

Age-related Trends in Demographics of Equids in the United States

Equids have stages of life that could be termed developmental milestones. First is the foal stage, which is from birth to less than 1 year of age. During this stage the foal is with its dam, gradually transitioning from an all-milk diet to solid food. The foal is weaned between 4 and 6 months of age.

Not long after being weaned, the foal moves into the early yearling stage of life. During this stage, the foal typically begins receiving training, including learning how to accept hoof trimming and grooming and how to walk on lead. During the end of the first year or beginning of the second year of life, and depending on its breed and likely future use, the yearling might begin training for riding or driving.

In many equine disciplines, equids begin their competitive careers when they are 2 years old. For the next year or two, they acquire skills and mature psychologically. Most equids reach sexual maturity at about 3 to 4 years of age, and they are considered fully mature—with height and bone development equivalent to those of older equids—by 4 to 5 years of age. During the adult life stage—from about 5 to 20 years of age—most equids reach their optimal athletic potential.

Generally, equids more than 20 years old are considered to be in the geriatric life stage. Many geriatric equids still serve in some athletic capacity but might not have the stamina, athletic ability, or soundness they had when they were younger.

Although some of the longest lived equids—such as Old Billy, an English draft horse who died in 1822 at the age of 62—are described in general literature, only limited data exist on age trends in the equine population over time. By collecting data on the age of resident equids¹ during studies conducted in 1998, 2005, and 2015, the USDA National Animal Health Monitoring System (NAHMS) can examine trends in population age of equids in the United States over time.



Equine 2015 Study

As part of the NAHMS Equine 2015 study, data were collected regarding equine health and management practices from a representative sample of operations with 5 or more equids in 28 States.² The 28 States included in the study represented 71.8 percent of all equids in the United States and 72.1 percent of all U.S. farms with equids. More detailed information on the study design and sampling methodology is available in NAHMS Equine 2015 tabular summary reports at <http://www.aphis.usda.gov/nahms>.

² Equine 2015 States:

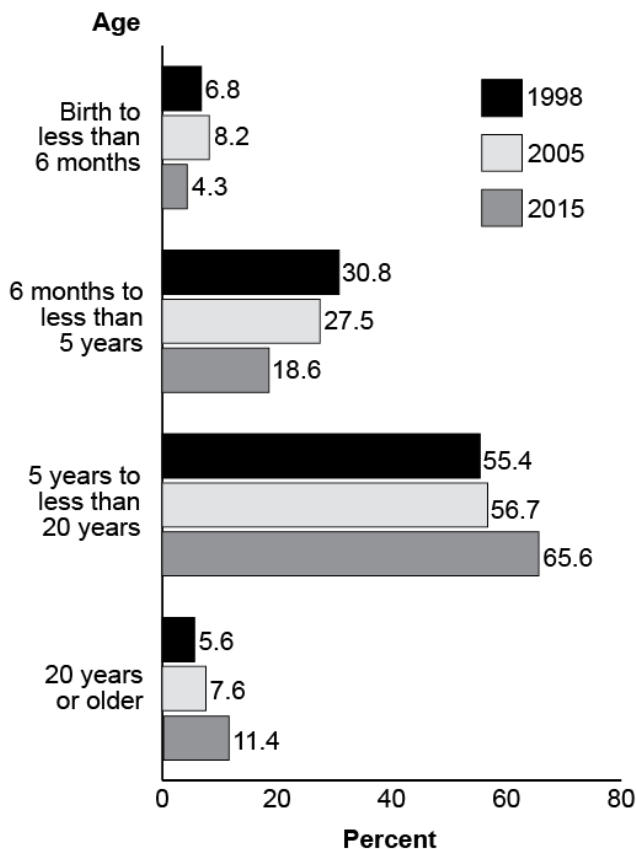
Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Missouri, Montana, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Virginia, Wisconsin, Wyoming

¹ For this study, a resident equid was defined as an equid that spent or was expected to spend more time on the operation than any other operation.

Trends in age of equids

NAHMS equine studies show the majority of the equine population is made up of equids from 5 to 20 years old (figure 1). The percentage of the population that is 20 years or more of age increased across the three study years (5.6, 7.6, and 11.4 percent, respectively). The percentage of equids less than 5 years of age was lower in 2015 (22.9 percent) than in previous studies (37.6 and 35.7 percent, respectively).

Figure 1. Percentage of resident equids by age



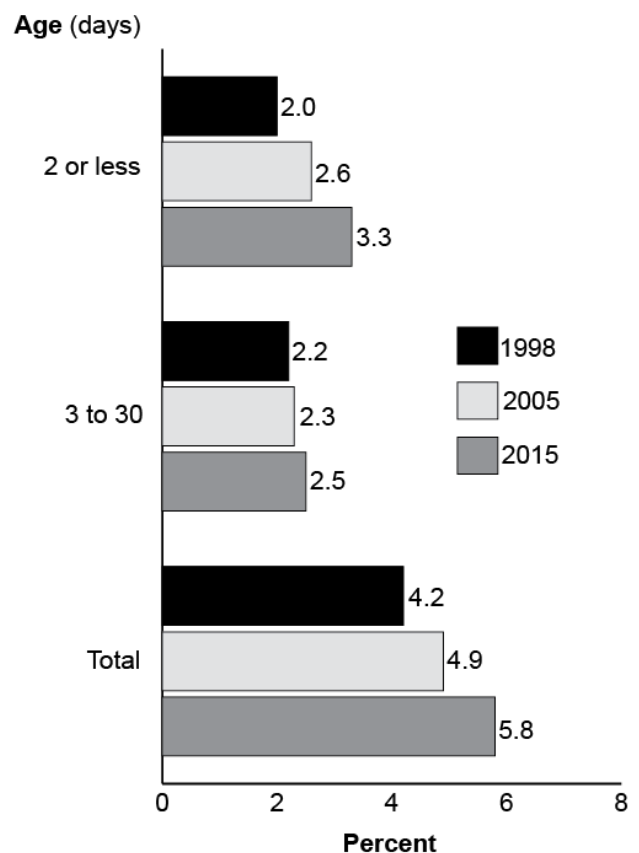
The increasing percentage of equids more than 20 years of age across study years could potentially be explained by advancements in health care across the equid's life. Some advancements include development of nutritional products specifically designed to meet the special needs of older equids; advances in treatment options for age-related diseases, such as equine Cushing's disease and lameness-related conditions; and a recognition that aged equids, if managed appropriately, can have a second career. Additionally, owners might have a greater commitment to lifelong care and place greater emphasis on the care and management of geriatric equids.

In general, the population ages across studies show a trend in 2015 toward an aging population with fewer births than in the previous two studies.

Equine mortality by age

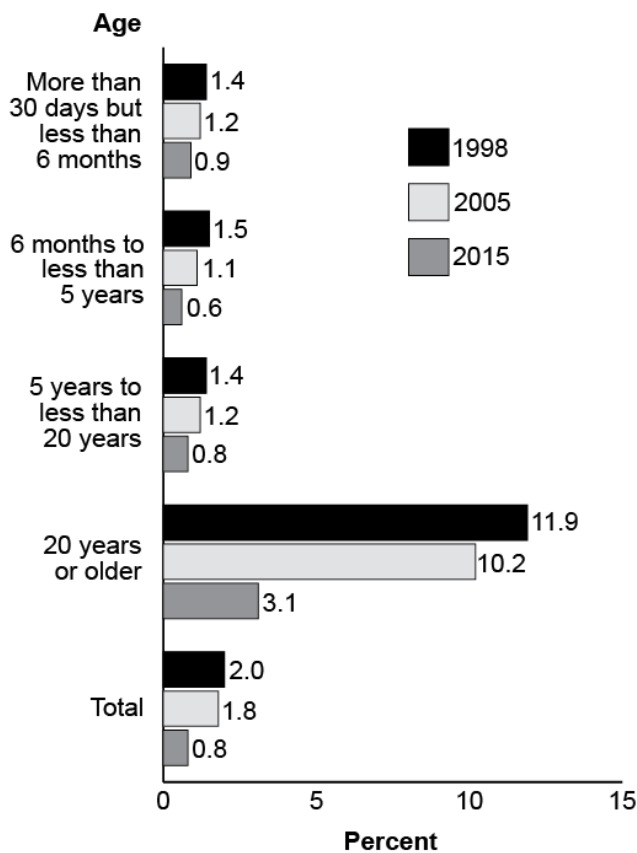
The percentage of all foals born alive that died at 30 days of age or less in the three NAHMS study years was similar and was between 4 and 6 percent (figure 2). The percentage of foals that died in the first 2 days of life was similar to the percentage of foals that died from 3 to 30 days of life, even though the days at risk of dying was one-tenth that of the subsequent time period. This finding suggests that enhanced monitoring and health-care interventions are warranted for the first few days of life.

Figure 2. For foals born alive, percentage of foals that died in the first 30 days of life (including born on or moved onto the operation) during the previous 12 months, by age at death



Overall mortality for equids more than 30 days of age was between 0.8 and 2.0 percent across the three studies (figure 3). For equids more than 30 days but less than 20 years of age, the percentage of mortality was similar within each study year, suggesting that once equids are more than 30 days old, their risk of death is relatively static until they reach the geriatric life stage. The percentage of equids 20 years or older dying in 2015 was lower than in the previous two studies, suggesting that equids may be living longer.

Figure 3. Percentage of resident equids more than 30 days of age that died or were euthanized during the previous 12 months, by age



For more information, contact:

USDA–APHIS–VS–CEAH–NAHMS
 NRRRC Building B, M.S. 2E7
 2150 Centre Avenue
 Fort Collins, CO 80526-8117
 970–494–7000
<http://www.aphis.usda.gov/nahms>
 #741.0718

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For all three studies, common reported causes of death for equids that died at less than 6 months of age were respiratory problems, injury/wounds/trauma, and failure to get milk/colostrum. For equids more than 6 months of age, colic and injury/wounds/trauma were commonly reported causes of death. For equids more than 20 years of age, a cause of death commonly reported by owners was “old age.”

Conclusion

The equine population in the United States now includes a higher percentage of geriatric horses. It is likely that as new methods to treat and manage elderly equids are developed and refined, this aging population will continue to increase. Causes of death and the percentage of mortality in the equine population were similar in the NAHMS equine studies in 1998, 2005, and 2015.