This health survey was designed to tell us the frequency of various diseases in our breed, help us learn the life span of Bernese, and serve as a record of the state of the breed's health in 2005. This report summarizes the data.

Introduction:

The BMDCA conducted a breed-wide health survey from October, 2004 through April, 2005. During that time 1418 surveys were submitted, and of those, 1293 surveys were completed on dogs alive in 2002-2003 for inclusion in the core results used for comparison to the 1062 core surveys from the year 2000 survey.

This Summary is prepared by the Health Committee of the BMDCA and represents its interpretation of the data. This summary will be organized by general information, then by organ system for diseases with a high incidence rate, then diseases with low incidence rates and finally a summary of areas of research interests for the future. It is assumed that a disease with less than 1% incidence, 13 or fewer cases in the survey, are of low incidence and not statistically significant.

- 1155 of 1293 (89%) dogs had good or excellent health
- only 42 dogs (3%) were in poor health
- 9 of 1092 dogs exposed to anesthesia (0.7%) had a life threatening reaction to the anesthesia, 8 reported severe hyperactivity on waking, 7 reported seizures or fly-snap post surgery, 5 reported vomiting or diarrhea, 2 reported bloating soon after surgery, 3 reported allergic reactions to the anesthetics, 6 others reported problems with crying post surgery, or problems with eyes.
Longevity:

**Longevity Breakdown:** (ages are all in months) The number of autopsies are down from the last survey. This could be due to a heavier use of biopsies to positively diagnose illness prior to death, or there may be other reasons.

**Number dead:** 215 **Average age** 94.3 **Autopsies:** 73 **Euthanized:** 169

<table>
<thead>
<tr>
<th></th>
<th>MALES</th>
<th>FEMALES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>103</td>
<td>112</td>
</tr>
<tr>
<td><strong>Neutered</strong></td>
<td>75</td>
<td>96</td>
</tr>
<tr>
<td><strong>Intact</strong></td>
<td>27</td>
<td>16</td>
</tr>
<tr>
<td><strong>Bred</strong></td>
<td>21</td>
<td>39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Death from</th>
<th>Average age at death</th>
<th>males</th>
<th>females</th>
</tr>
</thead>
<tbody>
<tr>
<td>age-related</td>
<td>127</td>
<td>84.2</td>
<td>133</td>
</tr>
<tr>
<td>cancer</td>
<td>91.5</td>
<td>86.4</td>
<td>95.8</td>
</tr>
<tr>
<td>heart</td>
<td>96.8</td>
<td>103</td>
<td>91</td>
</tr>
<tr>
<td>bloat</td>
<td>97.6</td>
<td>66.5</td>
<td>129</td>
</tr>
</tbody>
</table>

- 73 of 215 expired dogs had autopsies
- 169 of 215 expired dogs were euthanized
- 143 of 215 expired dogs died of cancer with 18 sarcomas, 44 histiocytic tumors, and 8 histiocytic sarcomas
• only 8 of 215 expired dogs died of old age related mobility or incontinence issues, but of those 2 were from degenerative spinal diseases

Comparison between age of death from the 2000 and 2005 surveys:

**Bone/Joint:**

• 938 of 1293 dogs (72%) had their hips evaluated, 836 of 1293 (61%) had their elbows evaluated
• 12 of 1293 dogs (1%) had surgery for hip problems and 26 of 1293 (2%) for elbow problems

• 94 of 1293 dogs (7%) developed Panostitis at an average age of 13 months
• 36 dogs (3%) developed OCD and 95 dogs (7%) developed ACL
• 217 dogs (17%) were diagnosed with arthritis at an average age of 67.4 months
• 135 of 938 (14%) evaluated dogs had hip dysplasia of some extent
• the average PennHIP was 0.51 for both hips, as opposed to a median of 0.55 from PennHIP (as of Jan 3, 2006).
• 205 of 836 evaluated dogs (24.5%) had an elbow abnormality

![Elbow Ratings](image1)

Various:

• 309 dogs (24%) had a hernia
• 54 dogs (4%) had bloat
• average age of bloat was 59.9 months
• 48 dogs (89%) of dogs with bloat required surgery
• 5 dogs (9% of the dogs that bloated) died from bloat

![Gastrointestinal](image2)

• 15 dogs (1%) had intervertebral disc disease, and another 16 had spinal degeneration or myelopathy
- 25 dogs (1.9%) had a seizure disorder
- 53 dogs (4%) had fly-snap syndrome
- 9 cases of asceptic meningitis, 2 of viral, and 1 bacterial

### Neurologic

- 31 dogs (2.4%) had entropion—there were a total of 14 surgeries for entropion, and 13 dogs (1%) had ectropion, with a total of 2 surgeries
- 384 dogs (30%) had eye exams
- 61 dogs (4.7%) had cataracts
  - 22 specified punctate
  - 8 specified age related
  - 4 specified posterior
  - 2 specified juvenile
  - 1 specified capsular

### Opthalmic

- 209 dogs (16%) had some allergy
- 4 cases of lupus (SLE)
- 25 cases of anemia
- 8 cases of lyme were reported, 1 of ehrlichiosis
- 1 case of protein losing enteropathy, 1 with protein in the urine
- 94 dogs (7%) had hypothyroidism, 2 had hyperthyroidism

**Immunologic**

**Endocrine**

**Cancer:**
• 52 dogs (4%) had some form of histiocytosis, with another 4 suspected cases
• 44 dogs (3%) had some mast cell tumor
• 38 dogs (3%) had lymphoma or lymphosarcoma
• 15% of all dogs had some kind of tumor

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Number of Dogs</th>
<th>Age in Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malignant histiocytosis</td>
<td>42</td>
<td>82.4</td>
</tr>
<tr>
<td>Lymphoma/lymphosarcoma</td>
<td>26</td>
<td>86.8</td>
</tr>
<tr>
<td>Hemangiosarcoma</td>
<td>7</td>
<td>98.1</td>
</tr>
<tr>
<td>Osteosarcoma</td>
<td>9</td>
<td>86.8</td>
</tr>
<tr>
<td>Mast cell</td>
<td>5</td>
<td>116</td>
</tr>
</tbody>
</table>

**Reproduction:**

It is difficult to ascertain from this survey the pervasiveness of abnormal reproduction in our breed. However, based on the information derived, there appear to be a significant number of animals who do not reproduce without a problem of some sort.
301 bitches were bred.
231 of those bitches went through part or all of a pregnancy, and there were a total of 426 litters.
There is more specific litter data on 150 brood bitches with a total of 295 litters.
There is specific delivery and puppy survival data on 139 brood bitches with a total of 275 litters.

- 59% (82 out of 139) had at least one c-section
- 28.9% of bred bitches failed to conceive at some time (87 out of 301 individuals a total of 166 times.)
- 74 out of 231, or 32% of brood bitches had difficulty whelping, of those giving specific reasons there were:
  - 18 due to uterine inertia
  - 13 due to stuck puppies
  - 2 from the uterine horns being twisted
- 21 out of 231, or 9% brood bitches had irregular heat cycles.
- 20 out of 231, or 8.6% of brood bitches refused to breed at least once
- 14 out of 231, or 6% of brood bitches developed vaginitis
- 16 out of 231, or 6.9% of brood bitches developed pyometra
- 15 out of 231, or 6.4% of brood bitches developed mastitis
among the 426 litters reported there were 37 fetal deaths and 11 fading puppies
- 22 out of 231, or 9.5% of brood bitches resorbed litters (21 full litters and 3 partial litters.)

The combinations of delivery methods are:

Unspecified delivery method: 20 litters for 11 dams
Specified delivery methods: 275 litters for 139 dams

Single litter,
c-sections: 29
All free whelp: 30
Two litters:
Both free whelp: 13
Both c-sections: 4
First c, second free: 3
First free, second c: 18

Three litters:
   All free whelp: 11
   All c-sections: 9
   First 2 free, last c: 7
   First free, last 2 c: 1
   First and last free: 1
   First 2 c, last free: 1
   First c, last 2 free: 1
   First and last c: 2

Four litters:
   All free whelp: 3
   All c-sections: 4
   First and third free: 1

Five litters:
   First, third, and fourth free whelped: 1

### 100 breeding males

- 2% of the breeding males were sterile
- 5% of breeding males had abnormal sperm
- 18% of breeding males reported prostate problems. The breeding males with prostate problems represented 55% of the total reported prostate problems.

### Birth Defects

The request was made in the survey to share any birth defects that had been produced by any bitch the submitter had owned. This is a list for informational purposes, and may help to determine whether to collect more focused details in the future.

Discounting umbilical hernias and kinked tails, a number of birth defects were reported:

- 14 litters with cleft palates reported, from mild to severe
- 4 litters with missing or partially developed ear flaps and cleft palates
- 4 litters with heart defects (this doesn’t include SAS)
- 4 litters with a puppy with a liver shunt
- 3 litters with skeletal defects
- 2 litters with a puppy with a spina bifida type problem
- 2 litters with cerebral abiotrophy
- 2 with walrus puppies
- 2 with a puppy born with the intestines external to the abdomen
- 1 with a puppy born with no anal opening
- 1 with a puppy having a brain stem lesion
• 1 with a puppy with only one kidney

Breeders are encouraged to keep accurate records on details of breedings and whelpings which might be useful later if any specific area of reproduction appears to warrant further study due to suspected increase of incidence in the breed.

Temperament:

• 616 were described as confident and friendly
• 303 were described as friendly
• 140 were described as confident
• 129 were described as very shy and/or timid
• 16 were described as aggressive, and 22 had bit a person
• 75 were described as afraid of men

• 12.1% of all the dogs surveyed were aggressive or had fear issues