Agria Dog Breed Statistics : Frequently Asked Questions

1. Are the dogs in the Agria data typical of all dogs of that breed in Sweden?
    1.1. Overall, 80% of dogs in Sweden are insured and Agria covers approximately half of the insured dogs. This is a remarkable data base – likely more representative of the national dog population than any other in the world.
    1.2. Of course, the percentage of dogs insured may vary by breed although it is difficult to know for sure. Comparing registration numbers, for some breeds, it seems that a high percentage are insured with Agria and the statistics are likely highly representative of that breed in Sweden.
    1.3. In some cases, anecdotally, a breed club may know that a lower proportion of dogs are insured with Agria. What impact does this have on the interpretation? In the first place, the statistics are accurate in terms of for the dogs insured with Agria; the conditions described did occur at this rate in these dogs. Before discounting the disease distribution from the Agria data it is important to think…is there any plausible reason to believe that the dogs insured with Agria are very different (i.e. much more or less healthy) than the dogs insured elsewhere? Most of the time this is unlikely.
    1.4. Of course, there are limitations in any breed for which there are few dogs in the database (see next FAQ).

2. How does the number of dogs insured (or the combined Dog Years at Risk as described in the Updates) impact the interpretation of the material?
    2.1. In general, if there are a large number of dogs the statistics are most accurate/representative.
    2.2. For breeds with fewer dogs but a high risk of Veterinary Care Events or Deaths, rates may also be quite accurate.
    2.3. For breeds with few dogs and low risks of disease and death, the findings are the 'shakiest', i.e. a few dogs more or less experiencing a condition might impact the rates considerably.
    2.4. Attempts have been made in the Updates to flag breeds or data where the reader should exercise more caution in extrapolating findings beyond the experience of the actual dogs in the data.
    2.5. *In all cases, the reader must understand that the Agria Dog Breed Statistics are a tool to be used to understand the occurrence of disease and death in dogs together with other information, knowledge and experience. Common sense must be used in interpreting the statistics and applying the information to decisions about the breed.*

3. Some of these data are from years past? Don't you think the disease situation has changed?
    3.1. Breeders and breed clubs are always very optimistic that situations in regard to disease issues will improve rapidly. Based on a scientific understanding of disease, populations and experience it is unlikely for the population-based rate of most diseases to change markedly over relatively short periods of time, i.e. less than several generations.

4. Why do many charts have no actual numbers/rates on them and why is everything presented in comparison to All Breeds?
    4.1. As described in the Updates 06-11, the data are susceptible to changes in the insurance policies, veterinary and owner practices and other factors, especially over time. However, it is reasonable to believe that most changes would affect most breeds in a similar fashion. In order to reduce errors in interpretation or over-interpretation, it is believed that comparison

of each breed to All Breeds, combined gives the best picture of disease occurrence with the least risk of misunderstanding.

4.2. Also, it must be remembered that there is no perfectly healthy animal or breed and all animals will die. The most informative and sensible evaluation then is the comparison of disease or death in one breed to that in All Breeds.

4.3. The Relative Risk (rate in the breed divided by the rate in All Breeds) is presented numerically and interpreted as how much more or less likely it is that a dog of the breed would experience the condition compared to all other dogs.

4.4. However, rather than quoting exact numbers or focusing on small changes in risk in different time periods, common sense and understanding of the nature of the data demand that readers focus on general trends and comparisons.

5. Why are some 'separate' breeds combined in the Breed Profiles or Updates?
   5.1. Most often it has been done either because in terms of disease they are likely similar or because there are few dogs in one or more of the varieties, i.e. too few to have valid statistics calculated. So in some cases, without combining breeds they would not have a Profile or Update.
   5.2. In some cases varieties (e.g. by coat colour or type) have been combined because it is generally considered that they are more similar than different.

6. Can we get any information from Agria on rare or uncommon breeds that do not have an Update?
   6.1. Agria will consider such requests, and on a case-by-case basis may be able to provide, e.g. a list of causes of disease or death in that breed. However, this information is not quantified or adjusted for dogs-at-risk and must be used very cautiously.

7. We have understood the information in the Agria Dog Breed Statistics but wonder about why certain conditions are common or increased in our breed and want to know more. What should we do?
   7.1. As we repeatedly stress, the Agria material is one tool to be used in understanding the picture of health and disease for a breed. Here are some ways that breed clubs gather further information:
      7.1.1. Go to the internet and any other sources of information. Has the condition(s) been reported before or elsewhere? Are clubs in other countries looking into the problem(s)?
      7.1.2. Work with a researcher/veterinarian. Do they know of other information that has examined this problem in your breed or the same or similar problems in other breeds? Are they interested in helping you do further study? Note: The Agria-SKK Research Fund has funded many breed-specific projects and researchers are welcome to submit proposals. For more information see:
      http://www.agria.se/agria/artiklar/tagg/Agrias%20forskningsfond
      7.1.3. Consider doing a survey of members of your breed club/owners of your breed to determine their experiences. Remember that the methods used in conducting and interpreting a survey have a huge impact on the accuracy. Get help to use appropriate methodology and increase the likelihood that you gain valuable information.

8. In our breed we believe that many dogs are reported by their owners to be this breed, but are, in fact, unregistered and therefore not within the health program from the breed club.
   8.1. Although the registration numbers recorded in our database are not all entirely accurate, for almost all breeds over 70% and in most breeds over 80 or 90% of insured dogs have a

registration number. As reflective of the Swedish population, there are a high percentage of purebred dogs even if, as in many countries, the number of dogs being actually registered is declining. It is rather likely that even if a given dog is not registered, it may have come from purebred stock and its health problems, therefore, reflective of those in the breed. Although it is unfortunate that not all breeders of purebred dogs adhere to the principles and programs suggested by the breed club, many of the health problems are probably typical of the breed, in general. We acknowledge that this gap, i.e. the increasing tendency for dogs to be breed/born outside *the system* may continue. However, at the moment and therefore for the statistics to date, we are confident that for most breeds most dogs are purebreds of the breed recorded.

8.2. It should also be remembered that the public, in general, and even some prospective owners, would see dogs as being of a given breed and would certainly not know (or possibly care) about the registration status. Who shall be the stewards for these dogs if not the breed club? Granted the breeding program may not apply to unregistered breeders, but there is almost always a need for education about health issues or other programs to be put in place to safeguard the health and welfare of all dogs that appear to be of a given breed.

8.3. On a practical note, there is no motivation for an owner to falsely report their dog as a purebred when it is in fact a mixed breed dog when applying for insurance.

9. In our breed there is a big difference between the working type dog and the show dog, which one is shown in the Agria data, or can they be presented individually?

9.1. There is no way for us to know the type or activities of a given dog. In many breeds, working and show dogs may come out of the same litter, so their genetic predispositions may be similar.

10. Can you present the exclusions / inclusions criteria in your General causes?

10.1. The diagnostic registry used by all veterinarians attending the dogs in the insurance database is hierarchical by both system and process. For the Updates, certain summary categories have been created and reorganization done to improve understanding and to reflect the major issues in dogs. In general, after viewing the General Causes and then More Specific causes, a knowledgeable dog person will be able to see the most common specific causes which contribute to the General Causes. Here are some details.

10.1.1. As is explained in the Updates, dogs are counted as having a condition only once within a given diagnostic category for the duration of the time period specified. General Causes are mostly by body system/location of the problem, or process e.g., Neoplasia (cancer) or Infection/ Inflammation. Obviously there could be 'overlap' between conditions/locations. For example, a dog might be diagnosed for an EAR problem and a skin problem, but it might eventually be determined that the dog has Atopy (under SKIN). So, in this way, one dog would be counted under both systems. As another example, dogs might present with non-specific symptoms and be diagnosed as 'sick'. As the diagnostic procedure continues, the veterinarian may assign a more specific diagnosis in a different system. However, if this occurs within one claim period and the claims are submitted concurrently, the most specific diagnosis would, in general, be the one recorded.

10.1.2. All cancerous or neoplastic conditions (both benign and malignant) are included under neoplasia, regardless of location or body system.

10.1.3. Injury has been separated from Locomotor problems. Injury includes, e.g., fractures, hit by car, and other diagnoses of a generally traumatic nature that may occur more

commonly in a given breed due to its use or activities but are not likely due to any inherited risk. Locomotor problems are those affecting muscles, bones, joints etc. that may frequently occur in breeds due to a breed-specific risk, even though that may be due to conformation rather than specific genetic risk (e.g. patellar luxation, hip dysplasia). Cruciate ligament injuries are included under locomotor rather than injury because many breeds have an increased risk.

10.1.4. It is noted that, in general, behavioural problems are not covered by the insurance and the Agria data do not provide any reliable information on temperament issues in a breed.

11. Terminology

Most terms for diagnoses or body location are self-evident (at least to those acquainted with common problems in dogs). As is reiterated throughout the statistical material, it is always recommended that breeders and breed clubs work with a veterinarian who can provide further explanations and insight into diagnoses, the diagnostic process and health issues, in general. An explanation of certain terms are included in Table 1, below.

Table 1: Terms and definitions

Terms	Definition
CIRC/BLEED/EDEMA/INFARCT	Circulation, Bleeding, Edema or Infarct
CYTOSIS/-PENIA	cytosis or cytopenia
DEG/DYSTR/DYSPLASIA	degenerative or dystrophic or dysplasia
DEG/DYSTROPHIC	degenerative or dystrophic
HEMANGIOMA_SARC	hemangioma or hemangiosarcoma
INF/INF	infection or inflammation
LYMPHO_SARC	lymphoma or lymphsarcoma
MAL/DEV	malformation or developmental
METAB/NUTR	metabolic or nutritional
MYO/BURS/TENDONITIS	myositis, bursitis or tendonitis
OCD	Osteochondrosis dessicans
SUFF/STRANGULATION	Suffocation or strangulation
THROMBOCYTOPENIA(NOT IMM)	… Not Immune
TRAUMA_MOUTH/THROAT/ESOPH	…esophagus
UNS	unspecified
UNS/VAR	unspecified or various
VAR	various (similar) diagnoses
VOM/DIAR/GASTROENTERITS	vomiting, diarrhea…
... HYPERTROPHY/PLASIA/CYST	hypertrophy or hyperplasia or cyst
Locations	**Meaning / comments**
ABD/PERITONEUM	…abdomen…
BL/LY/VESSELS	blood, lymphatic system or vessels
CARPAL/METAC	carpal or metacarpal
CNS	…Central Nervous System
GI	digestive system
INJURY	tramautic, generally accident related problems, e.g. hit by car, fractures, etc.
JT/LIG/TEND/MUSC	joint, ligament, tendon or muscle
LOCOMOTOR	locomotor system…muscles, bones, joints, etc excluding accidents/injury; certain conditions, e.g. cruciate ligament tears, although they might be due to injury are kept under locomotor.
NEURO	neurological system (brain, spinal cord, nerves, including conditions like epilepsy
REPRO/F … /M	reproductive system, female or male