

Human Dimensions of Chronic Wasting Disease in Wisconsin

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ABSTRACT

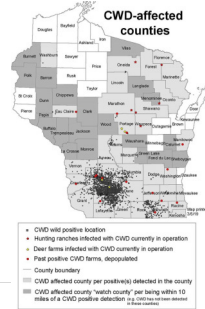
CWD is a disease caused by prions (an infectious protein particle similar to a virus). CWD can affect deer, elk, moose and reindeer. The first case of CWD in Wisconsin was discovered in 2002 and in Eau Claire County in 2018. Its arrival initiated the creation of the Chippewa Valley CWD Advisory Team (CVCAT). The CVCAT is made up of 7 members of the public that have prior knowledge of deer herd management and hunting practices. The goal of CVCAT is to provide the WDNR recommendations regarding local surveillance areas and methods, and management options for white-tailed deer potentially exposed to CWD. The objective of this study is to qualitatively assess the effectiveness of the CVCAT, i.e., assessing what the public thinks it wants and what the WDNR would like to see happen. The assessment includes interviewing and surveying four focal groups who have a stake in either deer hunting, and/or deer population management (CVCAT members; members of public who attend CVCAT meetings; WDNR employees working directly with CWD; and students/deer hunters in the UWEC Rod and Gun Club). Survey results will be summarized and analyzed to gauge local perceptions of CWD and the effectiveness of the CVAT. The data will then be potentially used by the WDNR as they face the challenge of working with the public to manage deer and this emerging infectious disease.



Healthy appearing White-tailed Deer



White-tailed deer infected with CWD



Range of CWD in Wisconsin

TOOLS USED

Interviews with the CVCAT were done over the phone individually. Eight questions were designed for open answers from the interviewees. The interviews took between 30-60 minutes.

Surveys of the DNR staff and the public that attends the CVCAT meetings were designed using survey monkey. Both surveys had questions that used a strongly agree to strongly disagree scale. The surveys each had eight questions and took roughly 5-10 minutes to complete. The analysis of the surveys was done using survey monkey which created an average chart.



CWD Sample drop-off site

CVCAT INTERVIEW Results and Discussion

All members of the CVCAT agreed that they work well within themselves at understanding and working through disagreements. This suggests that the WDNR those individuals that are able to communicate and compromise when needed. The CVCAT appeared open to public opinion at any point in time during the meetings. Having a group that is willing to listen, even if their opinion does not match the individuals, is an important aspect of their advisory role. CVCAT members want to make informed recommendation that address public concerns. Levels of action that different CVCAT members would like to take included mandatory CWD testing, longer shooting periods, and sharp shooting to cull infected animals. However, since some of these actions may be considered extreme ideas for managing CWD, all members understood they may not be publicly acceptable. Survey results suggest that the CVCAT provides a safe platform for the public to be able to share their opinions and they would recommend a CWD Advisory Team approach to any county with a newly found CWD case.

WDNR Staff Survey Results and Discussion

	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE	TOTAL	WEIGHTED AVERAGE
The CWD Advisory Team provides meaningful opportunities for the public to be able to share their views about CWD.	14.29% 1	71.43% 3	14.29% 0	0.00% 0	0.00% 0	7	2.00
The members of the CWD Advisory Team conduct themselves in a professional manner.	50.00% 3	50.00% 3	0.00% 0	0.00% 0	0.00% 0	6	1.50
I have confidence in the members of the CWD Advisory Team to make sound and reasonable recommendations about local CWD management.	50.00% 3	16.67% 1	16.67% 1	16.67% 1	0.00% 0	6	2.00
Issuing a limited number of CWD surveillance shooting permits to private landowners in the "focus area" was a good recommendation.	87.50% 4	42.86% 3	0.00% 0	0.00% 0	0.00% 0	7	1.43
The members of the CWD Advisory Team operate independently without being influenced by the DNR staff.	16.67% 1	50.00% 3	33.33% 2	0.00% 0	0.00% 0	6	2.17
DNR staff provide information to the CWD Advisory Team in a fair and unbiased manner.	42.86% 3	42.86% 3	14.29% 1	0.00% 0	0.00% 0	7	1.71
I would recommend a CWD Advisory Team approach to a county that has a newly detected case of CWD.	42.86% 3	42.86% 3	0.00% 0	14.29% 1	0.00% 0	7	1.86

According to most of the WDNR staff surveyed they find the CVCAT useful and doing the job that was intended for them to do. This suggests that the WDNR has a level of trust in the CVCAT to be a forum for the public discourse. The only slight disagreement was whether or not the CVCAT should be used to make sound recommendations and whether they should operate independently. I interpret this as the WDNR staff feeling as though the CVCAT does not have the full understanding or background to understand the best choice for deer management. The WDNR however, does understand the importance of giving the public a voice and most would recommend a CWD Advisory Team to other counties.

Figure 1. All individuals surveyed are WDNR employees working specifically with CWD. All WI counties included in the survey were: Buffalo, Trempealeau, Eau Claire, Vernon, Taylor, Rusk and Milwaukee.

Public Survey Results and Discussion

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	TOTAL	WEIGHTED AVERAGE
The Chippewa Valley CWD Advisory Team provides meaningful opportunities for me to share my views about CWD.	0.00% 0	9.68% 3	0.00% 0	51.6% 16	38.7% 12	31	4.19
The members of the Chippewa Valley CWD Advisory Team conduct themselves professionally during the meeting.	0.00% 0	0.00% 0	3.23% 1	35.49% 11	61.29% 19	31	4.58
I have confidence in the members of the Chippewa Valley CWD Advisory Team to make sound and reasonable recommendations about local CWD management.	3.23% 1	6.46% 2	19.35% 6	51.6% 16	19.35% 6	31	3.77
Issuing a limited number of CWD surveillance shooting permits to private landowners in the "focus area" from September 1 - March 1 was a good recommendation.	6.46% 2	6.46% 2	29.03% 9	32.26% 10	25.8% 8	31	3.65
The members of the Chippewa Valley CWD Advisory Team operate independently without being influenced by DNR staff.	0.00% 0	6.46% 2	19.35% 6	43.39% 13	25.8% 8	31	3.94
DNR staff provide information to the Chippewa Valley CWD Advisory Team in a fair and unbiased manner.	3.23% 1	0.00% 0	16.13% 5	45.16% 14	35.49% 11	31	4.10
CWD will have negative impacts on the deer herd and deer hunting traditions in my local area.	6.67% 2	6.67% 2	6.67% 2	36.67% 11	43.33% 13	30	4.03
The DNR should not take action to slow the spread of CWD in my local area.	48.39% 15	22.58% 7	19.35% 6	3.23% 1	6.46% 2	31	1.97

Figure 2. All individuals surveyed attended the CVCAT meeting in March 2019. A total of 42% of participants lived within the "surveillance area" (500+ square miles from an infection site), 45% within the "focus area" (25.5 square miles from an infection site) and 13% lived in neither.

For the most part, the opinions and concerns of the public were similar. Many of them agreed that the CVCAT is a safe place for them to share their thoughts and ask questions about things they did not understand. This is great because at least the public feels as though they are being heard and that they can easily receive new information. The red flag that pops up when looking at the results is that they do not feel the CVCAT is getting unbiased information from the WDNR or that they are running independently. This may be due to WDNR staff being present at the meetings. However, they need to be there to get input and directly hear from the public. Lastly most of the public acknowledges that that if CWD continues to spread rapidly it will affect our hunting culture and deer population.

THANK YOU

I thank the following people for whom without them this study would not have been possible. First is William Hogseth (Wildlife Biologist, Eau Claire WDNR) who took a chance on me and brought me on as an intern working with CWD. He was a great inspiration for creating this project and helped guide me in the right directions throughout. Shala Brehm and Steve Pence who are also employees at the WDNR helped me in understanding more about CWD and collecting data. Dr. Paula Kleintjes Neff (UW Eau Claire Biology department Chair) who is my mentor in this project. She was able to give me input along the way as to how I could better conduct and analyze parts of my project.