

**Table S1.** Frequencies for space usage questions by climate designation.

| Space Usage Questions   | Cold/Very Cold | Mixed Humid | Hot Humid | Hot Dry/Mixed Dry |
|---|----------------|-------------|-----------|-------------------|
| Which of the following best describes where you conduct the majority of your services?    | n = 13         | n = 12      | n = 4     | n = 4             |
| Covered arena   | 23%            | 25%         | 75%       | 50%               |
| Indoor/partially enclosed arena   | 0%             | 0%          | 0%        | 50%               |
| Indoor/fully enclosed arena   | 77%            | 58%         | 25%       | 0%                |
| Indoor/horse housing (stalls/barn)  | 0%             | 17%         | 0%        | 0%                |
| (p = 0.0114, df = 9, $\chi^2 = 21.297$ )  |                |             |           |                   |
| Select the activity for which you utilize your facility space the most.                   | n = 11         | n = 12      | n = 3     | n = 4             |
| Adaptive Riding/Therapeutic Riding  | 82%            | 75%         | 34%       | 75%               |
| Hippotherapy  | 18%            | 25%         | 33%       | 0%                |
| Recreational Riding   | 0%             | 0%          | 0%        | 25%               |
| Competition/Boarding  | 0%             | 0%          | 33%       | 0%                |
| (p = 0.0813, df = 9, $\chi^2 = 15.366$ )  |                |             |           |                   |
| What is the minimal volunteer to participant ratio for the indoor arena/activities space? | n = 10         | n = 10      | n = 3     | n = 3             |
| 1 volunteer to 1 participant  | 70%            | 70%         | 67%       | 100%              |
| 2 volunteers to 1 participant   | 20%            | 30%         | 33%       | 0%                |
| 3 volunteers to 1 participant   | 10%            | 0%          | 0%        | 0%                |
| (p = 0.6823, df = 6, $\chi^2 = 3.958$ )   |                |             |           |                   |
| How many horses or horse-volunteer-participant units are in the arena space at one time?  | n = 12         | n = 18      | n = 3     | n = 4             |
| Less than 2 on average  | 0%             | 50%         | 33%       | 75%               |
| Two to four on average  | 20%            | 50%         | 34%       | 25%               |
| More than four on average   | 80%            | 0%          | 33%       | 0%                |
| (p = 0.0775, df = 6, $\chi^2 = 11.373$ )  |                |             |           |                   |

| Approximately how many volunteers participate in a typical day at this center?  | n = 12 | n = 11 | n = 3 | n = 4 |
|---|--------|--------|-------|-------|
| Less than 10  | 33%    | 27%    | 33%   | 50%   |
| 11-25   | 25%    | 63%    | 33%   | 50%   |
| 26-45   | 42%    | 10%    | 34%   | 0%    |
| (p = 0.3053, df = 6, X <sup>2</sup> = 7.171)  |        |        |       |       |
| Annually, how many volunteers participate at this center?   | n = 11 | n = 11 | n = 3 | n = 4 |
| Less than 25  | 0%     | 27%    | 0%    | 25%   |
| 26-50   | 36%    | 0%     | 33%   | 0%    |
| 51-100  | 9%     | 9%     | 33%   | 75%   |
| more than 100   | 55%    | 64%    | 34%   | 0%    |
| (p = 0.0073, df = 9, X <sup>2</sup> = 22.552)   |        |        |       |       |
| If applicable, how long is the volunteer in the indoor arena/activity area on a typical day at this center?                   | n = 11 | n = 10 | n = 3 | n = 3 |
| Low (< 2 hours daily)   | 45%    | 60%    | 67%   | 67%   |
| High (> 2 hours daily)  | 55%    | 40%    | 33%   | 33%   |
| (p = 0.8400, df = 3, X <sup>2</sup> = 0.839)  |        |        |       |       |
| If applicable, how long is a typical volunteer in a barn/horse housing area on a typical day at this center?                  | n = 10 | n = 10 | n = 2 | n = 4 |
| Low (< 2 hours daily)   | 90%    | 50%    | 100%  | 75%   |
| High (> 2 hours daily)  | 10%    | 50%    | 0%    | 25%   |
| (p = 0.1431, df = 3, X <sup>2</sup> = 5.426)  |        |        |       |       |
| If applicable, how many hours per week does each volunteer engage in activities offered in the indoor arena/activities space? | n = 10 | n = 10 | n = 3 | n = 3 |
| Low (< 2 hours weekly)  | 20%    | 10%    | 33%   | 67%   |
| High (> 2 hours weekly)   | 80%    | 90%    | 67%   | 33%   |
| (p = 0.2677, df = 3, X <sup>2</sup> = 3.943)  |        |        |       |       |

| If applicable, how many hours per week does each volunteer engage in activities offered in the barn/horse housing area? | n = 10 | n = 10 | n = 3 | n = 4 |
|---|--------|--------|-------|-------|
| Low (< 2 hours weekly)  | 80%    | 30%    | 100%  | 75%   |
| High (> 2 hours weekly)   | 20%    | 70%    | 0%    | 25%   |
| (p = 0.0311, df = 3, $\chi^2 = 28.870$ )  |        |        |       |       |

**Table S2.** Frequencies for safety topic questions by climate designation.

| Safety Questions   | Cold/Very Cold | Mixed Humid | Hot Humid | Hot Dry/Mixed Dry |
|--|----------------|-------------|-----------|-------------------|
| Do you have any concerns about the environment within the indoor arena/activities space? | n = 12         | n = 10      | n = 4     | n = 4             |
| Yes  | 58%            | 80%         | 100%      | 75%               |
| No   | 42%            | 20%         | 0%        | 25%               |
| (p = 0.2628, df = 3, X <sup>2</sup> = 3.988)   |                |             |           |                   |
| Do your concerns fall into any of these categories?                                      | n = 7          | n = 8       | n = 4     | n = 3             |
| Multiple (air movement, moisture, dust, temperature)                                     | 14%            | 62.5%       | 50%       | 67%               |
| Temperature  | 43%            | 25%         | 0%        | 33%               |
| Dust   | 43%            | 12.5%       | 50%       | 0%                |
| (p = 0.1667, df = 6, X <sup>2</sup> = 9.124)   |                |             |           |                   |
| What is the main component of the surface footing in the indoor arena/activity area?     | n = 12         | n = 10      | n = 4     | n = 4             |
| Dirt/Clay  | 17%            | 0%          | 0%        | 0%                |
| Sand/washed sand   | 42%            | 80%         | 50%       | 75%               |
| Mixed (Wood Chip/Sawdust Textile/fiber)  | 42%            | 10%         | 25%       | 25%               |
| Rubber   | 0%             | 10%         | 0%        | 0%                |
| (p = 0.2806, df = 9, X <sup>2</sup> = 10.929)  |                |             |           |                   |
| What other materials are in the footing mixture?   | n = 8          | n = 8       | n = 3     | n = 3             |
| Dirt/Clay  | 25%            | 0%          | 33%       | 33%               |
| Sand/washed sand   | 0%             | 0%          | 0%        | 33%               |
| Crushed Rock/Wood Chip   | 12.5%          | 25%         | 0%        | 0%                |
| Textile/fiber  | 12.5%          | 12.5%       | 0%        | 0%                |
| Rubber   | 0%             | 12.5%       | 67%       | 0%                |
| Waxed Sand   | 25%            | 0%          | 0%        | 0%                |
| Dust suppression additive (Magnesium Chloride)   | 0%             | 50%         | 0%        | 34%               |
| (p = 0.5423, df = 39, X <sup>2</sup> = 37.413)   |                |             |           |                   |
| Who is responsible for maintaining the arena space?                                      | n = 12         | n = 10      | n = 3     | n = 4             |

|   |     |     |      |      |
|---|-----|-----|------|------|
| Volunteers  | 17% | 10% | 0%   | 0%   |
| Staff   | 67% | 90% | 100% | 100% |
| Other (contracted labor; property owners/leased property) | 16% | 0%  | 0%   | 0%   |
| (p = 0.4155, df = 6, X <sup>2</sup> = 6.069)              |     |     |      |      |

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**Table S3.** Frequencies for organization topic questions by climate designation.

| Organization Questions  | Cold/Very Cold | Mixed Humid | Hot Humid | Hot Dry/Mixed Dry |
|---|----------------|-------------|-----------|-------------------|
| Which of the following describes your Member Center affiliation?  | n = 12         | n = 9       | n = 4     | n = 4             |
| PATH International/Premier Center Member  | 17%            | 67%         | 25%       | 50%               |
| United States Equestrian Federation   | 0%             | 0%          | 25%       | 0%                |
| American Hippotherapy Association   | 0%             | 11%         | 25%       | 0%                |
| National Council for Therapeutic Recreation Certification   | 8%             | 0%          | 0%        | 0%                |
| Multiple Affiliations (including PATH)  | 75%            | 22%         | 25%       | 50%               |
| (p = 0.2245, df = 24, X <sup>2</sup> = 28.886)  |                |             |           |                   |
| Which of the following best describes the majority of your participants who engage in your equine assisted activities or equine assisted therapies? | n = 13         | n = 12      | n = 4     | n = 4             |
| Children under 9 years  | 23%            | 0%          | 0%        | 25%               |
| Children under 18 years   | 70%            | 83%         | 75%       | 50%               |
| Adults above 18 years   | 8%             | 17%         | 25%       | 25%               |
| (p = 0.2210, df = 9, X <sup>2</sup> = 11.865)   |                |             |           |                   |
| Are you aware if the center volunteers have any of the following respiratory conditions?  | n = 11         | n = 9       | n = 3     | n = 4             |
| Seasonal allergy (pollen primarily)   | 10%            | 55%         | 33%       | 0%                |
| Horse allergy (dander primarily)  | 27%            | 11%         | 33%       | 25%               |
| Grass/hay allergy   | 18%            | 0%          | 0%        | 0%                |
| I am not aware of any health conditions of volunteers   | 45%            | 35%         | 33%       | 75%               |
| (p = 0.2386, df = 9, X <sup>2</sup> = 11.572)   |                |             |           |                   |
| Do volunteers receive training/education about the following respiratory conditions?  | n = 10         | n = 9       | n = 2     | n = 4             |
| Severe conditions (e.g., use of artificial respirators)   | 0%             | 12%         | 0%        | 0%                |
| Mild conditions (e.g. Seasonal, horse, grass/hay allergy)   | 60%            | 55%         | 50%       | 0%                |
| Multiple conditions (Severe and allergy)  | 10%            | 22%         | 0%        | 50%               |
| I am not aware of any volunteer training/education in respiratory conditions  | 30%            | 11%         | 50%       | 50%               |
| (p = 0.3518, df = 12, X <sup>2</sup> = 13.241)  |                |             |           |                   |

|   |        |       |       |       |
|---|--------|-------|-------|-------|
| Are you aware if the center horses involved in activities have any of the following respiratory conditions?   | n = 11 | n = 9 | n = 3 | n = 4 |
| ROA (recurrent airway obstruction)  | 9%     | 0%    | 0%    | 0%    |
| IAD (non-infectious inflammatory airway disease)  | 9%     | 0%    | 0%    | 0%    |
| Seasonal allergy  | 18%    | 22%   | 0%    | 0%    |
| No diagnosed condition, but horses will cough   | 9%     | 22%   | 67%   | 25%   |
| I am not aware of any health conditions of horses   | 55%    | 56%   | 33%   | 75%   |
| (p = 0.4529, df = 15, X <sup>2</sup> = 14.979)  |        |       |       |       |
| If horses do not have diagnosed conditions, but will cough, then which of the following do you observe to cause the most coughing in the horses?                                    | n = 2  | n = 2 | n = 2 | n = 1 |
| When in the stall/barn area   | 50%    | 0%    | 0%    | 0%    |
| During activities in the arena  | 50%    | 100%  | 100%  | 100%  |
| (p = 0.3964, df = 3, X <sup>2</sup> = 2.969)  |        |       |       |       |
| If horse coughing is observed in the stall/barn or during activities/interventions in the arena space, which time of year do you notice the majority of the coughing in the horses? | n = 2  | n = 2 | n = 2 | n = 1 |
| Winter  | 0%     | 50%   | 0%    | 0%    |
| Spring  | 100%   | 0%    | 50%   | 0%    |
| Summer  | 0%     | 0%    | 50%   | 0%    |
| Fall  | 0%     | 0%    | 0%    | 0%    |
| Year round  | 0%     | 50%   | 0%    | 100%  |
| (p = 0.1952, df = 9, X <sup>2</sup> = 12.333)   |        |       |       |       |

**Table S4.** Frequencies for environmental control topic questions by climate designation.

| Environmental Control Questions  | Cold/Very Cold | Mixed Humid | Hot Humid | Hot Dry/Mixed Dry |
|--|----------------|-------------|-----------|-------------------|
| Are there temperature/ventilation control methods in the indoor arena? | n = 11         | n = 10      | n = 4     | n = 4             |
| Fans   | 28%            | 30%         | 50%       | 75%               |
| Heaters  | 27%            | 40%         | 25%       | 0%                |
| None   | 45%            | 30%         | 25%       | 25%               |
| (p = 0.5239, df = 6, X <sup>2</sup> = 2.588)                           |                |             |           |                   |
| What type of fans are used?  | n = 6          | n = 6       | n = 2     | n = 3             |
| Box fan  | 33%            | 17%         | 0%        | 67%               |
| Low speed, high velocity (ceiling mounted)                             | 50%            | 33%         | 100%      | 33%               |
| Exhaust  | 17%            | 50%         | 0%        | 0%                |
| (p = 0.2546, df = 6, X <sup>2</sup> = 3.890)                           |                |             |           |                   |
| How many fans?   | n = 5          | n = 6       | n = 2     | n = 3             |
| One to three   | 60%            | 100%        | 100%      | 100%              |
| Four to six  | 20%            | 0%          | 0%        | 0%                |
| Six to nine  | 20%            | 0%          | 0%        | 0%                |
| (p = 0.5483, df = 6, X <sup>2</sup> = 4.965)                           |                |             |           |                   |
| When are fans used for ventilation?                                    | n = 6          | n = 6       | n = 2     | n = 3             |
| Year-round   | 0%             | 33%         | 0%        | 0%                |
| When horses and humans are hot   | 33%            | 33%         | 50%       | 67%               |
| Based on thermometer (set heat limits)                                 | 0%             | 17%         | 0%        | 0%                |
| When it feels humid in the facility                                    | 17%            | 0%          | 0%        | 0%                |
| During fly season  | 17%            | 0%          | 0%        | 0%                |
| Multiple (temperature, dust, flies)                                    | 33%            | 17%         | 50%       | 33%               |
| (p = 0.4037, df = 24, X <sup>2</sup> = 25.038)                         |                |             |           |                   |