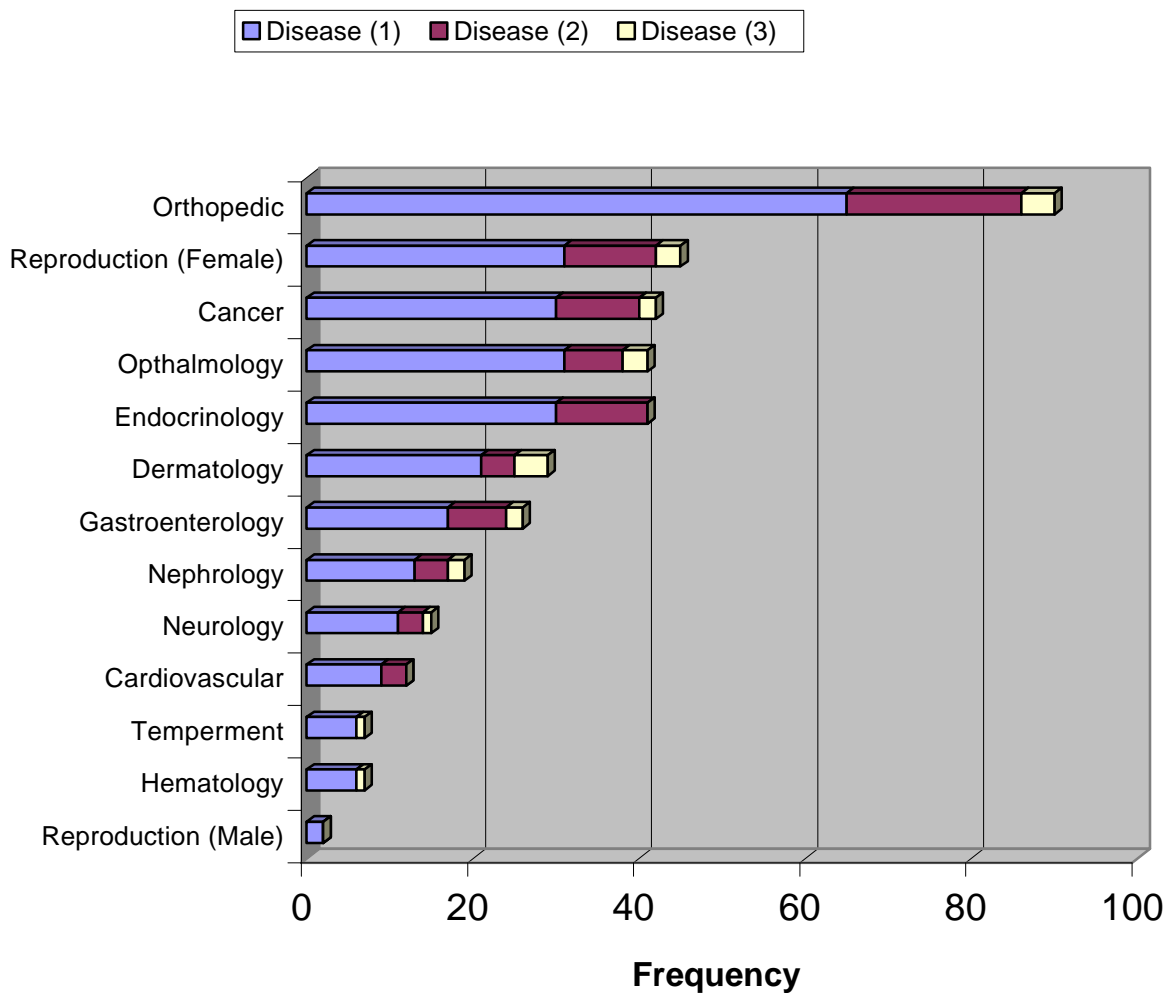


Report on the Samoyed Club of America Health Survey

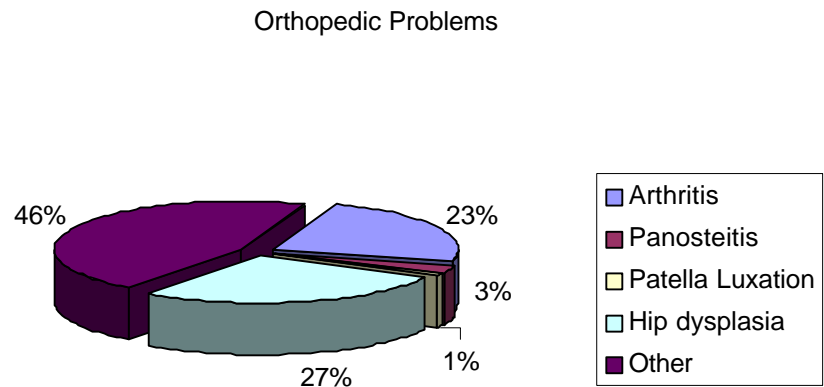
A survey on Samoyed health was distributed to the membership of the Samoyed Club of America during the year 1999. A response was received referencing some 566 individual Samoyeds. The good news is that of those 566 responses, some 290 did not reference any disease or problem with the respondent's Sam. The bad news is that problems that have been known of for thirty or forty years are still the major referenced problems, i.e., PRA and hip dysplasia. The graph following breaks down the responses by disease or problem classification ... orthopedic, cancer, ophthalmic, etc.

Disease Classifications



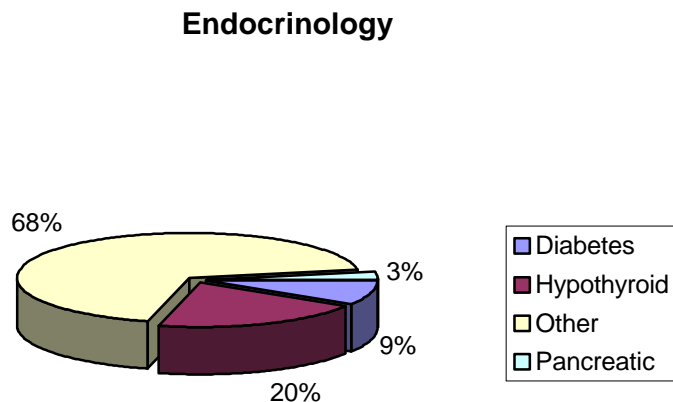
The bars are broken into three segments as the survey respondents could list up to three separate diseases for each animal. Segment 1 is the classification of the first disease listed on the survey, Segment 2 the second, and so on. Along with listing the classification area of the disease, the respondents could list the specific disease or problem within that classification and who made the diagnosis. In most cases diagnoses were by vets or lab work but occasionally a diagnosis would be made by the owner or breeder, particularly in the area of temperment and reproduction.

Orthopedics - Within the classification of orthopedics, hip dysplasia and arthritis made up fifty percent of the particular problems referenced by the respondents. Panosteitis and patella luxation were minimally mentioned which left a mysterious 46% of other not specifically defined problems. Regardless of that, twenty-seven percent of the dogs mentioned as having an orthopedic disease have HD.



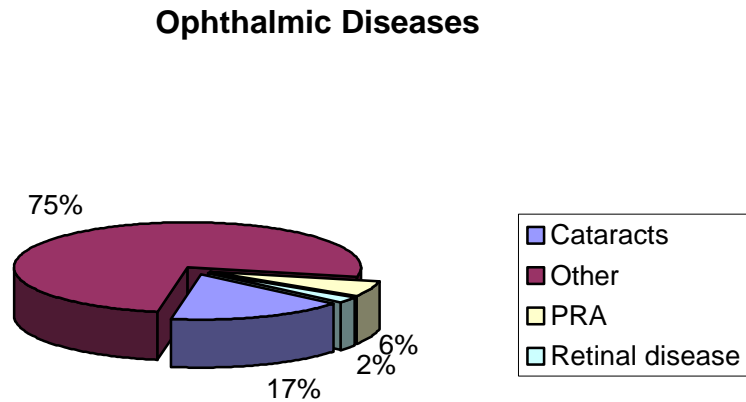
This is after the problem was first emphasized by the studies of Dr. Wayne Riser of the University of Pennsylvania Veterinary School during the 1960's and by Billie Tucker of Kobe of Encino who had instigated her own personal war on the problem. One would think that the Samoyed breed would have advanced further in eradicating the problem but the genetic characteristics of transmission still bedevil today's breeders. One can be pleased that the incidence of HD has been considerably reduced in the Samoyed breed during these past forty years but there is still a requirement that breeders will have to work harder in the future to eradicate the problem.

Endocrinology -The data on endocrinology also shows two important problems of today's Samoyed, hypothyroidism and diabetes. A number of individuals participated in a blood collection for research that was held at the 2000 SCA National Specialty. The study program is being



performed to try and build an understanding of the transmission of diabetes, a very difficult and high maintenance disease within the breed. The study is being performed by Dr. Rebecka S. Hess of the UPA Veterinary School. (See page 31 of the December 2000 SCA Bulletin.)

Ophthalmic - The ophthalmic disease category references progressive retinal atrophy, cataracts and other retinal diseases. Again, the other category is the majority position and one wonders what all else is buried in there. Quite likely, entropion is included along with any number of other problems but the data are not present to know what else falls into the category.



The good news is that PRA in the Samoyed breed can now be controlled through testing of brood bitches. A Cornell study by Drs. Gus Aguirre, and Greg Acland has led to research by Dr. Qi Zhang that will allow for a testing of female Samoyeds and Siberian Huskies for a mutation of the XL-PRA gene that causes the disease. It turns out that males of these two breeds are either afflicted or normal, hence there are no male carriers of PRA. Further information on testing is available from Opti-Gen on their website www.optigen.com or by emailing genetest@optigen.com.

Cancer - There is no graphic showing the breakout of specifics for cancer because of the forty-odd references for the classification, more than half were for “other” types of cancer than those that could be selected from the listed subcategories. There were two or three cases each of cell tumors, hemiangiosarcomas, mast cell tumors, osteosarcomas, and lymphosarcomas, but no single type of cancer was mentioned often enough to indicate a trend of a particular form of the disease as predominant in the breed. It does appear, though, that the breed *may* have a possible genetic predisposition to cancers. The cancer category is the major reference to Samoyed problems that would be classified as a terminal disease.

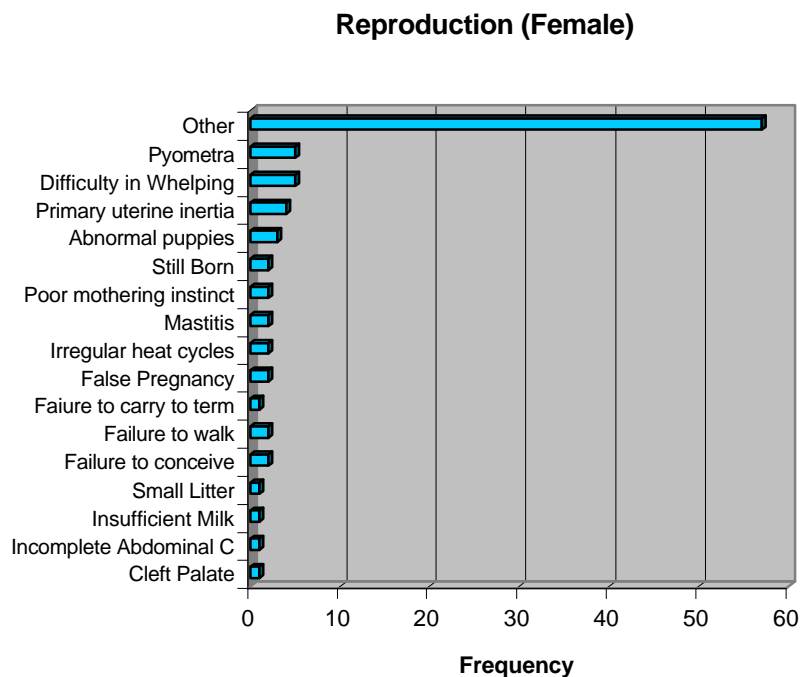
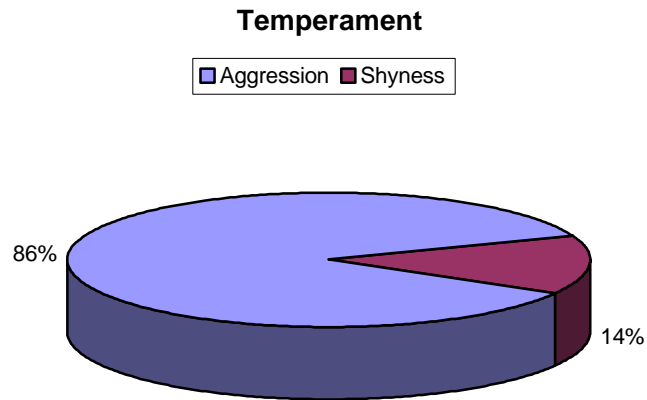
Cardiovascular - Likewise, there is no breakout of the cardiovascular subcategories. Overall, the reference to cardiac-type problems was relatively low, less than a third of the noted cases of cancers. Within the cardiovascular area, there was mention of heart murmur and pulmonary stenosis. It would appear that heart problems are present in the Samoyed breed but are not presently regarded as a major problem by the respondents.

Temperament - Although relatively low on the scale of disease or problem classifications within the Samoyed study, temperament is of primary interest to today's breeders. The Sam, "Christmas Smile" and all, is known to be a gentle, friendly pet and especially good with children. The incidence of aggression in the breed is rare but noteworthy. There are

stories about top winning Sams of the past who were wont to eat their handlers if not given bait quickly enough but they are the exception. The 1999 Samoyed Health Study found only seven references to temperament problems. But six of those were for aggressive animals, four male and two female to be exact. If this is a developing problem in

the breed, it needs to be stopped, and stopped now. One of the good things about the Samoyed ranking in the mid-forties in AKC registrations is that it proves the breed is not being over-bred like the Dobie, Lab and Golden. One now hears stories about vicious Golden, and thoughts of vicious Sammies having the "Smile from Hell" are not needed.

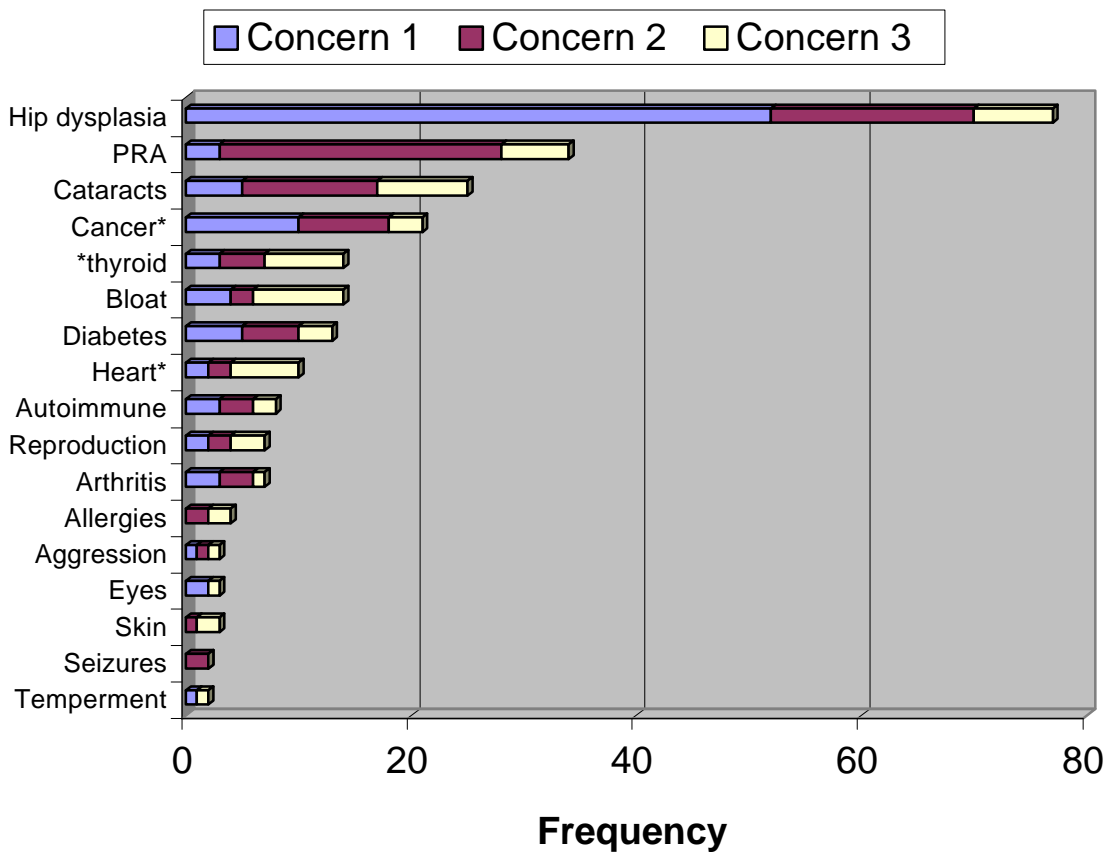
Reproduction - Reproduction problems in the Samoyed breed abound, as noted by its overall second place in the rankings. Of interest is that there is no single problem that stands out but that there are mentions of many, many different problems. Even with the extensive list of problems available as a sub-classifications, the "other" category has the highest ranking. In forty years of breeding, your analyst has seen many of these problems first-hand. He can only suggest that the Samoyed breeders of today try to maintain healthy brood stock and to not breed those females who will pass these problems down to future generations.



Present and Future Health Concerns

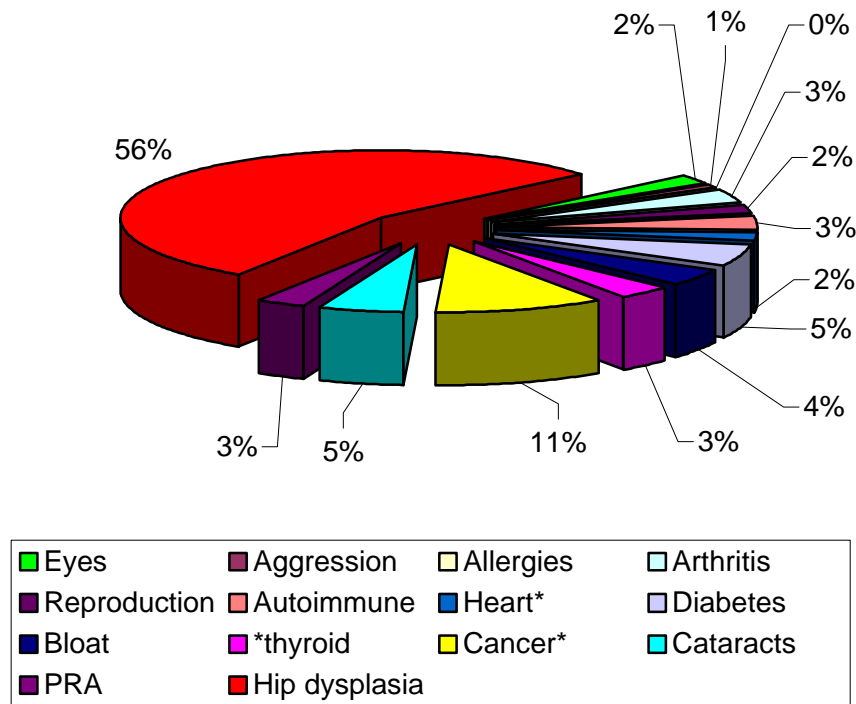
Another portion of the 1999 Samoyed Health Survey focused on problems and diseases that were of special concern to Sam owners. The survey asked that the respondents list up to three diseases that they considered to be problems in the breed. The data is presented again in the form of a concatenated three-segment-bar chart, with the concerns labeled as first, second and third as prioritized by the respondents.

Samoyed Owner Health Concerns



The asterisks (*) associated with cancer, thyroid and heart problems have no significance other than as data delimiters in the graph preparation. What does have significance is that HD is the foremost problem besetting the breed in the minds of the respondents. PRA is second but what is interesting is that the chart shows that many of the respondents who listed HD as the primary problem than listed PRA as their second priority. Cancer was rated quite high as a “Concern 1” by the respondents as a breed problem, indicating acknowledgement of the severity of this disease relative to the Samoyed. Unfortunately, it is unlikely that any solutions to the cancer problems in dogs will be found before solutions are discovered for their owners.

The breakdown of number one problems in the minds of the respondents is shown in this graph. Allergies is shown as 0% as it was only mentioned as the second or third priority. The earlier statement about PRA following hip dysplasia in individual respondents priorities is shown by the 3%



reference. Still, by grouping PRA, cataracts, and eyes (for other eye problems), one finds that the respondents look on this as a major problem area, following on only after cancer. Note that Bloat also represents a major problem. In the gastroenterology classification, bloat was represented as 16 % of the problems experienced by respondents. If one has experienced a Sammy with bloat, once is more than enough!

Summary: So Many Diseases, So Little Time

If an individual has spent his life with Samoyeds, as has your analyst, he begins to feel that he has seen at least one case of everything that can go wrong with the breed. Luckily, that is not so. Analysis of the raw data of the survey shows heart-wrenching problems that have befallen the respondents ... and some possible humor.

A respondent of the survey self-diagnosed a Dermatolgy problem of gingivitis. You have to remember to brush those Sams teeth after meals. A notable exception in the gastro- area was that no one mentioned a problem with Sams having gas, a somewhat famous problem with certain other breeds such as the Bulldog. One takes one’s satisfactions where they can be found.

But, the heart-wrenching problem areas are very real and very disturbing. The “other” category in cancer, some nineteen incidents, has to give one pause. Your analyst witnessed a favorite old dog die of a rhinosarcoma, a cancerous tumor embedded in an inoperable portion of the dogs muzzle ... the dog sneezing was a literal bloody disaster. As is true in humans, the only available treatments were chemo- or radiation therapy with discomfort causing side effects plus being unbelievably expensive. A decision was made to feed the dog

liquid Jello (strawberry!) to control the bleeding when sneezing would open the tumor and to let him live out the balance of his life in some level of comfort.

Nephrology had references to liver disease, renal failure, urinary tract disorders, bladder disease and other problems. All of these diseases involve an order of magnitude of increased care for the animal and a possibly lethal side effect for certain lines of Samoyeds when dosed with a specific, highly prescribed sulfa-based drug. This particular side effect may be linked to various forms of thyroid or immune system problems, although no published data is known to make that connection in the Samoyed.

There is a twenty percent incidence of diagnosed hypothyroidism under the Endocrinology category although this is far outweighed by the “other” sub-category. Yet only three percent of the respondents rated this as their number one concern. Is this because the disease is relatively easy to diagnose, once an owner suspects that there is a problem, and easy (and cheap) to control through medication?

The majority of the problem cataract cases are juvenile, as shown by age of the respondent's dogs ranging from six months to 2 years at the time of diagnosis. But the PRA cases in the survey were not detected until 4, 5, or more years of age except for one two-year-old. This strongly suggests that the new testing for the XL-PRA gene in females whose backgrounds indicate a matriarchal connection to known PRA Samoyeds be performed.

The problem of Reproduction (Female) has some interesting and, to a breeder, predictable combinations. References are made to irregular heat seasons with associated cases of pyometra. Primary uterine inertia is associated with a difficulty in whelping, which is certainly no surprise. Failure to conceive, failure to carry to term, difficulty whelping, cleft palates, abnormal puppies ... how do breeders have the will to go on to the next step in their breeding program?

Science and technology are wonderful. The advances in medicine are accelerating with the ever increasing capability to communicate. But the veterinary research organizations can only do so much and their plans are to start with “the big problems.” This study will increase their knowledge of what the Samoyed owner sees as his own big problem. But for hip dysplasia to be the number one referenced problem when it can be controlled through planning and knowledge is a bad sign.

Although the researchers appear to be talking to each other, it is not obvious that the Samoyed breeders are doing the same. Honesty in telling those who are carrying on your line of dogs is an absolute requirement in the positive growth of the Samoyed breed.

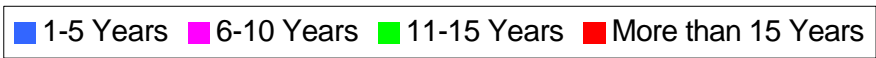
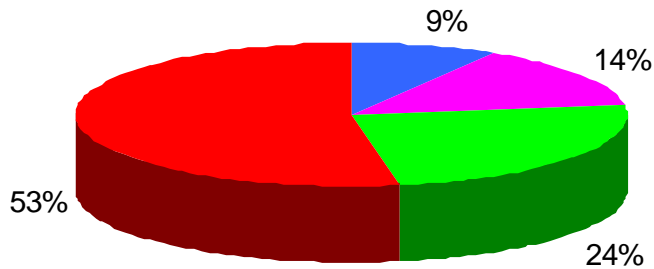
The other side of that sharing information coin is to know that a breeder acknowledging a problem in his or her line is inviting the possibility of that problem becoming known from coast to coast within hours. A side effect of passing on the information about a problem is giving “enemies” the opportunity to destroy the breeder who has divulged what should be helpful data but instead has become the weapon that can strike them down. This is not useful to the breed.

Respondents: No Names But Some Demographics

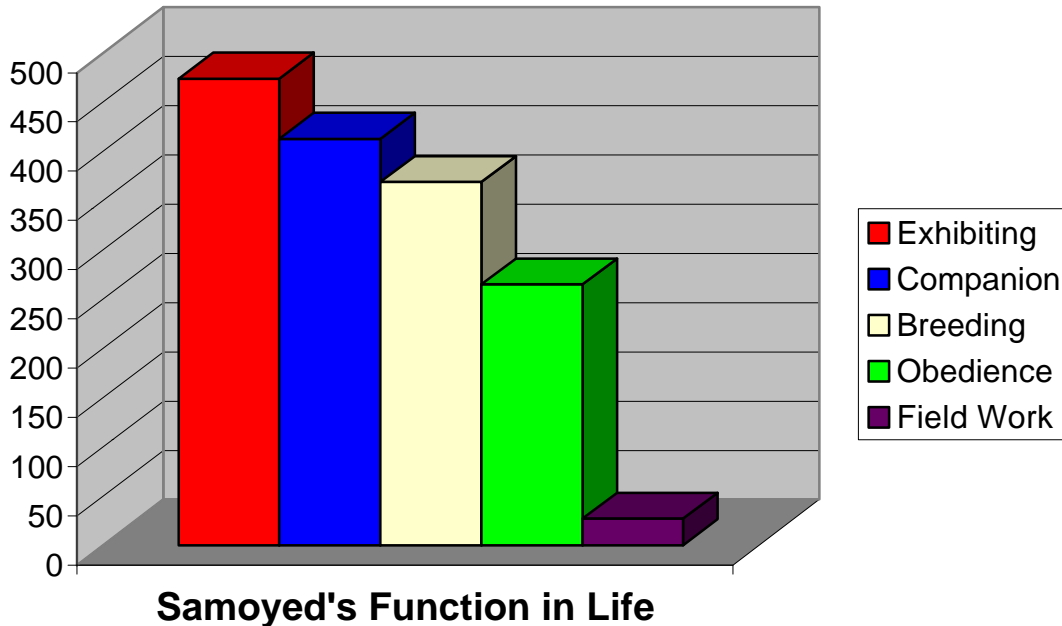
There were 566 respondents to the 1999 Samoyed Health Survey. The pertinent facts about them are as follows:

Who were the respondents? How long have they owned Samoyeds? The majority of the respondents have been playing with Sams for more than fifteen years.

Number of Years in Breed

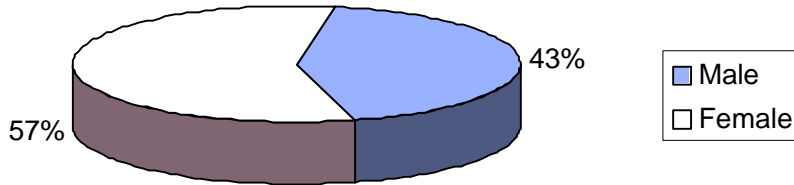


More than three hundred of the respondents are breeders and almost 450 are exhibitors. Although the classification of companion is in second place, we all know that our Samoyeds are first and foremost ... pets. Even if we don't know that, they do!

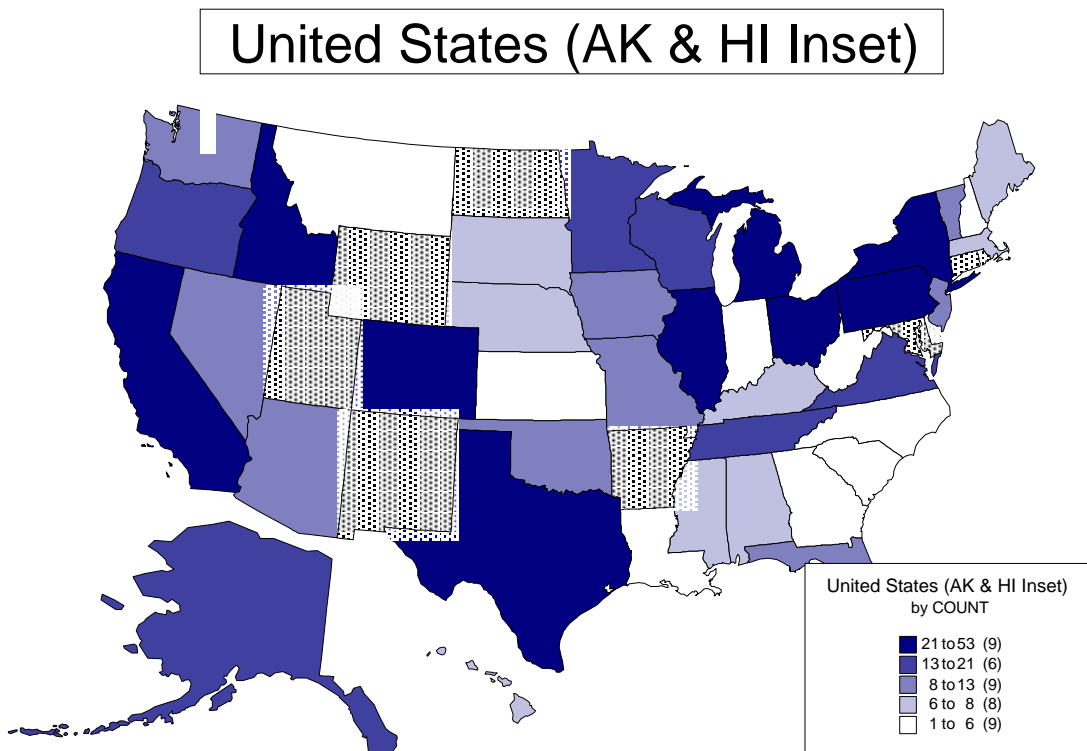


How were the respondents Samoyeds divided by sex. The 3:2 ratio of females over males makes sense when one considers that many of the respondents are breeders, hence more females on their premises. Besides, the females are easier to live with.

Sex of Sams in Survey

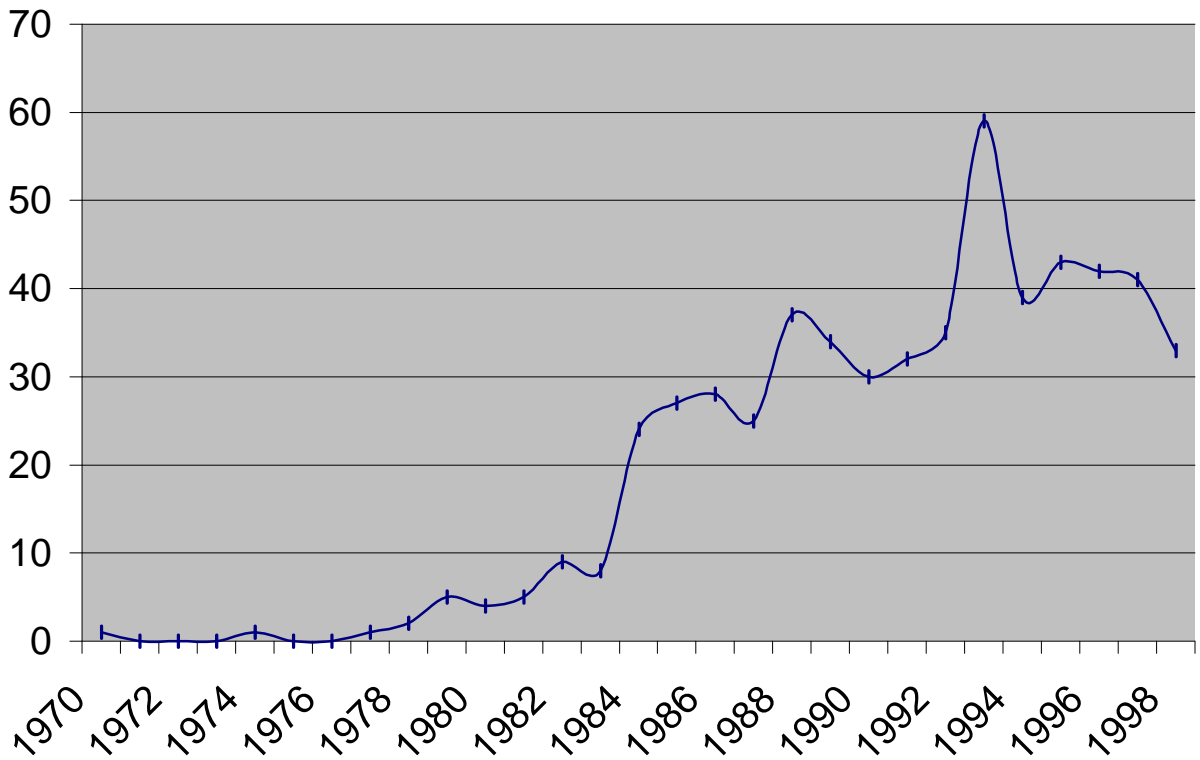


Where are the respondents located? All over North America.



Finally, what was the year of the respondent's Sammy's birth? Note that the chart ends with 1998. The large number of respondent's Sams that were born in 1993 is just one of those things that drive analysts crazy.

Samoyeds in Study, Birth by Year



Your analyst wishes to thank the Samoyed Club of America, and its President, Jim Cheskawich, for the opportunity to work with this database. The information contained within this report is very important to the future of the Samoyed breed and it is hoped that this presentation is found to be helpful to those individuals concerned with the well being of the Sammies.