeleken met gegevens van aanbieders van zorg (Onderzoek Hondenbezit; NIVEL, LINH (2001-2006); Consument en Veiligheid, LIS (2001-2005) en LMR)

Behandeling van hondenbeten		
	Extrapolatie Onderzoek Hondenbeten	Gegevens zorgaanbieders
Behandeling door een huisarts	34.000	50.000 ¹
Behandeling op een SEH	6.800	7.300 ²
Opname in het ziekenhuis	345	230 ²

¹: 2006; ²: 2001 t/m 2005

6.5 Aggressive breed types according Dog bite research

In the study of bites 80 different breed types are identified as biters. 'Breed type' means purebred dogs but also the breed types in terms of appearance, the so-called look-alikes.

If we only look at the absolute numbers of biters, we create a distorted picture. The number of examples of a breed present in the Netherlands determines the probability of a bite incident with a representative of that breed. For the Bite Index of the various breed types, the size of the population as it is estimated based on the study must be considered. The Bite Index for a breed type is the percentage of a given breed type in the aggressive population divided by the percentage of the breed in the dog population. If the assumption is that all breeds bite equally often, then the Bite Index of dog breeds must all be equal to 1. Using a Fisher's exact test it is determined whether the Bite Index of a certain breed type is significantly different from 1 ($P \leq 0.05$, for statistical procedure see Appendix 14). Table 6 the Bite Index shows breeds which appear significantly larger or smaller than 1; eleven breeds that are significantly higher than 1, and eleven breeds which according to our research are significantly lower than 1.

Table 6: The bite index, calculated from Dog population% (Research Dog population) and% Dog bites (Dog bite research)

Breed type	Bite Index	Dog bites	% Dog population	% Dog bites
Weimaraner	6.1	0.1	0.7	
Airedaile Terrier	5.2	0.2	0.9	
Bull Terrier	4.0	0.2	0.8	
Leonberg dog	3.9	0.2	0.6	
Rottweiler	3.6	1.0	3.5	
American Staffordshire Terrier	3.5	0.2	0.7	
Dalmatian dog	3.4	0.4	1.3	
Dobermann	2.8	0.4	1.0	

Breed type	Bite Index	Dog bites	% Dog population	% Dog bites
Border Terrier	2.6	0.3	0.8	
German Shepherd	2.0	2.4	4.8	
Belgian Shepherd	2.0	2.5	5.0	
Bouvier	1.8	1.0	1.8	
Jack Russell terrier	1.4	7.2	10.4	
Golden retriever	0.6	4.8	2.9	
Labrador retriever	0.5	6.3	2.9	
Maltese	0.5	3.8	1.7	
French bulldog	0.4	0.7	0.3	
Boxer	0.4	1.0	0.4	
Collie	0.3	1.1	0.4	
Miniature Schnauzer	0.3	0.7	0.2	
Cavalier King Charles spaniel	0.2	1.6	0.3	
Shetland sheepdog	0.2	0.5	0.1	
White Shepherd	0.1	0.4	0.0	
Siberian husky	0.0	0.5	0.0	

* For those varieties that applies $p \leq 0.05$; than dogs of this breed bite significantly more (Bite Index greater than 1) or less (Bite Index smaller than 1) than the average (1.0) for dog breed types would be expected. Of the nine varieties which the Commission of Experts set The Executive Board to regulate, only the American Staffordshire terrier, the Bull terrier and the Bullmastiff appeared, albeit to a very minor extent, in the dog bite data.

Almost all (93%) respondents answered the question on the breed type of the dog that bit them. The survey asked respondents how sure they were on their answer to this question. Of the 876 responses for which this question was relevant, 75% were quite sure of their response, 21% indicated fairly sure. There were five respondents who were very uncertain about the breed type they named. Two of them gave the Rottweiler as biter, the Beagle, Newfoundland and one crossing

. Of the 31 respondents who were rather uncertain about the breed type that they named, 22 respondents said they were bitten by a crossing or mongrel, two respondents said Cane Corso. The American Staffordshire terrier, Cavalier King Charles spaniel, Stabyhoun, Weimaraner, Yorkshire Terrier and Jack Russell terrier, were mentioned as biters, but the respondents said they were rather uncertain of the answer.

There was one respondent who was rather uncertain about his or her answer and whose breed type named as the biter was unclear.

Also asked was whether respondents could give the size of the dog. The answers to the question about the size and the question on the breed type are cross-checked. As one respondent indicated, for example, they were bitten by a Jack Russell Terrier and then the answer to the question about the size indicates that the dog was large, the answers do not match. A Jack Russell terrier is classified as a small dog breed.

Not only dog breeds are used to determine the size; one can have a Poodle, for example, that is large or small. Of those breeds which are a certain size it may be verified if in 80% of the cases the size can be confirmed by breed type.

7 Pilot Public Ministry Rotterdam

The criminal cases of the Public Ministry of the Office of the Public Prosecutor in Rotterdam, who have studied the details of bite incidents to gain an understanding of biting incident details and the background of seized dogs of the type pit bull terrier. This region was chosen because almost 30% of the total number of seized dogs, presumably of the type of pit bull terrier, has been taken in Rotterdam since the introduction of the RAD (Service Arrangements).

7.1 Method

At the request of the investigators and after authorization by the Attorney General the

staff of the Public Ministry of the Rotterdam Office of the Public Prosecutor compiled a number of criminal cases. Collected records were of cases prosecuted on the basis of Article 73 paragraph 1 of article 73 paragraph 2 of the Health and Welfare for Animals (GWWD) or based on Article 425 paragraph 1 of Article 425 paragraph 2 of the Criminal Law (SR) (for the content of these laws, see Appendix 2). Such records were selected by the researchers for pertinent content. By the selection method, it is possible that a number of relevant records could not be found. such as those records where none of the above articles applied. This could be the case if a further violation has occurred.

Based on the dossier information, the following three scenarios were identified:

- 1) the geographic distribution of the number of RAD-criminal matters in the region, based on the postcode of the accused;
- 2) the past of the accused (owner of the dog) on the basis of a record in the Judicial Documentation System (JDS) of the Judicial Information Service. In JDS, records on natural and legal persons in the Netherlands are kept regarding any contact with justice;
- 3) Details of the biting incidents.

7.2 Geographical distribution criminal Article 73 GWWD

In the period 2000 through 2007 in the Office of the Public Prosecutor in Rotterdam there were 434 criminal cases prosecuted based on Article 73 GWWD (in 22 cases in conjunction with Article 425 SR). For these criminal cases the postcodes of the accused were researched. In 34 cases the postcode of the accused was unknown and in 26 cases the accused were not in the Rotterdam region. The remaining 374 were categorized postcodes for the region of Rotterdam. For the municipality of Rotterdam is then also made an allocation by district was made. For the division of municipalities or districts by postcodes the same format was used as that

CBS uses when determining the population for each town or district. The absolute number of criminal cases per RAD - by town or district - is then divided by the population to arrive at the number of criminal cases per 10,000-RAD inhabitants. To compensate for changing demographics by town or district over the period 2000 to 2006 the average number of inhabitants was used.

In the Rotterdam region on the basis of Article 73 GWWD there was an average of 3 criminal cases per 10,000 inhabitants. When these criminal cases are divided by town, we see that in the municipality of Rotterdam proportionately more criminal cases on the basis of Article 73 GWWD than in other municipalities in the Rotterdam region (Table 7) occurred.

Table 7: Geographical spread of Criminal Rule 73 GWWD in the Rotterdam region, divided by town (OM, Public Prosecutor's Office Rotterdam; CBS, population per postcode)

	Population ¹	Number ²	Per 10,000 residents
Rotterdam	593,128	274	4.6
Spijkensisse	74,468	29	3.9
Schiedam	75,734	27	3.6
Hellevoetsluis	39,479	11	2.8
Middelharnis	17,347	3	1.7
Vlaardingen	73,368	12	1.6
Albrandswaard	19,220	3	1.6
Krimpen aan den IJssel	28,869	4	1.4
Barendrecht	36,305	4	1.1
Capelle aan den IJssel	65,202	5	0.8
Maassluis	32,588	2	0.6
Brielle	15,965	0	0.0
Westvoorne	14,131	0	0.0
Rozenburg	13,078	0	0.0
Bernisse	12,705	0	0.0
Ridderkerk	45,692	0	0.0
Lansingerland	43,615	0	0.0
Goedereede	11,468	0	0.0
Oostflakkee	10,151	0	0.0
Dirksland	8,262	0	0.0
Rotterdam Region Total	1,230,774	374	3.0

1: On average population from 2000 to 2007 on the basis of population on January 1 of the year; 2: Number of criminal cases prosecuted on Article 73 GWWD over the period 2000 till 2007 in the Office of the Public Prosecutor, Rotterdam.

Within the municipality of Rotterdam there is also an unbalanced distribution of visible criminal cases on the basis of Article 73 GWWD. The districts Charlois, Delfshaven and Hoogvliet have more criminal cases than average, while the districts Prince Alexander and Hillegersberg-Schiebroek have fewer than average (Table 8)

Table 8: Geographical spread of criminal Article 73 GWWD in the town of Rotterdam, distributed by district (OM, Office of the Public Prosecutor Rotterdam; CBS, population per postcode)

District/municipality	Population ¹	Number ²	per 10,000 residents
Charlois	66,819	64	9.6
Delfshaven	71,699	51	7.1
Hoogvliet	35,721	25	7.0
Feijenoord	71,438	34	4.8
IJsselmonde	59,933	27	4.5
North	11,028	5	4.5
Kralingen-Crooswijk	91,535	36	3.9
Centre	29,026	8	2.8
Overschie	16,629	4	2.4
Prince Alexander	85,749	14	1.6
Hillegersberg-Schiebroek	40,696	6	1.5
Other postcodes	12,856	0	0.0
Rotterdam Municipality Total	593,128	274	4.6

1: On average population from 2000 to 2007 on the basis of population on January 1 of the year; 2: Number of criminal cases which was prosecuted on Article 73 GWWD over the period 2000 till 2007 in the Office of the Public Prosecutor Rotterdam.

7.3 Owners of dogs of the type pit bull terrier

In 109 criminal cases a number of characteristics of the owner of the seized dog were studied. These records were based on the details of seizures drawn from the following four categories GWWD-73 and SR - 425 criminal cases, involving random selection within categories:

1. no other reason than the possession of a prohibited animal (n = 32);

2. following a bite incident (n = 27);
- 3 a report of aggression or inconvenience of the dog (n = 25);
4. Following a report which related to the owner of the dog (eg having a hemp plantation) (n = 25).

Of the 109 owners of the seized dogs 67% were male and 82% were of Dutch nationality. Almost three quarters (73%) of the owners decided not to sign a distance statement [Note: 'distance statement' is the translation of afstand verklaring which may be idiomatic]. Based on the JDS register it can be established whether a person has a criminal record. There is no further information as to the contents of the criminal history included, only whether or not the person has a criminal history.

More than half of the owners (58%) appear to have had a criminal history, ranging from driving without a licence to abuse and/or manslaughter.

7.4 Details biting incidents Rotterdam pilot

In the period 2000 to 2006 in the Office of the Public Prosecutor Rotterdam, 321 criminal cases based on Article 73 GWWD (in 19 cases in conjunction with Article 425 SR) and 41 criminal cases involving Article 425 SR were prosecuted. The total number of criminal cases that was retrieved from the archives for this period was 362.

Of the 362 criminal cases (under Article 73 GWWD and/or Article 425 SR) 40 cases were missing. Using Blueview we found 25 verbal accounts of these 40 missing cases. In this way almost all cases (96%) with criminal prosecution on the basis of Article 73 GWWD and/or Article 425 in the SR were found for the period 2000 to 2006. Only those files that accompanied biting incidents (both dog-bites-human and dog-bites-dog-bites-dog or other animal), namely 60 cases, were further studied.

Of these 60 cases, 37 cases involved a dog-bites-man incident, 20 involved a dog-bites-dog incident and 3 involved a dog-bites-other-animal incident.

In the criminal case files the breed type of the biters is out of date. Of the 41 dogs that were involved in a dog-bites-man incident, 26 cases involved dogs of the type pit bull terrier, 10 dogs belonged to another breed type, four dogs were crossbreeds and one dog was of unknown breed type. In the event a dog is suspected of being the type pit bull terrier, watch reports [schouwrapporten] and the ruling of the court were used. In other cases the breed type is decided specifically on the basis of judgements by the officer giving someone a ticket and any involved persons.

Table 9 lists the breed type of the 70 dogs that have been involved in the 60 biting incidents studied. More than half (59%) of the dogs involved in biting incidents were of the type pit bull terrier. The breed types American Staffordshire Terrier, Belgian shepherd, Rottweiler and Staffordshire bull terrier appear two to six times for bite incidents; the breed types Akita, American bulldog, Anatolian shepherd, German shepherd and Dobermann appear once.

6 After seizure an owner can sign a statement which says that the owner waives ownership of the dog. That means that the dog is euthanized soon after and usually prosecution of the owner is waived.

7 Criminal cases from 2007 are not included, because the majority are still not cleared up and are confidential.

Table 9: The breed type or type of dogs that have been involved in biting incidents (Pilot Rotterdam).

Breed type	Dog bites man	Bites dog	Bites other animal	Total
Pit bull Terrier	26	13	3	42(59%)
American Staffordshire Terrier	1	4	1	6 (9%)
Belgian shepherd	3	2	0	5 (7%)
Rottweiler	1	0	1	2 (3%)
Staffordshire bull terrier	0	2	0	2 (3%)
Akita	1	0	0	1 (1%)
American bulldog	1	0	0	1 (1%)
Anatolian shepherd	1	0	0	1 (1%)
Dobermann	1	0	0	1 (1%)
German shepherd	1	0	0	1 (1%)
Crossing or mongrel	4	0	0	4 (6%)
Unclear	1	3	0	4 (6%)
Total	41	24	5	70 ¹

1: The total number biters is greater than the total number biting incidents because sometimes multiple of dogs were involved in an incident.

The 20 dogs bitten by another dog (victims of dog-bites-dog incidents) are different breed types (bouvier, boxer, cavalier king Charles spaniel, dogo Argentino, golden retriever, keeshond, Maltese, sharpei, Shetland sheepdog and dachshund). Fifteen of the 20 dog-bites-dog incidents occurred in a public space (in two cases the location was unknown), in 14 cases the dog had not bitten or interfered with his attacker (in four cases details were unknown). Six dogs were bitten to death by their attacker, five had serious injuries and four dogs had superficial injuries (in three cases the severity of the injury was unclear).

Among the victims of dog-bites-man incidents were 12 children aged up to 15 years and 23 adults, 22 persons were men and 13 persons were women. For two victims, the

age and sex are unknown. The dog was unknown to the victim in 26 cases (70%). In three cases (1%) it was the owner's dog or the dog of their own household. In other cases, it was an acquaintance's dog. The majority (87%) of the incidents took place in a public space, involving a victim unknown to the owner. In approximately the half (51%) of the incidents the dog bit without interference by the victim, in five of the 37 cases it is not known whether the victim interfered with the dog.

In five cases (2%) the bite was not serious and only the clothes were damaged or there was a bruise or tooth imprint to see. In five cases the severity of the bite was unknown. In 27 cases (73%) the victim's skin was broken, 15 of these victims (55%) had serious injuries in the form of deep wounds or tissue loss.

We reviewed whether there was a difference in severity of the bite between the type pit bull Terrier and dogs of other breed types. All biting incidents with dogs whose breed type is unknown or whose severity is unknown were not included in the calculations. Biting incidents involving more than one dog and where the dogs' breed type of one of the dogs is unknown were not included. There is no link between the breed type of the dog bite (whether or not the type of dog pit bull terrier) and the severity of the injury for the dog-bites-man incidents and for all biting incidents (respectively $p = 0147$ $N = 32$ and $p = 0414$ $N = 51$).

8 Blueview

8.1 Method

After authorization from the public prosecutor the staff of the Regional Information Node of the Regional police Flevoland extracts ticket and change report processes that do not deal with lethal dog bite- human from Blueview, the national database maintained by the police. Blueview makes it possible for all to search all police records, for the last five years. Searches in Blueview work in a comparable manner to search

engines on the Internet, there is sought to free itself a text to draw query. This means that the entire contents of the police records are being searched for words. This has the advantage that in principle all relevant files can be found, provided a search term is used with sufficient distinctiveness power so that the number of irrelevant hits is minimized. Police records with a non-fatal dog-bites-man incident were sought in all regions. The search⁸ phrases used were:

[(gwd 73) = 10

OR (gwwd 73) = 10

OR (welzijnswet animals 73) = 10)

AND ((dog bites) = 10

OR (dog bites) = 10

OR

(dog bite) = 10

OR (dog bitten) = 10

OR (dog biting) = 10] [(penal 425) = 10

OR (sr 425) = 10)

AND ((dog bites) = 10

OR (dog bites) = 10

OR (dog bite) = 10

OR (dog

bitten) = 10

OR (dog biting) = 10]

A total of 798 files were found for the period from July 2001 to February 2008, after the signing of a confidentiality agreement by the researchers. Files are available for examination as pdf files. The files were then manually searched for detailed information. This study took place in police headquarters at Lelystad.

The results of the Blueview search give insight into the following characteristics of the bite incident:

The age of the victim

- Child: up to 15 years
- Adult: 16 years of age
- Unknown: Age of the victim is not mentioned in the dossier

The gender of the victim

- Male
- Female
- Unknown: Age of the victim is not mentioned in the dossier

The relationship of the victim with the dog (or, from whom the dog bite was)

- Own: The dog is owned by the victim or by someone in his household
- Known: The dog is known to the victim
- Unknown: The dog is unknown to the victim or the dog had no owner
- Non-owned: the group 'known' and 'unknown' together

The location of the bite incident

- Non-public space: private property. It may be the territory of the dog or not the territory of the dog
- Public space: places that were accessible to all, such as parks, playgrounds, shops, elevators or galleries of buildings
- Unknown: The location is not mentioned in the dossier

8 The notation (xxx xxx) = 10 in the query means that the words between the brackets are not more than 10 words apart in the text

8.2 Statistical Method

The Pearson Chi-square test is used to test for significant differences between results of variables used. All calculations are executed with the statistical software program SPSS 15.0 for Windows. There is a significant relation between the variables when the P-value is < 0.01 . Only relevant results are compared with each other. The variable 'unknown' is not included in the Chi-sq test. This means that the end totals per test can vary.

8.3 Results Research Blueview

In the study, a total of 798 files on content. There were 404 cases of 'dog bites man' incidents. In 235 cases (29%) were 'dog bites dog or other animal' and in 141 cases (18%) there is information of another type of incident (including seizure of the type of dog pit bull terrier). The details of 404 dog-bites-man incidents are the circumstances and characteristics of the victim and the offender. Of the victims (60% man, woman and 38% 2% unknown) 3% were younger than 4 years, 21% were 5 to 15 years old, 67% were 16 years or older and 9% were unknown. In the presentation of the results we made a division between children (0 to 15 years) and adults (16 years and older).

The bulk of the biting incidents took place in a public space (80%), 18% took place on private property and 3% of the biting incidents took place in an unknown location. It is not entirely unexpected that most of the incidents in Blueview occurred in a public space, such an incident is more likely to be reported to the police, which is the information Blueview can provide.

The Pearson Chi-square test shows that the reason for the bite incident varies by age group and that the severity of the bite is different when the location where the incident varies or if there is another body part involved (see Table 10).

Table 10: Pearson Chi-square test between different characteristics (Research Blueview).

Characteristics	P-value	df	N	Figure
Age District	0.225	1	359	--
Age Severity	0.017	2	345	--
Age reason	0.002	2	326	12
Age Relationship	0.069	1	361	--
Severity District	0.002	2	357	13
Severity body	>0.001	6	345	14
Severity reason	0.019	4	321	--
Location reason	0.562	2	348	--

Slightly more than half (51%) of the biting incidents resulted in minor skin damage. In 16% of the biting incidents there was moderate damage and in 23% there was serious damage. Of the 90 serious damage incidents 37% of the cases involved a child and 64% an adult. This shows that not only biting incidents with severe damage are reported to the police, but also biting incidents that result in minor to moderate damage are reported. With the confidence level of 99%, there is no significant relationship between age and severity ($P = 0.017$). More than half (55%) of the victims do not interfere with the dogs before they bite, 14% are interfering with the dog. In 18% of the biting incidents the dog is provoked and in 13% the cause of the bite incident is unknown. There is a significant difference between children and adults in relation to the reason for the bite incident. ($P = 0.002$; Figure 12) Adults are less frequently bitten after interaction (59%), but more often after incitement (23%) than children (81% and 10% respectively).

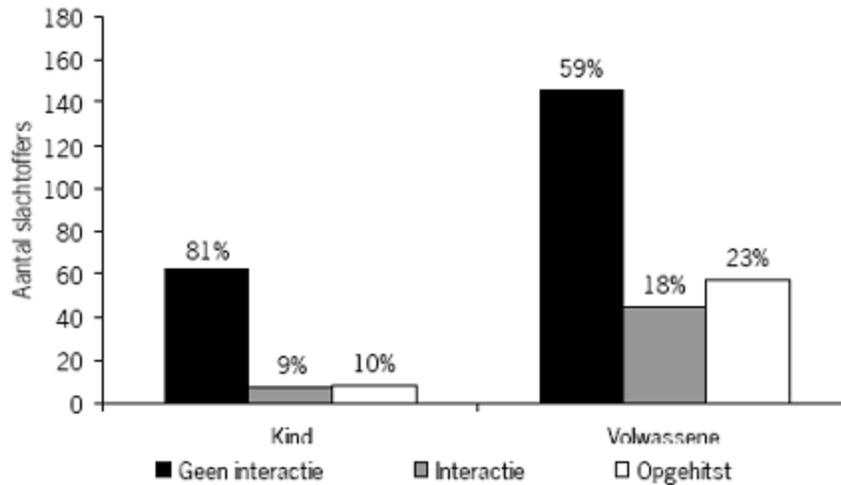


Figure 12: The age of the victims in relation to the cause of the bite incident (Research Blueview)
 [Left=children; Right=Adults. Black=no interaction; grey=interaction; white=provocation]

The majority (60%) of the incidents caused by dogs unknown to the victim (or the owner of the dog could not be traced). Victims in 34% (31) of the incidents were bitten by the dog of a known person (family, friends or neighbours).

The severity of the injury and the location of the bite incident are also linked ($P = 0002$). A bite incident in a public space resulted relatively frequently (58%) in superficial damage to the skin compared with biting incidents not in a public space

(46%; Figure 13), where relatively more serious bites were recorded.

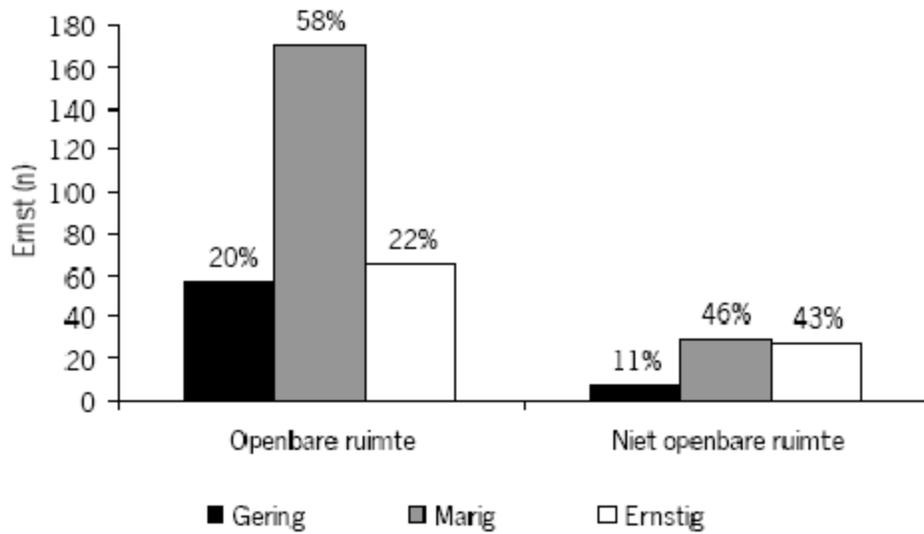


Figure 13: Location of the bite incident in relation to the severity of the damage (Research Blueview).
 [Left=public space; right=private property. Black=mild; grey=moderate; white=severe]

Also with the help of Blueview we researched whether there is a difference in the severity of a bite between the type of pit bull terrier and dogs of other breed types. All biting incidents involving dogs whose breed type was unknown or whose severity was unknown are not included in the calculations. Biting incidents involving more than one dog and where the dogs breed type differed or where the breed type of one of the dogs is unknown are not included. There appears to be no significant correlation between the breed type of the dog bite (whether or not the dog was of the type pit bull terrier) and the severity of the injury: 20 of the 64 bites caused by a pit bull terrier type were serious (31%), compared with 51 of the 145 bites (35%) which caused severe wounds made by dogs other than dogs of the type pit bull terrier ($P = 0091$ $N = 209$).

It was determined in which body part the victim was bitten. When mention was made of bites on several places than we have chosen to select the most vulnerable body

part. Bites to the head or face, chest and trunk are always more serious than bites to the extremities. Almost three quarters (73%) of the victims were bitten on the extremities (legs, feet, arms and hands). Of the 12 children up to 4 years, five (42%) were bitten in the face or head. Serious injuries are relatively more common on the face / head (Figure 14). Superficial and moderate damage are relatively more common in the lower extremities (P <0001).

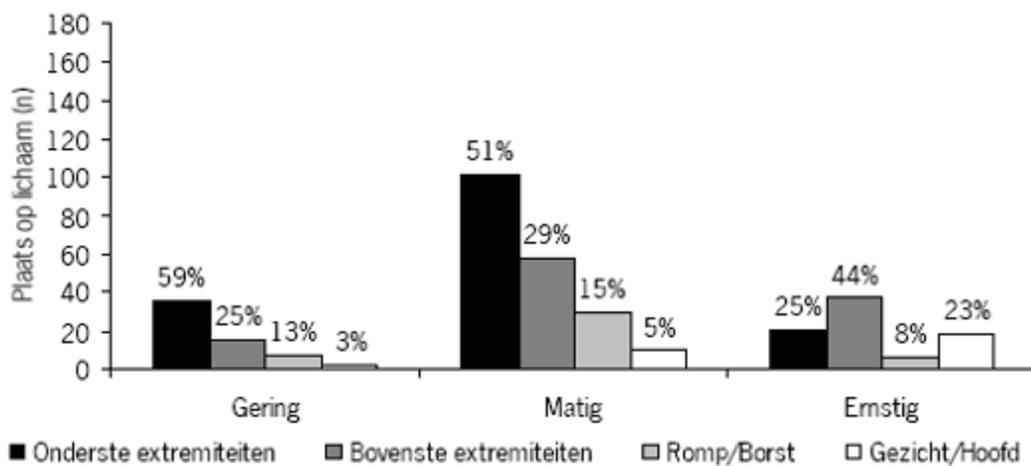


Figure 14: Place of the bite on the body in relation to the severity of the damage (Research Blueview). [Left=mild; middle=moderate; right=severe. Black=lower extremities; grey=upper extremities; It grey=body/upper torso; white=face/head]

8.4 Aggressive breed types according to Blueview

For the data that are collected from Blueview, a Bite Index for biting dogs by population is calculated. It is based on the assumption that the number of dogs in biting incidents involving a particular breed type in the Netherlands is a certain fraction of the number of dogs present in the Netherlands of that breed type, assuming that those likely to bite by breed type is comparable. To calculate the present number of dogs per breed in the Netherlands we used the dog population result of the survey as a starting point. The fraction of the breed type's aggressive population is divided by the same fraction of dog breed types in the dog population to arrive at the Bite Index for that breed type. If the assumption is that all breed types bite equally often, then all of the Bite Index dog breed types should equal 1. Through a Fisher's exact test it is determined whether one of the Bite Index breed types presented at

significantly greater than 1 ($P \leq 0.05$, see Table 11). Dogs of eight breed types according to the Blueview research appeared to have been involved more frequently in a bite incident than would be expected given the present numbers in the Netherlands. In the 404 biting incidents 425 dogs were involved. In determining the Bite Index through Blueview we opted for a dog-oriented approach. When a specific individual dog was involved in several biting incidents the breed type was counted once as biting to prevent repeated breed type entries. These dogs were identified by their owners and possibly the name of the dog so dogs are not counted twice. This results in a list of 385 biters. Of 250 dogs the breed type was known; there were 80 dogs of the type pit bull terrier. Of the remaining 135 dogs no breed type was known ($n = 72$) or they were crossbred ($n = 63$).

Table 11: The bite index, calculated from Dog population (Research Dog population) and Blueview (Research Blueview, based on 250 aggressive dogs of known breed type)

Breed Type	Bite Index	Blueview	% Dog population
Pit bull Terrier	-	0.0	20.8
American Staffordshire Terrier	12.4	0.2	2.3
Rottweiler	8.7	1.0	8.3
American bulldog	8.6	0.2	1.3
Bordeaux dog	7.9	0.2	1.3
Dobermann	4.4	0.4	1.6
Belgian Shepherd	4.2	2.5	10.6
White Shepherd	3.0	0.4	1.3
Bouvier des Flandres	2.1	1.0	2.1

For those varieties that show $p \leq 0.05$; breed types of these dogs are found in police records as biters significantly more frequently than we would expect from their estimated numbers in the Netherlands.

Dogs of the pit bull terrier type appear most often as aggressive dog in the Blueview Research. Because the number of these dogs within the total dog population is unknown, because it is an illegal dog, the Bite Index cannot be determined. If the tendency of a dog of the type pit bull terrier to bite were recorded as often as that of the related American Staffordshire Terrier, then the percentage of dogs of the pit bull terrier type in the whole dog population would be 1.7%. There would then be an equal

number of dogs of the pit bull terrier type as there are Yorkshire terriërs and West Highland White Terriers. This does not seem very plausible.

Of the nine varieties which at the request of the Commission of Experts were developed new registrations by the Executive Board, the Blueview investigation showed that these nine breed types were involved a total 18 times in a bite incident; half of them involving the breed type American Staffordshire Terrier.

9 Seizures of dogs of the type pit bull terrier

9.1 Current legislation

When a person in the Netherlands has a dog of the type pit bull terrier in his possession and when it does not have a pedigree on file with the Executive Board, he is on the basis of Article 73 of the GWWD in violation of the law. The owner of the illegal dog

is usually prosecuted under the criminal law. A small number of the municipalities in the Netherlands (Assen and the town municipalities in the province of Groningen) choose to prosecute the owner administratively. This is Article 74 of the GWWD and Article 5:22 of the General administrative law (AWB).

9.1.1 Criminal

If the police, the General Inspection Service (AID) or the National Inspectorate (POINT) encounter such a dog and consider that the animal exhibits many similarities to a dog of the type pit bull terrier they can take the dog. This is a very first assessment of the dog. In the criminal route, the animal will be transferred to (DR). DR is an office of Agriculture, and based on Article 118 of the Criminal Code is the designated custodian of seized goods, including dogs that are seized in the context of the RAD. When a seized dog is taken - because the animal is illegal under the RAD, because it has bitten someone or for any other reason - the investigators are notified

through a Presentation Form of Seizure (Kvl) to both DR as to the PPS. DR has responsibility for the preservation of the seized property. Dogs are placed in a kennel. When it is a dog presumably of the type pit bull terrier, then it is received in a specially designated shelter. The kennel fees for the dog are 10 to 15 euros per day, the euthanization costs around 90 euros.

The Office of the Public Prosecutor, Rotterdam reviews the criminal route for a seized dog and the agencies involved. An overview is given in Figure 15. Roughly, this overview divided into the route for a dog presumably of the type pit bull terrier (left) and the route for presumed dangerous dogs (right). In Rotterdam there is a reactive policy, action is only taken after a report or when the dog is detected by chance. The police, usually someone from the Dog Unit, initially assess whether there is reason to take the animal. Confiscation takes place if the dog resembles a dog of the type pit bull terrier or when the dog has allegedly been involved in a bite incident.

When the police take the dog because they think it is a dog of the type pit bull terrier, the owner has the option of surrendering the animal. If the owner leaves the dog, then the dog is always assessed by an agent of the IGS. If the assessment shows that the animal is indeed a dog of the type pit bull terrier, the animal must be destroyed (also known as 'exit from the movement' [wel 'onttrekking aan het verkeer' genoemd]). If the official believes that it is not the pit bull terrier type of dog, the animal is returned to the owner.

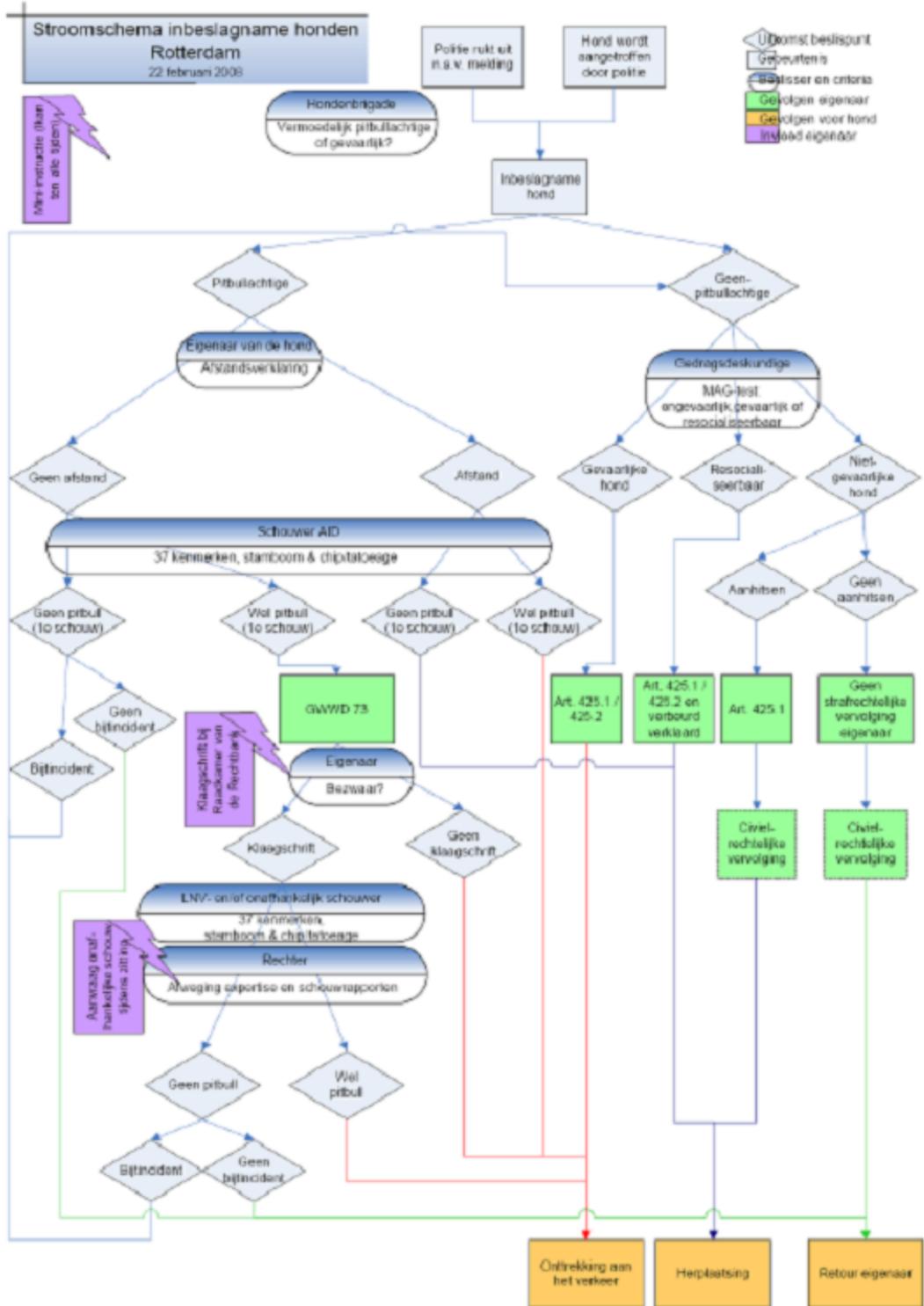
If the owner doesn't relinquish the dog, then there is an inspection by an inspector of the IGS. If it is determined that it is not a dog of the pit bull terrier type, the animal is returned to the owner, unless it has also been involved a bite incident. In that case it proceeds to the track for suspected dangerous dogs. If the inspector of the IGS, however, thinks that it is a dog of the type pit bull terrier then the animal is detained. If there is no complaint received at the Council Chamber of the Tribunal, the

animal is slain as soon as possible. Should the owner, however, file such a complaint, then a second inspection by another expert is necessary. Usually the second assessment is done by a person designated by LNV and/or an independent inspector brought in by the owner of the dog. It is often the case that an inspector from Agriculture is engaged as an independent inspector. Then three inspection reports are done on the dog. Then it is up to the court to assess the various inspection reports for content and expertise of the inspector and pass judgement. If the judge decides that it is not of the type pit bull terrier, then the animal returned to the owner unless the animal also has been involved in a bite incident. In that case is transferred to the track for suspected dangerous dogs. If the court decides that it is a dog of the type pit bull terrier, then the animal is slain and the owner is prosecuted on the basis of Article 73 GWWD.

In the criminal route, the owner of the animal has three opportunities to object. First, he sends a complaint to the Council Chamber of the Court, as has been explained above. Second, the owner during the session can still file an application for the execution of a new assessment by an independent inspector. Finally, at any time a private hearing [mini-instructie⁹¹] may be requested. When a dog has been seized because it is a suspected dangerous animal, a temperament test (Socially Acceptable Gedragstest (MAG test) is performed. When the dog is evaluated as dangerous, the animal is slain and the owner is prosecuted on the basis of Article 425 SR. If the conclusion of the gedragstest is that dangerous animal behavior has been shown, but that this behavior stemmed from incorrect treatment of the animal, the animal is rehabilitated. The dog is then declared forfeited and rehomed and the owner will be prosecuted on the basis of Article 425 SR. If the MAG test concludes that the animal is not dangerous it is investigated whether there was incitement by the owner. If there was incitement then the dog is rehomed. The owner will be prosecuted on the basis of the first paragraph of Article 425 SR. If the injured party wishes, it is also possible that

there may be a civil prosecution. If there is no incitement then the dog is returned to the owner. There is no prosecution of the owner by the PPS, but the aggrieved party can still opt for civil prosecution of the owner.

⁹ Right of the accused, outside the prosecutor, to ask for the court commissioner to investigate. That may occur within a pending legal proceedings. It may even occur without such a judicial investigation pending.



Figuur 15: Stroomschema arrondissementsparket Rotterdam voor in beslag genomen honden

Figure 15: Flowchart, Office of the Public Prosecutor Rotterdam for seized dogs

9.1.2 Administrative Law

When a dog of the type pit bull terrier dog is found, the law offers the possibility of administrative and / or criminal action. At the request new chief of the Regional police, Groningen, the council of mayors in Groningen in mid-2002 decided to use the administrative method.

This is to prevent seized dogs being housed over a long term in the shelter then slain, pending the court ruling. The PPS considered this not in the interest of the dog and moreover, it leads to high costs. On the basis of Article 74 of the GWWD the mayor is responsible to seize and kill an animal that in his town is in violation of the provisions of Article 73 of the GWWD by being bred or existing. By complaints in general, where complaints and / or reporting of breeding dogs with the type of pit bull terrier, the Mayor determine that the dog to a place decided by him to be conveyed and that the dog should be slain. If this (Urgent) administrative environments, but the animal is not transferred to DR but to the mayor, which the owner of the animal than administrative continues.

In the province of Groningen on 17-12-2002 the Regional Police were mandated by the Council of Mayors to seize a banned dog through urgent administrative seizure. The application of administrative proceedings in the seizure of a dog of the pit bull terrier type therefore applies to all municipalities in the province of Groningen.

When a prohibited dog is found, this dog is seized directly by the Regional Police, Livestock Division. The initial assessment of the dog and the decision for seizure is thus initiated by the Regional Police. If the Regional Police decide that there is no one type of dog pit bull terrier, then this is reported to the MMT inspector. Then the Mayor will explain why the dog is still judged dangerous.

If the Regional Police decide that it is a dog of the type pit bull terrier, then they explain the procedure and the police inform the owner / owner on the background of

the RAD. Also, the dog is seized on the spot and transported to a shelter. The mayor sends them a letter in which he indicates the urgency of an administrative application. Also, the dog at the request of the mayor is assessed by an expert of the General Inspection Service. If the expert determines that the dog meets the characteristics described in the RAD to a considerable degree, then the owner/handler, usually after 1-2 weeks, is visited again by the Regional Police who propose he signs a waiver. After the waiver is signed, the Mayor becomes the owner of the dog and as soon as possible after the second visit the dog is slain. The municipality of Groningen will pay the costs of transporting and killing the banned dog, as well as the cost of boarding over the two weeks. In the town of Assen, however, the cost of transportation, reception and euthanasia is recovered from the owner/keeper.

If the owner does not agree to follow procedure and transfer ownership to a Mayor to allow the killing of the dog, following the inspection the owner/keeper may bring in an expert to perform an assessment. The mayor will recommend getting this performed by one of the three by the Ministry of Agriculture designated pit bull specialists. This follows a waiting period of two weeks before the owner/keeper can present his second opinion. After the waiting period, depending on the outcome of the counter-expertise assessment and decision, a decision is made to allow the killing of the dog or the dog is returned to the owner. This requires a decision within six weeks. After those six weeks, the dog is slain unless the owner applies during that period for a provisional service judge. Then the dog not previously slain, then after a ruling. As owners/owners an application for counter-expertise will be permitted, during the waiting period. The application for another expert assessment by the owner in practice is still sometimes refused by the service judge. This is the case as the mayor already had a second assessment, usually by specialist appointed by Agriculture.

This is then approved by the court as adequate counter-expertise, and further assessment will be considered unnecessary. In Groningen there are no known cases in

which the judge ruled on an administrative process and still contra-expertise has been sought. It is also a reactive policy here: action is only taken when a complaint or a notification has been received, when an incident has occurred or where it is suspected that dogs of the type pit bull terrier are being bred. According to a spokesman for the Dog Brigade in Groningen, when confirmation of a dog on the type of pit bull Terrier is received by the expert from the IGS, 90% of the owners or owners voluntarily sign over the dog. This cannot be confirmed from the records. He noted that owners/handlers are generally aware of the offence, but were attracted by the difference in price between a banned dog of the type pit bull terrier (about € 350, -) and a legal American Staffordshire Terrier with pedigree (about € 1,350, -). Furthermore, he pointed out that most dogs of the type pit bull terrier are purchased in Belgium, where there is no ban on the keeping of this breed type of dog.

Only the town of Assen and the municipalities in the province of Groningen revised the administrative law. The reason it is argued for urgent administrative capacity rather than criminal law is that the dog can be immediately confiscated so the chance that the dog could not be found on a subsequent visit is removed. A second argument is that the deadline for a final ruling is made shorter. The latter is positive for both the vervolger (cost) and the dog (welfare).

9.2 Confiscation of dogs of the type pit bull terrier

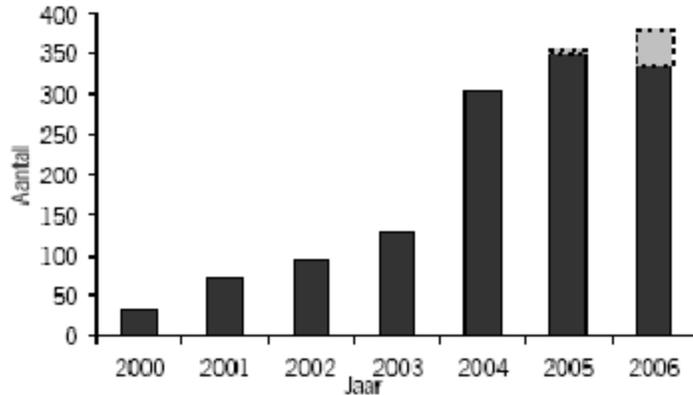
DR keeps a database in which all the seized animals are listed. The final destination, the date of seizure and the date of the final destination of seized dogs are recorded. The reason for seizure is not mentioned therein. Since the introduction of the RAD until the end of 2006 there were a total of 6,731 dogs seized for safekeeping and DR reports. It is not only dogs within the context of the RAD that are seized, but also after a bite incident or in cases of neglect.

Since 2000 a report on a seized dog also indicated if it was grouped within the context of the RAD. This makes it possible to distinguish among dogs seized within the context of the from other reasons, for example after a bite incident or in cases of neglect. Prior to 2000, this distinction cannot be made.

From 2000 until mid 2007, 1,937 dogs, presumably of the type pit bull terrier, out of a total of 4,606 confiscated, were reported by DR (42%). The filings from 2007 at the time of this study have not yet been entered. The completed period of 2000 to 2006 was further studied. These cases were looked at the by number per year, final destination, turnaround time and the geographic spread.

9.2.1 seizures under the criminal law

Figure 16 shows the number of dogs destroyed of the type pit bull terrier. These are the dogs that after assessment were found to actually belong to this type. At the time of this investigation 2006 cases were ongoing and thus the final destination was unknown. We cannot therefore determine whether the number of dogs destroyed in 2006 was higher or lower than in 2005. In the unknown cases it is assumed that a proportion are destroyed (based on previous data), so we see an increase over the period 2000 to 2006. Whether the observed increase is due to a stricter observance of the law, tightening of the administration or an actual increase in the number of dogs of the type pit bull terrier, cannot be confirmed from the figures and interviews with employees of DR and the PPS.



Figuur 16: Aantal vernietigde honden van het type pitbull terriër per jaar. In 2005 en 2006 is een schatting gemaakt van het aantal honden dat uit de nog onbekende zaken vernietigd zal worden (DR).

Figure 16: Number of dogs destroyed of the pit bull terrier type per year. For 2005 and 2006 is an estimate of the number of dogs that from the still unresolved cases will be disposed of (DR).

On average 1.4 dogs per case were seized. The average turnaround time was 101 days with a standard deviation of 114. The longest turnaround time was 777 days and the shortest was 0 days. The longer turnaround are mostly those cases where the owner appealed. The cases of 0 days are cases where the dog was found and destroyed on the spot, because for example, the animal was greatly neglected, but also because the aggressive behavior exhibited, for example after a bite incident. The median is 56 days (see Appendix 13). These calculations do not include the seizures that were treated administratively (76 dogs in the period 2003 to 2006). Most of the seized dogs presumably of the type of pit bull terrier were euthanased and thus removed from circulation (82%), while 13% were returned to the owner. A small proportion (6%) were sold, donated or rehomed (Figure 17). The dogs that were returned, sold, donated or after assessment rehomed proved not to be the Pit bull Terrier type. The cases whose final destination was unknown (61 of 1672 filings) are disregarded. In Appendix 13, the data per year are displayed.

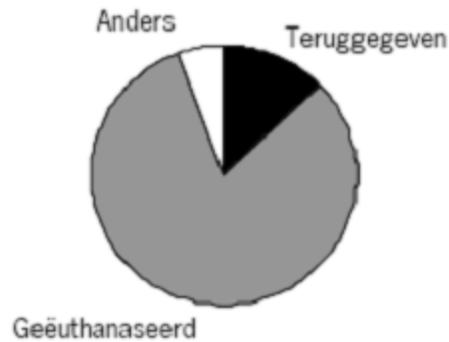


Figure 17: Final destination of seized dogs presumably the type of pit bull terrier. The group "otherwise" contains dogs sold, donated and replacing (DR). [Clockwise from top: Anders=otherwise; Teruggegeven=returned to owner; Geeuthanaseerd=destroyed/euthanized]

9.2.2 Seizures under administrative law

The number of dogs that are seized and whose cases are handled administratively is relatively low. In the town of Assen since 2004 fifteen dogs were seized because they were suspected of being a pit bull terrier type. Ten of these cases were handled in accordance with the administrative law and five under the criminal law.

In the town of Groningen from mid-2003 to 2006 a total of 76 dogs in 40 cases were seized because they were suspected to be of the type pit bull terrier. There is no information about the other municipalities in the Groningen province or over the period 2000 to 2006. The bulk of the seized dogs (69) were assessed to be of the type pit bull terrier and slain, four dogs were returned to their owners returned, and for the other three dogs the final destination is unknown. The average turnaround time for confiscation and settlement with urgent administrative treatment in Groningen is 33 days with a standard deviation of 49 days. The longest turnaround time was 185 days, while one case was handled the same day. The median is 14 days. Forty-four cases in 17 files indicated that an owner had signed waiver.

[cannot translate: Otherwise Geëuthanaseerd Teruggegeven]

9.2.3 Distribution of seizure of dogs of the type pit bull terrier in the Netherlands

Nearly one third (32%) of the seized dogs of the type pit bull terrier in the period 2000 till 2006 were seized in the police district of Rotterdam-Rijnmond (Table 12). Another large number of the seizures took place in the compound Haaglanden region and Middle Hollands (10%) and in the South Limburg region (10%). The top five regions with the most seizures culminate in the compound region of Amsterdam-Amstelland and Discard and Vechtstreek (8%) and the Central region and West Brabant (7%). When the seizures are included that have been treated administratively, we see no changes in the top five regions with the most seizures.

Table 12: Service Arrangements dogs taken into custody of the type pit bull terrier (based on the number of cases), by judicial district and police regions in the period 2000 till 2006 (DR)

Office of the Public Prosecutor (politieregio)	Number	%
Rotterdam (Rotterdam-Rijnmond)	388	32
Den Haag (Holland Middle / Haaglanden)	128	10
Maastricht (South Limburg)	117	10
Amsterdam (Amsterdam-Amstelland/Throw and Vechtstreek)	97	8
Breda (Central and West Brabant)	90	7
Arnhem (Gelderland Central/South Gelderland)	51	4
Almelo (Twente)	44	4
Zwolle-Lelystad (Buenos Aires/IJsselnd)	42	3
Dordrecht (South Holland South)	41	3
Roermond (Limburg North)	38	3

Haarlem (Kennemerland/Zaanstreek)	33	3
Den Bosch (Brabant North/South East Brabant)	32	3
Utrecht (Utrecht)	25	2
Assen (Canberra)	22	2
Zutphen (North and East Gelderland)	20	2
Alkmaar (North Holland North)	14	1
Leeuwarden (Friesland)	17	1
Middelburg (Zealand)	15	1
Groningen (Groningen)	7	1
Other	3	0
Total	1224	100

10 Legislation in other countries

This Chapter presents breed-specific measures in other countries charted. Emphasis is on the European Union and the United States. We established whether a country has laws to address aggressive dogs which determine whether to limit damage by dogs based on certain dog breed types. When a country does not have breed-specific measures, it is determined whether there are reasons for this and how aggressiveness in dogs is handled under the law. This inventory is a sketch of a number of countries and is by no means exhaustive. When there is no source, the information is obtained from the policy of the country concerned.

10.1 Countries with breed specific measures

10.1.1 Canada

Canada has no federal law regarding dog ownership or conditions for keeping breeds and there is no registration of biting incidents. However, there are at the local level breed specific measures. Overall this legislation means that a certain kind of dog (usually associated with the pit bull breeds) is banned, or that so-called 'dangerous' or

'vicious' dogs are subject to regulation such as the leashing and muzzling of the animal in a public space. When there is a ban on the keeping of certain breeds, the owners at the time of the regulation coming into force are allowed to keep the dog under conditions. Ontario is the only province that has breed limiting regulations for the entire territory. There are also local measures for those with certain dog breeds. In Ontario the 'Dog Owners Liability Act'¹⁰ is in force. It is an article that bans the keeping, breeding, sale and importation of pit bulls. Further, the animal does not run loose or be abandoned in a kennel or asylum by the owner, and the animal is not trained for fighting. Under pit bulls fall dogs of the type pit bull terrier, Staffordshire Bull terrier, American Staffordshire Terrier and American Pit Bull Terrier or dogs of that appearance. The law is a transitional measure. Dogs at the time of enactment or who were born during a certain period after the commencement of the Act are regarded as a 'restricted pit bull.' They must be sterilized and leashed and muzzled in public. When an illegal dog is found it is confiscated and destroyed. The owner may pay up to \$10,000 (over € 6500) or face imprisonment for up to six months. If an official classifies a dog as a pit bull then the owner can challenge this. However, there is no method established for this purpose.

10.1.2 Denmark

Denmark has had a legal ban on the keeping of dogs on the type pit bull terrier, Tosa Inu and crosses of both breeds. Suspect dogs are seized by the police and after confirmation of the breed type by the veterinarian are euthanised. In addition to this breed specific legislation Denmark has the breed independent Dog Law which aims to safeguard society from dangerous dogs. Basically, this law allows police to seize a (potentially) dangerous dog and take it to shelter. This dog is then assessed by one of the six government-designated veterinarians, who assess the dog's temperament on the basis of a provocation. If the expert considers that the dog is a danger to the community, then the dog is euthanised. Recent dog-bites-dog incidents have

stepped up public pressure to tighten the existing legislation. To tighten enforcement of the Dog Law the Ministry of Justice is working on a handbook for police on enforcement.

In Denmark there is a registration process. All dogs must be registered before the age of four months. If the owner is not responsible, the police enforce registration requirements and there is also a fine.

¹⁰ http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90d16_e.htm (visited on 01-02-2008)

10.1.3 Germany

Across Germany, the importation of dogs of the type pit bull terrier, American Staffordshire terrier, Staffordshire Bull Terrier and bull terrier as well as mutual crossings and mixtures with other dogs are prohibited. But there are some exceptions, which are described in the 'Verordnung über Ausnahmen zum Verbringungs- und von Einfuhrverbot gefährlich Hunden in das Inland.' This makes it possible for tourists to take their dog through Germany.

The breeding and keeping of dogs is administered by Land [could be Dept of Agriculture?]. There are federal breed specific measures (Table 13). These are aimed at breed types which are regarded as dangerous until further certain breed types emerge and are subject to the legislation which applies to dangerous dogs. Five states make a distinction between List 1 and List 2 dogs. List 1 includes the group of breeds American Pit Bull Terrier, American Staffordshire Terrier, Staffordshire Bull terrier and Bull terrier. For the keeping of List 1 dogs an additional condition that the owner should be able to demonstrate that there is a public or private interest in keeping the dog. The public interest means, for example, that the owner adopted the animal from an Asylum. Private interest is when it is required to guard property.

In addition to keeping dangerous dogs (lists 1 and 2) the following conditions apply:

1. The owner must have a certificate of expertise;
2. The owner must have an owner's licence;
3. The owner and/or the trainer must be at least 18 years;
4. The owner must have a liability insurance coverage with a minimum of € 500,000, - for property damage and € 250,000 for injury to people;
5. The owner must have a proof that the dog microchipped.

Owners of dangerous dogs also have the following duties:

1. The outside area of the dog must be secure able to accompany the dog to secure the line;
2. The dog may only be owned by people with an owner's licence;
3. The owner's licence should always be carried;
4. The dog wear a muzzle and be leashed on a line of up to 1.5 meters. If the dog successfully passes a behavioural test this relieves the owner of that requirement;
5. More than one dangerous dog is not allowed;
6. Violation of the breeding and marketing regulations is seen as a crime that can be punished with imprisonment not exceeding two years or a fine;
7. Whoever keeps a dangerous dog despite the ban without the required permits commits a crime punishable by imprisonment not exceeding 2 years or a fine.
8. Transferring a dangerous dog is considered a crime punishable by a prison sentence of not exceeding 2 years or a fine.

All dangerous dogs should finally be held in adequate and outbreak-free facilities, in order to be viewed by the Public Service Association and the Veterinary Service.

Table 13: Conditions for holding specific breed typen dangerous dogs in the German Laender. Numbers 1 and 2 refer to the List. (www.hundegesetz.de/news/laender.htm, november 2007).

Tabel 13: Voorwaarden voor het houden van specifieke rastyden gevaarlijke honden in de Duitse deelstaten. Cijfers 1 en 2 verwijzen naar de lijstnummers. (www.hundegesetz.de/news/laender.htm, november 2007).

Rastype	Deelstaat	Baden Württemberg	Beieren	Berlijn	Brandenburg	Bremen	Hamburg	Hessen	Mecklenburg-Vorpommern	Niedersachsen	Nordrhein-Westfalen	Rheinland-Pfalz	Saarland	Sachsen-Anhalt	Sachsen	Schleswig-Holstein	Thüringen	deelstaten met voorwaarden
Alano			2		2						2							3
(American) bulldog			2					2			2							3
(American) pitbull terriër	1	1	2	1	2	1	2	2	2		1	2	2		2	2		13
American Staffordshire terriër	1	1	2	1	2	1	2	2	2		1	2	2		2	2		13
Bandog			1															1
Bordeauxdog		2	2		2		2											4
Bullmastiff		2	2	2	2		2											5
Bull terriër	1	2	2	1	2	2	2	2	2		1				2	2		11
Cane Corso			2		2													2
Dobermann					2													1
Dogo Argentino	2	2	2	2			2	2			2							7
Dogo Canario			2		2													2
Fila Brasileiro	2	2	2	2			2	2			2							7
Kangal (Karabash)							2	2										2
Kaukasischer owcharka							2	2										2
Mastiff	2	2	2	2			2	2			2							7
Mastino Español	2	2	2	2			2				2							6
Mastino Napoletano	2	2	2	2			2	2										6
Perro de presa Mallorquin			2		2													2
Rottweiler			2		2						2							3
Staffordshire bull terriër	2	1		1	2	1	2	2			1	2	2			2		11
Tosa Inu	2	1	2	1			2				2							6

10.1.4 France

France distinguishes between fighting dogs (Category 1) and monitoring and [verdedigingshonden - show dogs?] (Category 2).

The first category dogs include:

-- Dogs that look similar to dogs in terms of the variety Staffordshire Bull terrier or

American Staffordshire Terrier and possess no pedigree. These are also known as Pit bull;

-- Dogs that look similar to the mastiff breed and possess no pedigree. They are also known as ' boerbulls'

-- Dogs that look similar to the variety Tosa and who possess no pedigree.

The second category dogs include:

-- Dogs with pedigree of the race Staffordshire terrier [sic];

-- Dogs with pedigree of the race American Staffordshire Terrier;

-- Dogs with pedigree of the race Staffordshire bull terrier;

-- Dogs with pedigree of the race Tosa Inu;

-- Dogs that resemble the breed Rottweiler and who possess no pedigree.

Dogs belonging to category 1 or 2 may not be kept by persons younger than 18 years, people who have been convicted of a crime or persons whose earlier a dog is included under this Act. Others will only be eligible for the keeping of dogs in category 1 or 2 after receiving a statement from the town confirming where the owner of the dog lives. The owner makes a declaration to live in the municipality claimed. Such a declaration is made after consultation:

-- A valid identification of the dog;

-- A valid antirabiës Vaccination;

-- A veterinary certificate of sterilization, only for dogs from the first category;

-- A proof of liability insurance.

On public roads and in common areas dogs of these categories should be [gemuil-
korfd - under control?] and accompanied by an adult person. Dogs of the 1st category are not allowed on public transport or in public places except public roads. Dogs of the 2nd category should be muzzled. It is also mandatory in France for both dogs and cats to be identified through a microchip or a tattoo. The data of the animals are registered

in a national database. Breeders must possess a licence. They are inspected once a year.

10.1.5 Great Britain (m.u.v. Northern Ireland)

The Dangerous Dogs Act of 1991 (amended in 1997) prohibits the breeding, sale and keeping of dogs of the types pit bull terrier, Japanese Tosa, Dogo Argentino and Fila Brasileiro. We are not talking about races but about types, which means that phenotypic similarity is conclusive. There is an exception which makes it possible to keep such a dog (breeding and sale are always prohibited), and the dog will be included in the Index of Exempted Dogs." This exception is granted if strict conditions are met. The animals must be sterilized, tattooed and microchipped. They must be leashed and muzzled in public at all times. The owner carries liability for any damage caused to third parties by the dog. Illegal possession of such a dog can be punished with a fine of £5000 or imprisonment for 6 months. The dog may be destroyed, although in practice that does not always happen if the court feels that the animal is not a threat to public safety. The court can determine whether the dog is eligible for addition to the index¹¹.

10.1.6 Ireland

Ireland has since 1998 had the "Control of Dogs Regulations." It states that dogs of the type American Pit Bull terrier, Bullmastiff, Dobermann, English Bull terrier, German Shepherd, Japanese Akita, Japanese Tosa, Rhodesian Ridgeback, Rottweiler, Staffordshire Bull terrier and dogs and known as "bandog"¹² must be muzzled in public and leashed and accompanied by a person older than 16 years who is capable enough to oversee the dog. The dog must also bear a dog licence tag bearing the name and address of the owner.

10.1.7 Romania

In Romania there is a distinction between dangerous and aggressive dogs. Dangerous

dogs are all members of certain races, while aggressive dogs are individual animals have displayed aggressive behavior.

There are two distinct categories of dangerous dogs:

1. Fighting and attack dogs: type pit bull terrier, boerbull and bandog and crosses thereof;

2. The breeds American Staffordshire Terrier, Tosa, Rottweiler, Dogo Argentino, Neapolitan mastiff, Fila Brasileiro, Mastiff, Caucasian Ovcharka and Cane Corso or crosses thereof.

¹¹ [www.defra.gov.uk / animalh / welfare](http://www.defra.gov.uk/animalh/welfare)

¹² <http://en.wikipedia.org/wiki/Bandog>

The owner or custodian of such dogs must meet the following conditions:

- A minimum age of 18 years;
- Registration of the animal in the Romanian Kennel Club
- Placing a sign at the entrance to their area with the warning of a dangerous dog;
- Has not been convicted of crime against people;
- Handing over a copy of a valid certificate from the Romanian Kennel Club which proves that the dog fits that category of dangerous dogs. In addition, the dog bears a tattoo or microchip. Dogs from the 1st category should also be sterilized and their owners need to have completed a liability declaration.

On public roads and common areas of buildings dogs of the 1st and 2nd category are to be muzzled and leashed. Dogs of the 1st category are not allowed in public transport, in public places except the public highway, and in publicly accessible areas. Dogs of the 2nd category are to be muzzled and leashed in public spaces.

When the owner takes insufficient to prevent an attack by his dog against other people, the owner is liable. He can draw between 6 months and 5 years imprisonment. If the victim dies, the imprisonment increases from 2 to 7 years. Biting incidents involving other pets punishable by a fine. Failure to sterilize the animal, not reporting the death of the animal, letting the animal wander and not observing the rules for public spaces are also punishable by a fine.

In Romania biting incidents are registered by the Antirabies Centres of hospitals.

10.1.8 Spain

The Royal Decree 287/2002 of 22 March, which regulates the requirements for the keeping of potentially hazardous kinds of dogs has breed specific definitions.

Dogs that are deemed potentially dangerous are:

1. Dogs belonging to one of the following varieties and crossbreeds:

- Pit bull Terrier
- Staffordshire Bull Terrier
- American Staffordshire Terrier
- Rottweiler
- Dogo Argentino
- Fila Brasileiro
- Tosa Inu
- Akita Inu

2. Dogs that have all or most of the following characteristics:

- Heavily muscled, imposing, robust, athletic build, nimble, powerful;
- Pronounced character and great courage;
- Short hair;
- Chest comprehensive circumference between 60 and 80 cm, height of the cross between 50 and 70 centimetres with a weight of more than 20 kg;

-- Large head, robust, with a large skull and broad and muscular, bulbous cheeks.

Large and powerful jaws, the robust mouth is wide and deep. Wide and short muscular neck;

-- Full chest, broad, wide and deep, curved ribs, short and muscular body;

-- Parallel front legs, straight and strong, very muscular hind legs, with relatively long legs in a slight angle.

3. Animals have shown aggressive tendencies in the past or have previously attacked other animals or individuals.

Potentially dangerous dogs should be identified and registered by means of a microchip. In addition, they should be registered in the appropriate municipal records. The owner of a potentially dangerous dog must apply for a licence in his town, which is valid for five years. To obtain such approval, the applicant must meet the following requirements:

-- Age (older than 18 years)

-- No criminal history for the following crimes: manslaughter, torture, infliction of injury, crimes against sexual freedom, crimes related to drug trafficking or association with armed gangs. Also there should be no legal decision against the applicant in which he was denied the right to keep potentially dangerous animals. This should be demonstrated through the presentation of a police certificate with jurisdiction relating to the districts where the owner of the animal has lived during the last two years;

-- Have the physical capacity and psychological suitability to keep dangerous animals.

This point should be demonstrated by the presentation of certificates (certificate of physical ability, certificate of psychological fitness) issued by authorised centres in Spain.

-- Liability insurance (seguro de responsabilidad civil) for damage to third parties, with coverage of at least 120,000 euros.

If a potentially dangerous animal is in a public space, the owner or the responsible person must keep the licence with them at all times, the Spanish certificate of registration of the animal in the municipal register. In addition, the animal must be muzzled and at all times leashed by means of a belt or chain of up to two meters. A person may not have more than one dog in a public space.

Potentially dangerous animals are kept in a separate open space (terrace, private area, patio, garden, etc.) and must be leashed, unless they are located in a well-secured hutch or pen. The owner is obliged to report the theft or loss of a potentially dangerous animal within 48 hours to the municipal registrar.

10.1.9 United States

At the federal level, there is no breed specific legislation. Such legislation exists in a large number at the level of the Laender (counties), cities and municipalities. State legislation exists in some states. In some states existing legislation was withdrawn and in the Ohio State such legislation has been found "contrary to the Constitution". The Supreme Court of Ohio must still judge. Breed specific legislation at the local level, ranges from a complete ban on the keeping of the specific type of dog, to not keeping specific types of dogs in the community, to having proof of liability insurance. In general, the legislation aims to discourage, restrict or prohibit the keeping of these animals. Usually owners may give their animal as a gift, but the buying and breeding of the dogs is banned. Types of dogs that are often the subject of such specific legislation are American Staffordshire bull terrier (and/or other pit bull-like varieties), Rottweiler, Chow Chow, German Shepherd and Dobermann.

Some states - California, Colorado, Florida, Illinois, Maine, Minnesota, New Jersey, New York, Oklahoma, Pennsylvania, Texas and Virginia - has laws prohibiting the breed specific legislation. 33 states and the District of Columbia have adopted legislation stating that dog owners shall be liable for death or injury caused by their

dog, with the exception of those cases where the person is found illegally on the dog's territory. Moreover, we see at the State and lower levels a tendency for government to enact legislation which does not address races, but the specific behavior of a dog and especially the owner of the dog. One of the main arguments used by opponents of breed-limiting legislation is the inadequate statistical basis on which such legislation is often based. The best available dog bite on figure are from the Centers for Disease Control and Prevention and are more than ten years old. It can be estimated that more than 4.7 million people per year in the U.S. are bitten by dogs. In 800,000 cases, medical treatment was sought, nearly half of those cases found that treatment unnecessary.

Annually about 20 people die as a result of an attack by a dog.

10.2 Countries without breed specific measures

There are a number of countries in Europe that do not have breed specific measures. In some cases scientific research has shown that no distinction based on race can be made when it comes to aggressiveness in dogs. These countries include Belgium, Finland, Italy, Latvia, Luxembourg, Austria, Portugal, Slovenia, Slovakia, the Czech Republic and Switzerland.

In Poland, there is a list of breeds that are described as aggressive, but it appears that in practice nothing is done. A Polish citizen should obtain consent from a town 'official' to buy a puppy in order to breed it.

For a number of countries the policy regarding aggressive animals is summarized below.

10.2.1 Belgium

In Belgium, there is no breed specific legislation, but policy is aimed at preventing dog bites. The Ministry received advice from a working group to and a policy to prevent dog bites was drafted. This prevention plan is fourfold:

1. Informing new dog owners through a free brochure at the time that the compulsory dog licence is obtained and the questionnaire for the purchase of a dog is completed;
2. Issuing mandatory rearing instructions to purchasers of a dog;
3. To create and maintain documentation of shelter dogs;
4. A ban on the sale of dogs and cats in shops in order to curb impulse purchases.

Dog bites are not registered. But since 1998 there has been a compulsory registration and identification of dogs, which is organised by the Belgian Association for Identification and Registration of Dogs. In 2006, a Bill discussed in the Belgian Senaat¹³ which is also suggested registering biting incidents in a database so that secondary prevention can be done. There would be hotlines for biting incidents. The bill came out of studies showing that breed specific laws are inaccurate solutions for these problems. It has deliberately chosen not to use breed specific measures:

"Mr Demotte, Minister of Social Affairs and Health notes that there is a problem with biting incidents and wants through an integrated approach, namely prevention, psychological assistance, regulating breeders, ... a solution. He claims not to have been in favour of drawing up lists of certain supposedly aggressive dogs. Indeed, dangerous dogs can not by their "education" so conditioned that they pose a danger to society or certain people. Furthermore, certain dangerous dogs [geherconditioneerd] so that they no longer pose a risk and their presence on any list is without purpose. "

"The minister welcomes the fact that the possibility of classifying dogs by race has been abandoned since by all respected veterinarians and specialists heard from it was seen as counterproductive. Moreover, this sort of list must constantly change, because the dangerous dogs are often linked to certain fad breeds, such as the Rottweiler today

or pit bull. "14

10.2.2 Switzerland

In Switzerland, submitted a bill which proposes tighter rules for keeping dogs. The reason for the Bill was the death of a six-year-old boy by a pit bull in 2005. The registration of biting incidents has been mandatory since May 2006. Doctors should report to the cantonal Veterinary unit. Veterinarians, dog trainers, kennels and other relevant persons must report aggressive dogs in the canton, so the measures taken after a bite can be reviewed.

¹³ Belgian Senate Commerce, Thursday 14 december 2006 Namiddagvergadering

¹⁴ Belgian Senate, 2006-2007 Session, 6 december 2006 3-697/7

Specifically, the bill mandates the following:

All dogs in Switzerland (about 500,000) will be divided into three categories:

1. Not very dangerous
2. Possible hazardous
3. Dangerous

The bill gives a list of criteria: including the length and weight of the adult animal, but also the race. The final criteria for any dog in any category will be by decision.

The veterinarian is responsible for the classification of dogs into various categories.

This will happen at the time the dog has the mandatory microchip implanted for identification. Depending of the category, certain measures are required. The bill seeks a ban on the breeding, and preventing importation of dogs from the category of 'dangerous dogs'. Deliberate violation of this prohibition means imprisonment may be imposed of up to three years.

For dogs in the category 'possibly hazardous' [in the future licensing]. The owner will be able to demonstrate that he has sufficient dog knowledge, that he can afford to keep the dog and has good accommodation available to protect the public.

Furthermore the bill regulates that when a "not very dangerous or potentially dangerous dog" causes a bite incident, shows excessive aggression or for other reasons the veterinarian believes that the owner does not have his dog under control, an individual study can be done. If the dog fails in this investigation, it will be declared a 'dangerous dog' and be taken into custody or slain.

The bill further states that all dogs in Switzerland in the future must be leashed in public spaces and in densely built-up areas (urban areas). Violations are punishable. Furthermore, the bill included that the Bundesrat [government] may in future determine that dogs of a certain race may be bred only in accredited kennels. In addition, the Bundesrat also makes taking a course on the socialization of dogs compulsory for dog owners.

Only the "Schweizerischer Volkspartei" [Swiss People's Party] is against the bill because the scheme would be far-reaching. The party is also determined to put the bill through a referendum to the people for consideration.

11 Conclusions

The Minister of Agriculture, Nature and Food Quality (Agriculture) on October 17, 2007 set a Committee of Wise Men with the task of assessing the Aggressive Animals Order (RAD) to evaluate it and give an opinion on any alternatives. The Animal Sciences Group of Wageningen University and Research was commissioned by the Committee for this additional study. In this Chapter are the conclusions point by point. Discussion of the conclusions is found here with scientific scrutiny of results from the international literature, in the light of the mandate by the Commission.

Fatal dog bites

1. In the Netherlands on average about one person per year dies as a result of dog bites.

2. A third of the deaths are incidents involving the victim being bitten to death, with the remaining death victims most likely due to an infection from the bite.
3. Biting incidents where victims bitten to death are young children almost always occur in or around their own homes, attacked by their own dog.
4. Compared with other causes of non-natural deaths such as sports, games and DIY, biting incidents with dogs are similar in incidence to that of persons affected by deadly lightning.
5. The introduction of the RAD in 1993 has not led to a change in the annual number of deaths by dog bites. Since 1993, there has not been a case where a dog of the type of a pit bull terrier has caused a fatal bite incident. Whether this is the result of the extinction of this type of dog addressed by government or is due to an increased social awareness of the risks with these type dogs relies on coincidence and cannot be established with certainty.

Non-fatal dog bites

6. Per 10,000 inhabitants in the Netherlands each year 93 people are bitten by a dog. Approximately 31 of them will seek medical treatment, the other 62 deal with the wound itself or have no treatment needed.
7. Of the 31 people who annually per 10,000 inhabitants seek medical treatment, 4 of them receive treatment at the department Urgent Aid [Emergency Room] or outpatient clinic of the hospital and 0.15 of them are admitted to the hospital. The remaining 27 people visit the family doctor.
8. The annual number of hospital admissions after a dog bite is six times lower than those as a result of working around the house and forty-eight times lower than those as a result of sports injuries.

Circumstances, personal injury and breed typen

9. In the Netherlands, an estimated 1.9 million dogs are kept, with slightly less than

half having a pedigree on file with the Board of Governors on Kynologische Area [the Kennel Club].

10. As for the nine breeds indicated by the Commission of Experts, according to the Board of Governors on Kynologische Area, with the exception of the Bull terrier, the number of registrations for the American Staffordshire Terrier, the Bullmastiff, the Dogo Argentino, the Fila Brasileiro, the Mastiff, the Spanish Mastiff, the Neapolitan Mastiff and the Tosa Inu fell between 1993 and 2006.

11. Research into dog bites and dog population with a confidence level of 95% or more found that the breed types Rottweiler dogs, Dalmatian dog, Dobermann, German Shepherd, Belgian Shepherd, Bouvier, Jack Russell terrier, Airedale terrier, Weimaraner, Bull terrier, Leonberger, Border terrier are more likely to bite than those whose breed type may be expected to bite.

12. Research into dog bites and dog population with a confidence level of 95% or more determined that the dogs of breed typen Golden retriever, Labrador retriever, Maltese, Cavalier king Charles Spaniel, French bulldog, Boxer, Collie, Miniature Schnauzer, Shetland sheepdog, Swiss white sheepdog and the Siberian husky are less likely to bite than those based on an equal risk whose breed type may be expected to bite.

13. Biting incidents found mainly on private property, where the victims are unknown to the dogs as a rule and the victims are bitten without warning.

14. In more than half of the cases the victim was dealing provocatively with the dog and was in 85% of the cases in the arms, hands, legs or feet bitten. Children are bitten relatively frequently in the head, adults often have more serious injuries.

15. One in three victims has no damage other than to the clothes. One in three victims sought medical help after the bite incident. One in five victims is seriously injured because of a bite. Half of the victims claiming to be seriously injured have gone to the family doctor.

Dogs of the type pit bull terrier

16. The prohibited dogs of the type pit bull terrier in the Netherlands are mainly found

in large cities in districts with many problems and owners who, for various reasons have earlier been in contact with justice.

Details biting incidents police

17. Dogs of the type pit bull terrier in the biting incidents listed in police records are clearly overrepresented. It cannot however be ruled out that file a charge as they thought a dog of the prohibited type attacked. It should also take into account that there is a greater chance that owners of dogs of the type pit bull terrier fail to curtail the aggressiveness of their animal and the animal may be deliberately trained to show innate aggressiveness. In that sense, the Bite Index be regarded as a risk of a bite incident for the combination of dog and owner that manifests in the behaviour of the dog.

18. Based on the police records with a confidence level of 95% or more we found that dogs of the breed type pit bull terrier, American Staffordshire terrier, Rottweiler, Belgian Shepherd, Bouvier, American bulldog, Dogue de Bordeaux, Dobermann and Swiss White shepherd appear more often in police records for biting incidents than would be expected the basis of their estimated numbers.

19. In the biting incidents, dogs of the type pit bull terrier were found to cause no more serious injuries to victims than other breed types.

Seizures of dogs of the type pit bull terrier

20. In the period from 2000 to 2007 in the Netherlands 1,937 dogs of the alleged pit bull terrier type were confiscated . The annual number of seized dogs of the type pit bull terrier from 2000 shows a strong increase, not only in the Office of the Public Prosecutor, Rotterdam but also nationwide.

21. From the number of seized dogs of the type pit bull terrier 82% were euthanized, 13% were returned to the owner. The rest were sold, donated or rehomed. In 61 cases final destination is unknown.

Legislation in other countries

22. In countries with breed specific laws there are generally rules for keeping dangerous dogs. For example, that owners and/or handlers must be at least 18 years of age, must have an owner's permit and should provide adequate liability insurance to compensate for bite damage. It is also sometimes called a proof of expertise and a proof of good behavior. In countries with breed specific legislation it always covers several varieties/types of dogs.

23. Countries without breed specific measures focus on prevention through awareness of dog bites issuing mandatory rearing instructions for new dog owners and by countering impulse purchases.

Attachments

Appendix 1. Loyal participation is provided by:

Clients:

Committee of Wise Men: Freek van Sluijs, Paul Frissen, Arie Havelaar

Ministry of Agriculture: Leane of Weereld

Meegewerkt to onderzoeksuitvoering:

Blueviewteam: Nicky Kruizinga, Paula van der Reijden, Rita Hoving-Bolink,
Marije

Nieuwenhuizen and Evelien de Groot

LNV-Service Arrangements: Johan Vos, Oda Kruijff and Gert Jan van Dalen

Public Ministry: Carel Coenen, Sander Jobse and Yvonne Donohoe

Police in Buenos Aires: Cees Punter, Daan van der Schaaf, Ria of the Wagt
and Krista

van Andel

Police Zeeland: Harry van Gellecum

Police: Bert Hanning and Ad Koppenol

TNS NIPO: Carolien Hendrix, Diane Bulsink and Maroesjka Brouwer

Wageningen University & Research Center: Reinten-Jan Renes, Hilde Tobi,
Fred van Welie, Bas Engel, William

Buist and Sierk Spoelstra

Data provided and / or along:

Central Bureau of Statistics: Cor Kooijman and Jan Kardaun

Faculty of Veterinary Medicine: Matthijs Painter

Photography: Alice van Kempen

County Assen: mr. Lucink

Municipality Groningen: Petra Maaskant, Susanne Fokkema and Jan Four

Ministry of Justice: Willemijn van Kouwen

NIVEL: Robert Verheij

Police Brabant South-East: Huub Stiekema

Police Canberra: Han de Boer

Police South-South Holland: Ed van Wieringen

Board of Governors on Kynologische Area: Paul Peeters

University of Groningen: Charles Vlek

Dutch Consumer Safety: Coby Draisma

Wageningen University & Research Center: Joanne van der Borg

NOTE FROM SELMA: THE FOLLOWING RULES AND REGULATIONS WERE NOT
REWORDED FROM THE MACHINE TRANSLATION. I WILL WORK ON THAT NEXT.

Appendix 2. Wetteksten

Health and welzijnswet for Animals, Article 73

1. It is prohibited animals belonging to designated by the Minister types or categories of animal breeding, The Netherlands, offer for sale or sell.
2. It is prohibited animals belonging to the first member appointed by the types or categories of animals needs to have.

3. Under the first paragraph shall only designated types or categories, of which the animals can be a hazard compromise the safety of humans or animals.

Health and welzijnswet for Animals, Article 74

1. The mayor of the municipality where an animal that contrary to the provisions of Article 73 is bred or available will be held, is located, may determine that that animal to a further designated by him must be transported and there must be slain.

2. The mayor made a measure referred to in the first paragraph, insofar as it concerns the killing of the animal, not if implemented within six weeks after the corresponding decision by the keeper of the animal was not disclosed, the owner an application referred to in article 8:81 of the General Administrative Law Act and has submitted to that request is certainly not negative.

General Administrative Law Act, 5:21

The actual act by or by reason of an administrative action against which conflicts with, by or under any legal requirement prescribed obligations or be made, kept or failed

General Administrative Law Act, 5:22

The power to apply administrative exists only if they are in or under the law.

General Administrative Law Act, 5:24

1. A decision to apply administrative shall be in writing. The written decision is a Decision.

2. The decision indicates the requirement has been or is being violated.

3. The announcement made by the offender, to the persons entitled to the use of the case regarding administrative which will be applied and to the applicant.

4. The decision is a time limit within which stakeholders can prevent the implementation by own arrangements. The board defines the measures to be taken.

5. No time limit required to be awarded if the urgency does not allow this.
6. If the situation is so urgent that the board's decision not to apply administrative advance in writing to meet, it still makes as soon as possible for the opschriftstelling and for the publication.

General Administrative Law Act, 8:81

1. If against a decision by the court actions brought or, prior to a possible appeal to the court, has raised any objection or administrative appeal is made, the President ruled on the court competence or may be in the main, to request a preliminary injunction if the immediate urgency, given on the interests involved, so requires.
2. If the court appeal was lodged an application for interim injunction be made by a party in the case.
3. If prior to a possible appeal to the court complaint is made or administrative action is , an application for interim injunction be made by the proposer of the appeal, respectively by the proposer of the appeal or by the person who is not entitled to bring of administrative appeal.
4. Articles 6:4, third paragraph, 6:5, 6:6, 6:14, 6:15, 6:17 and 6:21 shall apply. The author of the petition which has raised an objection or appeal has, submit a copy of the bezwaarof appeal.
5. If an application for interim injunction was made after objection has been made or administrative action is and set in this objection or appeal is decided before the meeting took place, the plaintiff in the opportunity to appeal to the court in action. The application for interim injunction is equated with a request that is made pending the appeal to the court.

Municipalities Act, Article 172

1. The mayor is charged with maintaining public order.
2. The mayor has the power violations of laws relating to public order,

to prevent or terminate. He serves itself of the standing police under his authority.

3. The mayor has the power to disturbances of public order or serious fear of the emergence, the orders necessary to consider for the maintenance of public order.

Criminal Law, Article 425

With imprisonment not exceeding six months or a fine of the third category will be punished:

1. He who at an animal or a human aanhitst a standing animal under his care, when a man attacked, not terughoudt;

2. He who does not adequately ensure the safe keeping of a standing guard under his dangerous animal.

Appendix 3. Structure registration by health care institutions in the Netherlands

In this Appendix, the data on the number of medically treated biting incidents. About the number of treatments as a result of a dog bite by Central Huisartsenposten (CH) was no information available.

Medical assistance provided by general practitioners: LINH

The Dutch Institute for Research on the health and the NIVEL¹⁵ WOK Centre for Quality of Care Research¹⁶ manage the National Information Network Huisartsenzorg (LINH). In the LINH since 2001 information about the care delivered by Dutch general practitioners generated. When LINH are a large number of automated general practice. The participating GPs only differences of the Dutch huisartsenpopulatie when it comes to the larger number of general practitioners in a group practice or health centre. The nationwide distribution is representative, but there is a small difference in the number of GPs working in (very) urban areas. The number of patients enrolled through the connected general practice is representative of the Dutch population in

terms of age and geslacht17.

If a patient comes to his general practitioner with an injury from a dog bite then this is indicated in GPs Information System on the basis of the International Classification of Primary Care (ICPC) encryption. One bite by a dog falls under the ICPC code S13. This code covers all cases where there is a human bite or animals. Enquiries made the NIVEL teaches us that can be expected that most of these cases dog-bites-man cases. We assume that all cases with code S13 a case involving a man by a dog bitten.

The figures of the NIVEL concern a corrected absolute number of patients enrolled for the relevant subgroup [Npat_corr], incidence [Ninc], prevalence [Nprev], incidence per 10,000 registered patients [Finc] and prevalence per 10,000 registered patients [Fprev]. The latter two is Npat_corr used as denominators. For dog bites is only the incidence of interest, because it reflects the number of new cases. It makes LINH discrimination as to sex and age. With the Finc insight can be obtained in the difference between a biting incidents groups. The LINH gives no estimate of the total rural incidence. This can be calculated according to following method (Snedecor & Cochran, 1967). Given the large number of patients it can be assumed that the group estimated the variance and a normal distribution. It may be assumed that the total number patients in the Netherlands is equal to the number of inhabitants, Because every Dutchman with a general practitioner is registered.

Measured group = $p = Ninc / Npat_corr$

Standard deviation = $\sqrt{p * (1-p) / Npat_corr}$

Estimated nationwide incidence (95% confidence interval) = $P (95\%) = p \pm 1.96 SD$

Besides registration in the LINH is there for a number of years also registered for dog bites in the Continue Registration morbidity (CMR), also of the NIVEL. The CMR measuring constitute a representative group of GPs. Their patient population covers approximately 1% of the Dutch population and is distributed by region and on city and

countryside. It is reported on the occurrence of some diseases, events and operations, which often lack in routine registrations or therein not easy to reproduce. For the years 1998 and 1999 are dog bites in CMR. The registration of the CMR measuring the incidence follows and the number of registered patients. Calculations can be carried out in the same manner as in the processing of the data from LINH.

Medical assistance provided by Urgent Aid: PORS and LIS

In the Injury Information System (LIS) of Consumer and Veiligheid¹⁸ are people who registered on a emergency aid (SEH) department of a selection of hospitals in the Netherlands have been treated. LIS provides since 1997 epidemiological basic information (size, severity, cost and occurrence of accidents) on private accidents, traffic accidents, sports, industrial accidents, violence and self-harm. Between 1983 and 1996 was the Private Accidents Registration System (PORS) of SLC in use, they were only private accidents recorded. In LIS dog bites be recorded separately. In PORS had dog bites. However, no separate encryption. To do this to isolate cases been found at 'contact with dogs', in the circumstances the word 'bite' or 'bitten'. Of these

15 <http://www.nivel.nl>

16 <http://wokresearch.nl>

17 <http://www.linh.nl>

18 <http://www.veiligheid.nl>

people on the SEH department treated as a result of a dog bite is only the age and sex known.

The hospitals that are connected to the LIS constitute a representative sample of hospitals in Netherlands with a continuously occupied SEH department. This makes an estimate of figures at national level. Because of the reliability of the registry will be made with averages over periods of five years and are the numbers. The finish has resulted in a table that the sum of individual numbers may differ from the total listed

in the Table. SLC delivers only five years and stressed that not playing with the numbers can be calculated.

There is a trend over the period 1997 to 2006 carried out by SLC. The method is by Consumer Security developed. In this method, using multiple regression on maandaantallen a model that gefit consists of one or more tied to each other straight segments, each one covering five years. The trend over the last five years is expressed as a percentage. In order trends over a longer period than five years again give indices are used by five years. The trend is adjusted for changes in demographic and, where necessary, to seasonal and weather (Consumer Safety, personal communications).

Medical care provided by hospitals: LMR

The Rural Medical Registration (LMR) Prismant¹⁹ is a continuous registration based on the ICD-coding, patients who are clinically or in dagverpleging being included in a hospital in the Netherlands. Through all the LMR hospitalisation recorded in almost all hospitals in the Netherlands. Consumer Safety manages the Data from LMR. Here is the rounded averages about five years that no further referenced can be.

¹⁹ <http://www.prismant.nl>

Appendix 4. Comparison non-natural causes of death death

Fatal biting incidents be registered in the Doodsoorzakenstatistiek of the Central Bureau of Statistics (CBS). The CBS obtains the information through a legally required notification. This completes the treatment or mortem doctors (usually a doctor of the Municipal Health Service) and a death certificate one death and sending them to the official of the Civil Status of the municipality. The the first statement is only prepared for the statistics and then to the CBS. In the death certificate the name of the deceased is not indicated, only his sex and age at the time of death. Since 1996, the

Death Statistics have been supplemented with data from the statistics Non-natural Dead (NND).

The causes of death are indicated according to codes of the International Statistical Classification of Diseases and Related Health Problems (ICD) of the World Health Organization. It allows only one disease or event as primary cause of death be identified, namely the disease or the event that the chain of events that led to the death, began. When an external cause of death (non-natural death) is almost always the event as a primary cause of death, and the resulting injuries as a secondary cause of death. When one person dies of an infection arising from a dog bite, the distinction between primary and secondary causes of death difficult, and is not sure dog bite as a primary cause of death is. The CBS publishes exclusively on primary causes of death. There are from 1996 two things changed in this method of data collection. First, there is a new version of the Classification of Diseases. ICD-10 for the older ICD-9, making the codes have changed.

For the causes of death in this reporting inventory will not change with it Attacked, the content of the codes has remained the same. Secondly, in 1996 launched a new statistic, which of the non-natural death. It is more closely related to the Death Statistics, but differs in a number of respects. The Statistics NND contains information from all deceased by a non-natural deaths in Netherlands were living, including residents of the Netherlands abroad by a non-natural death death. Through various methods of registration and differences in the definitions there are small differences between the numbers Statistics deceased registered in the NND and the Doodsoorzakenstatistiek. The statistics NND can be seen as a Completion. If the additional information sources better than the doodsoorzakenopgave, the data of the doodsoorzakenopgave implied improved. It is not excluded that promote a single case of dog bites after 1996 have been registered, that only on the basis of the causes of death would have been missed assignments. It is not to verify whether this

actually the case.

Definitions of the ICD codes: [ICD9 code / code ICD10]

E906.0 / W54: Attacked or bitten by a dog. You can also prevent cases where there is no one bite, but an accidental fall after a storming of a dog.

E907 / X33: Victim of lightning. These are people who are affected by a lightning.

Persons who deceased as a result of fires caused by lightning or hit by lightning by a fallen tree, be classified as victims of fire or falling objects. There is no longer see a lightning played a role.

Table I: Number of deaths from various causes or under different circumstances.

(CBS, doodsoorzakenstatistiek statistics and non-natural death)

Tabel I: Aantal sterfgevallen als gevolg van verschillende oorzaken of onder verschillende omstandigheden. (CBS, doodsoorzakenstatistiek en statistiek niet-natuurlijke dood)

Jaar	Primaire doodsoorzaak niet-natuurlijke dood				Niet-natuurlijke dood, activiteit ⁵			
	Totaal ¹	Totaal ongevallen	Hond ²	Bliksem ³	Vuurwerk ⁴	Spelen	Doe-het-zelven	Sporten
1982	5936	4146	1	1	1	..	..	..
1983	6072	4044	0	1	0	..	..	..
1984	6021	3959	0	3	0	..	..	..
1985	5567	3670	0	1	0	..	..	..
1986	5597	3720	2	0	0	..	..	..
1987	5454	3586	1	0	0	..	..	..
1988	5217	3455	1	1	0	..	..	..
1989	5628	3835	2	1	0	..	..	..
1990	5305	3615	2	1	0	..	..	..
1991	5445	3573	2	1	2	..	..	..
1992	5424	3572	1	0	1	..	..	..
1993	5220	3375	0	1	0	..	..	..
1994	5277	3430	0	3	2	..	..	..
1995	5173	3385	2	0	0	..	..	..
1996	5309	3372	1	0	6	34	22	16
1997	5148	3237	2	2	3	46	19	13
1998	4914	3059	2	0	0	33	22	10
1999	5189	3336	2	1	0	37	17	13
2000	5169	3345	0	0	23	36	16	5
2001	5444	3630	1	2	1	35	20	8
2002	5318	3364	1	1	0	38	20	21
2003	5404	3496	1	0	3	27	19	11
2004	5226	3228	2	1	0	33	24	10
2005	5343	3280	1	2	1	31	34	8
2006	5354	3289	2	2	1	23	45	6

¹: Totaal niet-natuurlijk; ²: totaal gebeten of aangevallen door hond; ³: Slachtoffer van bliksem; ⁴: Slachtoffer van het afgaan van vuurwerk; ⁵: Niet-natuurlijk dood op basis van de activiteit ten tijde van overlijden (voor de jaren 1982 t/m 1995 is dit onbekend)

Primary cause of death non-natural death Non-natural death, activiteit5

Year Totaal1

Total

Accidents

Dog²

Lightning³

Fireworks⁴

Play

Do-it-yourself

Sports

1: Total non-natural; 2: Total bitten or attacked by dogs; 3: Victim of lightning; 4:

Victim of the use of fireworks; 5: Non-natural death on the basis of the activity at the time of death (for the years 1982 through 1995 is unknown)