

Pilot project to develop healthy fair and petting zoo workshops in Minnesota

June 2013-April 2014

Project PI: Carrie Klumb, MPH
Minnesota Department of Health
Phone: 651-201-5123
Email: carrie.klumb@state.mn.us
Address: 625 Robert St. North
St. Paul, MN 55155

Project Co-Investigators: Kirk Smith, DVM, MS, PhD and Joni Scheftel DVM, MPH
Minnesota Department of Health

Final Report Submitted On: April 24, 2015

Issue

Each year in Minnesota 93 county fairs and the state fair are held, which in total attract around 4.5 million visitors. That's 83% of the state population attending a fair at some point in the year. Fairs are an integral part of Minnesota's culture and provide great opportunities for people to learn about animal agriculture. Specifically, animal contact at fairs allows people to observe animal behavior, learn where their food really comes from, and experience the human-animal bond. However, people can also become ill after interacting with animals; because healthy well-tended animals can have germs that make people sick even though the germs don't make the animals sick. We know this happens because we investigate outbreaks related to animal contact each year in Minnesota. Between 1998 and 2013, we have seen outbreaks at a variety of public animal settings such as county fairs, the state fair, educational farms, traveling petting zoos, and agritourism petting zoos. People have become sick with a variety of different diseases including *Salmonella*, *E. coli* O157:H7, *Campylobacter*, and *Cryptosporidium*. These outbreaks tend to affect young children disproportionately because they are more likely to visit petting zoos, have poorer hand hygiene, and have more hand-to-mouth contact compared to adults. Some of these infections, particularly *E. coli* O157, can cause very serious complications that affect people's kidneys, which often results in hospitalization, blood transfusions, dialysis, and can even cause death. With fairs being such a large part of our culture and the increasing popularity of agritourism venues such as pumpkin patches and apple orchards, the Minnesota Department of Health (MDH) believes these outbreaks will continue to occur.

Approach

In order to address this ongoing problem we developed an in-person workshop geared toward county fair boards, directors, and managers as well as petting zoo operators, and FFA and 4H educators. Although the above mentioned groups were our target audience, we also wanted to have public and animal health agency representatives and University of Minnesota extension educators there as well. We wanted to bring together all stakeholders in order for people to begin to form relationships with each other and to learn from each other.

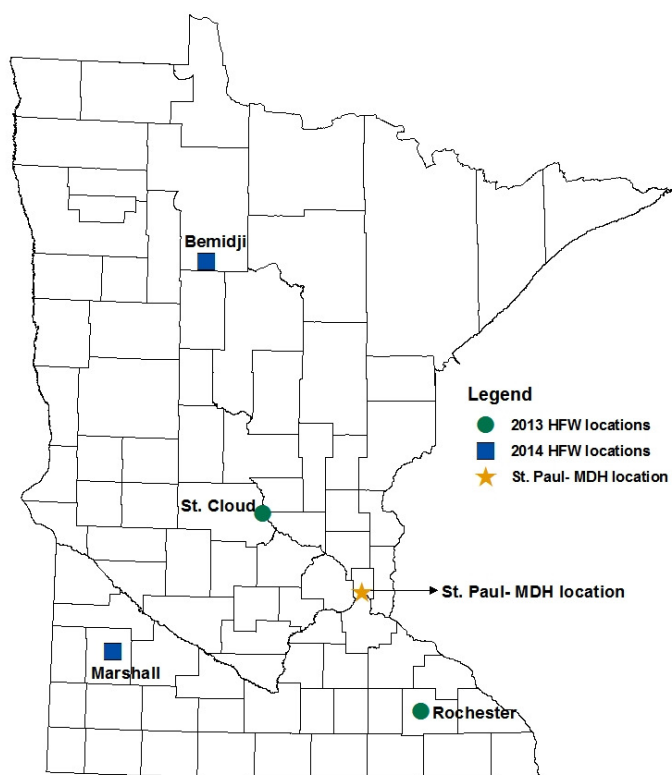
The workshops were planned using a One Health concept that addressed environmental, human, and animal health issues that could arise at a county fair instead of only focusing on illness associated with animal contact. In order to successfully utilize the One Health concept, we partnered with the MDH Environmental Health Division (MDH EH) and the Minnesota Board of Animal Health (MBAH). Each agency presented information on their area of expertise. The MBAH addressed swine influenza and porcine epidemic diarrhea virus (PEDV) concerns, MDH EH addressed freshwater and wastewater issues, and MDH discussed healthy human-animal interactions and petting zoo best practices.

Each hosting agency sent out an electronic invite accompanied with a letter to their contact lists. A paper invite was also sent via U.S. mail to each county fair board president. An online registration page was set-up. A phone number was provided for those without an internet connection to call and register over the phone. These workshops were offered free of charge and lunch was included. Each attendee received a binder containing all of the information covered at the workshop, resources that could be used after the workshop, and the contact information for

all other workshop attendees. Each attendee was asked to complete a workshop evaluation at the conclusion of the workshop.

A considerable amount of thought went into selecting the locations for the workshops. Although the hosting agencies are located in St. Paul we wanted to choose locations that would make it easier for fairs located outside of the Twin Cities Metro area to attend. Therefore we purposely choose more rural locations in diverse geographic regions of the state to hold these workshops. Since the drive time from St. Paul to these locations were often considerable MDH EH and MBAH utilized their local field employees to deliver their portion of the workshop while the core MDH group traveled from St. Paul to each location. Please see Figure 1 for workshop locations.

Figure 1. Healthy Fairs Workshop locations by year.



Key Findings

When these workshops were initially planned it was unclear whether or not there would be much interest from our target audience. Workshop participants were receptive to the information presented by the Minnesota Department of Health and the Minnesota Board of Animal Health. Participants that may have been initially skeptical left the workshop with a new understanding of how these governmental agencies could help them. This was reflected in the evaluation results (Tables 1 and 2). The workshop evaluations consistently found that people thought their time was well spent and they planned on implementing what they had learned at their fair (Table 1). Through the evaluations we were also able to determine that people wanted these workshops to be hosted on an annual basis and to occur in the late spring (Table 2).

During our 2013 workshops, a total of 86 people attend and 50% were people from our target audience. In 2014, a total of 40 people attended and 68% were people from our target audience. The attendance in 2014 was lower than expected due to a late spring snow storm on the day of one of the workshops.

In total 1,291 educational posters (Figure 2) were taken by workshop attendees for use at their county fairs. Additionally, ideas were being exchanged between workshop attendees on how best to tackle these problems during small group discussion and break times. We built in small group discussion and break time in order for people to network. Attendees took advantage of these networking opportunities.

Outputs and Translation of Findings

1) Major Outputs: Educational materials were developed for these workshops and were given to each attendee. A “Petting Zoo Best Practices Checklist” was developed for the workshops and is now being used any time we work with someone associated with a fair or petting zoo. An article about these workshops was also published in the nationally distributed Fairs & Expos magazine published by the International Association of Fairs and Expositions (IAFE). The Healthy Fairs Workshops program was also presented at the 7th International Symposium: Safety & Health in Agricultural & Rural Populations (SHARP) in Saskatoon, Canada in October 2014.

2) How outputs used and who used them: The educational materials given in a binder to each workshop participant were hopefully used by that attendee and their colleagues to make improvements to their fair or petting zoo operation based on what they learned at the workshop. By publishing an article in a nationally distributed magazine we hoped to increase the awareness of this type of programming on a national level and encourage interest in others developing similar programs in their local communities. The same idea was behind presenting this at an international conference this past fall.

Project Outcomes

a) Potential outcomes—The recommendations provided by the host agencies would help fair boards improve the health and safety of the visitors to their fairs, the people working and volunteering at the fairs, and the animals being shown at the fairs.

b) Intermediate outcomes—The workshops have given those responsible for putting on fairs or are a part of fairs the tools and information they need to make changes in order to reduce the risk of illness among their visitors. So far these workshops have resulted in one county fair scheduling a meeting with us to review their layout and talk about where to install hand sinks with running water. In addition, we have been asked to speak at the annual conference for MFCF and the MFCF is now requiring at least one person from each fair to attend the IAFE’s Consumer Protection Program, which is focused on *E. coli* O157:H7.

What's Ahead

The MDH in conjunction with MDH EH and MBAH plan to continue to host two Healthy Fairs Workshops each spring. The location for these workshops will continue to rotate throughout the state thus giving people from all areas of the state an opportunity to attend a workshop. Planning for 2015 workshops has just begun. In order to continue to offer these workshops at no cost we are currently exploring options for a more stable source of funding since the pilot project grant is now complete. If we are unable to secure additional funding we will then explore the option of charging people to attend the workshops.

External Factors

This project had a number of external factors affecting it. First, we had a late spring snow storm on the day of one of our workshops which prevented many of the people who had registered from attending. There is nothing that can be done to control for a weather related event such as this. Based on our evaluations, late spring is the preferred time of year for these workshops according to our attendees. Given our climate, it is possible that such an event could occur again in the future.

Another factor affecting the success of these workshops is the buy-in from MFCF. This organization has been instrumental in supporting the workshops and relationship building we are doing through them. Without the support of MFCF I am unsure how many people would have registered. Traditionally, there has not been a strong, positive relationship between the agriculture community and the government. We are using these workshops in order to begin building these relationships based on mutual trust and respect. Relationship building takes time and we are just now beginning to see the effects of these first four workshops. The message that these workshops provide valuable information and give people a chance to network with each other is spreading by word of mouth. In our first year, 2013, roughly 50% of our attendees came from our target audience. However, in, 2014, 68% of our attendees came from this target audience. We see this as a sign that people are finding value in these workshops and are letting their colleagues know.

Although we had buy-in from MFCF, we have struggled to make good connections with FFA and 4H in Minnesota and therefore we have very low attendance at our workshops from these organizations. We feel it is vitally important for these groups to be represented at the workshops and therefore we are continuing to explore ways to connect with these groups prior to the workshops.

Table 1. Results of workshop evaluation by attendees, 2013 through 2014.

Question	2013 No. (%) [†]	2014 No. (%) [†]
Conference length was just right	64 (100)	30 (97)
Conference was adequately paced	63 (98)	30 (97)
I plan on implementing what I learned at my fair	67 (96)	27 (87)
Workshop was time well spent	71 (100)	28 (93)

[†] Responses not available for all cases for some variables.

Table 2. Results of workshop evaluation by attendees, on frequency and seasonality, 2013 through 2014.

Question	No. (%)
How often should these workshops be held?	
Yearly	21 (68)
Every other year	10 (32)
Best time of year for workshops?	
Winter	4 (13)
Early spring	24 (77)
Late spring	3 (10)
Summer	0 (0)
Fall	9 (0)

Figure 2. Free educational posters available for use at fairs and other public animal contact venues.

