Pug
Agria Breed Profiles
Veterinary Care 2016-2021

Informationsklass: K1

Agria Insurance Data – Breed Statistics

Dog: 2016-2021

Pug

Breed statistics are based on data from Agria Djurförsäkring, Sweden. The primary goal of Breed Profiles is to provide a basis for Swedish breed clubs in their work with health issues within their breeds. The first Breed Profiles were provided to the Swedish Kennel Club and various breed clubs in 2002 and covered the years 1995-2002. Since then, Agria has presented three updates; 1995-2006 (about 100 breeds), 2006-2011 (about 130 breeds) and 2011-2016 (about 180 breeds). This version covers the years 2016-2021 (about 180 breeds) and is, like the previous version, available in Swedish and English.

Efforts has been taken to calculate statistical measures using scientifically accepted methods. However, the data are influenced by insurance terms and conditions, the date of subscription, the dog owner's decision regarding veterinary visits as well as the choice of treatment and the approach to diagnosis and treatment by the veterinarian. These factors will therefore vary over time.

In order to reduce the risk of misinterpretation, the data are presented mainly in the form of a comparison between each breed and the All Breeds group. It is assumed that changes and influences will be similar between breeds. As this is the fifth presentation of breed statistics for dogs and more are possible, we believe that this form of comparison is the most appropriate to prevent misinterpretation or over-interpretation of the statistics.

Breed Profiles 2016-2021 is presented in the same format as the previous update 2011-2016. The key point is that the data is relatively constant when calculating the prevalence of a disease. The reader will want to know whether the disease incidence of their own breed is increasing or decreasing over time. Due to continuous changes in the database and insurance conditions, only comparisons between the breed frequency and the All Breeds group can be made. The relative risk compared to All Breeds in the previous updates (1995-2006, 2006-2011, 2011-2016) can be compared to the relative risk in this version (2016-2021). Differences between Breeds and All Breeds may be caused by changes in disease frequency in the breed, in All Breeds, or both. However, clear changes in a breed’s risk are worth noting as the entire data includes more than 1.58 million Year-under-Risk.

Background and interpretation

Rates are calculated on dog-Year-at-Risk (YAR), which refers to the time each dog was insured during the period 2016-2021. A dog insured for one year generates 1.0 YAR, a dog insured for six months generates 0.5 YAR. Overall rates are expressed as the number of dogs experiencing an event (veterinary care or death) per 10,000 YAR. A dog that has one or more events within a diagnostic category is counted only once per category but is counted separately for each new diagnostic category. Categories with less than 8 claimed dogs are not presented. A breed may contain several coat types or size variants.

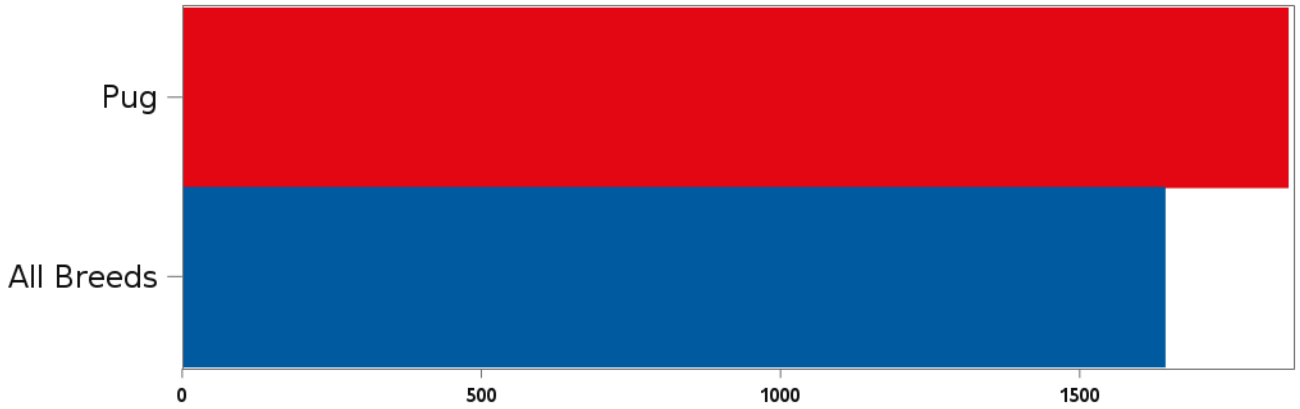
The rates used to measure life and veterinary care events are Mortality and Morbidity.
Mortality: Number of deaths per 10,000 YAR.
Morbidity: Number of animals that had one or more Veterinary Care Events (VCEs) per 10,000 YAR.

To interpret the horizontal bar charts 1, 2, 3, 5, 7, 8, 9 where the breed is compared to All Breeds, the following applies: The further the bar extends to the right, the more common is the diagnosis (higher frequency). If the bar for the individual breed is about the same length as the bar for All Breeds, the condition is as common for that breed as for All Breeds. For conditions where the breed's bar is longer than for All Breeds, the breed has an increased risk compared to All Breeds. If the breed bar is shorter, the breed has a lower risk of the condition compared to All Breeds. Charts 4, 6 and 10 express the relative risk in numbers for the individual breed compared to All Breeds. Relative risk, see interpretation in chart 4.
Note: No assessment of statistical significance has been made, which means that we present the statistics without interpreting why they look the way they do.

Note: There is no upper age limit for how long a dog can be insured with a veterinary care insurance, but the number of insured dogs decreases with increasing age. Life insurance automatically expires at a certain age, depending on the breed. Restrictions in the terms and conditions of the insurance may affect the statistics, for example behavioral problems or preventive measures are not covered by the insurance and therefore do not appear in the statistics. Veterinary Care Events (Morbidity) are those visits to the veterinarian where the cost exceeded the fixed excess and Agria has handled a claim and reimbursed the costs. Deaths (Mortality) generally includes events where a veterinarian has assigned the cause of death, but in some acute cases the owner and a witness has confirmed in writing that the dog has died.

Readers must balance all the presented information in Agria Breed Profiles, together with what is already known about the health issues in the breed, published by other sources. This is particularly important for breeds with smaller numbers of insured animals.

Chart 1: Total Morbidity (per 10,000 YAR) – Pug and All Breeds 2016-2021



Years-at-Risk 2016-2021 (whole period)
Pug: 15,000 < 25,000
All Breeds: 1.58 million

Note! *This is a breed with an increased number of insured individuals compared to the previous update of Breed Profiles (2011-2016). Keep this in mind as you interpret the material.*

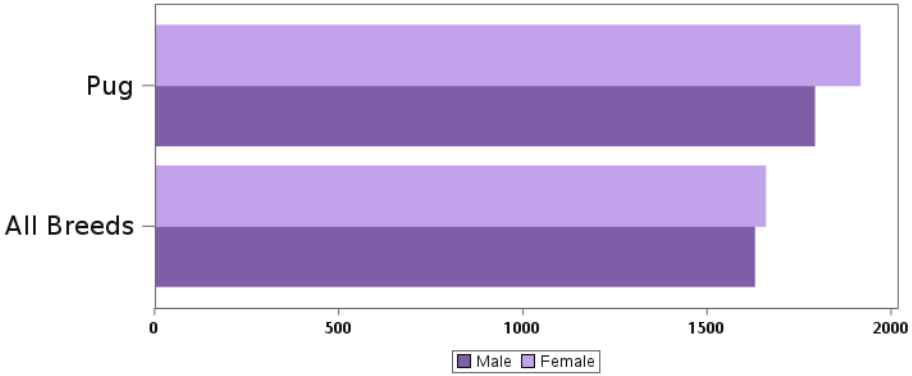
Morbidity between 2016-2021
Pug: 1,847 per 10,000 YAR
All Breeds: 1,641 per 10,000 YAR

Interpretation: Use the data on this page to get an overview of the health of the breed compared to All Breeds. For example, is the Morbidity lower, higher or approximately the same as for All Breeds?
Reminder: Mortality expresses the rate of death and Morbidity expresses the rate of one or more VCEs.

Relative Risk Morbidity of Pug compared to All Breeds: 1.13

Interpretation: Relative Risk represents the degree of increased or decreased risk of events for individuals in the breed compared to All Breeds.
For example a Relative Risk of 2 means that the risk in the breed is twice as high than for All Breeds. A Relative Risk less than 1 means that individuals in the breed have a lower risk compared to All Breeds.

Chart 2: Total Morbidity (per 10,000 YAR) by sex – Pug and All Breeds 2016-2021



Interpretation: Compare between genders within the breed. Also compare males and females of the breed to the genders in All Breeds. If there are differences, consider general and specific causes of disease (chart 3-10) for explanations.
Note: Information on whether animals were spayed/neutered is not available.

Median Age (years) at first VCE

Pug: 4.5

All Breeds: 5.8

Definition: Morbidity - for 50 % of animals their first VCE occurred before this age and 50 % after.

Interpretation: Compare the breed to All Breeds.
Note: For Morbidity (VCE's) this value will be somewhat overestimated as some animals may have experienced a similar event before this data observation period started.

Median Age (years) of the insured animals

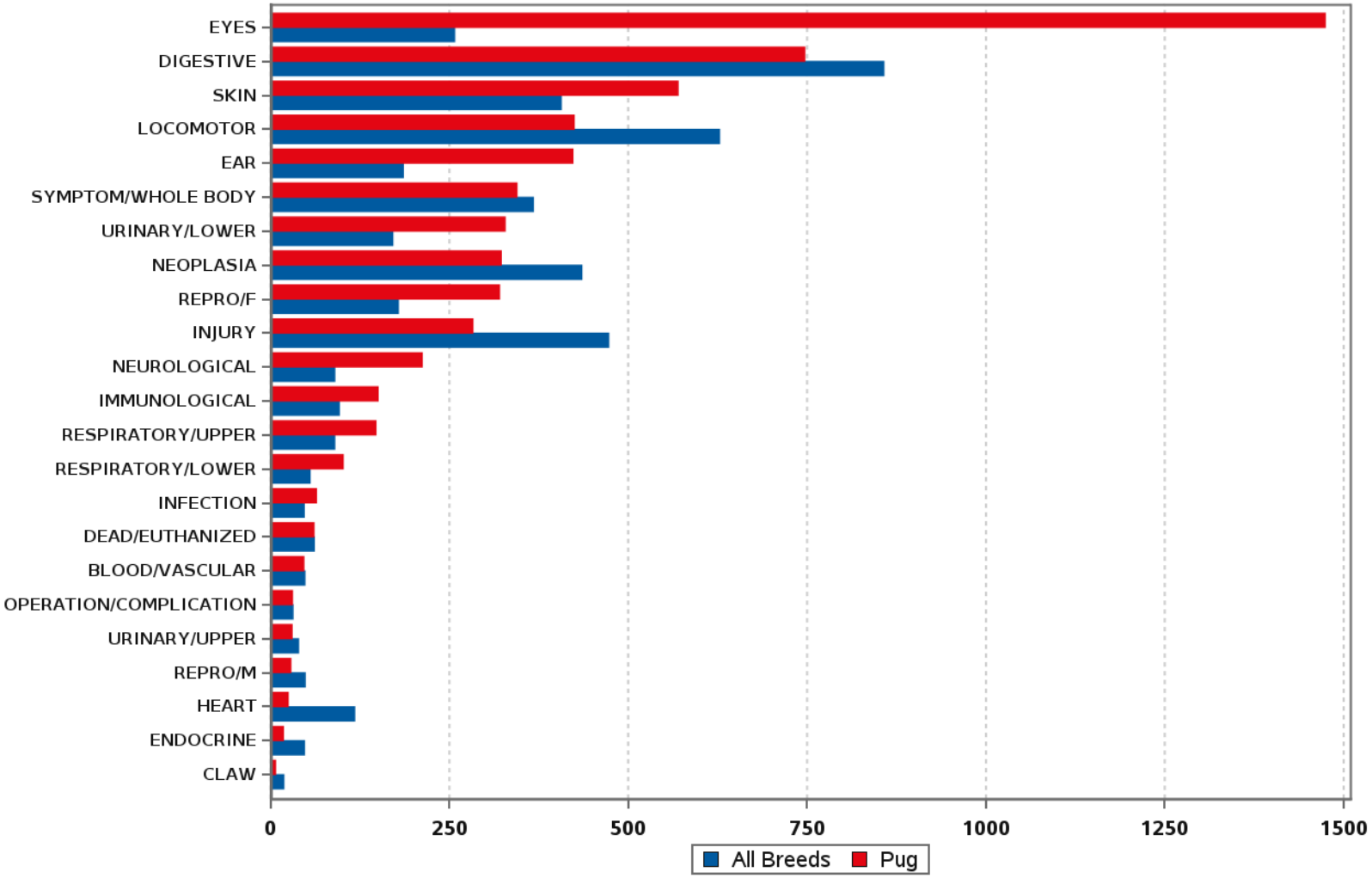
Pug: 5

All Breeds: 5.8

Definition: 50 % of the animals had an age that was lower and 50 % had an age that was higher than the value above.

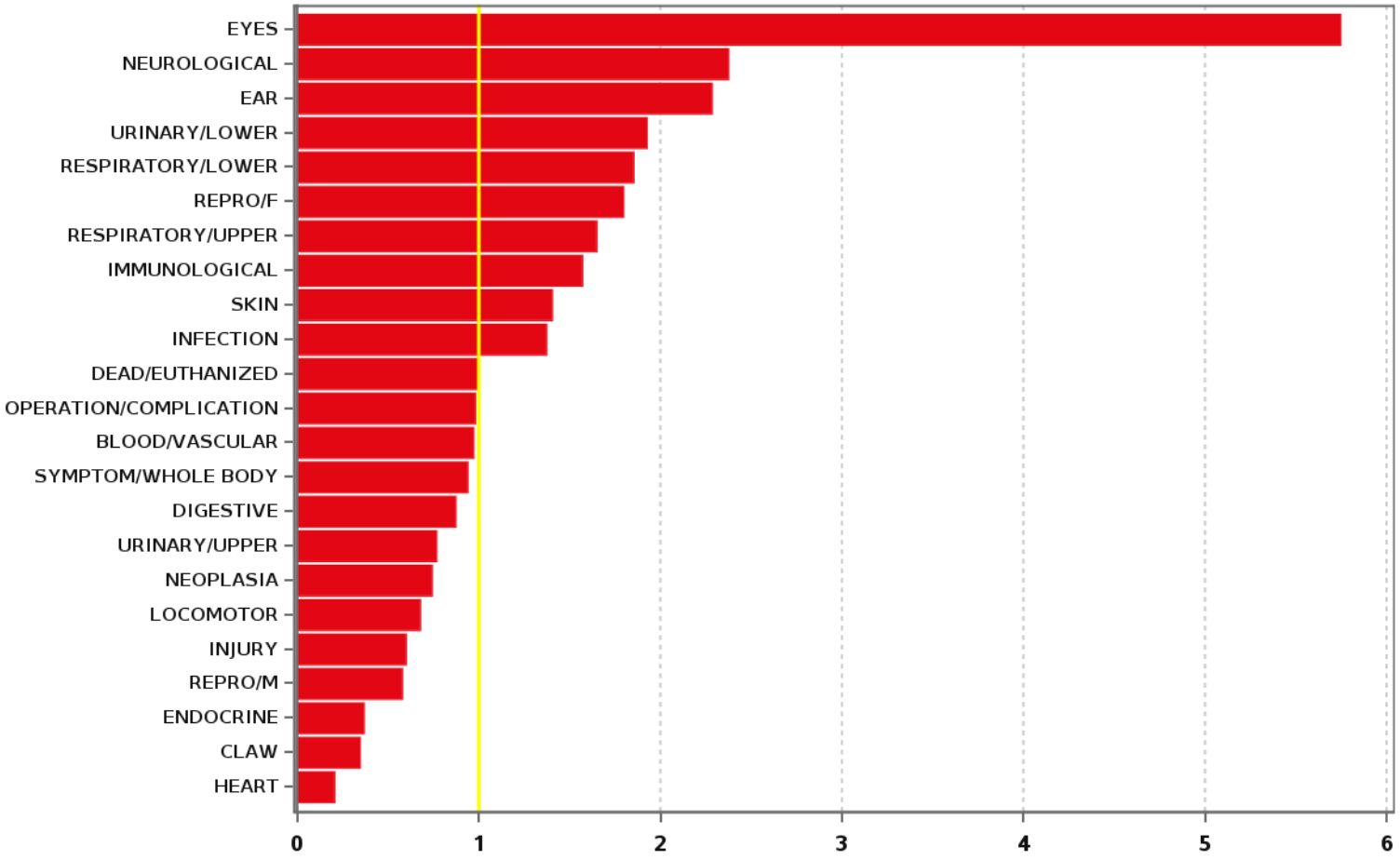
Interpretation: Is the insured population of this breed similar in age, younger or older than All Breed?

Chart 3: Morbidity (per 10,000 YAR) for General Causes (Level 3) – Pug and All Breeds 2016-2021



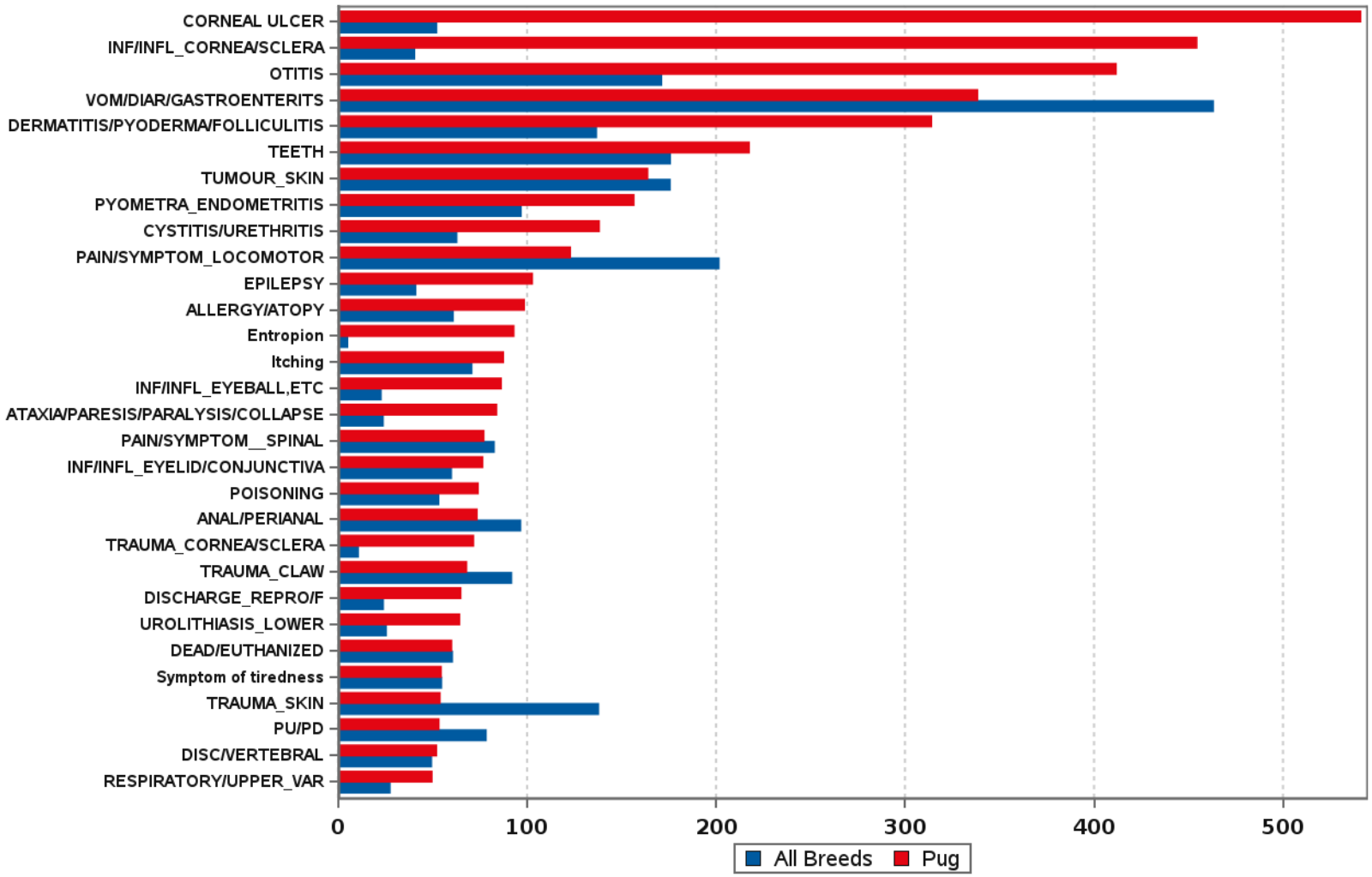
Reminder: Categories are shown only if at least 8 animals had the diagnosis.

Chart 4: Relative Risk Morbidity for General Causes (Level 3) – Pug compared to All Breeds 2016-2021



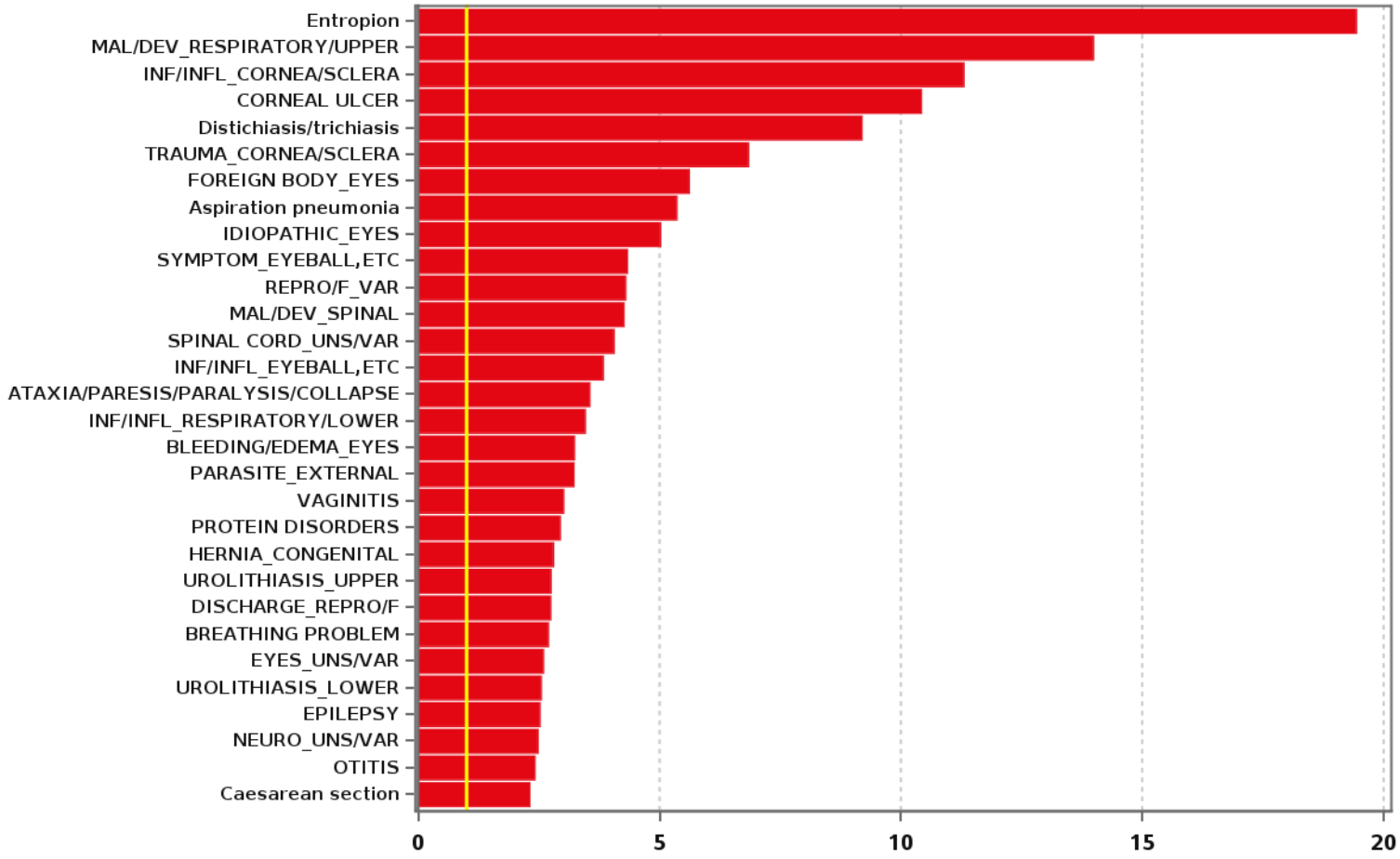
Interpretation: The yellow line is the baseline risk for All Breeds; For those conditions where the red bar goes to the right of the yellow line, the breed has an increased risk compared to All Breeds. If the bar extends to '2' it means that the risk in the breed is approximately 2 times higher than for All Breeds.
Reminder: Categories are shown only if at least 8 animals had the diagnosis.

Chart 5: Morbidity (per 10,000 YAR) for Specific Causes (Level 1) – Pug and All Breeds 2016-2021



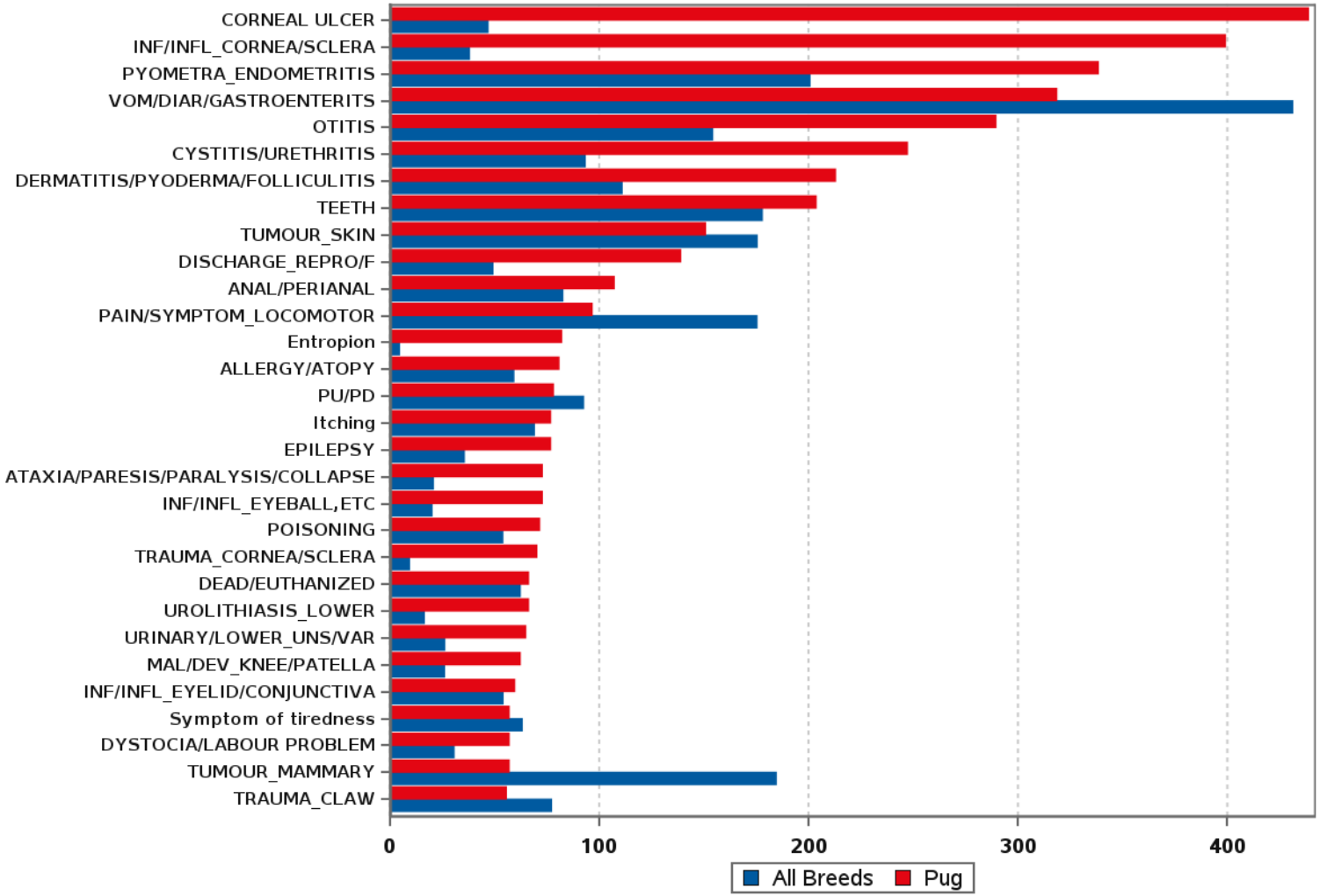
Reminder: Categories are shown only if at least 8 animals had the diagnosis.

Chart 6: Relative Risk Morbidity for Specific Causes (Level 1) – Pug compared to All Breeds 2016-2021



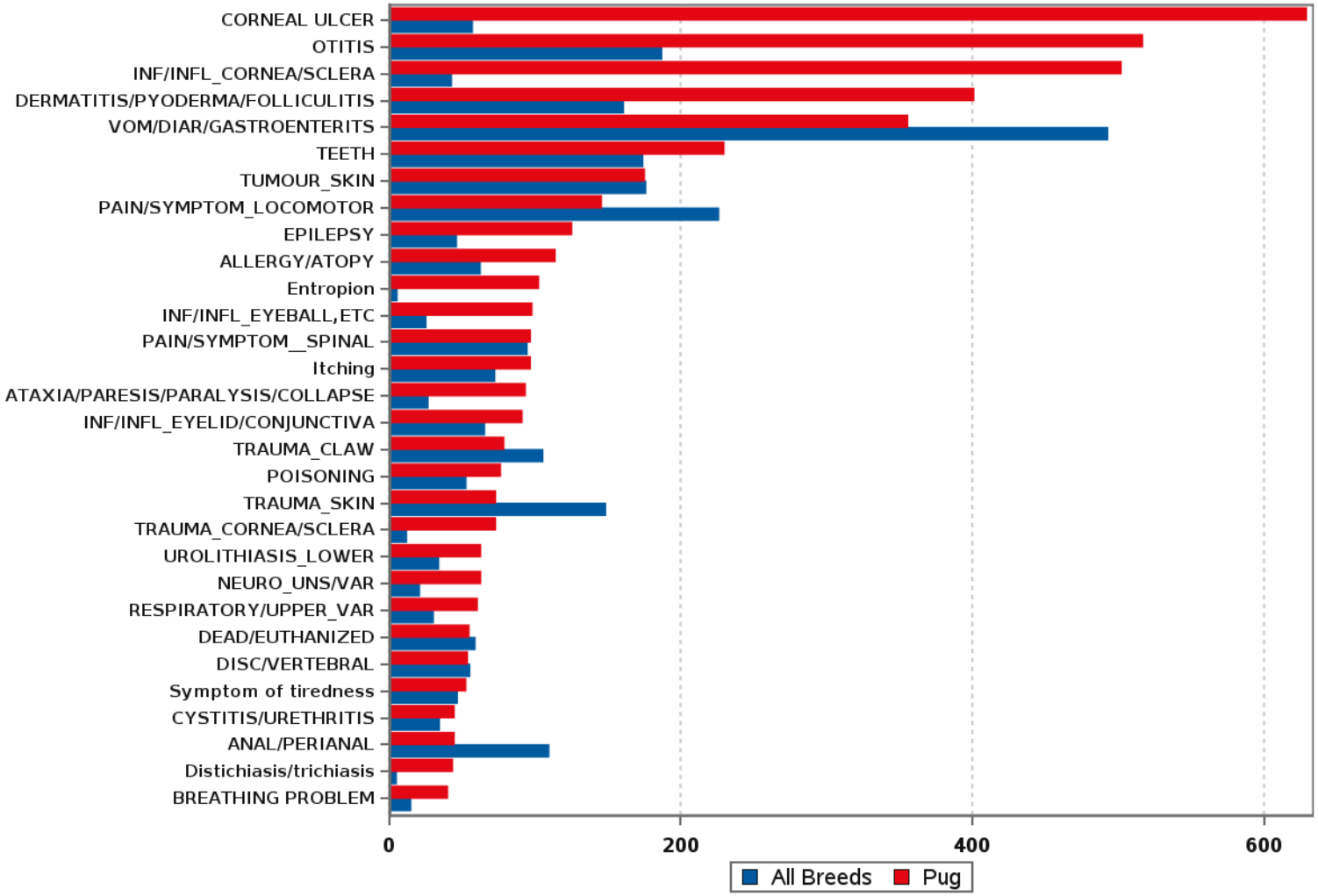
Note: Rare diagnoses with high Relative Risk may appear in this chart. Therefore, compare with the previous chart to determine both how common the diagnosis is and its Relative Risk. If the diagnosis is included in both diagrams 5 and 6, it is particularly important to look at the diagnosis more closely. Categories are only shown if at least 8 animals had the diagnosis.

Chart 7: Morbidity (per 10,000 YAR) for Specific Causes (Level 1) - FEMALE ONLY – Pug 2016-2021



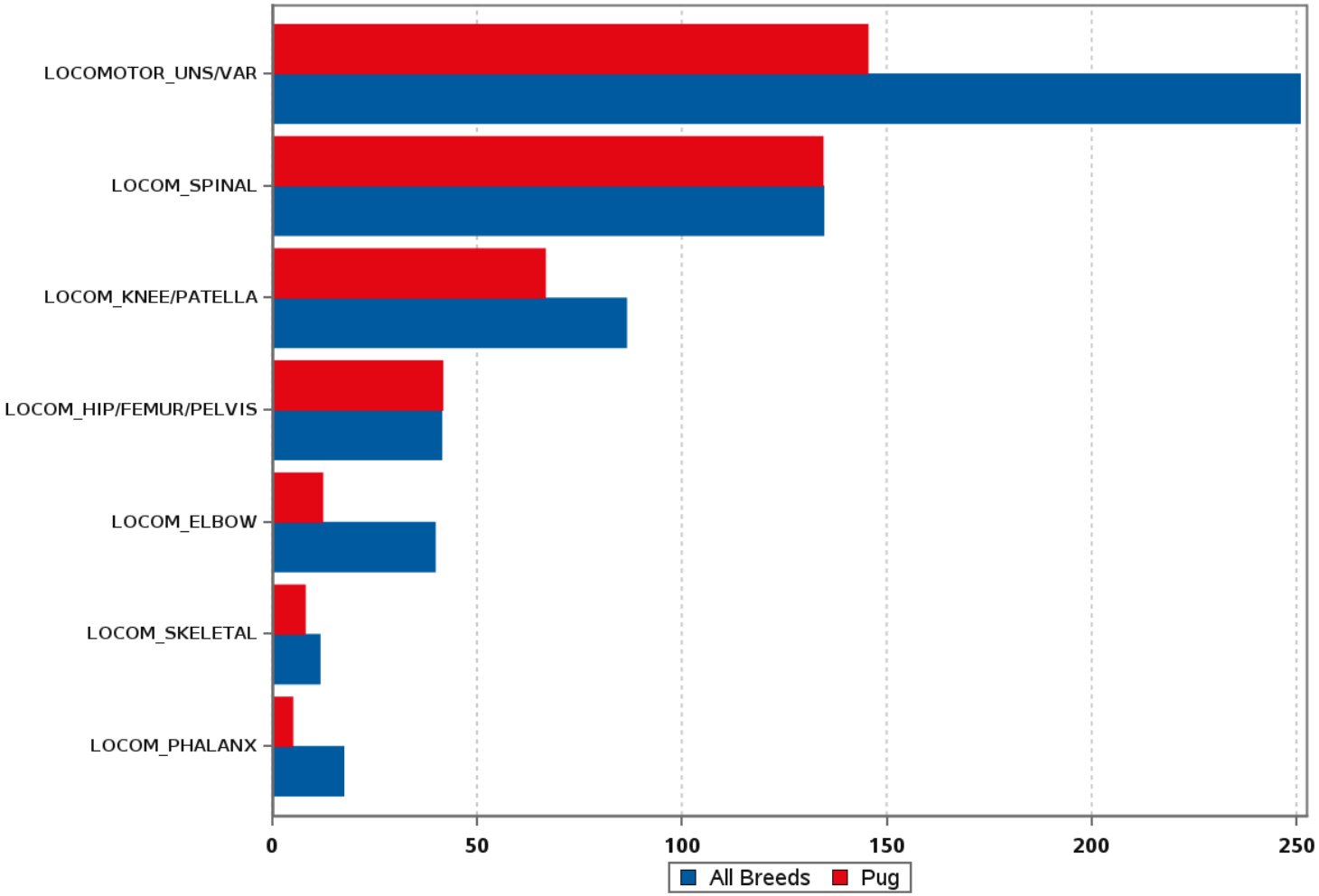
Reminder: Categories are shown only if at least 8 animals had the diagnosis.

Chart 8: Morbidity (per 10,000 YAR) for Specific Causes (Level 1) - MALE ONLY – Pug 2016-2021



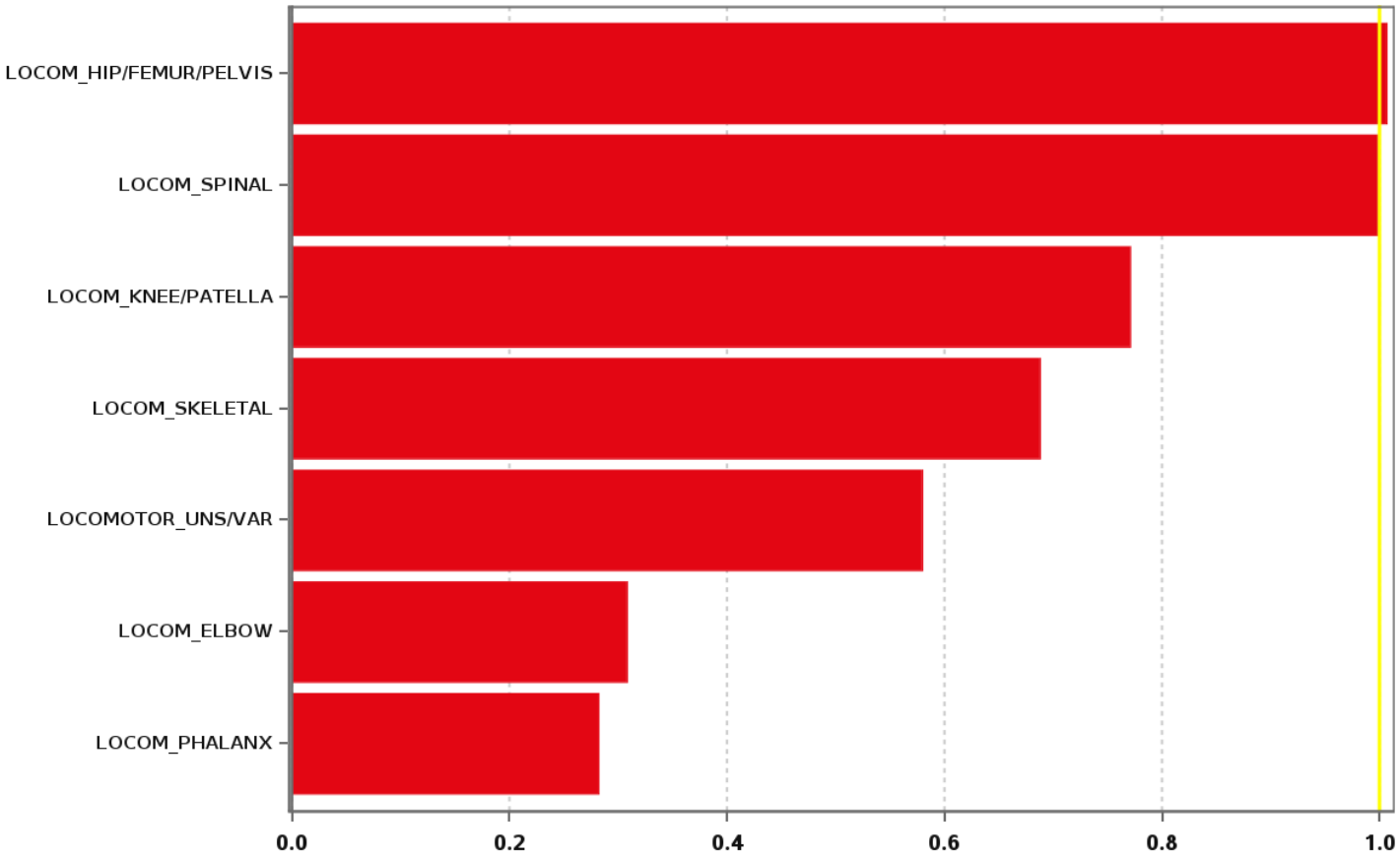
Reminder: Categories are shown only if at least 8 animals had the diagnosis.

Chart 9: Morbidity (per 10,000 YAR) of Locomotor Problems – Pug and All Breeds 2016-2021



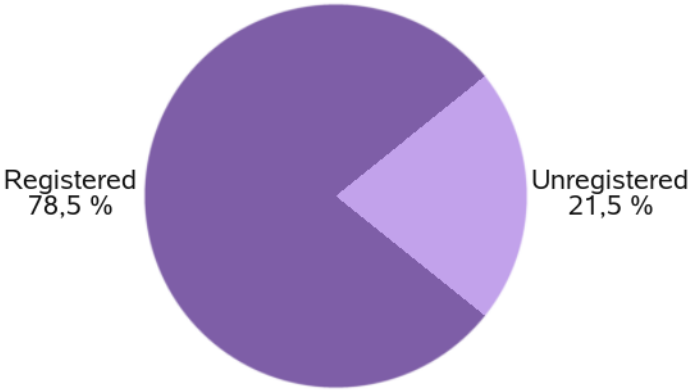
Note: 'UNS/VAR' means that the veterinarian did not specify a specific location or diagnosis or that there were symptoms from two locations or more. Categories are shown only if at least 8 animals had the diagnosis.

Chart 10: Relative Risk Morbidity for Locomotor Problems – Pug compared to All Breeds 2016-2021



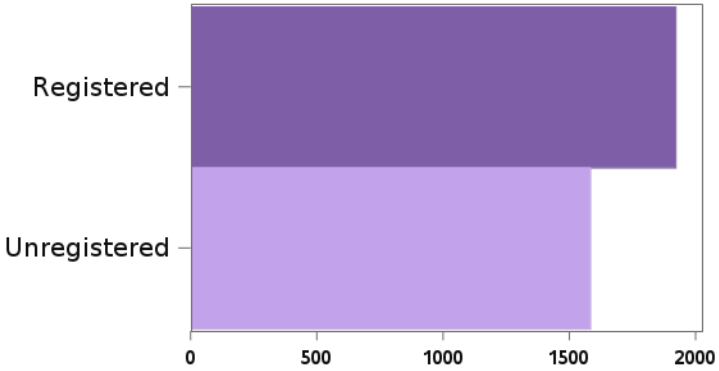
Interpretation: As for chart 4.
Reminder: Categories are shown only if at least 8 animals had the diagnosis.

Chart 11: Percent (Years-at-Risk) of Pug with a registration number from kennel club

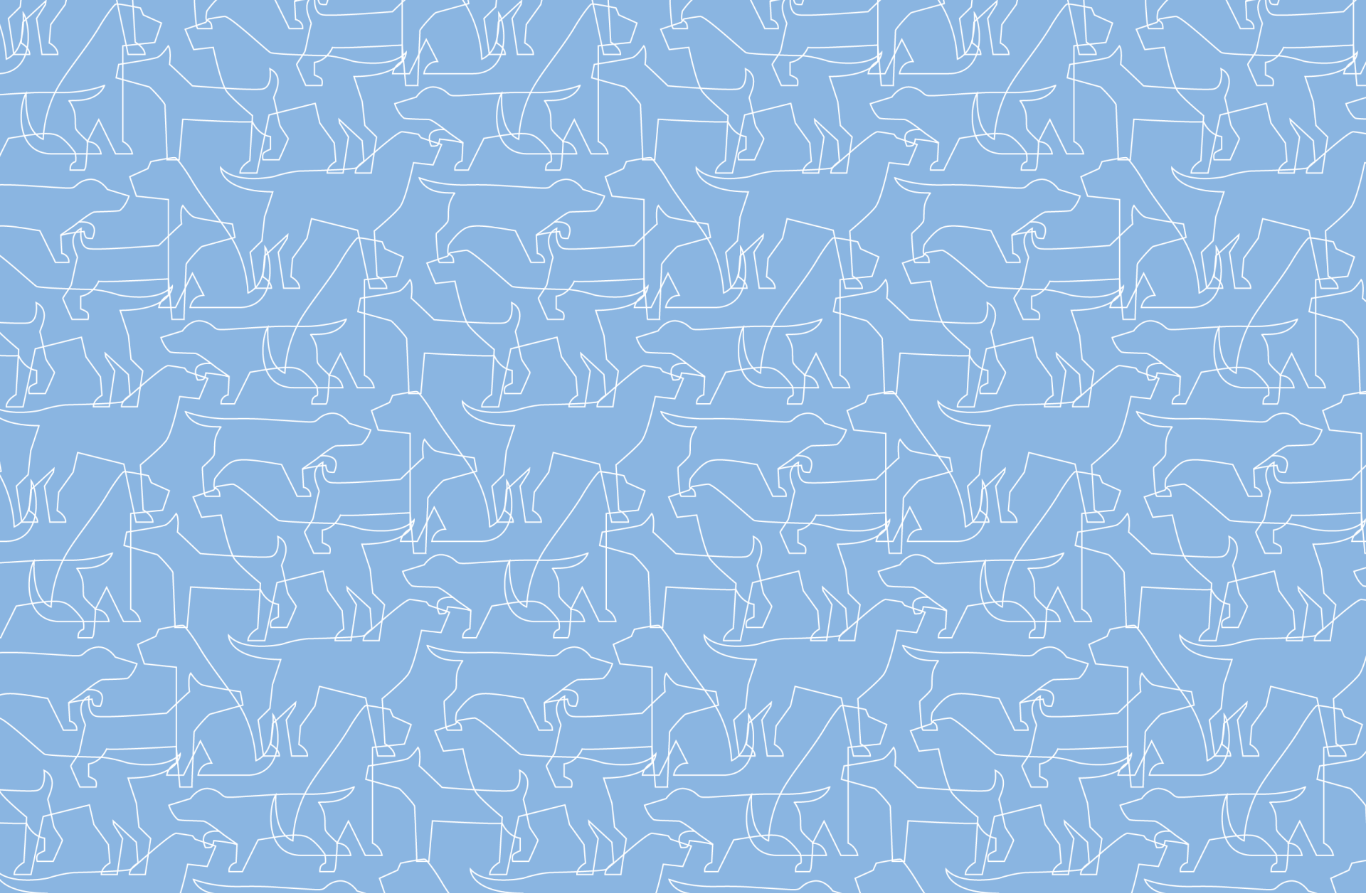


Median Age (year) of the insured animals
Median age (years) Registered: 4.9
Median age (years) Unregistered: 5.3

Chart 12: Total Morbidity for Registered and Unregistered - Pug 2016-2021



Interpretation: This chart compares the rate of events (Morbidity) between animals with a registration number and those without. Differences may be influenced partly by different age distribution in the two groups (see above).



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