

Systematization of recording and use of equine health data and its potential for horse breeding

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Appropriate consideration of equine health and welfare in breeding programs has started to become a factor of competitiveness for the studbooks. However, the low level of systematization of health data recording and major concerns regarding access and use of health-related information have interfered with developing strategies for efficient improvement of equine health traits by breeding. In Germany, initiatives of improving the quality of routinely collected phenotype data of riding horses have been intensified in 2013 with special focus on health, so first results of the work of a consortium of stakeholders in Warmblood breeding, including veterinarians and studbook representatives, can be presented. Because harmonization of health phenotypes is base requirement for population-wide analyses, a comprehensive recording standard for equine health data was developed with distinct sections for diagnoses, radiographic findings and clinical findings. Utmost flexibility of use was ensured by hierarchical structure which allows simple as well as highly detailed recording with consistent coding, such that design of integrative systems for equine health data is facilitated. Veterinary support is considered a key factor of success of health-oriented measures in horse breeding, and the new recording standard can serve as reference in user-friendly software applications. Logistics around a central equine health data base involve data transfer from veterinary software and information exchange with breeding data bases and must meet high demands on data security. Interdisciplinary collaboration has enabled recent development towards systematic recording and use of equine health data, which will benefit research and practical breeding by increase of epidemiologic knowledge and approaches to targeted improvement of equine health and welfare.