



Center for Infectious Disease Research and Policy
University of Minnesota

Chronic Wasting Disease Transmission Contingency Planning

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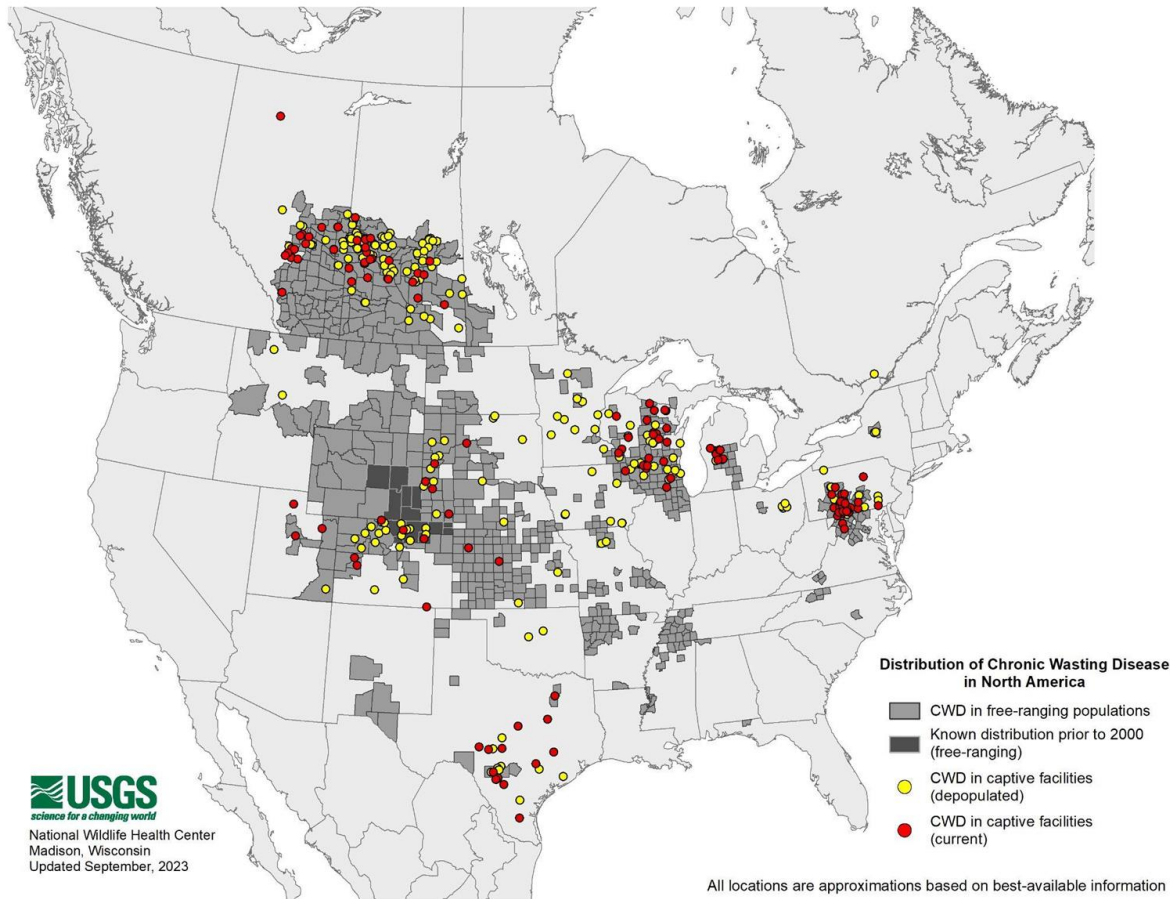
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Chronic Wasting Disease Introduction



- CWD is an infectious prion disease currently increasing in incidence and prevalence among cervids across North America
- Disease confirmed in 31 American states and 4 Canadian provinces

Chronic Wasting Disease Introduction (contd.)

- New and existing exposures to CWD prions is increasing in non-cervid populations, including humans
- Evolving CWD prion strains differ in transmissibility, disease presentation, and zoonotic potential
- Documented transmission to a human or non-cervid production animal likely would result in a public health and economic crisis

Project Outline and Goals

- Due to the absence of a comprehensive preparedness and response plan for a CWD spillover, CIDRAP is leading an international cross-disciplinary contingency planning effort
- Have established international expert working groups focusing on:
 - Public health and human medicine
 - Cervid and production animal health
 - Prion biology and diagnostics
 - Carcass and contaminated item disposal
 - Wildlife health and conservation

Contingency Planning Results

- The result of proceedings will be a compilation of current and reputable knowledge in the field, highlighting the current state of science and future research directions
- A blueprint document directing planning immediate steps to be followed following a potential spillover event into a non-cervid production animal or human
- This product will be a living document, updated with discoveries and innovations in the field

Status Update

- Conducted thorough CWD literature review to inform project activities
- Confirmed 10 expert co-chairs to serve as leaders of each of the five working groups, which include an additional 56 multi-disciplinary experts as members
- Designed hypothetical scenarios to guide discussion surrounding current state of disease and the possibility of non-cervid or human spillover

Working Group Co-Chairs

Human medicine and public health surveillance, epidemiology, laboratory capacity, planning and response

Brian Appleby, M.D.

Director, National Prion Disease Pathology Surveillance Center
Professor, Departments of Neurology, Psychiatry, and Pathology
Case Western Reserve University
University Hospitals Cleveland Medical Center

Lawrence Schonberger, M.D., M.P.H.

Assistant Director for Public Health and Chief, Prion and Public Health Office
National Center for Emerging and Zoonotic Infectious Diseases
Centers for Disease Control and Prevention

Cervid and production animal surveillance, laboratory capacity, planning and response

Jason Bartz, Ph.D.

Professor and Chair, Department of Medical Microbiology and Immunology
Associate Dean, Academic and Faculty Affairs
Creighton University

Sabine Gilch, Ph.D.

Professor, Faculty of Veterinary Medicine
UCalgary Research Excellence Chair
University of Calgary

Working Group Co-Chairs (contd.)

Prion biology and disease diagnostics

Byron Caughey, Ph.D.

Chief, TSE/Prion Biochemistry Section
Rocky Mountain Laboratories
National Institute of Allergy and Infectious Diseases
National Institutes of Health

Glenn Telling, Ph.D.

Principal Investigator, The Telling Lab
Director, CSU Prion Research Center
Professor, College of Veterinary Medicine and Biomedical Sciences
Colorado State University

Carcass and contaminated item disposal

Shannon Bartelt-Hunt, Ph.D., M.S.

Professor and Chair, Department of Civil and Environmental Engineering
Donald R. Voelte, Jr. and Nancy A. Keegan Chair of Engineering
College of Engineering
University of Nebraska-Lincoln

Debbie McKenzie, Ph.D.

Professor, Faculty of Science - Department of Biological Sciences
Associate Dean, Graduate, Faculty of Science - Dean's Office
Centre for Prions and Protein Folding Diseases
University of Alberta

Wildlife health and conservation

J. Russ Mason, Ph.D.

Michigan DNR Executive in Residence
Department of Agriculture and Natural Resources
Michigan State University

Tentatively:

Michael Tonkovich, Ph.D.

Deer Program Administrator
Division of Wildlife
Ohio Department of Natural Resources

Tentative Timeline



Conclusion

- CWD is an evolving situation with increasing number of infections in cervids and ever-changing prion strains
- While no one wants to imagine CWD prion transmission and illness in humans and/or non-cervid production animals, we must be prepared for that possibility
- The CIDRAP CWD Transmission Contingency Planning efforts, involving 66 of the world's leading experts on the topic, are providing critical review and planning for the future of CWD response