

//////// Breeding progress through data acquisition and data analysis

Schweizer Sennenhund-
Verein für Deutschland e.V.



SSV breeding strategies

Execution of breeding in the SSV according to phase program: Phase I

In case „problems“ occur increasingly within the population, data will be collected.

“Problems” can be aberration of health as well as deviations in the exterior.

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Execution of breeding in the SSV according to phase program:
Phase II

Evaluation of the data collected in phase I.

Creation of a breeding program involving the club members as well as scientific support.

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Execution of breeding in the SSV according to phase program: Phase III

Verification of the breeding success
(population analysis)

- continue the breeding program
- modify the breeding program
- stop the breeding program.

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\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ Breeding goals-priority list

health / high life span

FCI standard for Bernese Mountain Dogs

- movement (functional properties)
- behavior (functional properties)
- exterior

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////////// Breeding goals-priority list

health / high life span

- increase the average
- life span -> 9-10 years

fighting cancer

fighting hip dysplasia

fighting elbow dysplasia

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\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ Breeding goals-priority list
FCI standard for Bernese Mountain Dogs:

Movement (functional properties)

“GAIT / MOVEMENT :

Sound and balanced movement in all gaits covering a lot of ground; free stride reaching well out in front, with good drive from behind; at the trot, coming and going, legs moving forward in a straight line. “

important for quality of life!

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////////// Breeding goals-priority list
FCI standard for Bernese Mountain Dogs:

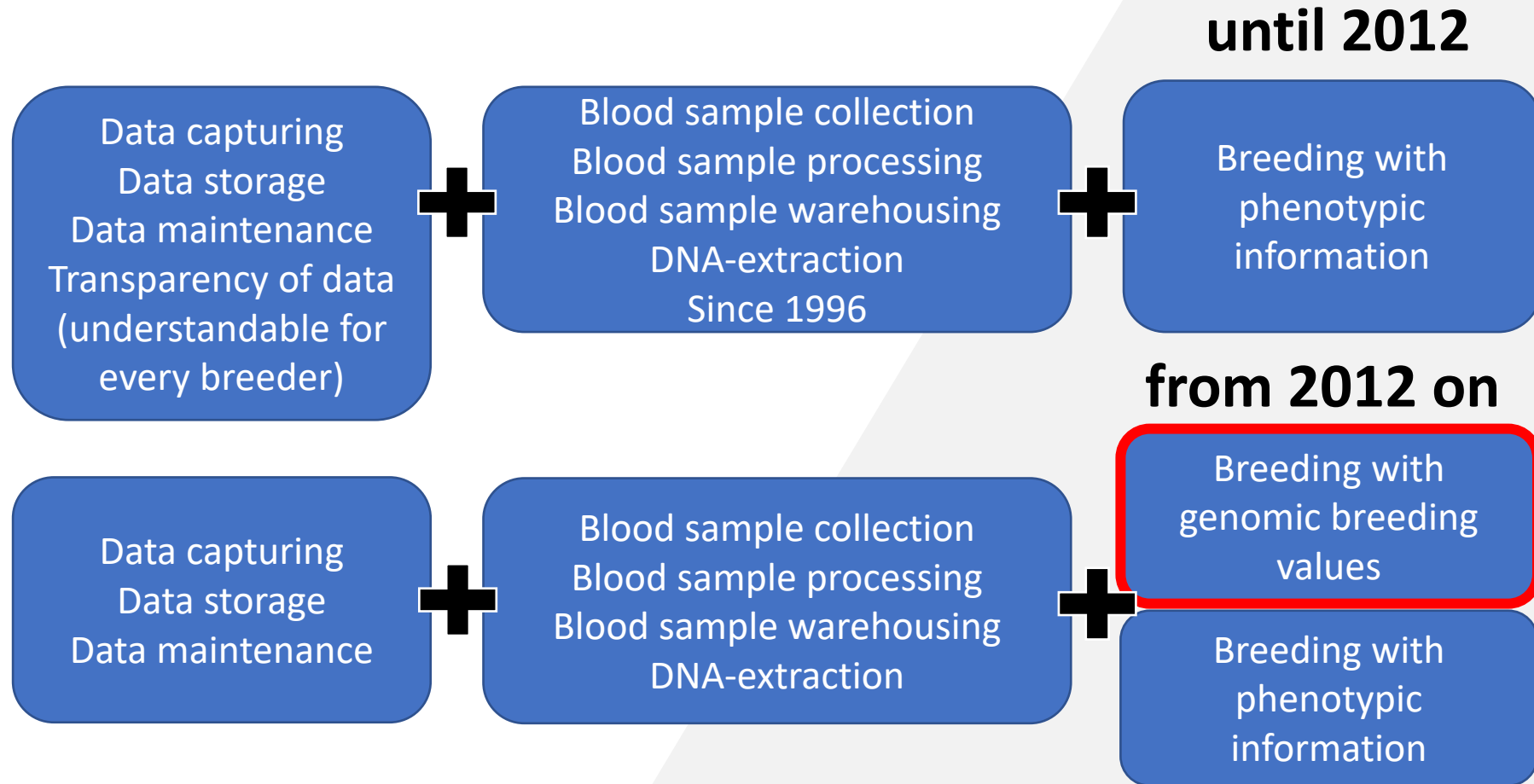
„BEHAVIOUR / TEMPERAMENT:

Self-confident, attentive, vigilant, fearless in every day situations; good-natured and devoted to his own people, self-assured and placid towards strangers ; of medium ; of medium temperament, docile.

important for quality of life!

SSV breeding strategies

\\ Breeding strategies since 1978 until 2012



SSV breeding strategies

\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ Promotion of data density / data transparency

Voluntary measures (examples)

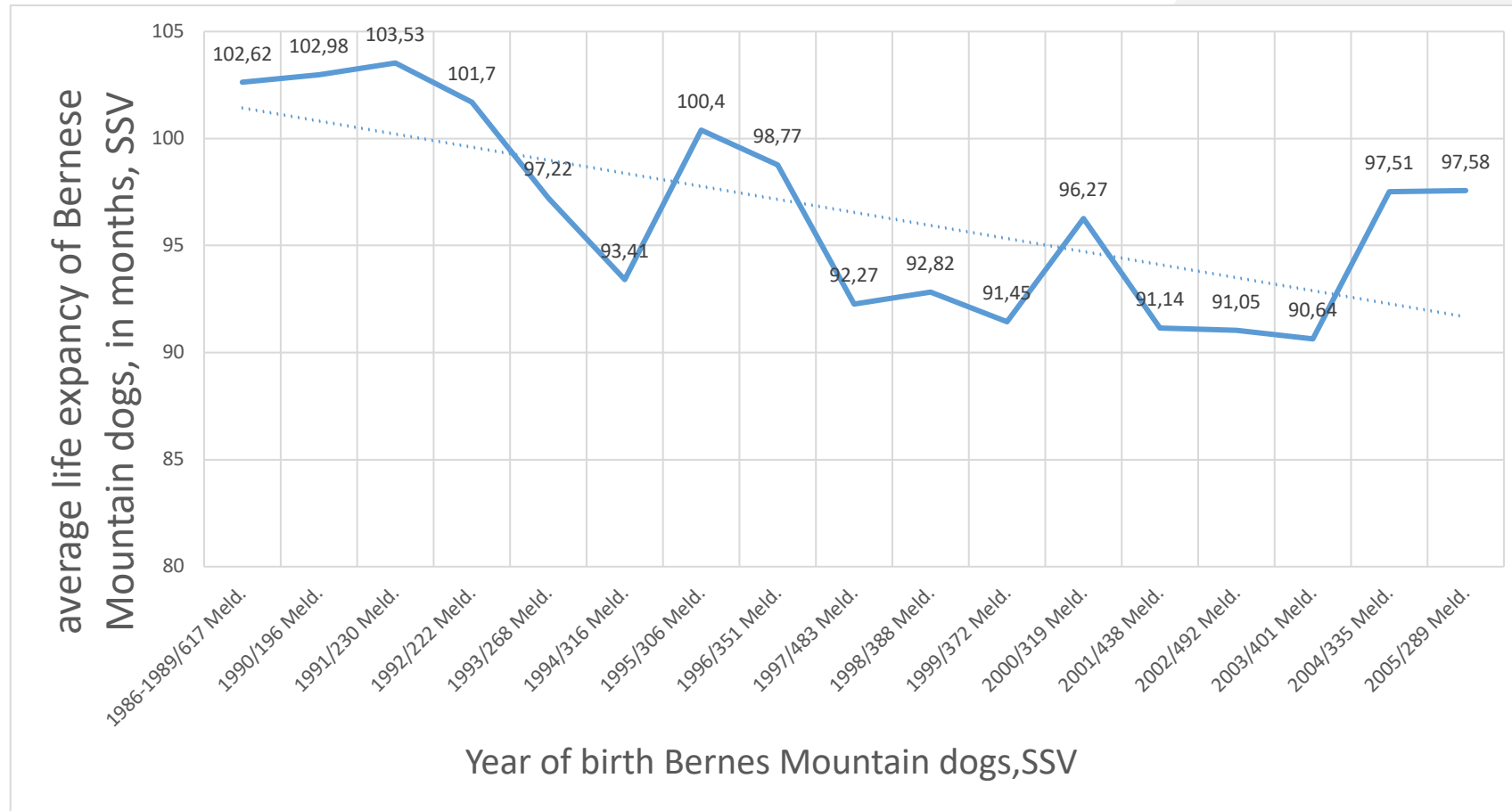
- questionnaire activities
- reward of transparency
- annual publication of the reporting rates of live and death

Non Voluntary Breeding regulations (examples)

- responsibility to genome testing from the third litter..."
- "10 out of 14 ancestors must have death or life reports
- publication of data in database

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Phase III - Breeding success review (population analysis) Example: life span



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Phase III - Breeding success review (population analysis) Example: life span

1990	1991	1992	1993	1994	1996	1997	1998	1999	2000
Formulare „Totmeldungen“					Blutabnahme bei Zuchthunden für eine "Blutbank" Dr. Terill Eckart referiert zum Malignen Histiozytose bei dem SSV-Zucht- in Hohenroda			„Lebenserwartung beim Berner Sennenhund“ wird zum zentralen Thema	ca. 550 Todmeldungen
2001			2002		2003		2004		2005
Fragebögen "Tod-/Lebendmeldung" Meldeverpflichtung Lebend-/Todmeldung Altersfrischewettbewerbe Einführung SSV-Kurier als neues Medium Informationsartikel zum Lebensalter durch Arbeitskreis Berner 1. internationales Gesundheitssymposium in der Schweiz,			2. internationales Gesundheitssymposium in der Schweiz, der SSV stellt zum erstmalig seine Zuchtstrategien zu Langlebigkeit und Gesundheit C.Fechler/ Dr. N. Bachmann		Gesundheitssymposium Hohenroda "Lebenserwartung Berner Sennenhunde" zentrales Thema Höhere Lebenserwartung in SSV-Chronik als Zuchtziel durch Arbeitskreis Berner formuliert Anerkennung der Frühsterblichkeit als "genetisches Problem"		Zuchtplan Berner Sennenhunde:		Dr. N. Bachmann, Präsident C. Fechter Zuchtleitung Satzungsreform: Zuchtsentscheidung: Zuchtausschuss u. Mitgliederversammlung
							Deckrüdenbeschränkung/-umverteilung		
							"10 von 14 Regel, Lebend-/Todmeldung"		
							Randomisierung Röntgenkandidaten		
			K.Klaiber Präsident C. Fechter Zuchtleiter u. Zuchtbuchführer						

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Phase III - Breeding success review (population analysis)
Example: life expectancy and genomic breeding values

Introduction of the genome test on a voluntary basis: 2012

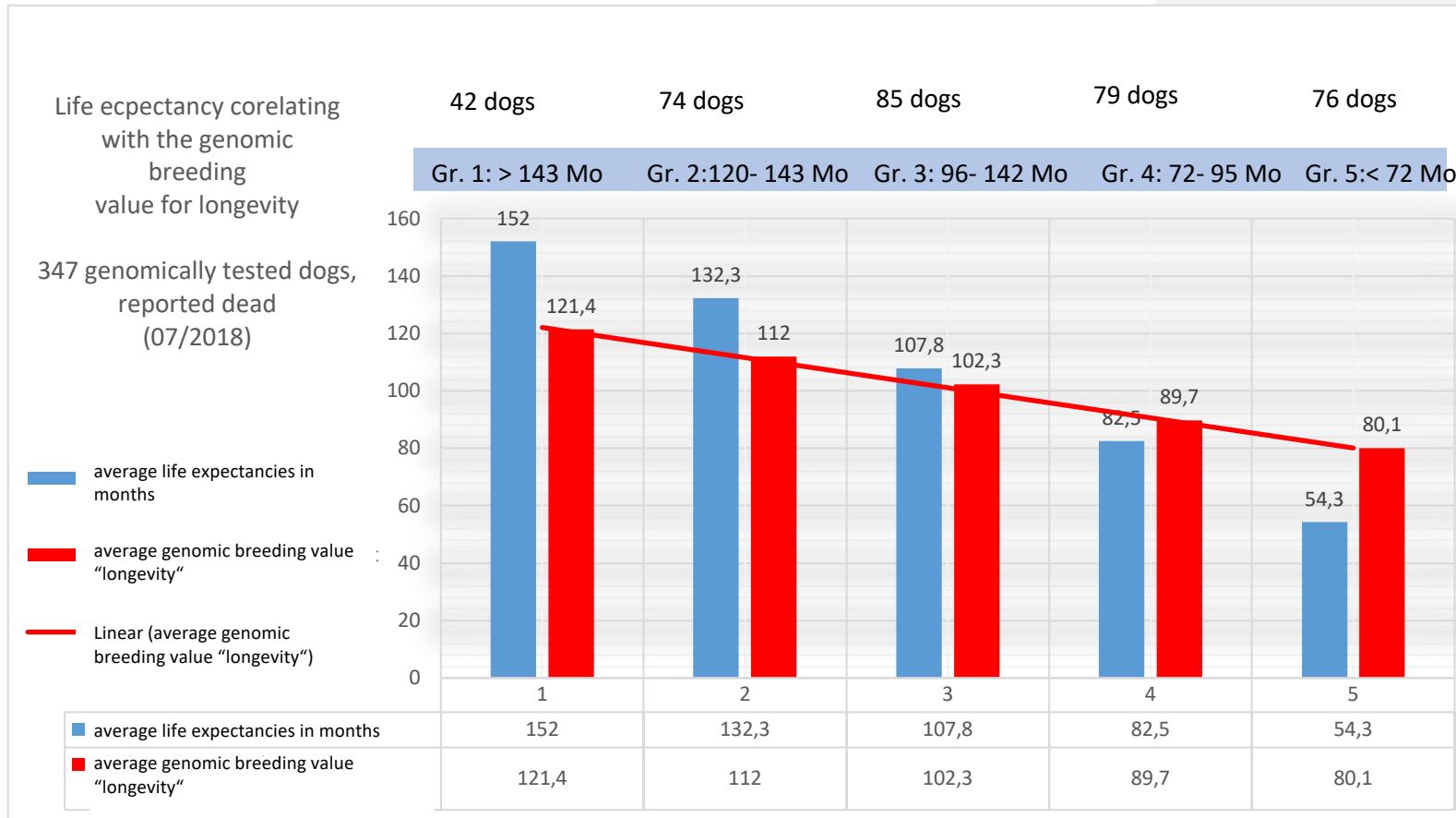
- 1000 dogs tested genomically
- 917 registered in Dogbase
- 364 are dead

Publication of results for life expectancy, hip dysplasia and elbow dysplasia

SSV pretest (histiocytic sarcoma, MH)

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Phase III - Breeding success review (population analysis) Example: life expectancy and genomic breeding values



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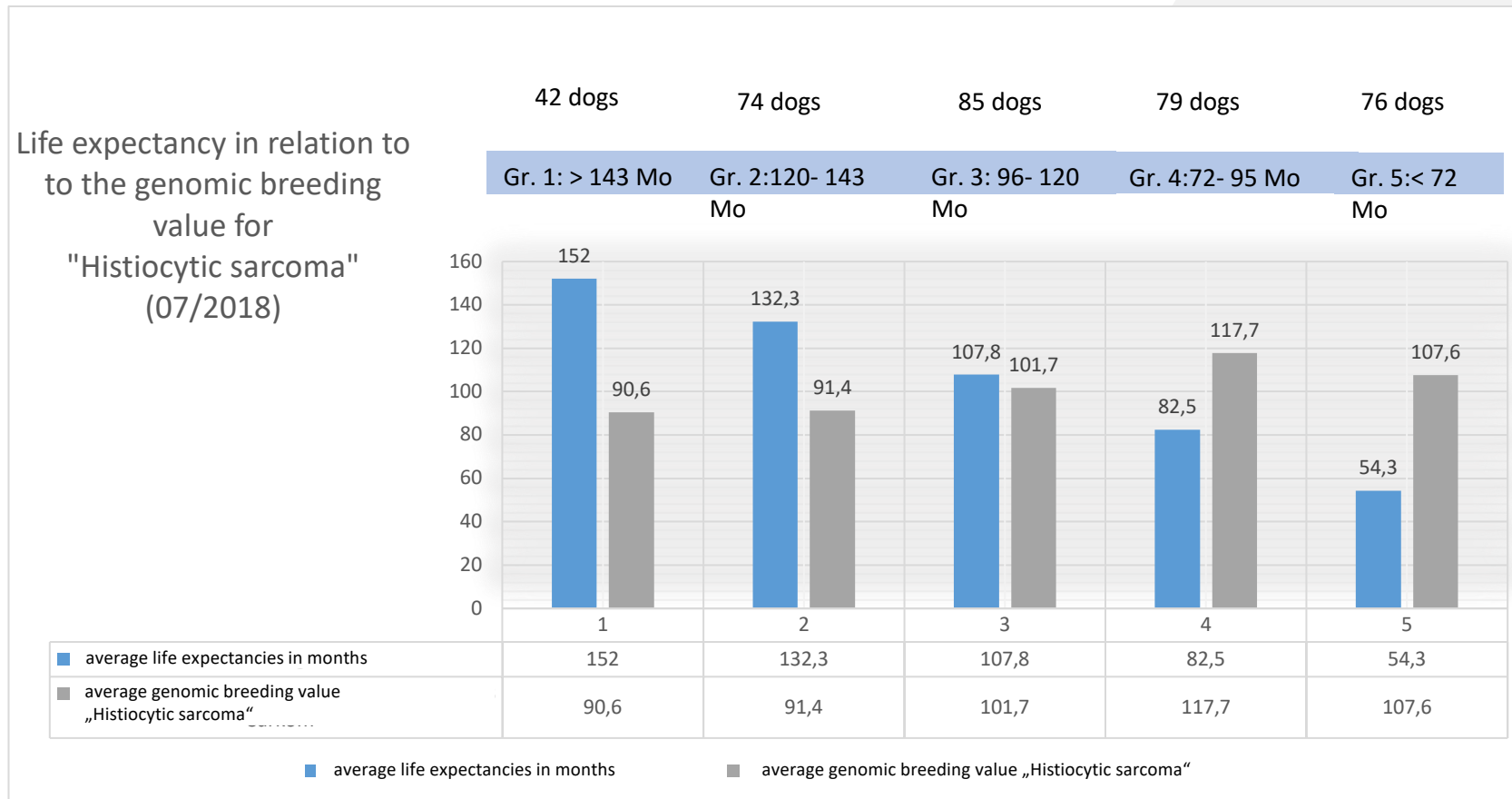
Phase III - Breeding success review (population analysis)
Example: life expectancy and genomic breeding values

We can draw the following conclusions:
A high age means a high genomic life value.

In case the curve runs similarly linear in the next 3 to 5 years when a majority of the test candidates will be dead, we can for sure claim the genomic breeding value for age a suitable breeding instrument to increase the life expectancy.”

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Phase III - Breeding success review (population analysis) Example: life expectancy and genomic breeding values



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\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ Phase III - Breeding success review (population analysis)
Example: life expectancy and genomic breeding values

Conclusio:

For reaching a very high age

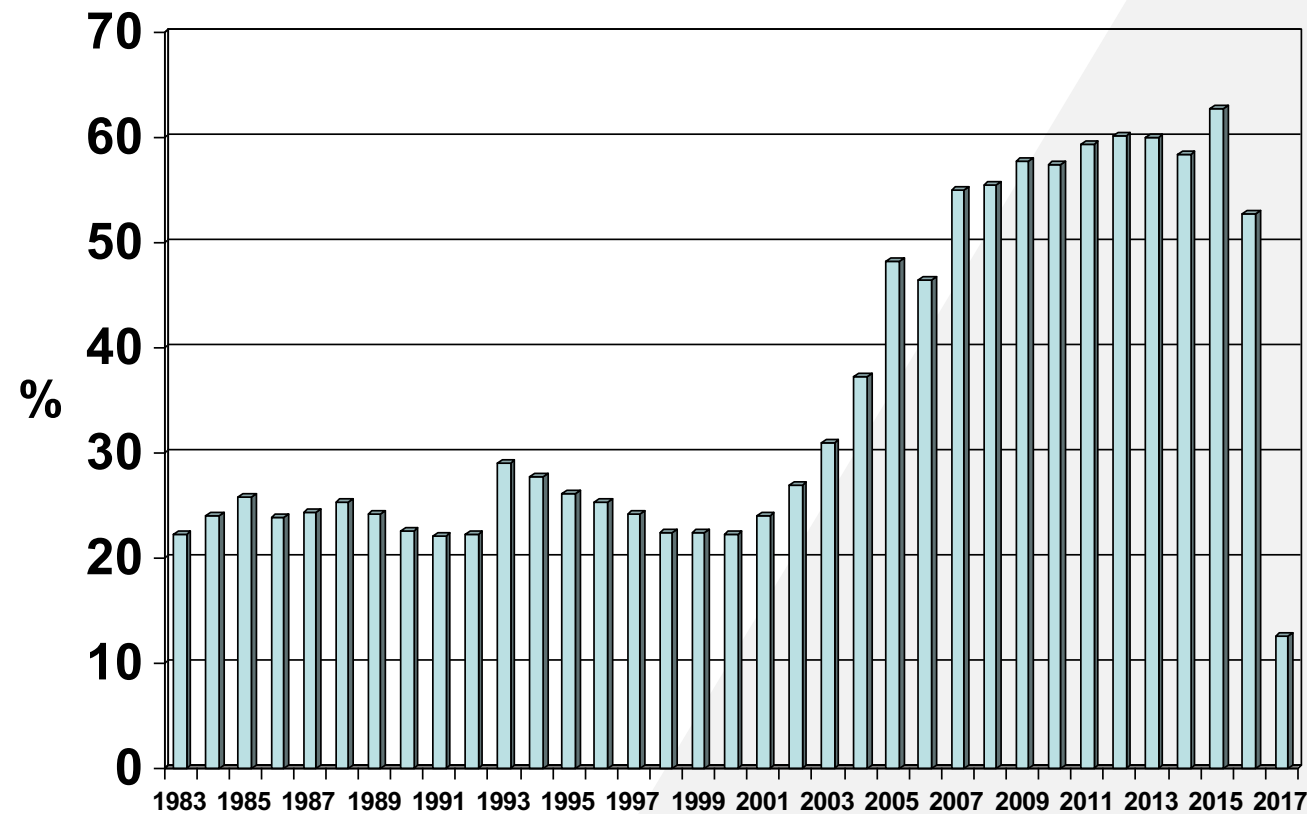
> 10 years the SSV-pretest alone is not meaningful

The results of the SSV-pretest within the group 10 years and older (reached age) as well as within the group „died under the age of 8” are on a similar level.

Therefore a simultaneous consideration of the genomic breeding value for age is essential for the breeding progress.

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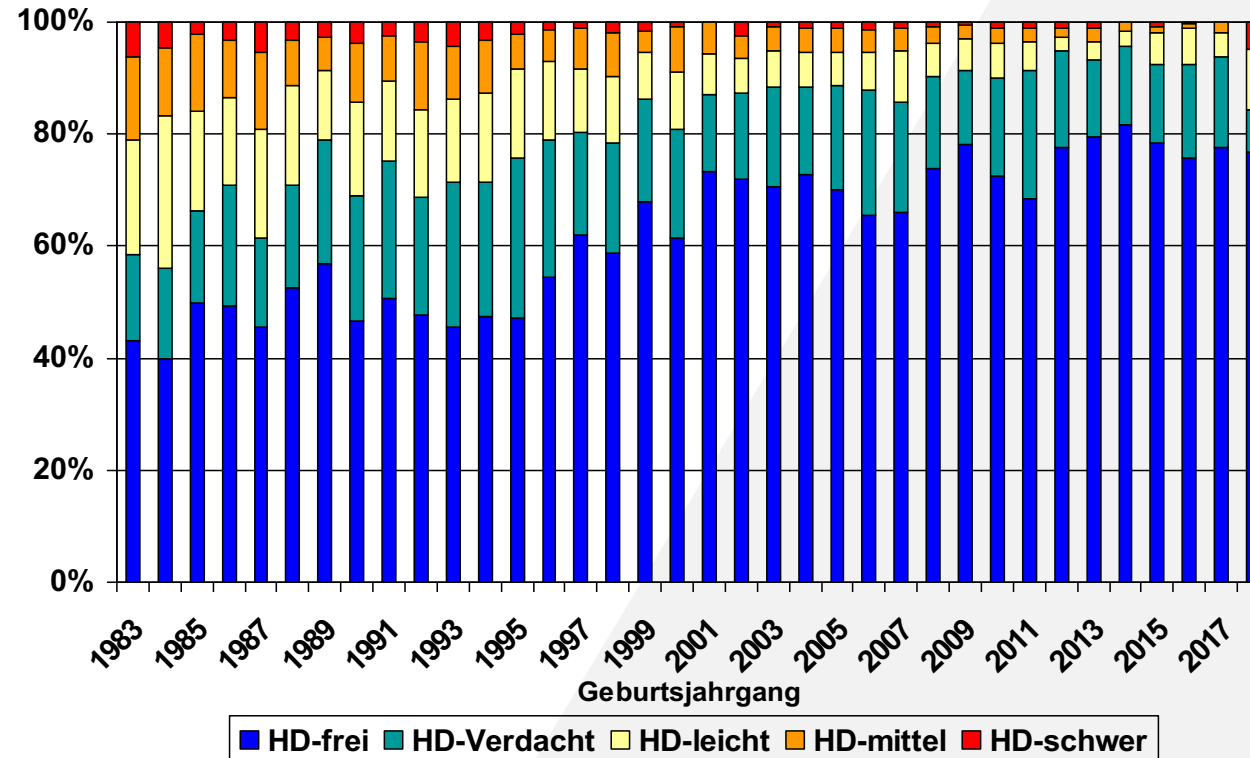
Phase III - Breeding success review (population analysis)
Example: X-ray rate



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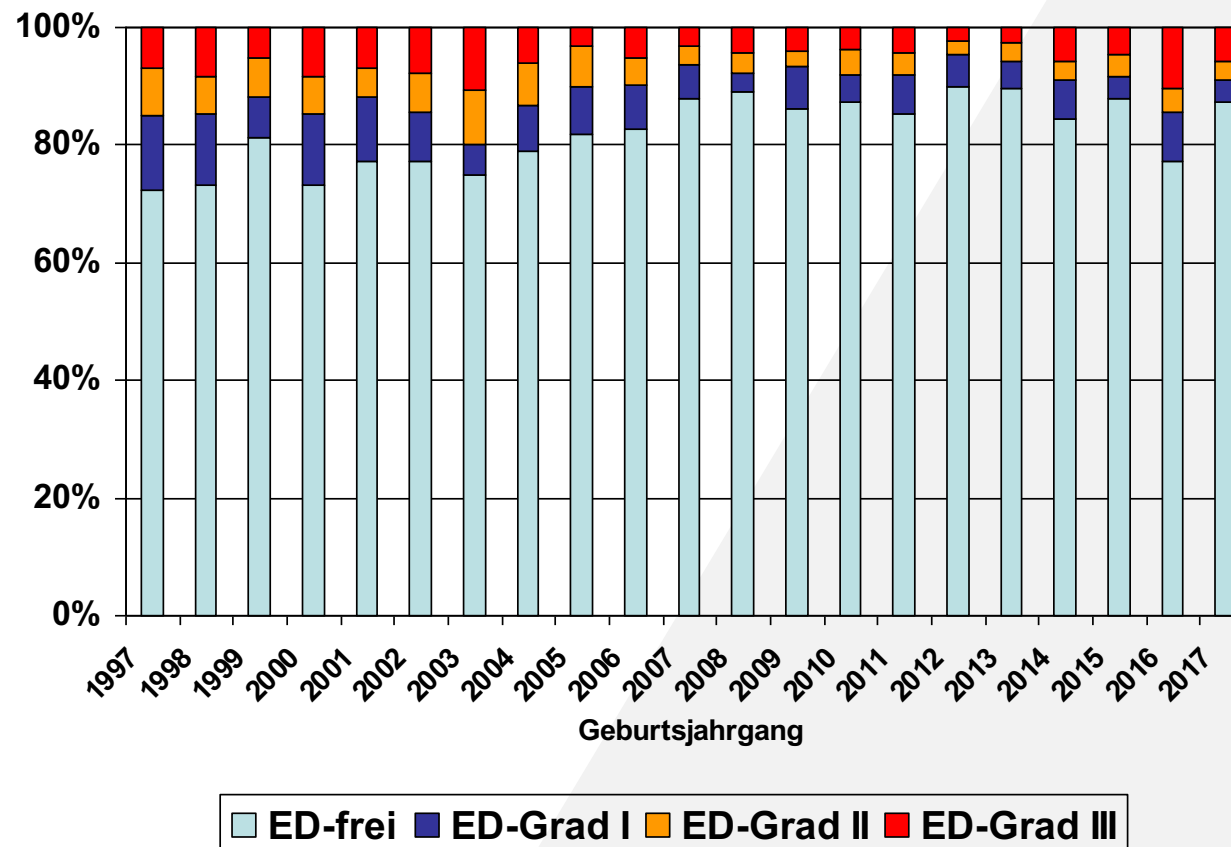
Phase III - Breeding success review (population analysis)
Example: hip-dysplasie

BERNER SENNENHUND



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Phase III - Breeding success review (population analysis)
Example: elbow-dysplasie



SSV breeding strategies

\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ The long way to healthy, suitable and standard-conformant dogs

- Collection and record of data
- Data density
- Data quality
- Blood sample collection
- Constant evaluation and verification of the development of breeding progress

\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ Thank you for your attention!

