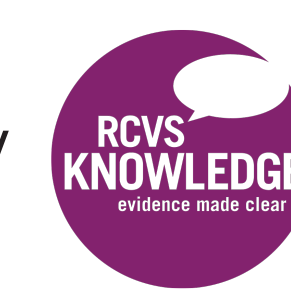


# A Quantitative Analysis of the Caseload in First Opinion Veterinary Practice in Germany

Kuhnke D; Hille K; Kreienbrock L



Department of Biometry, Epidemiology and Information Processing, WHO Collaborating Centre for Research and Training in Veterinary Public Health, University of Veterinary Medicine Hannover, Foundation, Germany

Funded by

## Background

To focus research and training efforts on topics relevant in veterinary practice and to establish evidence-based veterinary medicine, basic data on the caseload are needed. The aims of this project are to provide an overview of the caseload in German first opinion veterinary practices and to answer the following questions:

- What are the primary reasons why animal owners seek veterinary care?
- Which clinical signs are presented?
- Which diagnoses are made?
- Which interventions are prescribed?

## Material and Methods

The practice structures and management, including practice management systems (PMS), of veterinary practices in Germany differ and also the case documentation in PMS is of varying quality. In addition, the strict German privacy policies would complicate a PMS-based data-mining approach. Data mining from electronic records held in the PMS would lead to incomplete and non-standardised data sets. Therefore, data were collected prospectively by means of an epidemiological questionnaire-based study.

Veterinarians from first opinion practices were asked to collect data for every case presented over a defined period. A questionnaire, suitable for all species, was compiled and printed versions were sent to the participating veterinarians. Data were entered into a Microsoft Access 2010 database.

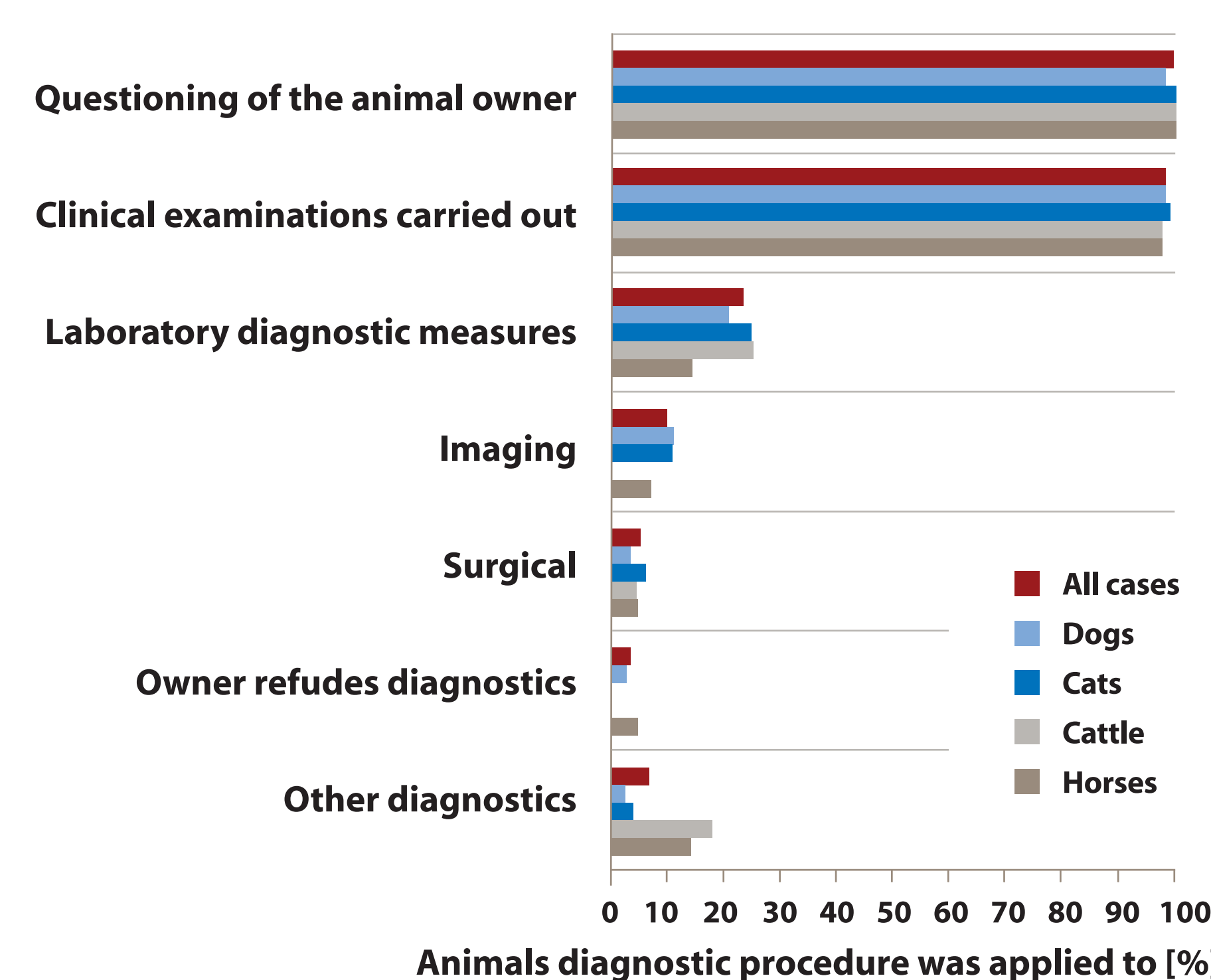


Figure 1: Proportions of different diagnostic methods and their distribution per animal species

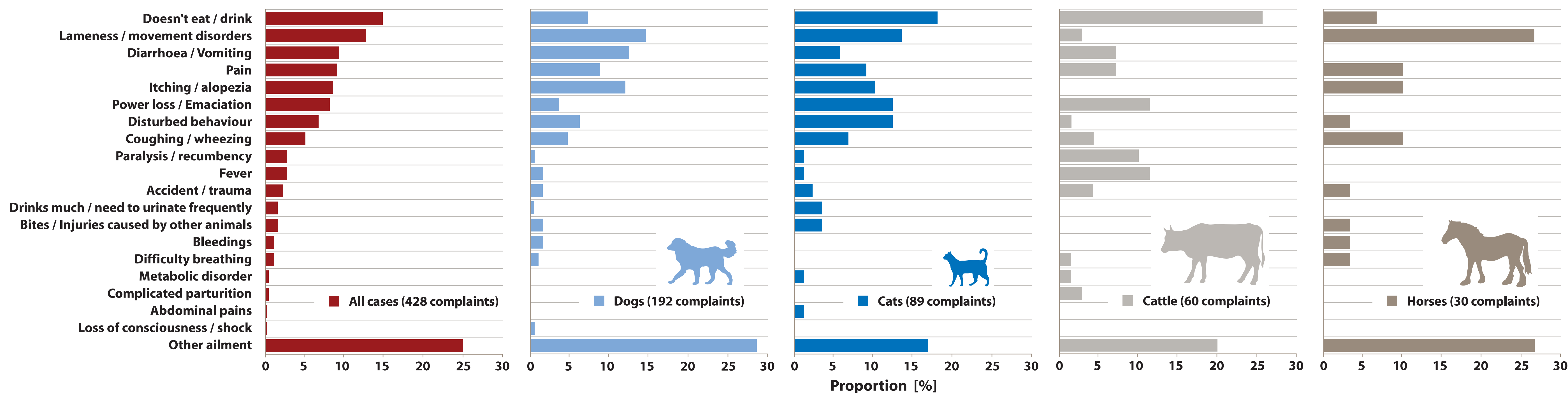


Figure 2: Percentages of primary complaints according to the owner for all animals

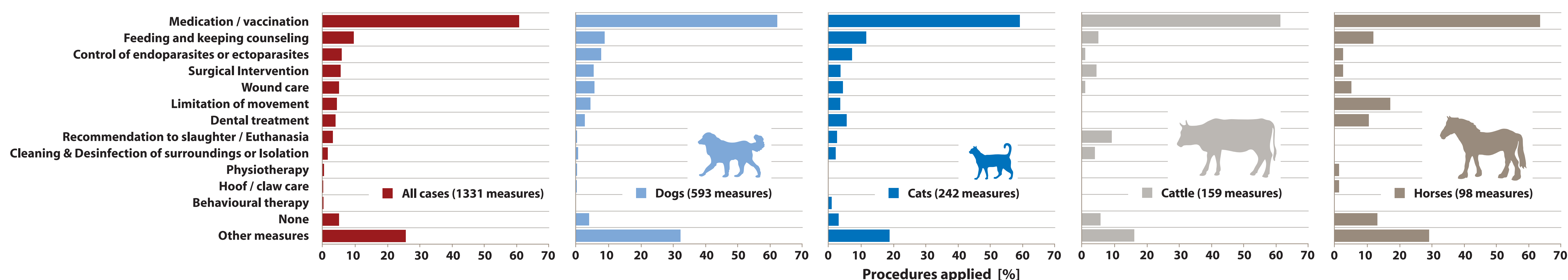


Figure 3: Medical measures in proportion to all procedures applied to animal species

## Results

Out of 25 participating practices 13 practices had returned a total of 478 questionnaires as of 8 October 2014. Most documented cases were those of dogs (n=235), followed by cats (n=101), cattle (n=11) and horses (n=42). The most frequent primary complaint for cats and cattle was "Doesn't eat or drink" whereas for dogs and horses it was "Lameness" (Figure 2). In total, 854 symptoms were recorded. The primarily affected organ systems for dogs and cats were skin and cutaneous appendages. The digestive system (incl. teeth) and the musculoskeletal systems were the most affected in horses. The organ system with the most recorded symptoms in cattle was the digestive system.

The most frequent diagnostic procedures were "Questioning of the animal owner" and "Clinical examinations" (Figure 1). Medication or vaccination followed by recommendations on feeding and keeping were the most common therapeutic measures applied (Figure 3).

## Discussion

For diagnoses about 90% of the veterinarians mainly relied on the consultation of the animal owner and clinical examinations. As a result these basic examinations, for most veterinarians, seem to be sufficient to make a diagnosis or at least to prescribe a therapy. In most cases medication was prescribed. Apart from prescribing medication, counselling on feeding and keeping were by far the principal therapeutic interventions. Therefore, veterinary education should focus more on these basic measures in future.

Due to the very good quality of our data, in further analyses we will be able to draw a conclusion about the entire diagnostic process before treatment. This information can help to identify information gaps and demand for further education.