

An Evaluation:

Chronic Wasting Disease

Department of Natural Resources

November 2006

Report Highlights ■

DNR accounted for \$26.8 million of the \$32.3 million spent on CWD through FY 2005-06.

To date, DNR's efforts to eradicate CWD have not been effective.

DATCP has taken steps to limit the spread of CWD in farm-raised deer.

Hunters must wait longer to receive CWD testing results for their deer.

DHFS reviews potential effects of CWD on human health.

Wisconsin's approach to CWD should be reevaluated.

Chronic wasting disease (CWD) is a fatal neurological disease that affects members of the deer family, including white-tailed deer and elk. It was first identified among free-ranging deer within the state in February 2002. In the past five fiscal years, four state agencies have spent \$32.3 million to address the disease and monitor its spread, both in the wild and among farm-raised deer.

The Department of Natural Resources (DNR), which accounted for 82.9 percent of all expenditures, has attempted to eradicate CWD by reducing the number of free-ranging deer in areas where it has been identified. The Department of Agriculture, Trade and Consumer Protection (DATCP), which regulates deer farms, has established herd-monitoring programs and issues quarantines. The Wisconsin Veterinary Diagnostic Laboratory, which is operated by the University of Wisconsin-Madison, tests deer tissue for infection and disposes of infected carcasses. The Department of Health and Family Services (DHFS) monitors potential human health effects .

Legislators and hunters have raised concerns about the cost and effectiveness of efforts to eradicate CWD. At the request of the Joint Legislative Audit Committee, we therefore analyzed:

- trends in program expenditures and staffing levels;
- the effectiveness of DNR's current approach to CWD;
- DATCP's management of the disease in farm-raised deer;
- the role of the Diagnostic Laboratory in conducting CWD tests and disposing of deer carcasses; and
- activities undertaken by DHFS to address potential human health concerns.

Key Facts and Findings

CWD is a fatal neurological disease in deer that has been identified in 14 states, including Wisconsin.

Through FY 2005-06, Wisconsin spent \$32.3 million to address CWD.

DNR relies primarily on hunters to kill deer in areas known to be infected with CWD.

Deer hunting license sales have not returned to pre-CWD levels.

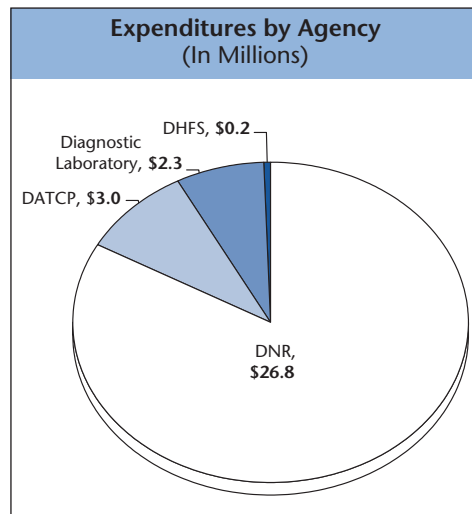
Hunters waited 51.8 days for CWD test results from the 2005 hunting season.

Wisconsin's aggressive approach to CWD has been more costly than less-aggressive approaches in other states.

To date, CWD has not been linked to human illness.

CWD Expenditures

DNR is the lead agency for coordinating Wisconsin's efforts to address CWD and for managing the disease in the free-ranging deer herd. From fiscal year (FY) 2001-02 through FY 2005-06, DNR spent \$26.8 million on CWD.



Nearly two-thirds of the \$32.3 million that all state agencies spent to address CWD, or \$20.1 million, has been provided from the Fish and Wildlife Account of the Conservation Fund. That account is funded primarily through fees paid by hunters and anglers.

In FY 2005-06, DNR, DATCP, the Diagnostic Laboratory, and DHFS employed 58.8 full-time equivalent (FTE) staff to address CWD. Most were wildlife biologists and technicians employed by DNR.

Disease Management in Free-Ranging Deer

Through June 2006, 651 free-ranging deer have tested positive for CWD in Wisconsin. All were from the southern part of the state, and 590 were from Dane and Iowa counties.

DNR has adopted two main strategies to limit the spread of CWD in free-ranging deer: surveillance to determine the disease's prevalence, and reducing the deer population in areas it has defined as CWD zones.

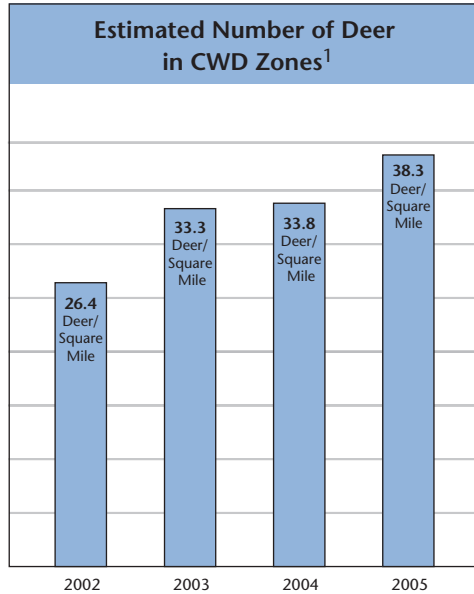
To reduce the number of deer and limit the spread of CWD, DNR has:

- increased the length of deer hunting seasons;
- required hunters to shoot a doe before shooting a buck;
- established and enforced a ban on baiting and feeding deer in 26 counties; and
- created incentives for hunters that include monetary rewards, low-cost permits, and a program to donate venison to food pantries.

DNR also relies on sharpshooters who are DNR employees. Sharpshooting efforts by DNR staff accounted for 5.2 percent of deer killed in the 2004 and 2005 hunting seasons.

Available data indicate that to date, DNR's efforts to eradicate CWD have not been effective:

- in CWD zones, the number of deer killed has declined from 23.1 per square mile during the 2003 hunting season to 17.4 per square mile during the 2005 hunting season;
- the CWD infection rate in the 210-square-mile "core area" DNR uses to monitor infection rates has not declined; and
- the estimated number of deer in CWD zones has increased from a post-hunt population of 26.4 deer per square mile in 2002 to 38.3 deer per square mile in 2005.



¹Post-hunt population. In the period shown, the size of CWD zones increased from 2,510 to 3,682 square miles. Because of changes in methodology, DNR staff believe population estimates for 2002 cannot be compared with later years and that changes in post-hunt populations are statistically insignificant.

Disease Management in Farm-Raised Deer

DATCP regulates farm-raised deer, which include both native deer and exotic species such as sika and reindeer. Anyone who wishes to sell live deer within Wisconsin must enroll in DATCP's herd monitoring program.

The monitoring program supplements mandatory CWD testing for all farm-raised deer that are 16 months of age or older at the time of death. It requires annual reporting on the health of deer from enrolled herds. Farm owners may not import deer from outside of Wisconsin unless they are from herds that have been monitored in their state or country of origin.

DATCP quarantines the herd of any farm on which a deer tests positive for CWD. It is also authorized to quarantine farms from which a CWD-positive deer originated and those whose herds may have been exposed to CWD.

Through June 2006, DATCP issued CWD-related quarantines for 43 deer farms. A total of 95 animals tested positive for CWD on 7 of these farms.

CWD Testing and Disposal

We found increases in both the number of CWD tests performed by the Diagnostic Laboratory during the nine-day regular gun

hunting season and the time required to report test results. On average, test results were not available until 51.8 days from the time a deer was killed in November 2005. In 2003, results were available in 26.6 days.

Hunters who submit deer for CWD testing typically want test results before they eat their deer. To assist during the peak workload period from late November through mid-January, DNR plans to provide 2.0 FTE staff to assist the Diagnostic Laboratory with CWD testing.

The Diagnostic Laboratory also operates a chemical tissue digester to dispose of CWD-positive carcasses and other deer testing remains. The tissue digester destroys prions, which are believed to be the cause of CWD.

In FY 2005-06, the tissue digester disposed of 370,768 pounds of deer tissue, of which 93.9 percent was from DNR's surveillance program. The remainder was from testing farm-raised deer.

Potential Human Health Risks

DHFS assesses potential human health risks of CWD by monitoring cases of related human diseases, establishing a registry of people known to have consumed venison from CWD-infected deer, and informing the public of potential risks associated with CWD.

To date, there is no evidence to suggest that eating CWD-infected venison can lead to human disease. However, because a similar disease in cows has been linked to human illness, DHFS, the World Health Organization, and the federal Centers for Disease Control and Prevention advise people not to consume any venison from CWD-infected deer as a precautionary measure.

Future Considerations

Compared to other states in which CWD has been identified, Wisconsin has taken an aggressive approach to addressing the disease. That approach has also been more costly, but it has not been effective to date. We therefore highlight three alternative approaches for consideration by DNR and the Legislature: making no changes; increasing efforts, which would likely increase program costs; or reducing or eliminating some CWD-related activities.

Recommendations

Our report includes a recommendation for the Diagnostic Laboratory and DNR to:

- ☑ report to the Joint Legislative Audit Committee by April 15, 2007, on the time required to notify hunters of CWD test results for the 2006 hunting season ([p. 73](#)).

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We also recommend that DNR, in consultation with DATCP, DHFS, and the Diagnostic Laboratory:

- ☑ report to the Joint Legislative Audit Committee by April 15, 2007, on:
 - how recent changes in hunting rules in the CWD zones affected the number of deer taken from these zones during the 2006 hunting season;
 - the number of CWD-positive deer killed as a result of DNR sharpshooting and trapping efforts during the 2006 hunting season;
 - whether testing performed on deer from the 2006 hunting season indicates any changes in the spread of CWD;
 - plans to improve communication with hunters; and
 - strategies that will be employed to reduce CWD-related costs ([p. 90](#)).

Additional Information

Report [06-13](#) includes a response from the Department of Natural Resources.



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