



# USA BMD Statistics

Registrations and Health

by Pat Long, May 2019

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	AKC Registrations		AKC Litter Complement		AKC Stud Book						
Year	Dog Count	Litter Count	Surviving Puppies in Litters	Estimated Puppies in Litters	Total Entries	Dogs	Bitches	%m	%f	bred dogs as % of litter complement 2 years prior	bred dogs as % of estimated puppies in litters 2 years prior
2006	3,714	1,231		7,386	684	219	465	32%	68%		10%
2007	3,522	1,262		7,572	716	236	480	33%	67%		10%
2008	3,338	1,193	6,906	7,158	641	237	404	37%	63%		9%
2009	3,243	1,160	6,728	6,960	665	234	431	35%	65%		9%
2010	3,120	1,122	6,614	6,732	641	198	443	31%	69%	9%	9%
2011	3,181	1,101	6,551	6,606	611	197	414	32%	68%	9%	9%
2012	3,178	1,154	6,856	6,924	605	196	409	32%	68%	9%	9%
2013	3,614	1,276	7,566	7,656	706	224	482	32%	68%	11%	11%
2014	3,686	1,291	7,619	7,746	658	203	455	31%	69%	10%	10%
2015	3,987	1,394	8,248	8,364	706	224	482	32%	68%	9%	9%
2016	4,477	1,640	9,770	9,840	881	263	618	30%	70%	12%	11%
2017	5,132	1,885	11,379	11,310	1,015	317	698	31%	69%	12%	12%



## Club Recommended Health Testing

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### CHIC

AKC DNA registration (ensures parentage)

Hips and Elbows (dysplasia)

Eye exam (PRA, juvenile cataracts)

Heart exam (SAS)

DM (2 mutations, DNA tests)

And at least one of the following:

- vWD Type I (DNA test)

- Antigene Histiocytic Sarcoma (DNA risk test)

- Autoimmune Thyroiditis

**COI = 36%**





# Health Testing Data

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VetGen through 9/11/18

vWD: Clear – 2876, Carrier – 259, Affected – 6

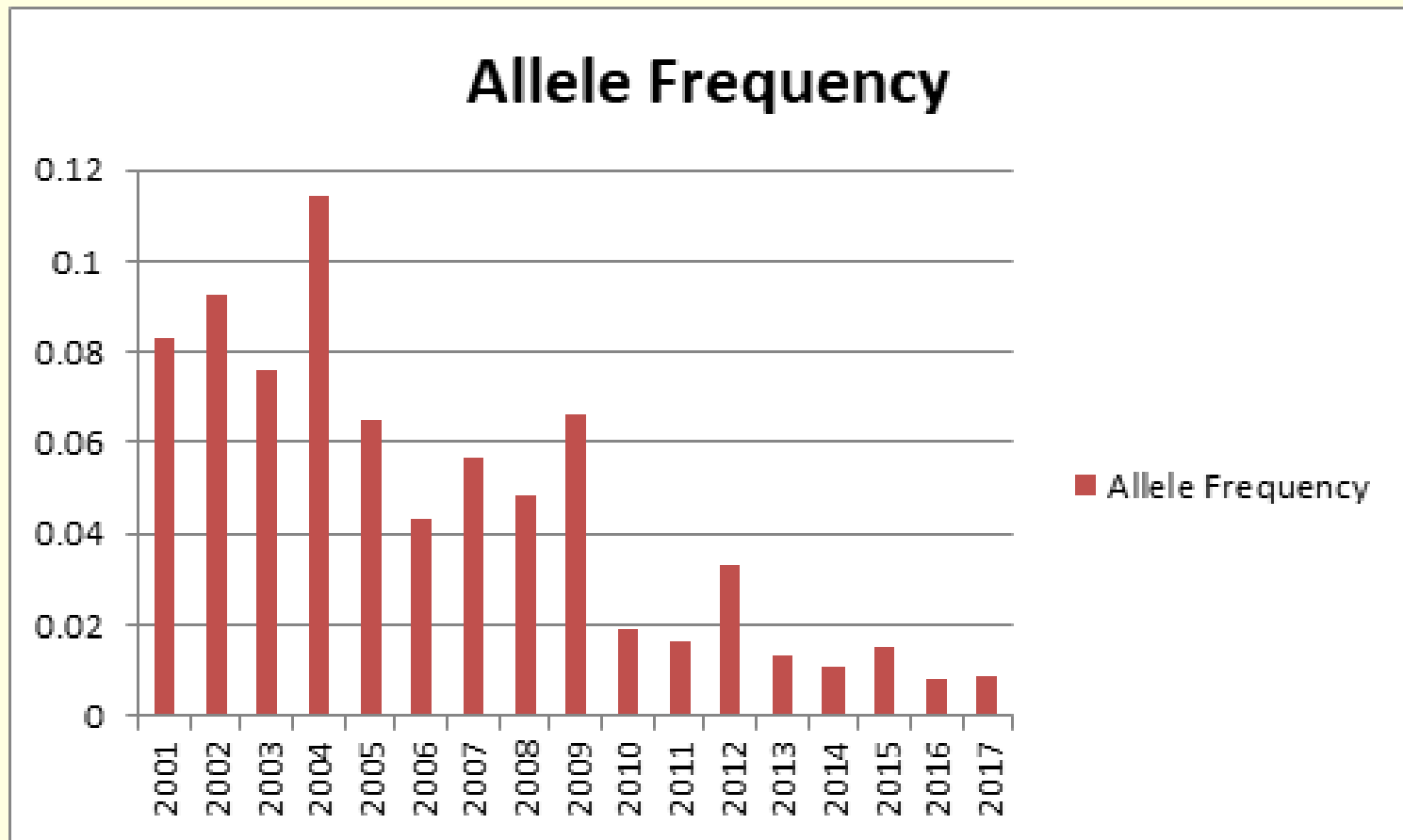
GenSol through 31/10/18

vWD: Clear – 1058, Carrier – 27, Affected – 0

SOD1-A: Clear – 2289, Carrier – 2282, At-risk – 385

SOD1-B: Clear – 3243, Carrier – 464, At-risk – 7

# vWD Type I DNA test



# New Tests - DM

GenSol – Aggregate through 31/10/18

SOD1-A: Clear – 2289, Carrier – 2282, At-risk – 385

SOD1-B: Clear – 3243, Carrier – 464, At-risk – 7

GenSol - Incremental for June 2017 – 31/10/18

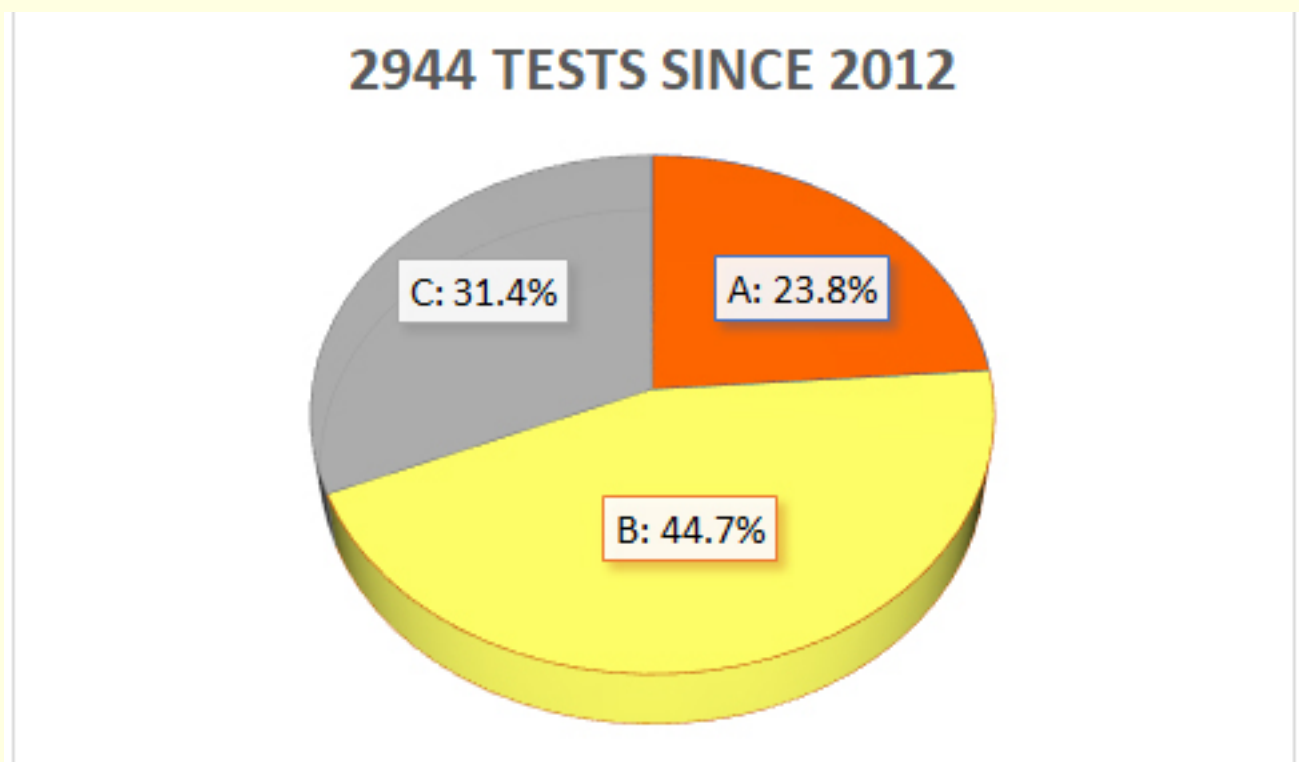
SOD1-A: Clear – 851, Carrier – 822, At-risk – 132

SOD1-B: Clear – 952, Carrier – 154, At-risk – 2

Mutations	Total in BG	Total Deceased	Diagnosed	Symptomatic	% Diagnosed	% Symptomatic
A/A	331	119	16	67		
B/B	5	3	3	3		
A/B	49	9	5	7		
Total	385	131	24	77	18.3%	58.8%

# New Tests – Histiocytic Sarcoma

## DNA risk test



# What has helped us?

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an open database, Berner-Garde

155,912 dogs

17,816 dogs with health data records

17,797 dogs with date of death

44,592 dogs with health certifications



moderated eList, the Berner-L

2,500 members

# What do we need?

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- Advice on what labs can be trusted to do the testing.
- Data and the ability to track it year by year.
- Education about the importance of overall population health and diversity.
- Educational advice for breeders, with the understanding that individual test results are not as important as the WHOLE dog.
- What other questions should we be asking?

# What advice do clubs need?

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- Need for health surveys to track diseases in the breed (helps with test recommendations and directing research funding), a template would be helpful
- Need for tracking test results from year to year
- When tests should be required, when they should be optional, percentage cut-offs?
- Templates for educational materials for Health Committees to provide to breeders

# What do clubs need for breeders?

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First and foremost, keep the WHOLE dog in mind

- General information about when a health test should be used based on affected rates within the population, based on health surveys?
- Specific recommendations for how breeders should use different types of tests, for example:
  - Phenotypic
  - DNA (direct, linked), for recessive, dominant, risk
  - When no test is available at all, avoid near relatives

**Thank You!**

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