

REPORT ON THE ELBOW DYSPLASIA PREVALENCE IN SOME DOG BREEDS IN ITALY: RESULTS FROM 2000 TO 2005



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CELEMASCHE

AIMS

- × to assess the prevalence of ED
- × to investigate the distribution of the FCI-I EWG score
- × to evaluate the trend of the screening between 2000 and 2005

in the most screened breeds in Italy

MATERIAL AND METHODS

3386 dogs (1913 females and 1473 males)

- × belonging to 7 different breeds (Bernese Mountain Dog 9.2%, Cane Corso 5.7%, German Shepherd Dog 24.2%, Golden Retriever 18.1%, Labrador Retriever 23%, Rottweiler 16.6% and Newfoundland 3%)
- × having an average age of 19.7 mo (SD=10.4mo)
- × X-rayed at a minimum age of 12mo by 325 veterinarians between 2000 and 2005
- × evaluated by a single official panelist according to the IEWG protocol (ED grade from 0 to 3)

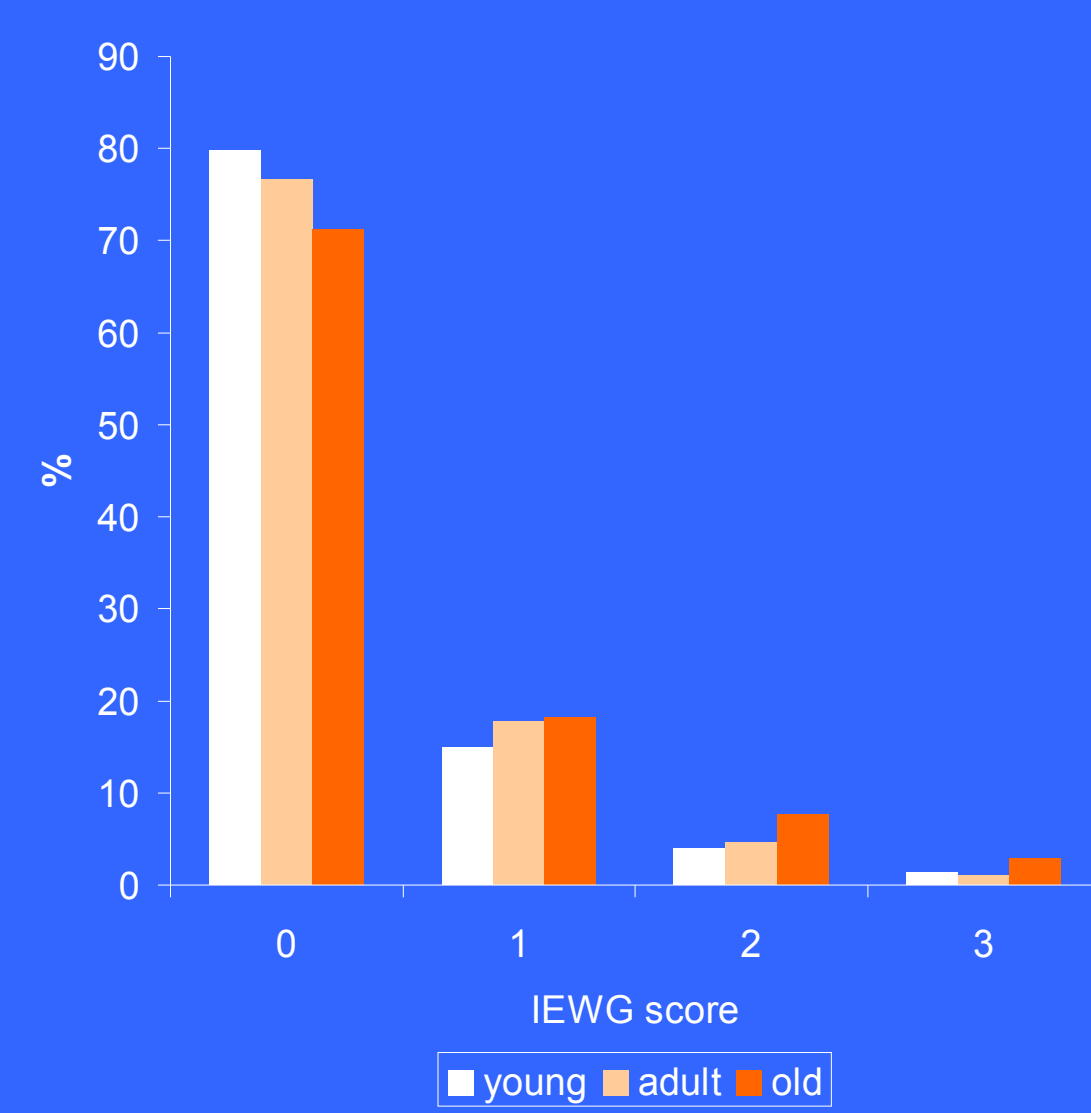


Figure 1: Percentage distribution of dogs (n=3386) by ED score and age at screening.

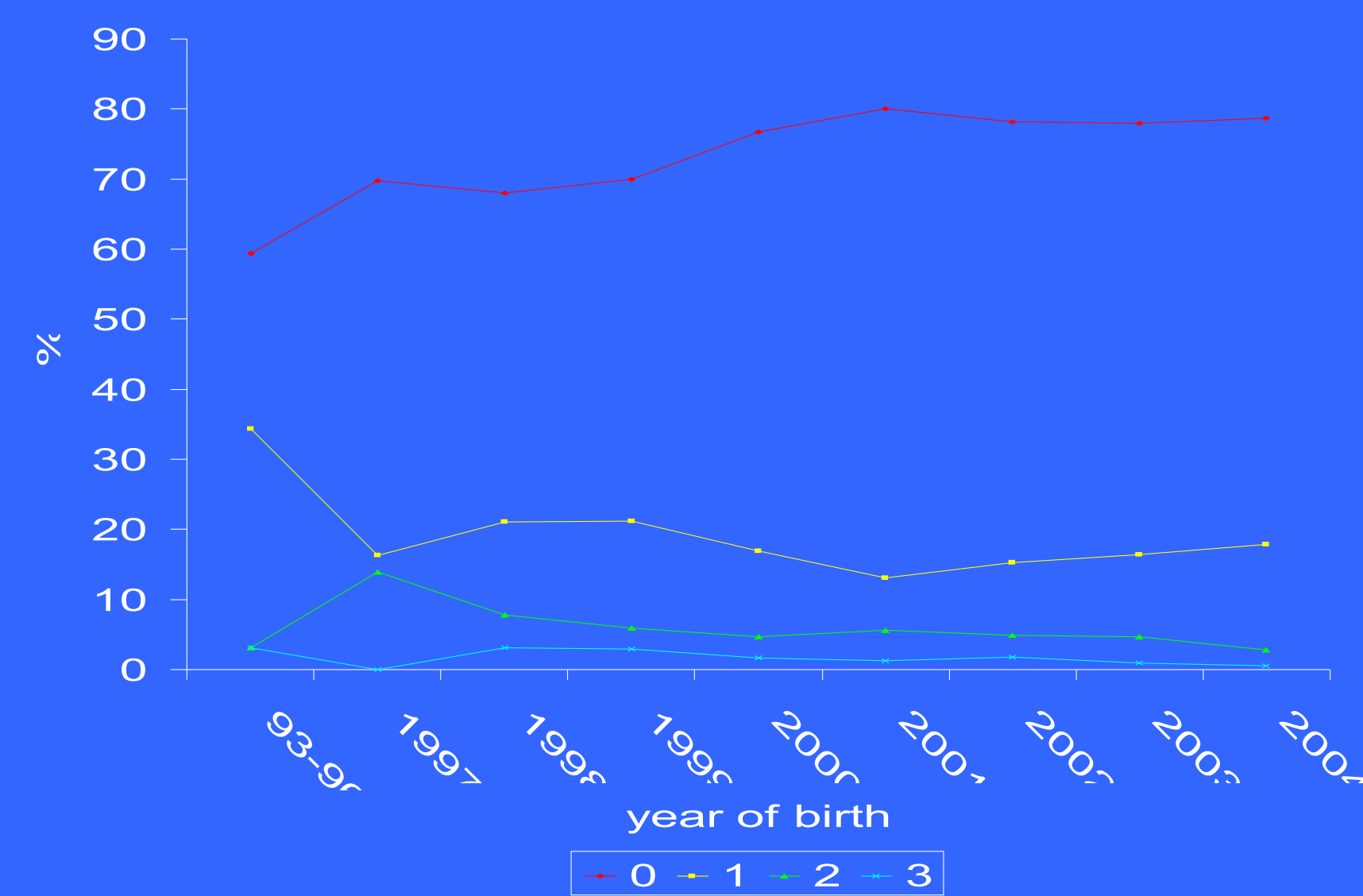


Figure 2: Percentage distribution of the dogs (n=3386) per ED score and by year of birth.

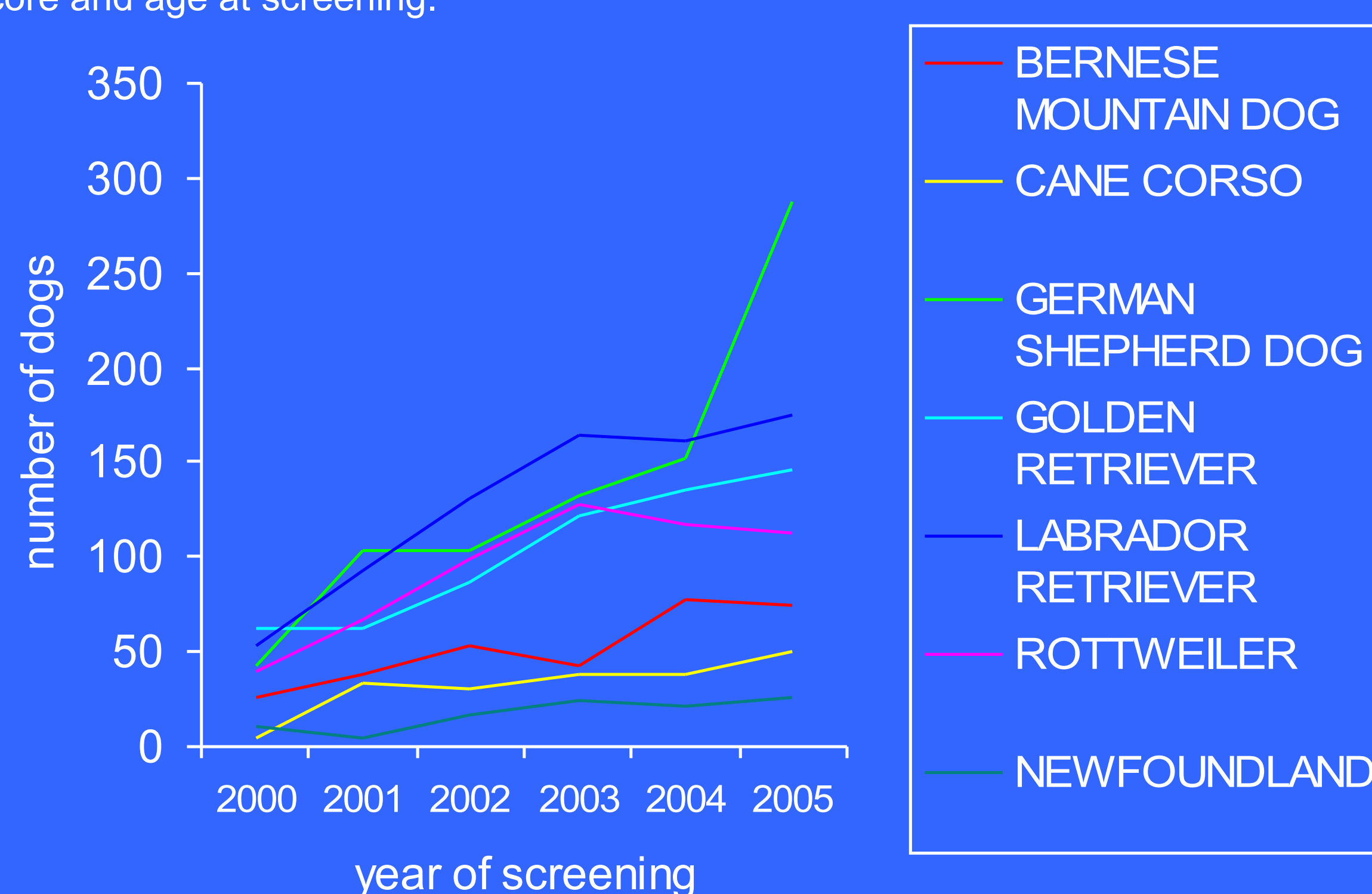


Figure 3: Trend of the radiographic screening from 2000 to 2005 in the 7 selected breeds.

RESULTS

- × average estimated ED prevalence 23.2% with a percentage mildly higher in males than in females
- × percentages of dogs free from ED ranging between 63% in Rottweiler and about 86% in Cane Corso, in some breeds (German Shepherd Dog and Newfoundland) the differences between females and males were remarkable (Table 1)
- × increasing number of affected dogs and severity of the diagnosed ED at increasing age at screening (Figure 1)

CONCLUSIONS AND IMPLICATIONS

- × estimated ED prevalence in accordance with the European and US estimates for the same breeds
- × probable ED predisposition in males confirmed by the distribution of the dogs by ED grade
- × chronic and progressive nature of ED → definition of a standard age of screening for each breed, adjustment of the official score considering the age at screening
- × constantly increasing number of examined dogs → wide and complete archive to estimate ED genetic parameters and breeding values exploitable in selection program

BREED	N	ED score			
		0	1	2	3
BERNESE MOUNTAIN DOG					
overall	312	70.51	21.47	6.41	1.60
F	198	70.20	22.22	6.57	1.01
M	112	71.05	20.17	6.14	2.63
CANE CORSO					
Overall	193	85.49	11.92	2.07	0.52
F	95	84.21	13.68	2.10	0.00
M	98	86.73	10.20	2.04	1.02
GERMAN SHEPHERD DOG					
Overall	821	80.15	15.96	2.68	1.22
F	418	84.69	13.64	0.72	0.96
M	403	75.43	18.36	4.71	1.49
GOLDEN RETRIEVER					
overall	614	78.66	14.82	4.72	1.79
F	340	78.53	15.29	4.41	1.76
M	274	78.83	14.23	5.11	1.82
LABRADOR RETRIEVER					
overall	779	83.93	10.93	3.34	1.80
F	486	85.18	10.29	2.88	1.65
M	293	81.85	11.99	4.11	2.05
ROTTWEILER					
Overall	563	63.06	26.64	9.41	0.89
F	314	62.42	28.34	8.60	0.64
M	249	63.85	24.50	10.44	1.20
NEWFOUNDLAND					
overall	104	63.46	19.23	12.50	4.81
F	62	69.35	16.13	9.68	4.84
M	42	54.76	23.81	16.67	4.76

Table 1: Percentage distribution of dogs (n = 3386) per ED score by breed and gender.

MORE RESULTS

- × constant reduction of the number of affected dogs by year of birth (Figure 2)
- × constant increase of the number of screened dogs and of enrolled breeds between 2000 and 2005 (Figure 3)