PATH 2016
Speaker Notes
Biosecurity--Protecting your horses from disease

Today biosecurity is of greater importance than ever. With a global economy and climate change disease moves faster than ever. As the head lines in the equine news outlets make clear, we all need to be thoughtful about disease outbreaks in our horses. From small closed herds to large public equestrian centers, PATH horses are at risk for disease. We will discuss currently important infectious diseases of horses and give managers tools to assess and manage risks. Biosecurity planning is the best way to assess the risks to your horses and decrease them where ever possible so that an equine disease does not side line your horses from their important work, leaving you with large vet bills and a damaged reputation.

Which diseases could affect PATH member center horses?

The entire possible list is really too long to include, especially if you consider the world wide membership of PATH. At the time of this writing, the following is a list of the just a few important contagious diseases in North America. It is important to note that new diseases could be added to this list at any time. Your center should have a horse manager whose responsibilities include staying abreast of the equine medical news in your region and staying in communication with your veterinarian as needed. With electronic news sources and social media this is easier than ever, but be sure you are using a reliable resource. Your own veterinarian's news feed, the Equine Disease Communication Center (http://equinediseasecc.org/), Equus Magazine, The Horse Magazine, and your state veterinarian's office are just a few excellent sources of reliable information.

Eastern and Western Encephalitis, West Nile Virus--These are mosquito borne viruses. They cause inflammation of the brain and spinal cord resulting in fever, incoordination and often death. All horses in North America should be vaccinated for these diseases annually. In many places with long mosquito seasons vaccination should be more frequent.

Tetanus, Botulism-- These are diseases caused by toxins from Clostridium bacteria. These toxins cause paralysis and death. All horses should be vaccinated for tetanus annually. Botulism is dependent on local risk and should be discussed with your veterinarian.

Rabies-- ALL therapeutic riding horses in nearly every location in the world should be vaccinated for this annually. This can be transmitted to people by infected horses, and some infected horses do become violent and can easily kill a person before a diagnosis has even been made.

Potomac Horse Fever-- Spread by insects and snails/slugs and common to wet areas around rivers or swaps. This disease causes fever, diarrhea, and laminitis. Risk is decreased by vaccination (imperfect vaccine) and by keeping lights off around barns in affected areas.

Equine influenza (aka flu)-- This virus is spread by nose to nose contact, droplets or fomites. It causes fever and respiratory disease.

Equine rhinopneumonitis (aka rhino, EHV, Equine HerpesVirus)--This family of viruses causes respiratory disease in horses, then becomes dormant in the body. Under stress, it sometimes emerges later to cause more respiratory disease and sometimes outbreaks of a severe form of neurological disease.

Streptococcus equi equi (aka strep or Strangles)-- This bacterial respiratory infection is very contagious and is very common in many parts of the world. It causes fever, thick snotty noses, cough and swollen lymph nodes that can rupture and drain.

Others: Vesicular stomatitis, Equine Corona virus, EIA, drug resistant intestinal parasites, Staph infections (including MRSA), Salmonella, E. Coli, Equine rhinitis virus, Leptospirosis, Cryptosporidium,

So, how do you manage your horses' risks?

The best time to make a plan is before you have a problem. Decide on the level of risk you normally assume and your comfort with this level of risk. For example: if your program operates out of a large public boarding stable with no vaccination or travel rule, or shares space with another trainer that travels with competition horses, you are already living with a fairly high level of risk. On the other hand, if the horses for your program live in a quietly isolated location, with no other horses around, your risks are lower and different. If you share a fence line with a group of unvaccinated horses your risks change compared to a pasture that is near a lot of wild life or other livestock. Check out http://equineguelph.ca/Tools/biosecurity.php to asses your risks and more.

Remember, no one is free of risk for disease in their horses. People (especially the trainer, veterinarian, and farrier) bring germs in with equipment, on our clothes and boots and in our noses. Insects, ticks, rodents and wildlife bring diseases. AND, EVEN IF THEY HAVE LIVED IN TOTAL ISOLATION, YOUR HORSES ALREADY CARRY DISEASES THAT CAN RECUR AND SPREAD EVEN WHILE STILL IN ISOLATION.

You must work to manage risk on several fronts:
1. Overall management at home
2. Mitigation of risk when horses travel
3. Adding new horses
4. Responding to illness

Overall management at home.

This encompasses a wide range of factors. Strong horse management includes noticing and acting on small changes in behavior, appetite and manure. You must promote a culture of horsemanship, vigilance and safety so you can allow early detection of disease. Taking temperatures daily on a regular basis, or just when risk is higher than usual is a great

precaution. Keeping vaccinations up to date and reviewing vaccination protocols annually with an equine veterinarian who is closely familiar with your operation can make a huge difference. Strongly consider having the veterinarian give the vaccines, her knowledge of the types of vaccines and the chain or custody and care of the vaccines is invaluable. When you buy them at the feed store or online there is no guarantee that they have been cared for properly, and improper care can make them worthless and increases the risk for reactions.
Farm hygiene is important. Keeping horse manure cleaned up and disposed of properly for your situation and climate is huge! Keeping wildlife out of horse areas as much as possible decreases transmission and movement of some diseases. Keeping feed storage secure from vermin and wild life and eliminating places for these animals from living and reproducing inside your facilities. Using different wheelbarrows and tools for manure than for feed. Remove pools of water where mosquitos and other insects can reproduce. Cut weeds and keep grass mowed to decrease ticks and other disease vectors. Daily to weekly cleaning of water troughs. And the list goes on....
Human fomites. A fomite is an object that carries germs from place to place. A pitchfork is an obvious fomite. But humans are great for transporting germs, we are warm moving incubators. Your staff may have horses at home or may ride at other facilities. Your riders and their families may do the same. Your farrier, feed supplier, manure hauler, veterinarian and everyone else can contribute to the risk. At all times you should have hand sanitizer and places to blow noses and wash hands available to all the people in your facility. And you must create a culture of clean--everyone encourages and supports disease prevention. During higher risk times you might add foot baths or restrict access to some parts of the facility. Keeping barn jackets clean and boots shiny makes George Morris happy, and your horses healthy too!

If your horses go off the facility:

The trailer ride: a clean and freshly disinfected trailer with only your own horses on it is ideal. But, you will need to communicate this desire in advance, and be willing to pay for it. If the shipper isn't asking about the vaccination and health status of your horses, they probably aren't questioning anyone else either--your horses maybe in the small shared airspace with a lot of germs.

Once you arrive: disinfect your horses' stalls at show grounds. Bring your own equipment and try not to share (or disinfect anything you borrow or loan). Do not allow your horse to graze in busy grass areas or drink from shared water tanks. Do not submerge hose ends in buckets when filling them, and ideally use a disinfectant wipe on the hose end before each use. Do not pet other horses and do not let others pet yours. WASH YOUR HANDS, or use disinfectant wipes and hand sanitizer. And never let your horses go nose to nose with others. Take temperatures daily for a week before, during and two to four weeks after travel.

New and returning horses:

This includes horses visiting for any reason, for example, new horses on a trial period. Ideally these horses and all of their equipment would be isolated from the non-traveling herd. They would be cared for by separate staff and monitored closely for 2-4 weeks. If separate staff isn't available they would be cared for last with the staff wearing coveralls and separate boots. Their temperatures would be taken daily for that time. The people who were traveling with them would change and wash their clothes, shower, blow their noses, and clean and disinfect their

boots before working with the horses that stayed home. Equipment such as buckets, pitchforks, wheelbarrows and tack would be dedicated to these horses.

So if that is impossible, or the overall risk levels at your barn due to other horses coming and going make isolating your new arrivals pointless, there are other things you can do. Take temperatures daily. Even if strict isolation is not possible, restricting nose to nose contact and not sharing stalls, turnout and equipment will decrease risk. Keeping separate pitchfork, bucket brushes, tack and equipment will help. Hand hygiene simply cannot be over stressed.

In case of an outbreak of disease on your facility:

Have at least one key person educated on how to respond and have all the equipment needed to do so. This includes having a solid plan for how to best isolate the affected horses, how to make foot baths, how to use disinfectants, and how to leverage help with out spreading disease to other facilities. Make a plan and review it annually with your veterinarian. Gather disinfectants, signs, coveralls, foot baths, hand sanitizer and the rest and keep it ready to go. Additional resources:

YOUR EQUINE VETERINARIAN!

www.aphis.usda.gov/animal-health/equine-health
http://equineguelph.ca/Tools/biosecurity.php
http://equinediseasecc.org/biosecurity.aspx