



IZS ABRUZZO E MOLISE



Collaborating Centre  
*for Veterinary Training, Epidemiology,  
Food Safety and Animal Welfare*

## **Stray dogs a societal issue**

**Tirana, 14-16 June 2016**

**Paolo Dalla Villa**

**Head of Human-Animal Relationship and Animal Welfare Laboratory**





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# About us

- We are a scientific body, **founded in 1941**, belonging to the National Public Health Service. We support the Italian Ministry of Health and the Abruzzo and Molise Regions.
- Our mission is:  
**“to ensure human health, providing appropriate response to public health needs, through scientific knowledge and expertise on food safety, animal health and welfare, control and prevention of transmittable animal diseases, including zoonoses, and support to food production”**





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# We are here






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# Fields of activities




Animal Health and  
Welfare



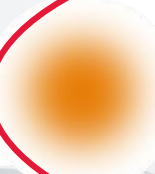
Food safety



Health and  
environment



Epidemiology  
& risk analysis



Information systems  
and animal I&R



Knowledge  
management

A collection of silhouettes of various farm animals including a pig, a cow, a chicken, a dog, and a horse, with a bird flying above them.

# Animals in our society (WHO, 1981)



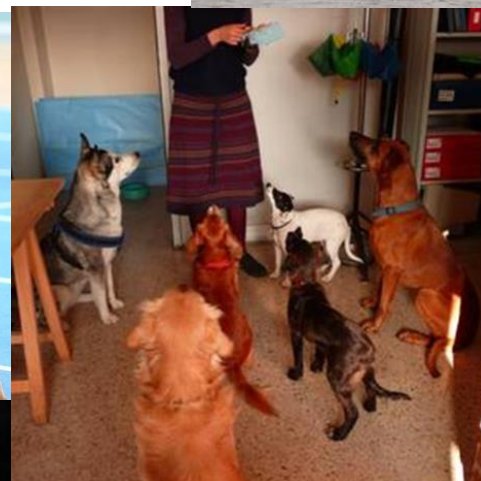
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## Companion animals

- ✓ Synanthropic animals (foxes, wild boars)
- ✓ Working animals
- ✓ Farm animals
- ✓ Wild animals
- ✓ Lab animals





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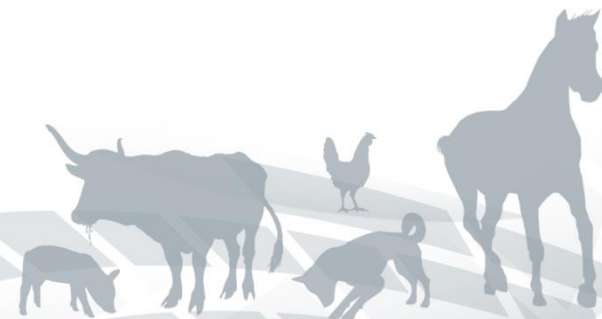
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# Companion animals

“any domesticated, domestic-bred or wild-caught animal, **permanently living in a community and kept by people** for company, enjoyment, work (e.g. support for blind or deaf people, police or military dogs) or psychological support – including, but not limited to dogs, cats, horses, rabbits, ferrets, guinea pigs, reptiles, birds and ornamental fish”

CALLISTO ([www.calisto project.eu](http://www.calisto.project.eu))





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# European Convention for the Protection of Pet Animals

Council of Europe, Strasbourg - 13.XI.1987

- Pets have a **special relationship with man**
- Pets **contribute to human QOL** and therefore they are of **value to the community**
- **Pet overpopulation** must be considered a risk for hygiene, health and human and animal safety reasons
- A **positive attitude towards animals**, which results in responsible pet ownership, must be promoted





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# **HUMAN HEALTH**

“state of complete physical, social and mental well-being, and **not merely the absence of disease or infirmity**” (*WHO - New York, 1948*)

«pet animals **contribute to the mental and social welfare of the people** with whom they live”

*(WHO health principles for pets, 1970)*

**Veterinary Public Health** -> “the application of professional veterinary skills, knowledge and resources to the **protection and improvement of human health**” (*WHO, 1974*)







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# Health Benefits of Pets to people

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- People who own pets typically live longer and use less medication;
- Pet owners, on average, have lower blood pressure;
- Pet owners have lower cholesterol levels;
- Pet owners have lower rates of heart disease;
- Elderly people with a pet have a higher quality of life and report feeling lonely.

In 2003, a longitudinal (multi-year) study showed that the annual **national health cost saving** resulting from pet owners visiting the doctor less often was estimated to be **€ 5.59 billions for Germany** and **\$3.86 billion** for Australia





ISTITUTO G. CAPORALE  
TERAMO

# Indeed companion animals...



## ...are "public health" operators!!!

## HEALTH Get a long life

Jeremy Acheson / iPhoto

*Living to a ripe old age is not just a question of luck. Here are 10 tested ways to extend your life. By MARY COOMBER*

**I**f you're too lazy to change bad habits and you can't afford to wait for the invention of a life-extending drug, the good news is there are a few tricks you can make 1997 the year you decide longer. Here are some of the wonderful and scientific theories on things that add years to your life.

### Drink tea

Scientists have discovered the humble cuppa is a powerhouse of antioxidants — chemicals that protect your body from disease and the ravages of ageing. Japanese research reveals that men who drink the most



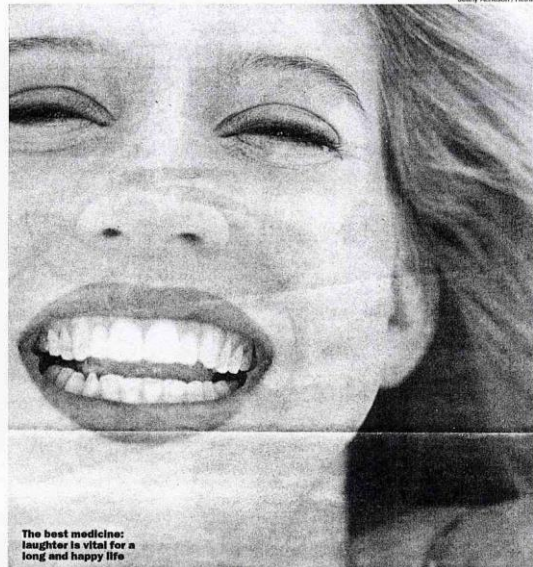
green tea live longer and are less likely to suffer lung cancer or strokes, and Norwegian scientists have found that cholesterol levels and blood pressure fall as people drink more tea. Green tea, black tea, decaffeinated, loose or bagged (not herbal) — they all do the trick. For optimum anti-ageing benefits, drink three to five cups a day, brewed for at least three minutes.

### Have faith

Praying for a long life could work miracles. Church-goers have a lower mortality rate — 50% fewer deaths from heart attack, lower blood pressure and half as many suicides as non-attendees — claims the National Institute for Health Research in America. Some scientists think it is the comfort, hope and social support that helps, but David Weeks, a clinical psychologist at the Royal Edinburgh hospital, believes it is spirituality that counts. "Any form of faith, be it mysticism or witchcraft, is life strengthening," he says.

### Sleep more

A daily "power nap" can boost your life span as well as your performance, say scientists. One Greek study found that men who took daily naps suffered fewer heart problems. Research in Britain shows that people with chronic sleep problems have a higher mortality rate, while



**The best medicine: laughter is vital for a long and happy life**

those sleeping at least six-and-a-half to eight-and-a-half hours a night suffer fewer illnesses.

### Take cold baths

Brace yourself: a daily cold dip may be the secret to a long, healthy life, say naturopaths. Research at the Brompton hospital in London found progressively cold baths improve cardiovascular function, boost immunity and fertility and reduce the risk of heart attack. In Germany, people who took daily tepid-to-cold showers over six months suffered half the number of colds as those taking warm ones. "Lowering your core-body temperature enhances growth-hormone production and extends your life," says Leon Chaitow, author of *Water Therapy* (Thorsons £5.99). He claims you come to love an invigorating two-to-three-minute cold blast after a warm shower.

### Drink red wine

A couple of drinks a day could protect you from early death — if you're a middle-aged man or a post-menopausal woman. A recent scientific review in the *British Medical Journal* confirms that *all* alcohol helps to regulate cholesterol, prevent blood clots and cut the risk

of heart-disease by a third. Red wine is probably most protective because it is rich in antioxidants. Drink it at meals to counteract the effects of cholesterol-laden food. (Tetotalers: red grape juice has similar effects.) But stray above three units (three glasses of wine, three shots of spirit or one-and-a-half pints) a day, warns the Health Education Authority (HEA), and you risk early ageing problems such as cirrhosis, high blood pressure and stroke.

### Get a pet

Pet owners win prizes for longevity. Research at Cambridge University shows that families who buy a



PK

dog or cat are less stressed and visit their GP less often than non-owners. Australian health checks on 5,000 people found those with the lowest cholesterol and blood pressure owned pets. "Pets offer social support: they make you feel happy and relaxed, which should mean you live longer," says Dr Anthony Podbersek of the Companion Animal Behaviour Unit at Cambridge University. Dogs give the best results (you also get the healthy exercise), but if that's too much bother, try a goldfish — just watching it swim lowers your blood pressure.

### Get married

Married people are less likely to die than singles, reports the American Journal of Sociology. Hundreds of studies show that those married or in committed relationships are healthier and happier — but men benefit most. "Men do better out of marriage because women tend to take on more domestic responsibilities as well as a job," says Relate's spokeswoman, Julia Cole. "Single men are less likely to have someone to care for them and more likely to live unhealthily." A happy sex life keeps you young, too. Weeks's research at Edinburgh University found that

"superyoung" people have sex more than twice a week. He claims it's the physical exercise, plus the "happy" hormones orgasm releases, that help. Cole recommends an open, flexible, "listening" partnership with a sexual relationship that suits you. And beware: divorced people have the highest chance of contracting disease and dying from it.

### Eat less

Calorie restriction may slow down ageing. Biologists have extended animals' lives up to 50% by halving their diet. Now they think a severely restricted human diet could prevent age-related disease and increase the maximum life span to 150 years.



Unofficial, short-term human studies show promising results. Blood pressure falls and resistance to disease rises. On the island of Okinawa, where people eat 20% less than other Japanese, death rates from age-related illnesses are 60% lower. But scientists warn against trying serious calorie restriction; we do not know the long-term effects and it could lead to malnutrition.

### Laugh more

"Laughter keeps you young and lifts the spirits," says Robert Holden, a psychotherapist. No studies prove laughter lives longer, but they do show that happier people heal better. And having a laugh is a good place to start: it exercises the body, relaxes muscle tension, improves circulation, reduces high blood pressure and boosts immunity. "We don't stop playing because we get old, we get old because we stop playing," says Holden. "Stop saying: 'I'll be happy when...' Enjoy the moment, instead."

### Skip

Women who jump on the spot 50 times a day could live longer. Research at Nottingham university found it significantly increases bone density in the hips, which helps prevent the bone-crushing disease, osteoporosis — the cause of 40 premature deaths a day. Skipping should do the trick, too. Exercise physiologists say it's great for children, many of whom are not doing enough exercise to build strong bones and prevent future chronic disease. You do not have to go to the gym to reap the life-extending benefits of exercise. Scientists agree that just 30 minutes of moderate activity (walking to work, cycling, dancing), five days a week, can increase your life expectancy.





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# But unfortunately.....

*“the average time spent choosing a pet was often less than the time spent thinking about buying Christmas presents or a TV, and staggeringly, behind choosing a holiday”*

- 42% of pet owners would consider **buying a pet from the internet**;
- 23% did no research at all before taking on their pet.

<https://www.pdsa.org.uk/pet-health-advice/pdsa-animal-wellbeing-report>





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# Today, more than hundred million dogs and cats live in the EU

- In 2012 it was estimated the presence of **48.7 million dogs** and **66.5 million cats** in the European Union.
- Currently, almost **25% of European households own a dog** and **24% own a cat**.
- These percentages ranges from **11% for Switzerland to 44% in Hungary** for pet dogs and from 9% in Slovakia to 42% in Latvia and Romania for pet cats.





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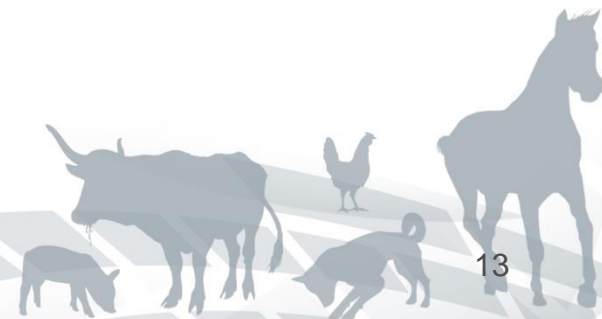
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The companion animal sector is becoming **increasingly economically important** within the EU.

- In 2006, the **total turnover** generated by the sector in **France** (care, food and equipment) amounted to **around 4 billion euros**.





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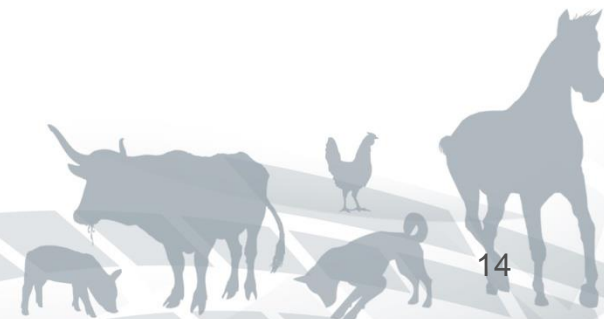
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In 2011, companion animals (mainly dogs & cats) made up **40% of the EU veterinary medicine market**, for a total value of **1.6 billion euros**.

- Throughout Europe, an estimated **550.000 direct and indirect jobs** were generated in 2010 by pet ownership, such as **veterinarians or breeders or connected supply industries**.





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# The international adoptions of stray dogs



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## International adoptions (2013-2014)



Since 2005:  
4754 dogs rehomed  
internationally



# Different areas = different types of interactions (WHO; 1981)

- Urban environment
- Suburban environment
- Semi-urban environment
- Rural environment







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The estimated **worldwide dog population is of 500-700 million** distributed unevenly throughout the human population

- **Ratios of dogs to humans can vary** from a reported 1:1.1 in the Philippines to 1:45 in Zambia

**For most populations  
the ratio is between  
1:3 and 1:10**





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## A very variable type of interaction.....

- Sri Lanka, 66% of owned dogs is allowed to roam freely, in Mexico is 68% and in Boliva is 85%
- Whereas in Western Europe or North America **confinement and leashing when outside private property** is the norm and often required by law





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The McGraw-Hill Companies

# BusinessWeek

AUGUST 6, 2007

www.businessweek.com

## THE PET ECONOMY

Americans now spend  
**\$41 BILLION** on their  
pets. And a lot of humans  
are getting rich. (PAGE 41)

BY DIA'NE BRADY  
& CHRISTOPHER PALMER

**SUBPRIME WOES:**  
Who's to Blame?

**BARTIROMO:**  
Redstone Talks

BEST GLOBAL BRANDS



On ne viendra plus  
en Tunisie

Si vous n'arrêtez pas  
de tuer les chiens  
enfants en Tunisie

In Tunisia, the percentage of dogs that were found to be truly ownerless was normally between 7.0% and 8.3% (Wandeler *et al.*, 1993)



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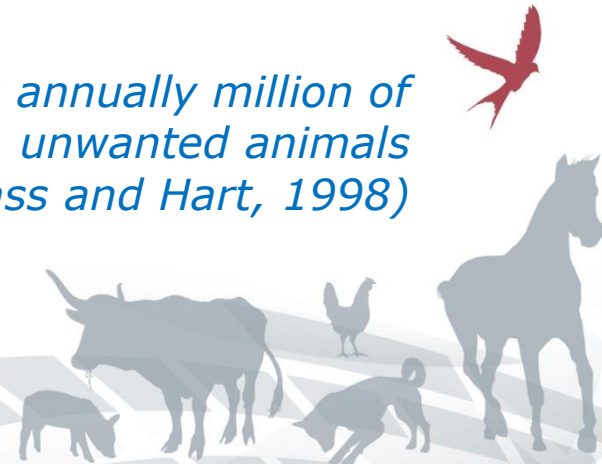
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*"Geography, climate, availability of vital resources and **human attitudes towards dogs dictate local abundance**"  
(Wandeler et al., 1993)*

*"Attitudes towards dogs and reasons for keeping them vary according to the **culture, status, social interests, religious belief and economic activities** of the people"*

*"Other factors as **economic impoverishment, war or civil conflicts, migration and urban decay** often results in the presence of high number of poorly supervised animals, commonly defined as stray dogs"  
(Matter and. Daniels, Dog zoonosis and public health)*

*The **breakdown of dog-owner bond** produces annually million of unwanted animals  
(Kass and Hart, 1998)*





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## ....and a very variable public perception of the problem

**DOXA survey** on a randomly  
selected sample of 2.903  
adults homogenously  
distributed in Italian towns  
with less than 30.000  
inhabitants - 2000

**IZS A&M survey** on a  
randomly selected sample of  
397 households in 47  
municipalities (coastal, central  
hill, mountain regions) of the  
Teramo Province (total  
population = 292.102) - 2004



Available online at [www.sciencedirect.com](http://www.sciencedirect.com)



Preventive Veterinary Medicine 84 (2008) 27–47

**PREVENTIVE  
VETERINARY  
MEDICINE**

[www.elsevier.com/locate/prevetmed](http://www.elsevier.com/locate/prevetmed)

### Free-roaming dogs and cats in central Italy: Public perceptions of the problem

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Received 28 October 2005; received in revised form 4 September 2007; accepted 19 October 2007

#### Abstract

A cross-sectional telephone survey of randomly selected households examined the extent and types of problems associated with free-roaming dogs and cats in the Teramo province of Italy. The households were sampled randomly within each municipality; municipalities were combined into coastal, central hills and mountain regions for analysis. The survey was conducted in May and June of 2004 with a response rate of 74% (397/536). Ninety percent of respondents ( $N = 356$ ) believed that free-roaming dogs and cats were a problem. They were most commonly concerned about personal safety, followed by animal welfare, public health and environmental sanitation. Sixty-nine percent of respondents (274) actually saw free-roaming dogs or cats where they live. While dogs were most commonly seen, cats were seen in greater numbers. Overall, 10% (39/297) and 5% (21/397) of respondents cared for free-roaming cats and dogs, respectively. Two-thirds of the respondents (251/397) believed that animals were abandoned because the owners lost interest. About 2/3 of respondents (251/397) reported that the community government should have the responsibility for dealing with free-roaming dogs and cats. The respondents supported the idea of building more shelters and controlling the birth rate as control measures rather than euthanizing dogs and cats. The results suggest that free-roaming dogs and cats are a very common sight in this part of Italy with substantial concerns by the residents. However, concerns about the animals' welfare were clearly raised, supporting the laws that make it illegal to euthanize a healthy dog or cat in Italy. Using the information from this study, research on the underlying causes of abandonment of dogs and cats or failing to sterilize them should be undertaken to begin to address this problem. Further, national and regional funding must be provided to

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# Free roaming population

- **19,7%** of owned dogs are **left to roam free at least part of the time** (18,7% in the north regions, 25,7% in the south regions) (*DOXA survey*)
- **12,7%** of owned dogs are **left to roam free at least part of the time** (*IZSA&M survey*)





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- **63%** of inhabitants has seen at least one **free roaming dog in the past month**
- **51,1%** believes that free roaming dogs **are not a problem**
- **3,8%** believes in the reintroduction of **euthanasia as a control measure** (*DOXA survey*)

- **69,2%** of inhabitants has seen at least one **free roaming dog in the past month**
- **9,3%** believes that free roaming dogs **are not a problem**
- **0,3%** believes in the reintroduction of **euthanasia as a control measure** (*IZSA&M survey*)







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## I&R Rate

- **41,1%** of owned dogs **are registered** (owner declaration) (*DOXA survey*)
- **52 %** of owned dogs **are registered** (owner declaration) (*IZSA&M survey*)





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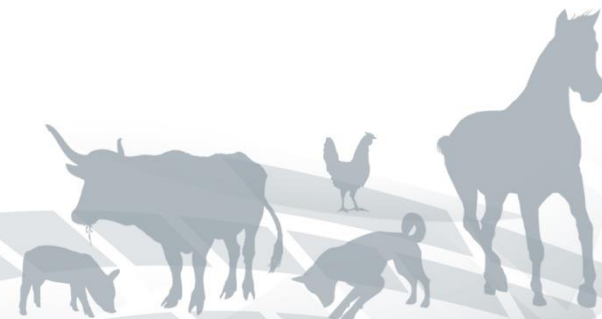
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# Reproduction Data

- Every year **13,2%** ( $\pm 3,4\%$ ) of female dogs are bred, (6% in the north-east, 26,4% in the south)
- every year **1,5 million** of puppies are born in Italian rural areas (*DOXA survey*)
- **60.4%** of the total number of owned dogs (62.1% male, 37.95 female, mean age 4.8 years) have been bred at least once in life
- **47.8% of cases were accidentally** (*IZSA&M survey*)



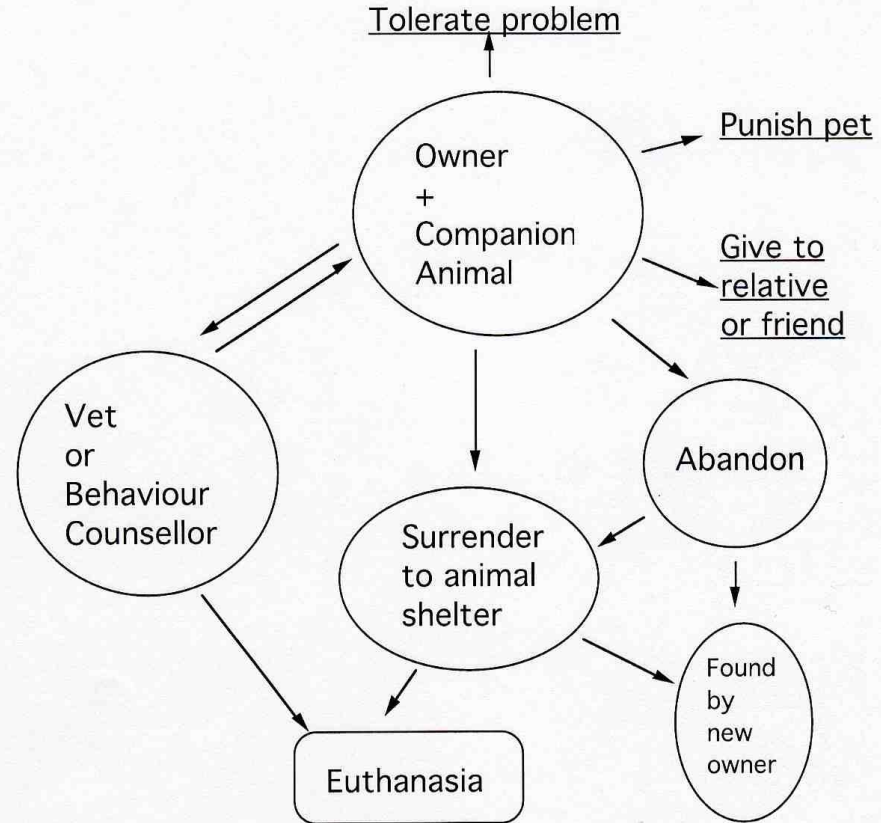


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**At one end of the spectrum is deep love and concern for the pet - at the other end is easy abandonment if it is seen as “a problem”**

### What happens to pets with behaviour problems?



Behaviour problems in companion animals are a welfare issue.





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# The impact of people's attitudes and behaviour on stray dog control





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# I&R is much more than “lost and found”!!

To prevent **animal abandonment**

To know the **structure and composition** of the dog population

To **prevent and control zoonosis** ( i.e. Leishmania)

To ensure **traceability** - from birth to death - clinical history, emergency management (i.e. the L'Aquila earthquake, 2009)



Chi abbandona un cane lo condanna.

I cani abbandonati sono destinati ad una morte atroce.  
Di fame, di sete e vittime di incidenti stradali.

Abbandonare un cane è un gesto di inciviltà e un reato.



Ministero della Salute

www.salute.gov.it



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# Spey/neuter or responsibility towards dog reproduction???

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## LA STERILIZZAZIONE PER COMBATTERE IL RANDAGISMO

Cosa può succedere se ogni cagna (o gatta) facesse una cucciolata almeno una volta nella vita?

Supponendo una media di 6 cuccioli per cucciolata di cui tre femmine, nel giro di 10 anni il numero degli animali sarebbe più di 500 .



# Community dogs.....





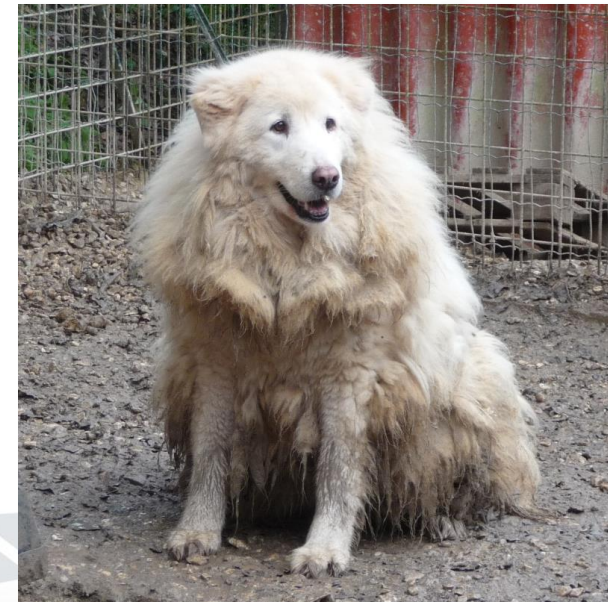
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# .....or long term shelters?

- AH/AW problems
- Environmental impact
- Economic burden
- Managers and operators QOL (?)



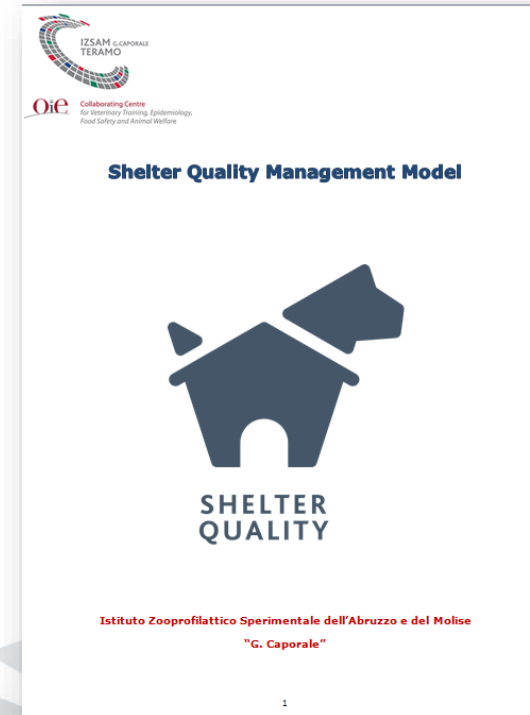


# An IZSAM study on Human-Animal relationship in long term dog shelters

- To explore the **quality of the human-animal bond** in Italian shelters
- To explore the **emotional state of operators in relation to their job**
- To investigate the **correlation between human and dogs welfare**

A questionnaire has been distributed in 60 Italian shelters

(69% female/81% volunteers)






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**Sadness/frustration** → dogs confinement and social restriction, abnormal behavioural and health issues, euthanasia

• **Happiness/satisfaction** → social activities with dogs, reproduction control, adoptions

• **Anger/sadness** → unsuccessful adoptions, presence of puppies





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# Preliminary results

- Good human-animal relationship
- Impact on the daily emotional state

It is a **satisfactory job**, but **negative emotions** are present





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## In conclusion....

# ***Human attitudes and behavior towards dogs varies geographically and over time***

- ✓ Type of habitat (urban/rural)
- ✓ Social composition of the community
- ✓ Cultural dimension, traditions, level of tolerance
- ✓ Economic factors
- ✓ Epidemiological situation





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However, according to our experience, **owned dogs are the main source of stray animals** and **dog abandonment** is often a consequence of **lack of interest** or resources, probably due to a poor choice, **failure to bond with the animal** or lack of infrastructure to help owners with problem situations

**A strong, positive and life lasting human-dog relationship is the basis for sustainable DPCPs**

