

## Highlights of Equine 2005 Part I: Baseline Reference of Equine Health and Management, 2005

In 2005, the National Animal Health Monitoring System (NAHMS) conducted a study of U.S. equine operations. The Equine 2005 study collected data on equine health and management practices from a representative sample of operations with 5 or more equids in 28 States divided into four regions.\* The 28-State target population represented 78.0 percent of equids and 78.6 percent of operations with 5 or more equids in the United States. Interviews were conducted from July 18 through August 12, 2005, and 2,893 equine operations provided data on equine health and management.

More than 9 of 10 operations (95.6 percent) had full-size horses and 1 of 3 operations (34.8 percent) had equids other than full-size horses. For this study, a resident equid was defined as an equid that spent or was expected to spend more time at the operation than at any other operation during the previous 12 months.

The following are highlights excerpted from Part I of the NAHMS Equine 2005 study: Baseline Reference of Equine Health and Management, 2005. Released in November 2006, this report provides participants, industry, and animal-health officials with information on the Nation's equine population that will serve as a basis for education, service, and research related to equine infectious disease control.

### Vaccinations

Overall, 75.9 percent of operations had given at least some type of vaccine to resident equids during the previous 12 months. A higher percentage of operations in the West region (83.8 percent) had given at least some vaccines to resident equids compared to operations in the South and Northeast regions (72.3 percent and 72.0 percent, respectively) (table 1).

#### \*Regions:

**West:** California, Colorado, Montana, New Mexico, Oregon, Washington, and Wyoming

**Northeast:** New Jersey, New York, Ohio, and Pennsylvania

**South:** Alabama, Florida, Georgia, Kentucky, Louisiana, Maryland, Oklahoma, Tennessee, Texas, and Virginia

**Central:** Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, and Wisconsin.



**Table 1. Percentage of operations that administered any vaccine to resident equids during the previous 12 months, by region:**

Percent Operations				
Region				All Operations
South	Northeast	West	Central	
Percent	Percent	Percent	Percent	Percent
72.3	72.0	83.8	77.4	75.9

### Foal deaths

Overall, 4.9 percent of foals born alive died in the first 30 days. The percentage of foals that died in the first 2 days and the percentage that died in the subsequent 28 days (age 3 to 30 days) were similar (2.6 percent and 2.3 percent, respectively); thus the likelihood of a foal dying based on days at risk was higher in the early neonatal period, i.e., birth to 2 days of age. The mortality rates in foals less than or equal to 30 days of age were similar across regions.

For foals that were born alive but died in the first 30 days, 18.6 percent died due to injury/wounds/trauma (not related to birth), 17.9 percent died from unknown causes, and 14.9 percent died because they failed to get colostrum or milk from the mare. Dystocia, trauma, or complications at birth; birth defects; and other digestive problems were also frequently reported causes of death. "Other" causes of death included predator attacks and adverse environmental conditions (table 2).

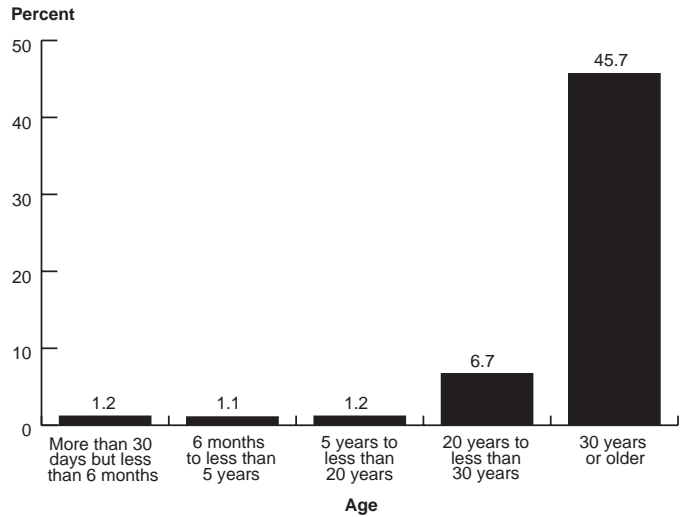
**Table 2. For foals born alive, percentage of foals that died during the first 30 days, by cause of death:**

Cause of Death	Percent Foal Deaths
Colic	1.5
Other digestive problems (e.g., diarrhea)	6.4
Respiratory problems (e.g., pneumonia, strangles, <i>Rhodococcus equi</i> , etc.)	3.6
Neurologic problems (e.g., spinal problem, wobblers, seizure, EPM, WNV, sleeping sickness, maladjustment syndrome)	0.5
Dystocia, trauma, or complications at birth	10.7
Birth defects	8.9
Injury/wounds/trauma unrelated to birth	18.6
Infectious disease unrelated to specific body system, blood infection (septicemia)	3.3
Failed to get colostrum or milk from mare	14.9
Other	13.7
Unknown	17.9
Total	100.0

**Equid deaths**

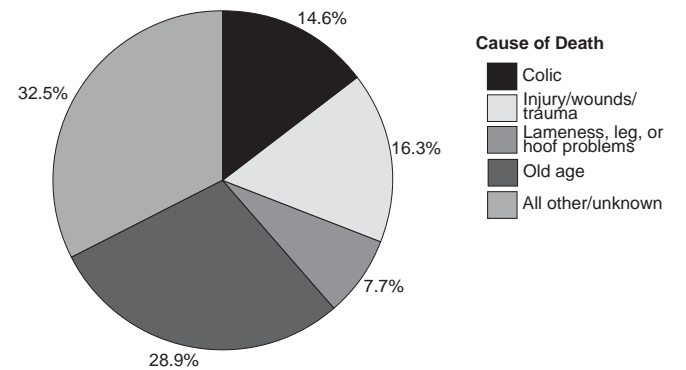
Total deaths ranged from 2.8 percent in the Northeast region to 1.6 percent in the South region during the previous 12 months. The overall mortality rate for resident equids more than 30 days of age was 1.8 percent. The mortality rates for equids more than 30 days of age to less than 20 years of age were similar. As expected, the highest mortality rates among resident equids over 30 days of age occurred in equids 30 years or older followed by equids 20 to less than 30 years of age (figure 1).

**Figure 1. Percentage of Resident Equids More Than 30 Days of Age That Died or Were Euthanized During the Previous 12 Months, by Age**



The leading causes of death were old age (28.9 percent of deaths), injury/wounds/trauma (16.3 percent of deaths), and colic (14.6 percent of deaths) for equids more than 30 days of age. Lameness, leg, or hoof problems accounted for 7.7 percent of deaths. The remaining 32.5 percent included 6.6 percent attributed to unknown causes and individual specified causes—each of which accounted for less than 7 percent of total deaths—such as cancer, digestive problems other than colic, neurologic problems, etc. (figure 2).

**Figure 2. Percentage of Equid Deaths (Including Euthanasia) for Equids Aged More than 30 Days, by Cause of Death**





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### Direct contact with outside equids during trips

For operations that had resident equids that left the home operation and returned after direct contact with outside equids, the percentage of operations that used infection-control practices for returning equids increased as operation size increased. More than half of large operations isolated or quarantined returning resident equids—either routinely or due to disease or exposure to disease—compared to less than one-third of small operations (figure 3).

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**Figure 3. For Operations that had Resident Equids that Left the Home Operation and Returned After Direct Contact with Outside Equids, Percentage of Operations by Infection-Control Practice Used for Returning Equids, and by Size of Operation**

