

RESOURCE ECONOMICS AND ENVIRONMENTAL SOCIOLOGY

**Surveys of Alberta Hunter Opinions of  
Chronic Wasting Disease (CWD)  
2007; 2017-2020 Overview of Results**

**John K. Pattison-Williams, Lusi Xie, Vic Adamowicz,  
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Project Report #21-02

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**UNIVERSITY OF ALBERTA**  
DEPARTMENT OF RESOURCE ECONOMICS  
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## Introduction

Since the first documented case of Chronic Wasting Disease (CWD) in Alberta in 2002, the disease has spread across the province with increasing speed; in 2019 17.5% of wild mule deer heads submitted in the province tested positive<sup>1</sup>. A research team in the Department of Resource Economics and Environmental Sociology (REES) at the University of Alberta has been engaging with the hunting community over this time to explore their knowledge, risk perceptions and management preferences. Overall, the conclusions indicate:

- *Constancy*: most attitudes and preferences towards CWD have not changed significantly over time, even over a 10-year period.
- *Support*: hunters are supportive of management actions for CWD and hunter involvement in those actions.
- *Difference*: although supportive, differences in perceptions show that not everyone is the same and that the risk preferences and attitudes towards CWD—though relatively constant over time—are different.

We wish to thank the hunters who have taken the time to respond to these surveys and provide a brief descriptive overview of comparable survey results from 2007, 2017, 2018, 2019 and 2020 hunting seasons. It is our hope that this work will enhance wildlife conservation and management approaches in the province for the future.

## Sampling

For the hunting seasons of 2017-2020<sup>2</sup> the research team partnered with the Government of Alberta (GOA) Ministry of Environment and Parks (AEP) to distribute the survey link to a random sample of 5,000 mule deer licence holders each year through the Alberta RELM system.<sup>3</sup> Although the survey was sent out to the same number of hunters in each year, unforeseen events—such as an election in 2018 and a pandemic in 2021—led to different numbers of complete surveys (Figure 1).

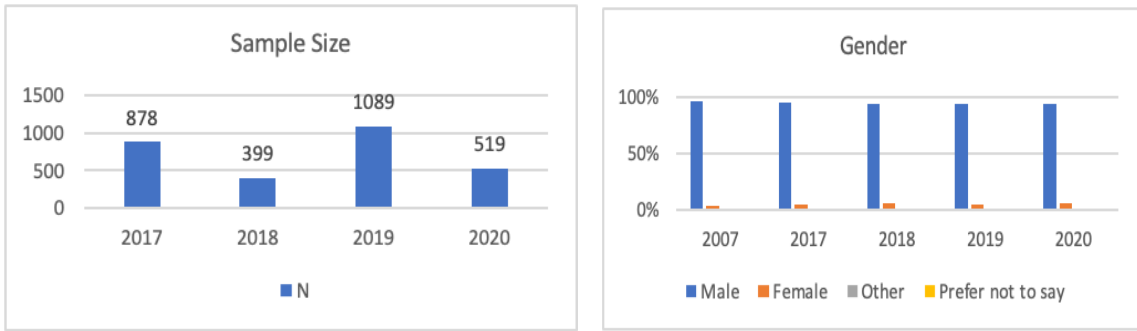
Alberta mule deer hunters are predominantly male, middle age and have a median income range of \$100,000-149,999 per year (Figure 2). These characteristics vary little among the samples over time.

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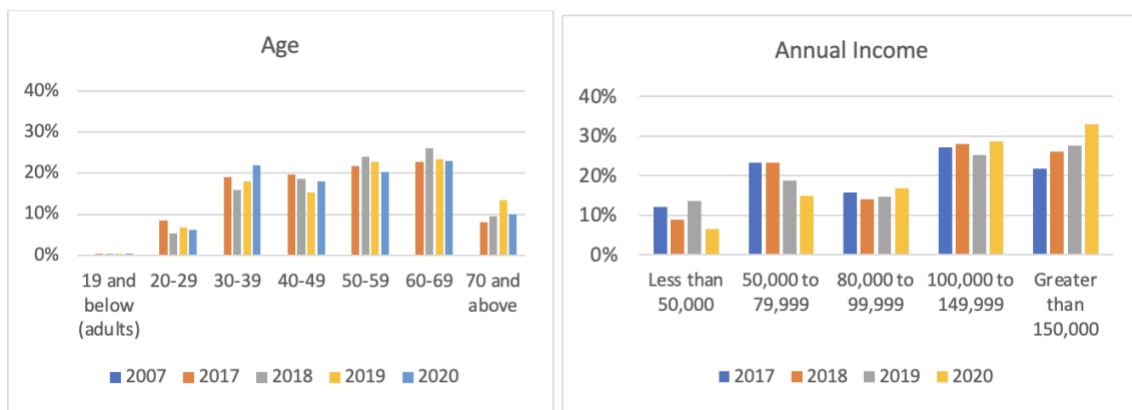
<sup>1</sup> <https://www.alberta.ca/chronic-wasting-disease-updates.aspx#jumplinks-0>

<sup>2</sup> The survey period was 2018-2021 to capture the previous year's hunting season data; a comparable survey was also conducted in 2008 on the 2007 hunting season.

<sup>3</sup> The 2007 sample was obtained using a mixture of phone and mail-out paper-based surveys. We include comparable questions from that survey where possible.



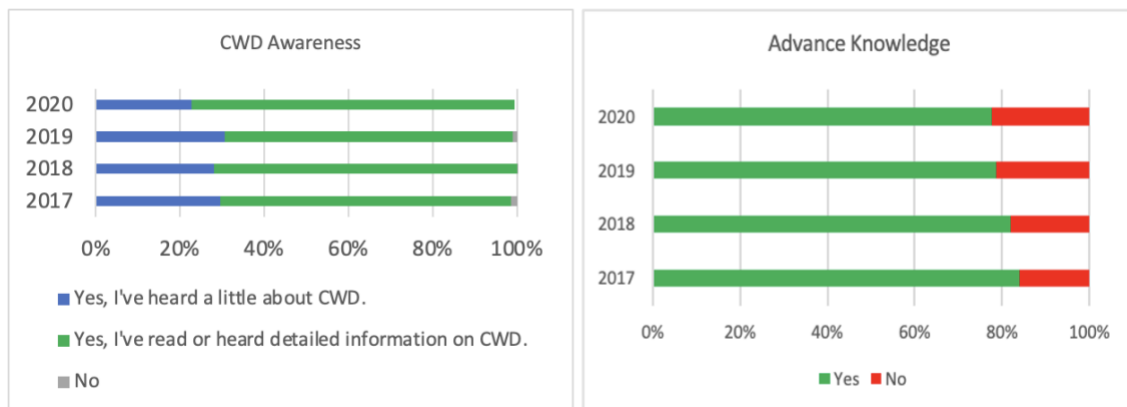
**Figure 1.** Sample size and gender breakdown of survey respondents by year.



**Figure 2.** Age and income levels of survey respondents by year.

### Knowledge and Response to CWD

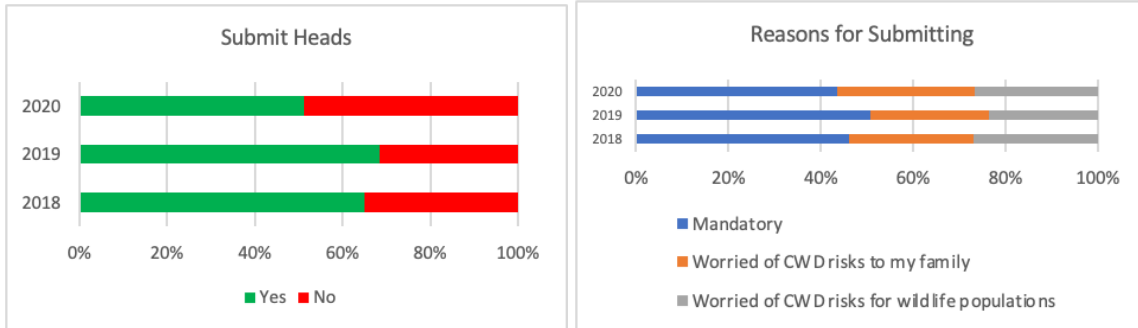
Most respondents were aware of CWD at a detailed level and checked about CWD status in the province prior to the hunting season (Figure 3). Most found their CWD information from the provincial regulations or government website. These trends have not changed significantly over the four years of surveys.



**Figure 3.** Respondent awareness of CWD (left) and whether they checked for CWD status prior to the hunting season (right) by year.

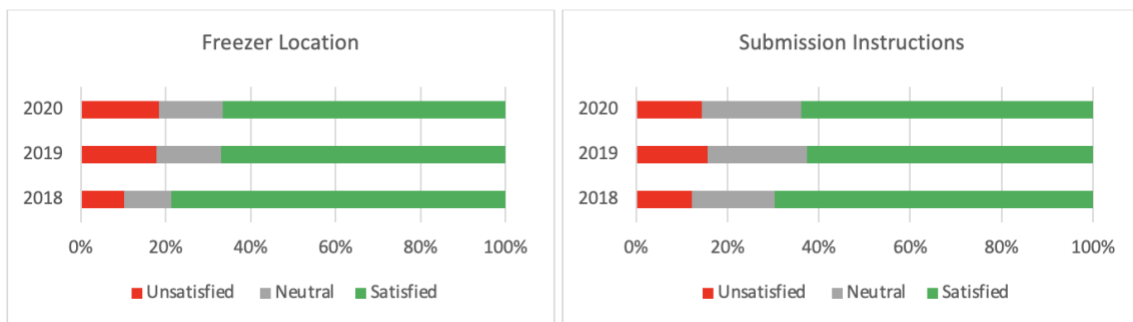
## Provincial CWD Surveillance Program

Most respondents submitted heads for CWD testing (Figure 4), primarily because the animals were harvested in mandatory zones. Reasons behind head submission, other than that it was required included risks to personal health or wildlife health, and were somewhat constant over time.

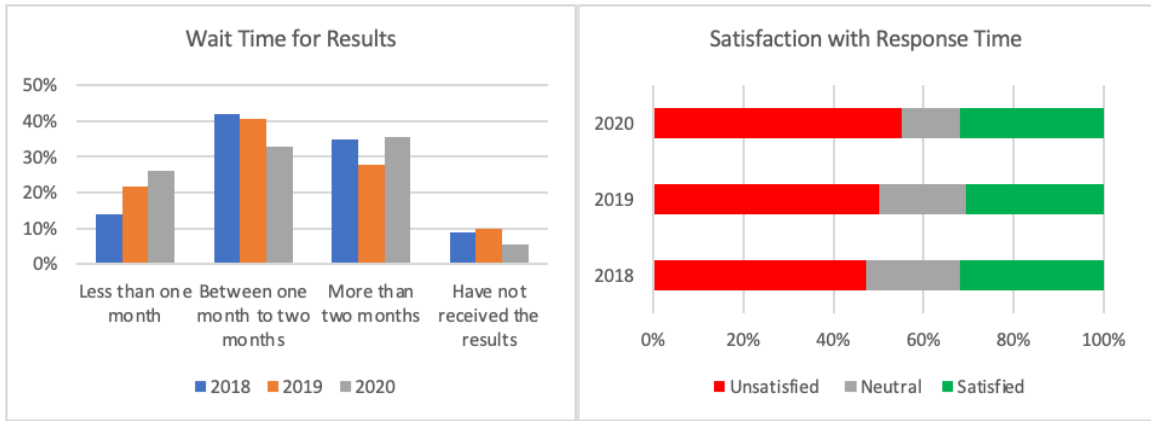


**Figure 4.** Respondent submission of heads for CWD testing (left) and reason for doing so (right) by year.

The results on satisfaction with the Alberta Government’s programs on CWD management imply general support for the CWD surveillance program in Alberta. While satisfaction with the freezer location and instructions from AEP was generally high (Figure 5), satisfaction with the time between submission and results was relatively low (Figure 6); the unsatisfied category for time taken to receive results show an increase in over time.



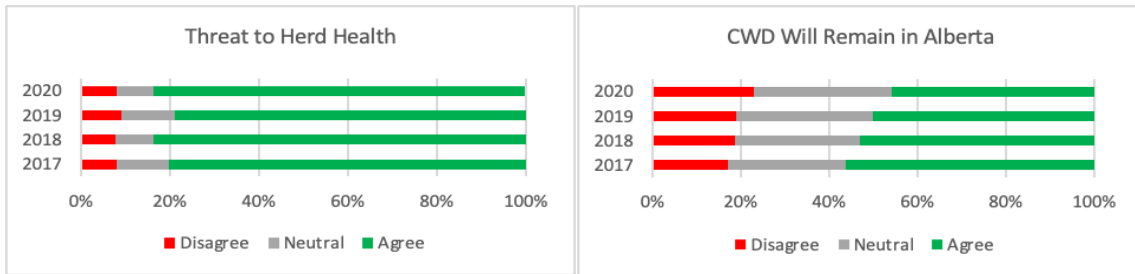
**Figure 5.** Respondent satisfaction with AEP freezer locations (left) and instructions for submission (right) by year.



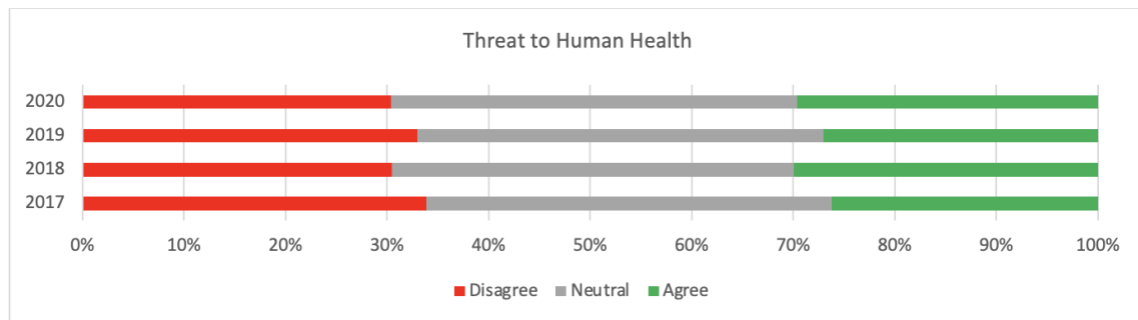
**Figure 6.** Respondent’s wait time for CWD results (left) and satisfaction level for time (right) by year.

### Risk Perceptions

Repondents were asked a number of questions about their risk perceptions around CWD. They generally felt that CWD is a threat to wildlife herd health that is unlikely to be eradicated in Alberta (Figure 7).

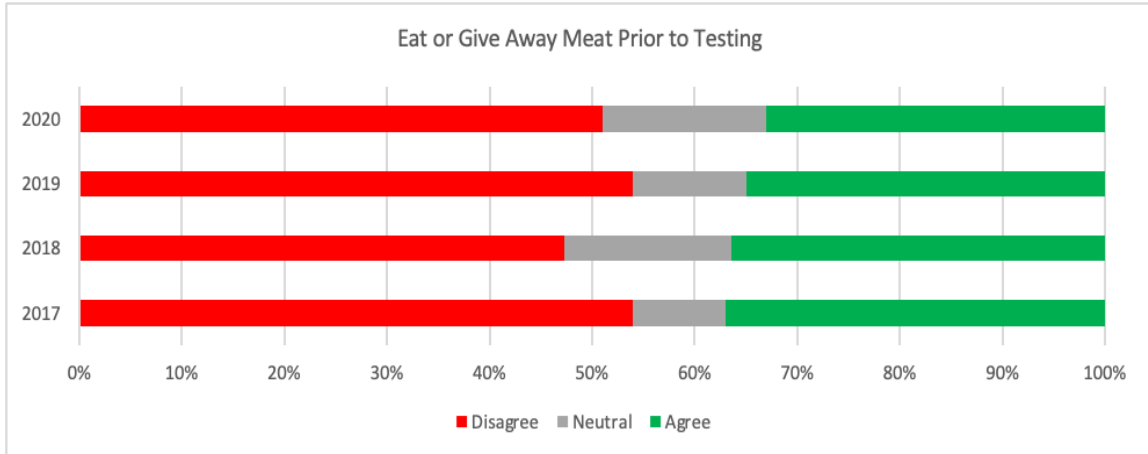


**Figure 7.** Respondent agreement with CWD threat to wildlife herd health (left) and whether CWD will not be eradicated and remain at low levels in the province (right) by year.



**Figure 8.** Respondent agreement that CWD is a threat to human health by year.

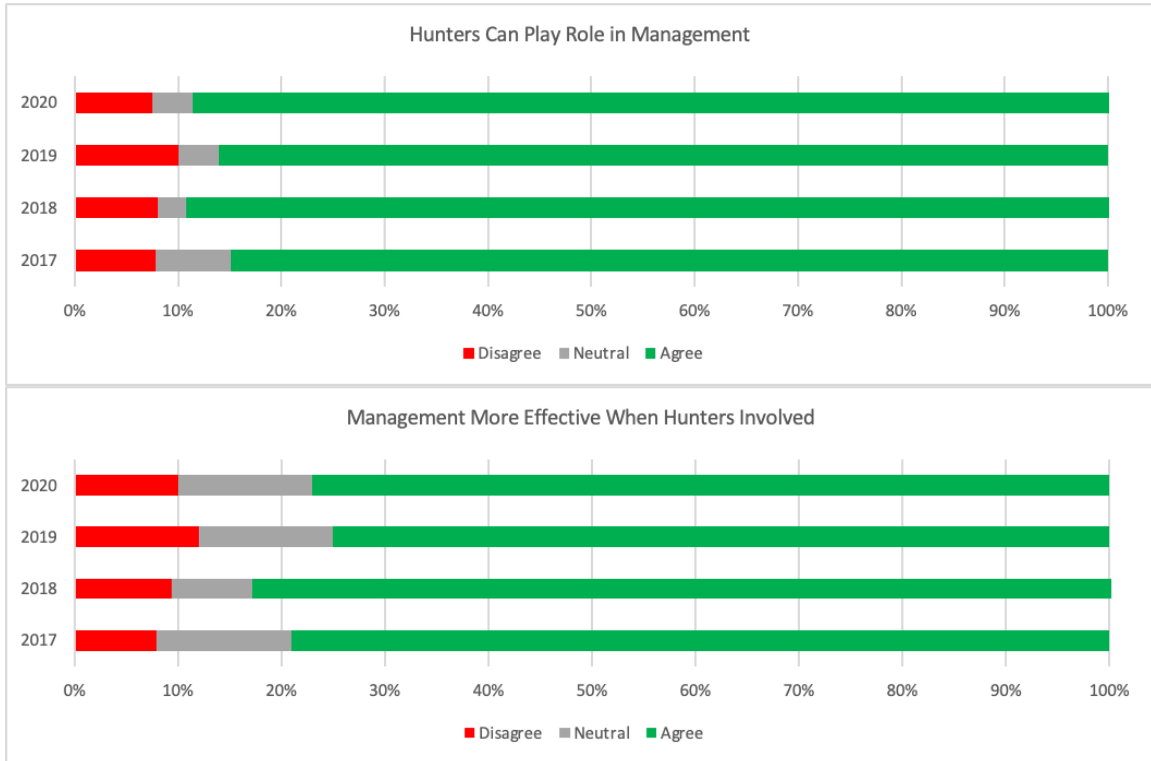
Approximately 25% of respondents consider CWD to be a threat to human health, and most respondents wait for the results of the CWD test to consume the meat. However, a small—but decreasing—number of people eat or give away the meat before receiving the results (Figure 9).



**Figure 9.** Respondent agreement with eating or giving away meat before receiving CWD test results by year.

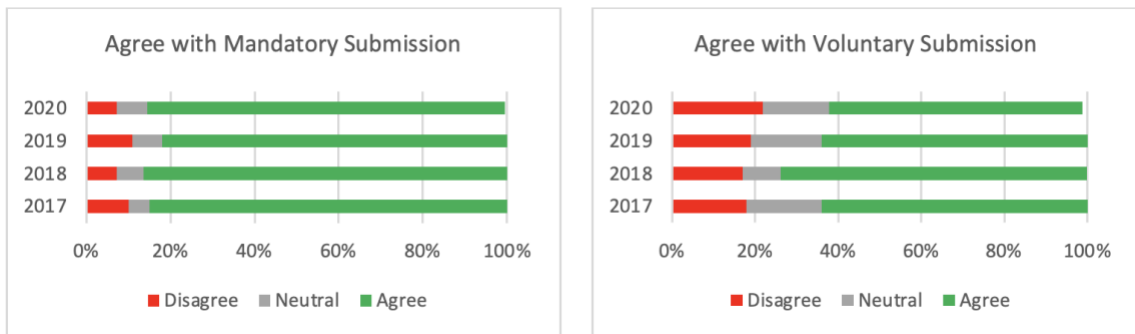
### Management Preferences

When presented with several commonly employed CWD management practices in North America, respondents felt hunters could, and should, be used and should be used more effectively to manage the disease (Figure 10).



**Figure 10.** Respondent agreement that hunters can play a role in CWD management (top), that government CWD management programs are more effective when hunters are used (bottom).

There is strong agreement for programs having mandatory or voluntary submission of heads for CWD testing (Figure 11), which suggests support for Alberta’s CWD surveillance program.

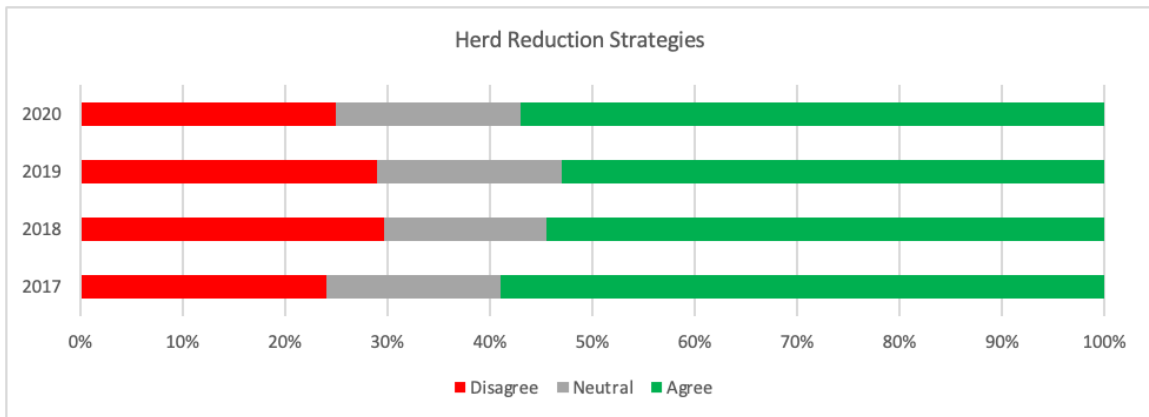


**Figure 11.** Respondent agreement with mandatory submission of heads for CWD testing (left) and voluntary submission of heads for CWD testing (right) by year.

### Hunter Preferences for Policy Options

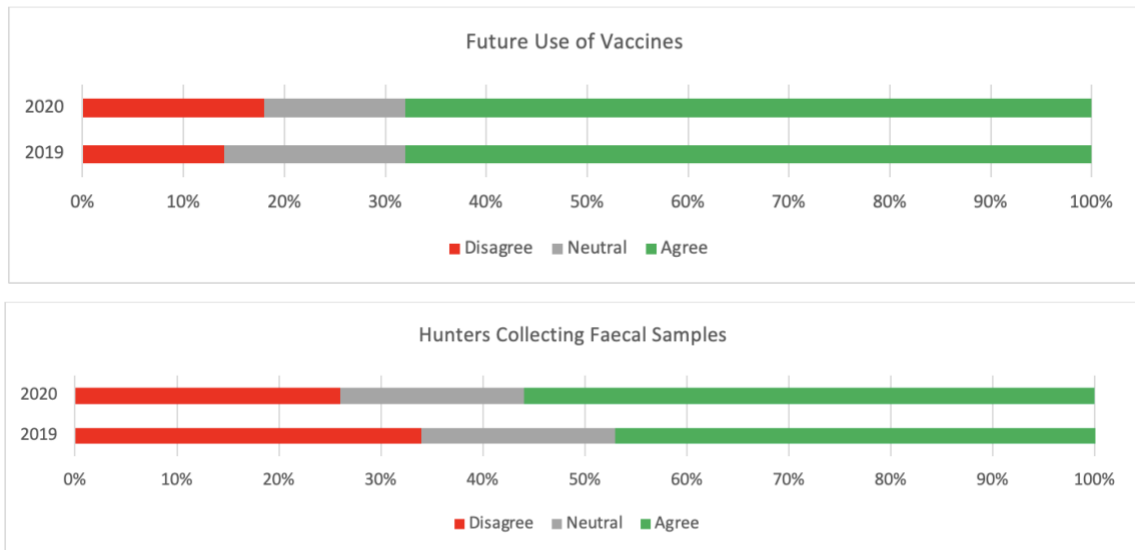
Herd reduction strategies—a foundational principle of using hunters in CWD management to reduce transmission—are given mixed consideration, though generally thought to be favorable (Figure 12).





**Figure 12.** Respondent agreement on the effectiveness of herd reduction as an effective means to reduce CWD, by year.

Future management options that scientific advance will hopefully allow in the future include vaccines and mobile testing kits of CWD from soil or faecal matter. Hunters were generally positive on vaccine use but more mixed on allowing hunters to collect faecal samples themselves (Figure 13).



**Figure 13.** Respondent agreement future management options such as using a vaccine to control CWD (top) and allowing hunters to self-sample tissues of animals for CWD testing (bottom), by year.

## Conclusions

These surveys convey an important—and unique in Canada—understanding of hunter attitudes towards CWD over time. Such information is important to inform policy decisions at various levels of government. Overall, the conclusions indicate:

- *Constancy*: most attitudes and preferences towards CWD have not changed significantly over time, even over a 10-year period.
- *Support*: hunters are supportive of management actions for CWD and hunter involvement in those actions.
- *Difference*: although supportive, differences in perceptions show that not everyone is the same and that the risk preferences and attitudes towards CWD—though relatively constant over time—are different.

Readers interested in additional detail on hunter perspectives on CWD, as well as perspectives from other stakeholder groups, may be interested in the recent report available on the Canadian Agri-Food Policy Institute website: [https://capi-icpa.ca/wp-content/uploads/2021/07/Chronic-Wasting-Disease\\_Full-Report\\_EN.pdf](https://capi-icpa.ca/wp-content/uploads/2021/07/Chronic-Wasting-Disease_Full-Report_EN.pdf)