The Guelph Companion Animal Cancer Epidemiologic Registry (CAnCER)

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1775 Percivall Pott: Cancer of the scrotum in chimney sweeps („climbing boys“). First evidence of environmental source for cancer.

since 1901 Cancer diagnosis at necropsy in Philadelphia Zoo

1926 First cancer registry in the City of Hamburg

1935 First population-based cancer registry in Connecticut

1963 First animal cancer registry in Alameda and Contra Costa Counties California

1995 First companion animal cancer registry project in Canada  
R. Reid-Smith, B. Bonnett (5 clinics, 2 years – hospital-based registry)

2010 start of the Guelph CAnCER – population-based registry

Overview

A population-based cancer registry is a core element of any cancer control strategy (Brewster, 1995; Parkin, 2006)

Guelph CANCER is designed as a population-based registry for incident primary neoplasms in dogs and cats living in the City of Guelph

1. City of Guelph
2. Cancer Cases Information
3. Population Data
4. Project Goals
5. Open Questions

Nationwide registries are desirable but expensive. A major city with concentrated resources can provide high quality data to prepare national estimates. (Parkin, 2008)

1. City of Guelph:
   - 118,000 citizens
   - Dog licensing is mandatory
   - Ontario Veterinary College (ICCI, VTH, PHCC)
   - 16 local vet. clinics & hospitals

Population-based cancer registries capture 11 essential and 4 desirable variables (Parkin, 2006)

2. Cancer Cases Information:
   - Clinics and hospitals voluntarily collect consent from owners
   - ... and forward case data (primary neoplasms) via Internet
     - Personal Information about the owner
       - Name, address, consent
     - Patient demographic information
       - Name, sex, age, weight, sterilization, breed, dog license
     - Health information
       - Diagnostic method, date of diagnosis, site (ICD-O), behaviour, histology,
         primary treatment, last date seen, last health status

Population-based cancer registries contrasts case numbers to the size of population-at-risk

3. Population Data:

- Mandatory dog licensing
- 7,677 dogs registered in Guelph, in January 2010
- 8,950 cats according to a dog-to-cat ratio of 6:7

- ~150 dog-cases/year (crude IR, Dobson et al. 2002)
- ~450 dog-cases/year (underestimated population size)
- ~2000 dog-cases/year (incl. Kitchener-Waterloo-Cambridge)

The primary function of population-based cancer registries is to estimate cancer incidence rates and facilitate comparison between populations (Parkin, 2006)

4. Project Goals:

- Demonstrate feasibility of animal cancer registration in Canada
- Estimate cancer incidence rates in dogs and cats
- Provide baseline-data for future studies

- Comparison in space (landfill site, other registries)
- Comparison in time (pesticide ban: Guelph 2007, Ontario 2009)

5. Open Questions:

- **What** is cancer? It’s a collection of some 600 diseases; which of them shall be registered?
- **How** shall cases be classified and registered? ICDS-10, ICD-O, SNOMED, SNVDO,...
- What is the **standard population** for fair comparisons? Breed and age distributions vary between countries

**Need to harmonize**

our approaches to cancer registration!