

# The Spatial Distribution Of Pet Dogs & Cats in the Republic of Ireland



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## Introduction:

Pet dog ownership was demonstrated to be significantly associated with urban/rural location, house type and household composition and pet cat ownership was significantly associated with house type<sup>{1}</sup>.

What is lacking however; is an understanding of how these pets are distributed throughout the country. We aim to describe the spatial distribution of pet dog and pet cat owning households in the republic of Ireland and compare household and area densities.

## Methods:

The reference population included all human households with a landline phone number in the Republic of Ireland; a random digit dial telephone survey was conducted in November 2007 using standardised Computer Assisted Telephone



Interviewing (CATI) techniques. In total, 1,000 households in the Republic of Ireland participated in the survey<sup>{1}</sup>. The data from the survey were analysed using logistic regression analyses in STATA®. The predicted probabilities from the final model for the significant covariate patterns were cross-matched with data from the Census 2006<sup>{2}</sup> using Microsoft Excel®. The spatial maps were generated using ArcGIS®.

## Results:

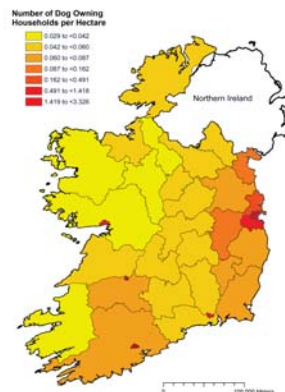
### Proportion of Households Owning a Pet Dog:

There is a higher density of pet dog owning households in the east of the country and in the cities, consistent with the higher density of households in these areas. After correcting for household density the proportion of households owning pet dogs is greater in the west of Ireland, possibly due to the higher proportion of farmers and rural dwellings in these areas.

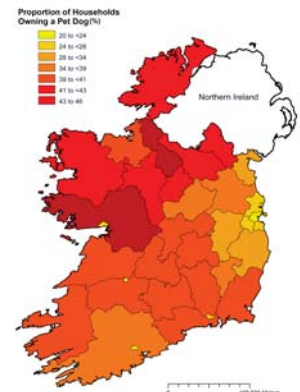
### Proportion of Households Owning a Pet Cat:

As with pet dogs, there are more households with cats in the urban areas however the density of cats per household is greater in rural areas.

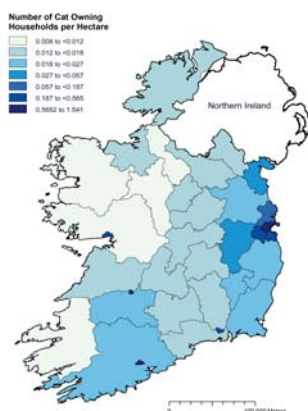
Dog Density Map



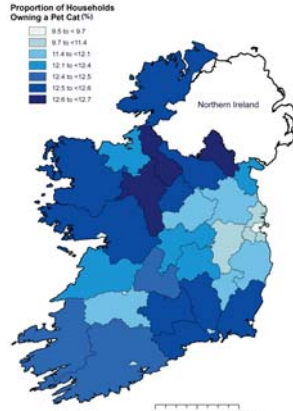
Dog Density Map



Cat Density Map



Cat Density Map



## Conclusions:

The spatial maps highlight the effect of human household distribution on the density of pet dogs and pet cats in the Republic of Ireland. This information can be used in a number of ways, including:

- > analysis of risk for disease spread,
- > for market research,
- > for instigating veterinary care.

## References:

- {1} Downes M, Canty MJ, More SJ. Demography of the pet dog and cat population on the island of Ireland and human factors influencing pet ownership. *Prev Vet Med* 2009;92(1-2):140-9.  
{2} Central Statistics Office Ireland, Census 2006.