**Table S1** Views of male and female veterinary practitioners and associated professions (worldwide and per geographic region) on animal welfare**1**:

effect size and *P* value

**Geographic region**

**North South**

**Overall Europe Asia America America Africa Oceania**

**Welfare issues (1015) 2 (376) (330) (81) (26) (49) (152)**

**Effect size3 (*P* value4)**

* **Incorrect or inappropriate**

**nutrition** 0.085 (0.126) *0.180* (0.017) 0.061 (0.877) *0.150* (0.857) *0.286* (0.855) **0.411** (0.083) *0.207* (0.159)

* **Genetic or breed-related**

**issues** *0.161* **(0.000)** *0.127* (0.213) *0.153* (0.122) *0.273* (0.226) *0.298* (0.577) **0.408** (0.085) *0.185* (0.264)

* **Lack of routine prophylaxis** 0.047 (0.699) *0.213* (0.005) *0.146* (0.137) *0.277* (0.238) **0.340** (0.444) **0.394** (0.164) *0.247* (0.073)
* **Obesity** *0.161* **(0.000)** *0.259* **(0.000)** *0.101* (0.422) *0.290* (0.171) **0.418** (0.255) **0.301** (0.388) *0.147* (0.600)
* **Age-related issues** *0.109* (0.022) *0.136* (0.158) 0.059 (0.891) *0.288* (0.102) *0.281* (0.650) **0.313** (0.324) *0.219* (0.051)
* **Aggression**  *0.110* (0.018) *0.147* (0.143) *0.190* (0.011) *0.239* (0.378) *0.169* (0.929) *0.134* (0.927) *0.286* (0.014)
* **Separation-related behavior** 0.087 (0.110) *0.152* (0.081) *0.104* (0.493) **0.373** (0.030) **0.409** (0.207) *0.249* (0.474) *0.244* (0.044)
* **Lack of socialization** 0.092 (0.072) *0.153* (0.110) *0.150* (0.069) **0.352** (0.042) **0.524** (0.143) *0.201* (0.747) *0.202* (0.180)
* **Disobedience** *0.105* (0.024) *0.109* (0.420) *0.203* (0.004) *0.274* (0.253) **0.326** (0.283) *0.167* (0.883) *0.114* (0.778)
* **Inappropriate elimination** 0.093 (0.062) *0.114* (0.295) *0.107* (0.439) **0.341** (0.059) **0.328** (0.441) **0.322** (0.209) *0.130* (0.683)
* **Delay or refusal to euthanize** *0.100* (0.040) *0.150* (0.088) *0.124* (0.322) *0.188* (0.647) **0.396** (0.455) *0.220* (0.675) **0.349** **(0.001)**
* **Lack of knowledge** 0.058 (0.502) 0.099 (0.505) *0.123* (0.280) *0.266* (0.182) **0.500** (0.161) *0.244* (0.532) *0.108* (0.618)
* **Animal abuse** 0.074 (0.240) *0.184* (0.011) 0.100 (0.513) **0.320** (0.098) **0.535** (0.076) **0.342** (0.351) **0.360** **(0.001)**
* **Non-compliance** *0.103* (0.034) *0.132* (0.196) *0.151* (0.096) 0.084 (0.897) **0.458** (0.285) **0.301** (0.317) *0.298* (0.009)
* **Anthropomorphism**  0.068 (0.339) 0.099 (0.545) 0.035 (0.985) 0.095 (0.944) *0.218* (1.000) *0.198* (0.773) *0.220* (0.139)

**[Table S1, continued]**

* **Confinement / lack of**

**exercise** 0.064 (0.410) 0.072 (0.802) *0.132* (0.184) *0.249* (0.311) **0.365** (0.198) *0.184* (0.820) *0.265* (0.026)

* **Refusal to treat**  *0.122* (0.005) *0.131* (0.216) *0.131* (0.188) *0.186* (0.685) **0.556** (0.124) **0.320** (0.232) **0.351** **(0.001)**
* **Treatment by non-qualified**

**persons** 0.060 (0.444) *0.155* (0.089) *0.134* (0.170) *0.182* (0.689) **0.466** (0.246) **0.427** (0.052) *0.207* (0.210)

* **Convenience euthanasia** *0.112* (0.015) *0.130* (0.207) *0.130* (0.245) *0.164* (0.753) *0.253* (0.903) *0.284* (0.499) *0.290* (0.017)
* **Uncontrolled or over-breeding** *0.145* **(0.000)** *0.148* (0.109) *0.169* (0.058) **0.320** (0.048) *0.236* (1.000) **0.363** (0.092) **0.303** (0.007)

**1** This table is based on questions 6-9 of the quenstionnaire (see Appendix).

**2** Number of respondents is given in parentheses.

**3** Effect size *w* was dervied from Cramer’s *V*. Zero or nearly zero effect are indicated in normal fonts, small effects in *italics,* moderate effects in **bold** and large effects in **bold** and **underlined.**

**4** *P* value in the Likelihood ratio test (G-test of goodness-of-fit) is given in parentheses. Significant differences (*P* < 0.002561) between male and female respondents are indicated in **bold**.

**Table S2** Educational background of respondents per geographic region and country

**Geographic region**

* ***Country***
* Universities, institutes, academies, colleges and schools awarding veterinary **Number of**

and allied degrees **respondents**

**Europe**

* *Russian Federation*
* Saint Petersburg State Academy of Veterinary Medicine 81
* Moscow State Academy of Veterinary Medicine and Biotechnology 43
* Peoples' Friendship University of Russia Moscow 6
* Omsk State Agrarian University – Institute of Veterinary Medicine 4
* South Ural State University 4
* Ural Federal University 4
* Voronezh State Agrarian University 4
* Donskoy State Agrarian University 3
* Kuban State Agrarian University 3
* Moscow State University of Food Production 3
* Novgorod State Agricultural Academy 3
* Novosibirsk State Agricultural University 3
* Ogarev Mordovia State University 3
* Perm State Agricultural Academy 3
* Vitebsk State Academy of Veterinary Medicine 3
* Volgograd State Agricultural University 3
* Crimean Agrotechnological University 2
* Irkutsk State Agricultural Academy 2
* Bashkir State Agrarian University 1
* Ivanovo State University 1
* Krasnoyarsk State Agrarian University 1
* Kursk State Agricultural Academy 1
* Orel State Agrarian University 1
* Orenburg State Agrarian University 1
* Samara National Research University 1
* Saratov State Agrarian University 1
* Stavropol State Agrarian University 1
* Tomsk Agricultural Institute 1
* Tyumen State Agriculture Academy 1
* *Netherlands*
* Utrecht University – Faculty of Veterinary Medicine 66
* Leidse Onderwijsinstellingen – Veterinary Technician 1
* Van Hall Larenstein University of Applied Sciences 1

**[Table S2, continued]**

* *Slovakia*
* University of Veterinary Medicine in Košice 22
* *United Kingdom of Great Britain and Northern Ireland*
* University of London – Royal Veterinary College 14
* University of Edinburgh – Royal (Dick) School of Veterinary Studies 12
* University of Bristol – Faculty of Medical and Veterinary Sciences 11
* University of Glasgow – School of Veterinary Medicine 11
* University of Liverpool – School of Veterinary Science 6
* University of Cambridge – Veterinary School 5
* University of Nottingham – School of Veterinary Medicine and Science 2
* Lite Limited 1
* Myerscough School of Veterinary Nursing 1
* Scotland's Rural College – Scottish Agricultural College 1
* *Belgium*
* University of Ghent – Faculty of Veterinary Medicine 10
* University of Liège – Faculty of Veterinary Medicine 3
* *Spain*
* Autonomous University of Barcelona – Veterinary Faculty 10
* University of Santiago de Compostela – Faculty of Veterinary Medicine 7
* Complutense University of Madrid – Veterinary Faculty 6
* University of Zaragoza – Veterinary Faculty 4
* University of Las Palmas de Gran Canaria – Veterinary Faculty 2
* University of León – Veterinary Faculty 1
* University of Murcia – Veterinary Faculty 1
* *Greece*
* Aristotle University of Thessaloniki – Faculty of Veterinary Medicine 8
* *Ukraine*
* Kharkiv State Zootechnical-Veterinary Academy 7
* National Agricultural University of Ukraine – Faculty of Veterinary Science 3
* Lviv National Agrarian University 2
* National University of Bioresources and Nature Kiev 2
* Bilotserkivska National Agrarian University 1
* Lugansk National Agrarian University 1
* Zhytomyr National Agroecological University 1
* *Estonia*
* Estonian University of Life Sciences – Institute of Veterinary Medicine and Animal

Sciences 6

* *Hungary*
* Szent Istvan University, Budapest – Faculty of Veterinary Science 6
* *Italy*
* University of Parma – Faculty of Veterinary Medicine 6

**[Table S2, continued]**

* University of Milan – Faculty of Veterinary Medicine 3
* University of Bologna - Faculty of Veterinary Medicine 2
* University of Pisa –Faculty of Veterinary Medicine 2
* University of Padua – Faculty of Veterinary Medicine 1
* University of Teramo – Faculty of Veterinary Medicine 1
* University of Turin – Faculty of Veterinary Medicine 1
* *Germany*
* Justus Liebig University Giessen - Faculty of Veterinary Medicine 4
* University of Veterinary Medicine Hanover 3
* Free University of Berlin – Department of Veterinary Medicine 2
* Ludwig Maximilian University of Munich – Faculty of Veterinary Medicine 2
* *Ireland*
* University College Dublin – School of Veterinary Medicine 3
* *Slovenia*
* University of Ljubljana – Faculty of Veterinary Medicine 3
* *Belarus*
* Grodno State Agrarian University – Faculty of Veterinary Medicine 2
* *Czech Republic*
* University of Veterinary and Pharmaceutical Sciences, Brno 2
* *France*
* National Veterinary School of Alfort 2
* *Moldavia*
* Agricultural State University of Moldova – Faculty of Veterinary Medicine 2
* *Poland*
* Warsaw University of Life Sciences – Faculty of Veterinary Medicine 2
* University of Warmia and Mazury – Faculty of Veterinary Medicine 1
* Wroclaw University of Environmental and Life Sciences – Faculty of Veterinary

Medicine 1

* *Portugal*
* Technical University of Lisbon – Faculty of Veterinary Medicine 2
* *Romania*
* Bucharest Spiru Haret University – Faculty of Veterinary Medicine 2
* Banat University of Agricultural Sciences and Veterinary Medicine 1
* Carol Davila University of Medicine and Pharmacy 1
* University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca – Faculty

of Veterinary Medicine 1

* *Albania*
* Agricultural University of Tirana – Faculty of Veterinary Medicine 1
* *Austria*
* University of Veterinary Medicine Vienna 1

**[Table S2, continued]**

* *Croatia*
* University of Zagreb – Faculty of Veterinary Medicine 1
* *Denmark*
* University of Copenhagen – Faculty of Health and Medical Sciences 1
* *Latvia*
* Latvia University of Life Sciences and Technologies – Faculty of Veterinary

Medicine 1

**Asia**

* *Israel*
* Hebrew University of Jerusalem – Koret School of Veterinary Medicine 92
* *China (People’s Republic of)*
* China Agricultural University – College of Veterinary Medicine 9
* Nanjing Agricultural University – College of Veterinary Medicine 6
* Northwest Agriculture and Forestry University – College of Veterinary Medicine 5
* Northeast Agricultural University – College of Veterinary Medicine 3
* Sichuan Agriculture University – Veterinary Medicine College 3
* South China Agricultural University – College of Veterinary Medicine 3
* Jilin University – College of Animal Science and Veterinary Medicine 2
* Shanxi Agricultural University – Faculty of Veterinary Medicine 2
* Agricultural University of Hebei – College of Veterinary Medicine 1
* Huazhong Agricultural University – College of Veterinary Medicine 1
* National Chung Hsinhg University – College of Veterinary Medicine 1
* Qinghai University –Academy of Animal Science and Veterinary Medicine 1
* Yangzhou University – School of Veterinary Science 1
* *Malaysia*
* Putra University Malaysia – Faculty of Veterinary Medicine 21
* University Malaysia Kelantan – Malaysia Faculty of Veterinary Medicine 3
* *Indonesia*
* Bogor Agricultural University – Faculty of Veterinary Medicine 15
* Airlangga University - Faculty of Veterinary Medicine 7
* Syiah Kuala University - Faculty of Veterinary Medicine 1
* Udayana University - Faculty of Veterinary Medicine 1
* *Vietnam*
* Ho Chi Minh City University of Agriculture and Forestry - Faculty of Veterinary

Breeding 12

* Can Tho University 2
* Tay Nguyen University – Faculty of Animal Science and Veterinary Medicine 2
* Quang Ninh University of Industry 1

**[Table S2, continued]**

* *Philippines*
* University of the Philippines Los Baños – College of Veterinary Medicine 9
* Central Luzon State University – College of Veterinary Science and Medicine 2
* De La Salle-Araneta University – College of Veterinary Medicine and Agricultural

Sciences 2

* Aklan State University – School of Veterinary Medicine 1
* Southwestern University PHINMA – School of Veterinary Medicine 1
* *Sri Lanka*
* University of Peradeniya – Faculty of Veterinary Medicine and Animal Science 7
* *India*
* G. B. Pant University of Agriculture and Technology – College of Veterinary and

Animal Sciences 2

* Tamil Nadu Veterinary and Animal Sciences University – Madras Veterinary College 2
* Assam Agricultural University - College of Veterinary Science 1
* College of Veterinary and Animal Science Navania, Vallabhnagar, Udaipur 1
* College of Veterinary Science & Animal Husbandry Mathura, Utter Pradesh 1
* Karnataka Veterinary, Animal and Fisheries Sciences University – Veterinary College, Bangalore 1
* Maharashtra Animal and Fishery Sciences University – Bombay Veterinary College 1
* Punjab Agricultural University 1
* West Bengal University of Animal and Fishery Sciences – Faculty of Veterinary

Science 1

* *Iran (Islamic Republic of)*
* Karaj Islamic Azad University – Faculty of Veterinary Science 1
* University of Tehran – Faculty of Veterinary Medicine 1
* *Thailand*
* Chiang Mai University – Faculty of Veterinary Medicine 1
* Kasetsart University – Faculty of Veterinary Medicine 1
* *Mongolia*
* Mongolian State University of Agriculture 1
* *Myanmar*
* University of Veterinary Science, Yezin, Pyinmam – Institute of Animal Husbandry

and Veterinary Science 1

* *Nepal*
* Tribhuvan University's Institute of Agriculture and Animal Science 1
* *Taiwan*
* National Pingtung University of Science and Technology – College of Veterinary

Medicine 1

* *Uzbekistan*
* Tashkent State Agrarian University 1

**[Table S2, continued]**

**North America**

* *Canada*
* University of Saskatchewan – Western College of Veterinary Medicine 9
* University of Guelph – Ontario Veterinary College 8
* Olds College 3
* Lakeland College – Animal Health Technology 2
* Northern Alberta Institute of Technology 2
* University of Prince Edward Island – Atlantic Veterinary College 2
* Centralia College of Agricultural Technology 1
* Thompson Rivers University – Animal Health Technology 1
* *United States of America*
* University of California – Davis School of Veterinary Medicine 8
* Cornell University – College of Veterinary Medicine 5
* University of Florida – College of Veterinary Medicine 4
* University of Pennsylvania – School of Veterinary Medicine 4
* Michigan State University – College of Veterinary Medicine 3
* Texas A&M College of Veterinary Medicine & Biomedical Sciences 3
* Tuskegee University – School of Veterinary Medicine 3
* University of Illinois at Urbana-Champaign – College of Veterinary Medicine 3
* University of Minnesota – College of Veterinary Medicine 3
* Louisiana State University – School of Veterinary Medicine 2
* North Carolina State University – College of Veterinary Medicine 2
* Ohio State University – College of Veterinary Medicine 2
* Ross University – School of Veterinary Medicine 2
* Tufts University Cummings School of Veterinary Medicine 2
* University of Missouri – College of Veterinary Medicine 2
* Washington State University – College of Veterinary Medicine 2
* Auburn University – College of Veterinary Medicine 1
* Mississippi State University – College of Veterinary Medicine 1
* University of Tennessee – College of Veterinary Medicine 1
* University of Wisconsin-Madison – School of Veterinary Medicine 1
* Western University of Health Sciences – College of Veterinary Medicine 1
* *Cuba*
* University of Granma 1
* *Trinidad and Tobago (Republic of)*
* University of the West Indies, St. Augustine Campus – School of Veterinary Medicine 1
* *Mexico*
* Chapingo Autonomous University 1

**[Table S2, continued]**

**South America**

* *Argentina*
* University of Buenos Aires – Faculty of Veterinary Sciences 12
* University of El Salvador – Veterinary Medicine Course 1
* *Brazil*
* University of São Paulo – Faculty of Veterinary Medicine 2
* Federal University of Goiás – Veterinary and Husbandry School 1
* Paulista Júlio State University of Mesquita Filho, Botucatu campus Faculty of

Veterinary Medicine and Husbandry 1

* Rural Federal University of Rio de Janeiro – College of Agriculture and Veterinary

Medicine 1

* *Chili*
* University of Chile – Faculty of Veterinary Sciences and Livestock 2
* *Colombia*
* Saint Martin University – Faculty of Veterinary Medicine 2
* University of Caldas – School of Veterinary Sciences 1
* *Ecuador*
* Central University of Ecuador – Faculty of Veterinary Medicine and Husbandry 2
* Agricultural University of Ecuador – Faculty of Veterinary Medicine and Husbandry 1
* *Honduras*
* National Autonomous University of Honduras – School of Veterinary Medicine 1
* *Venezuela (Bolivarian Republic of)*
* Central University of Venezuela – Faculty of Veterinary Science 1

**Africa**

* *South Africa*
* University of Pretoria – Faculty of Veterinary Science 28
* *United Republic of Tanzania*
* Sokoine University of Agriculture – Faculty of Veterinary Medicine 8
* *Nigeria*
* University of Ibadan – Faculty of Veterinary Medicine 3
* *Zambia*
* University of Zambia – Samora Machel School of Veterinary Medicine 3
* *Tunesia*
* National School of Veterinary Medicine of Sidi Thabet 2
* *Morocco*
* Agronomic and Veterinary Institute of Hassan II Polytechnic Center of Earth

and Life Sciences 1

* *Senegal*
* Inter-State School of Veterinary Sciences and Medicine of Dakar 1

**[Table S2, continued]**

**Oceania**

* *Australia*
* University of Sydney – Faculty of Veterinary Science 48
* University of Melbourne – Faculty of Veterinary Science 40
* University of Queensland – School of Veterinary Science 39
* Murdoch University – School of Veterinary and Biometrical Sciences 27
* Charles Sturt University – School of Animal and Veterinary Sciences 3
* University of Adelaide – School of Animal and Veterinary Sciences 3
* James Cook University – School of Veterinary and Biomedical Sciences 2
* Monash University – Faculty of Medicine, Nursing and Health Sciences 1
* *New Zealand*
* Massey University – Faculty of Veterinary Science 12

**Total** 1052