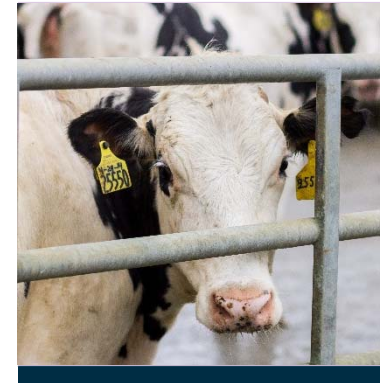
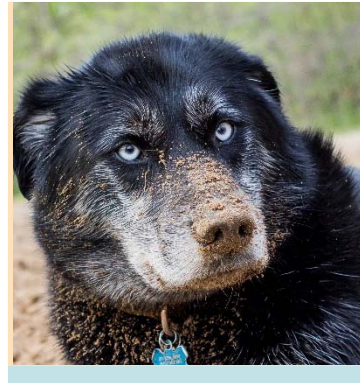


Animal Health Emergency Preparedness Efforts



James Averill, DVM, PhD

State Veterinarian

MICHIGAN DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT

Outline

- Responsibility
- AID Efforts
- FMD Exercise
- Summary

State Veterinarian's Responsibility



My Job

**Protect,
regulate, and
promote
animal health.**

**1.15M Cattle
1.1M Swine
26.5M Poultry
82,000 Sheep
22,000 Goats
88,000 Horses
2.6M Cats
2.4M Dogs**



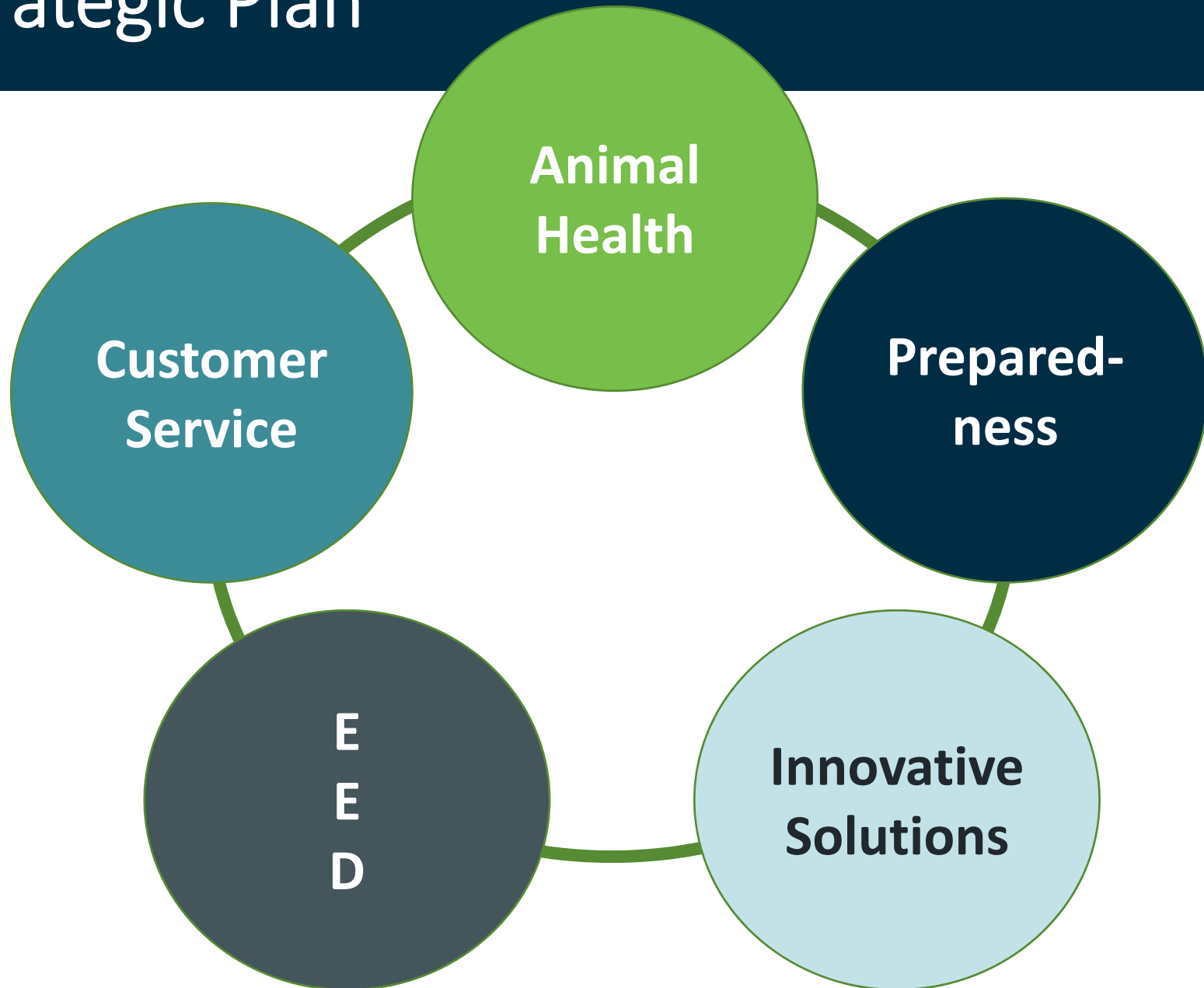
Busy World We Live In



Animal Industry Efforts



Strategic Plan



Preparedness Pillar Goals

1. Continue the development of Incident Management Teams
2. Enhance disease/program specific preparedness plans
3. Ensure continuity of core functions that are legally mandated or have significant impacts on our customers

Green and White Teams

- Quarterly exercises
- Individual team member training
- Utilization of teams during real-world responses
- Fill vacancies in Command and General staff positions as needed

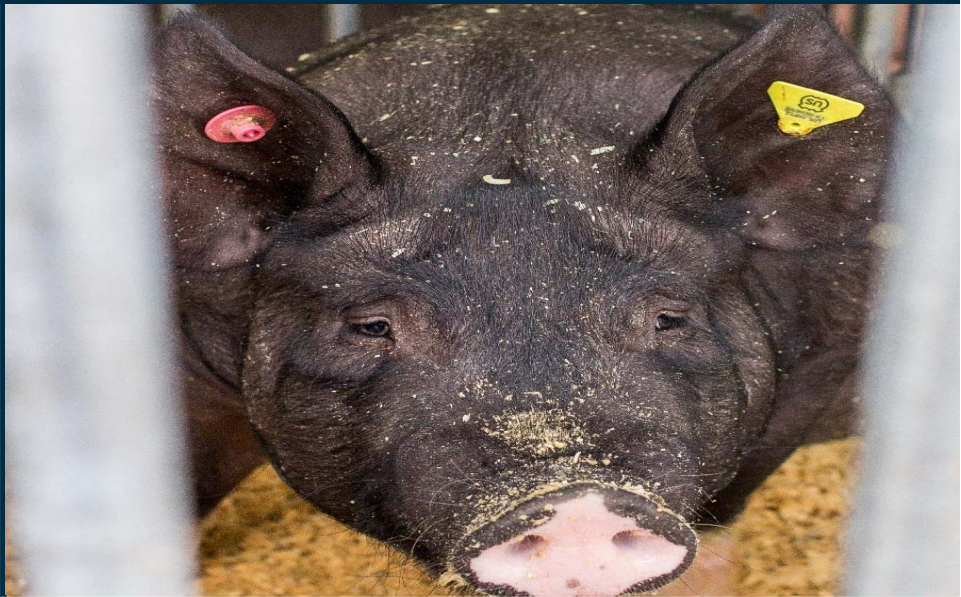
Enhance Program Specific Preparedness

- Create an EM operational planning tool/template for program managers
- Develop a Michigan specific FMD plan within 2 years
- Programs not impacted by FMD develop an operational plan for one of top three diseases within 3 years

Ensure Continuity of Operations

- Identify core functions in each program
- Enhance bench strength among program managers'
- Develop field staff supply processes for acquisition, disposition and maintenance of critical supplies.

Foot And Mouth Disease (FMD) Exercise



FMD

- Affects animals with cloven hoofs – two toes
- Most contagious animal disease

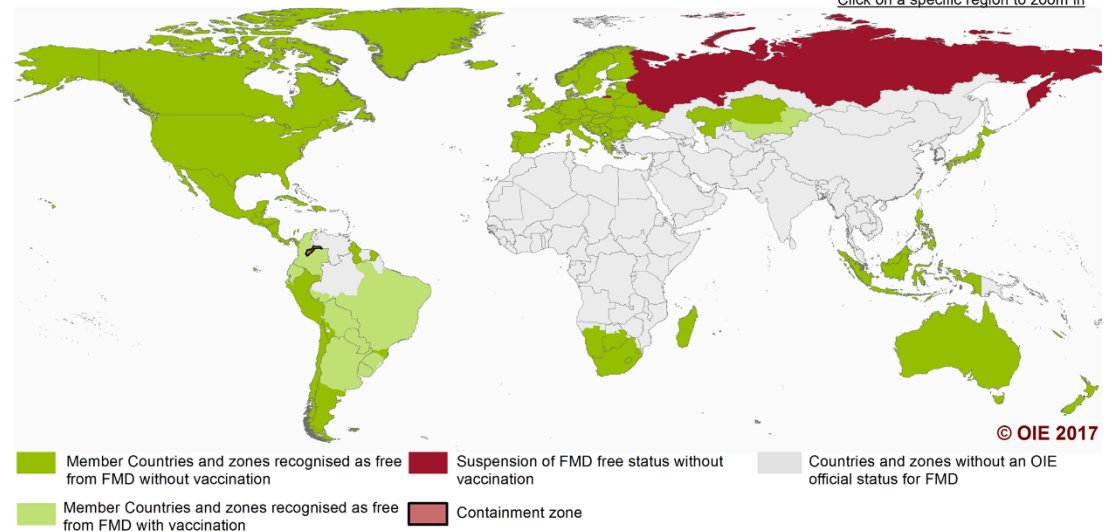
- Affected species

- Cattle
- Pigs
- Sheep
- Goats
- Cervids

OIE Member Countries' official FMD status map

Last update December 2017

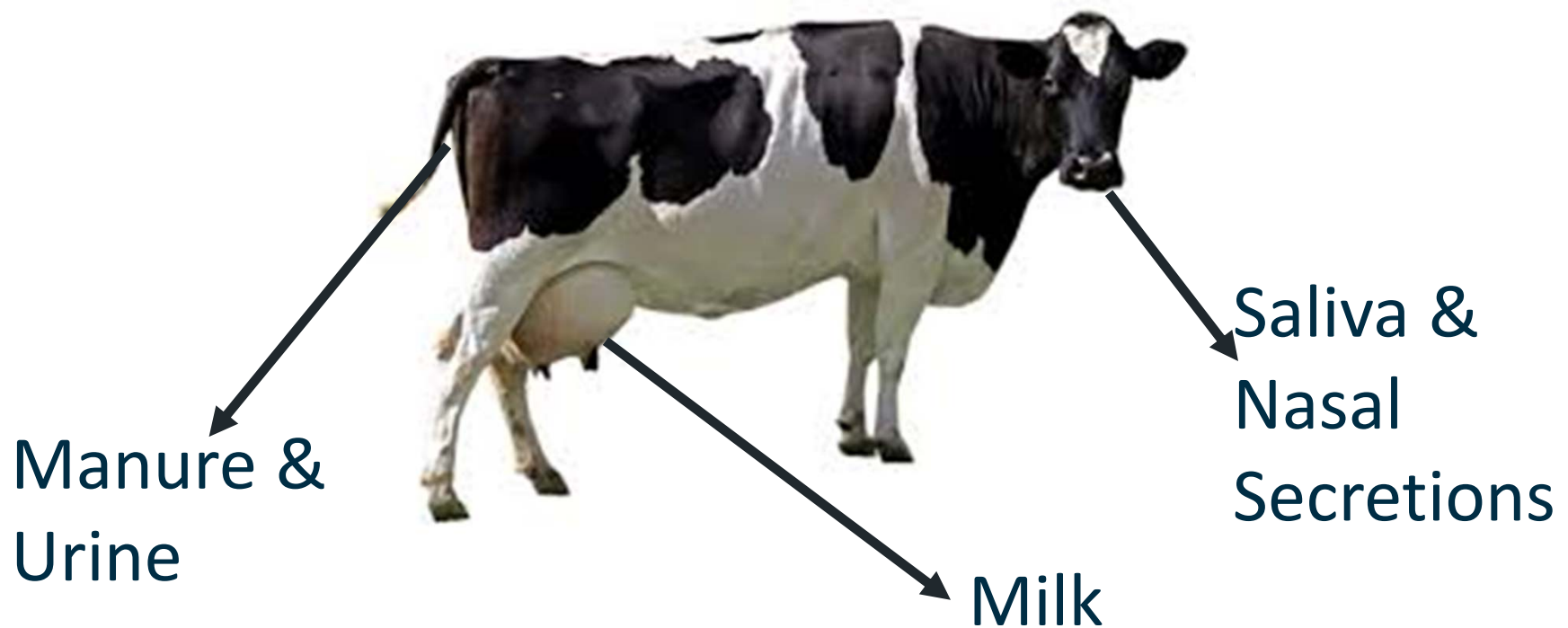
[Click on a specific region to zoom in](#)



- Not a public health concern

Spread of FMD

- Normal appearing cattle can shed 2-4 days before clinical signs



Spread of FMD



Vehicle

Footwear



Equipment



FMD Exercise

- National three day exercise this week
- Michigan participated in day one
- Today have two activities
 - Industry workshop
 - Field staff deployment

FMD Exercise Goals

- Increase awareness of FMD
- Opportunity for AID staff to practice
- Identify what works and areas for improvement

Summary



Why We Do What We Do



Summary

- Protect, Regulate, and Promote Animal Health
- Diseases will always be present, need to be prepared
- If you are not learning, you are not living

Questions?

James Averill, DVM, PhD

State Veterinarian

averillj1@michigan.gov

517-284-5667 (office)

1-800-292-3939 (toll free)

Stay connected with MDARD.



@MichDeptofAg



Mlagriculture



Michigan Department
of Agriculture

Michigan Consortium of Advanced Networks



21st Century Infrastructure Commission Background

- ▶ Began in March 2016
- ▶ Comprised of 27 appointed members:
 - Infrastructure experts
 - Government representatives
 - Academic scholars
 - Business representatives
- ▶ Provided a long-term, comprehensive set of infrastructure recommendations by November 30, 2016
 - Healthy systems ensure a better quality of life, spur economic activity and job growth
- ▶ For the next 30-50 years across all sectors
- ▶ Recommended the creation of the Michigan Consortium of Advanced Networks



Michigan Consortium of Advanced Networks

- ▶ Announced January 2018
- ▶ Seven appointed members representing business, agriculture, education, and others. Six state agency appointees
- ▶ Tasked with creating a broadband roadmap by August 1, 2018 that provides recommendations for improving broadband access and adoption
- ▶ Convened two subgroups of experts to advise and provide recommendations
- ▶ Held five listening tour events across Michigan to gather information from a diverse array of stakeholders



What is Broadband?

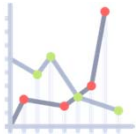
Broadband Access

- ▶ High-speed internet access that is always on and faster than traditional dial-up access
- ▶ The physical connection to high-speed infrastructure
- ▶ Fixed, terrestrial broadband: Service designed for permanent, stationary use at a home, business, or institution
- ▶ Mobile broadband: Wireless internet service designed for continuous use on a portable device

Broadband Adoption

- ▶ Recognizing the value of broadband and subscribing either at home, work, or via public institutions
- ▶ Adoption issues include affordability, digital literacy, awareness of broadband's impacts, and others
- ▶ 64.9% of Michigan households currently subscribe to a fixed broadband connection

Why Does Broadband Matter?



Small businesses with faster internet connections tend to have a higher proportion of employees with advanced technology skills compared to those with slower speeds.



Small businesses (less than 20 employees) that have websites have higher annual revenues and are more likely to have recently hired than businesses without websites.



A study in Ohio found that having a broadband connection gave households an estimated economic benefit of \$1,850 per year.



One study found that 50% of K-12 students surveyed said they couldn't complete their homework due to the lack of an internet connection and 42% received a lower grade because of it.



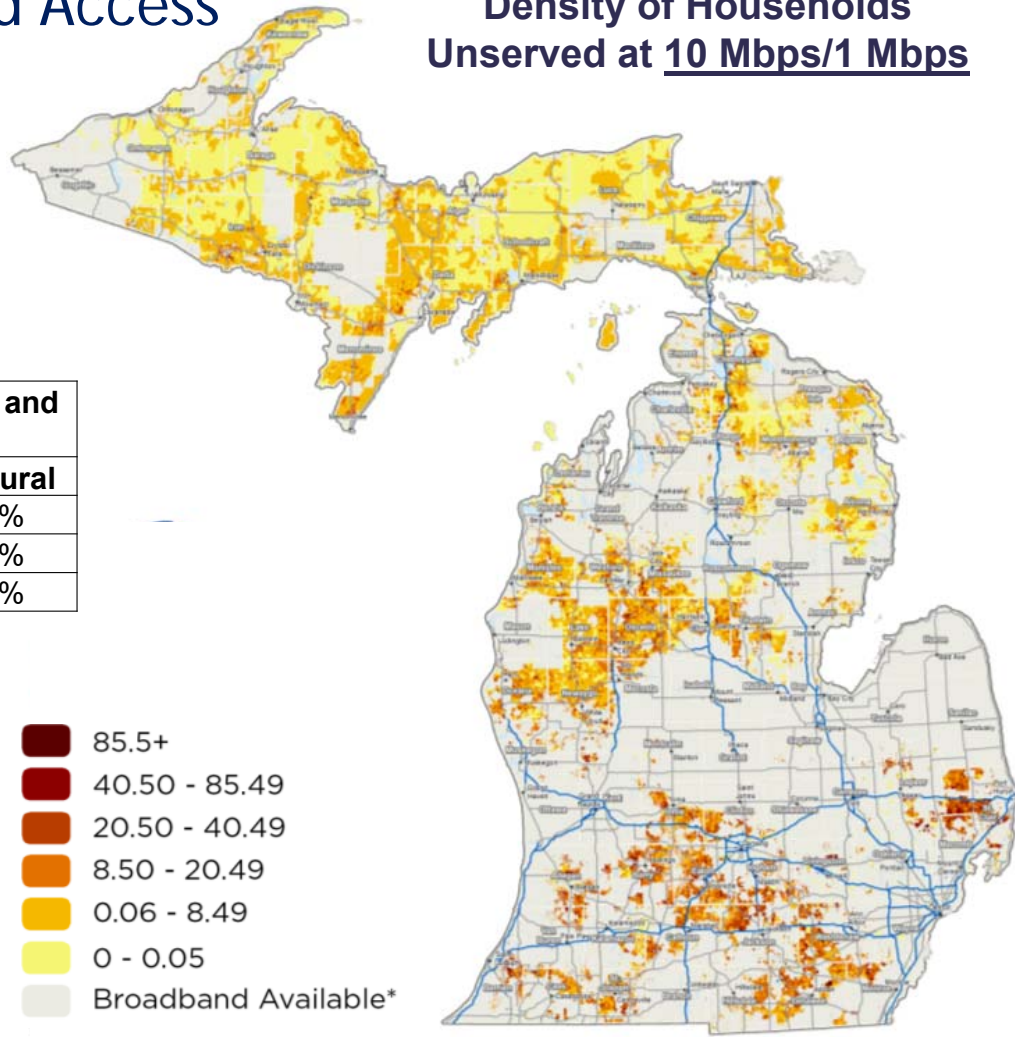
Telemedicine applications are estimated to add \$522,000 to rural economies and reduce hospitalizations of nursing home patients and generate savings for Medicare.



Access to infrastructure of all types is positively associated to business start-ups, however broadband is more conducive to start-ups than highways, rail, etc.

Michigan's Broadband Access

Density of Households Unserved at 10 Mbps/1 Mbps



Speed	Rural	Non-Rural
10 Mbps	91.3%	98.2%
25 Mbps	75.3%	93.7%
100 Mbps	70.4%	91.6%

- 85.5+
- 40.50 - 85.49
- 20.50 - 40.49
- 8.50 - 20.49
- 0.06 - 8.49
- 0 - 0.05
- Broadband Available*

MCAN Guiding Principles

- ▶ Expand access to fixed broadband service at a speed of at least 10/1 Mbps to all unserved residents and businesses by 2022, and achieve future connectivity of speeds at 25/3 Mbps or more by 2026.
- ▶ Work to remove barriers to residential, business, and institutional broadband adoption in coordination with infrastructure investments.
- ▶ Ensure connectivity for community anchor institutions, (e.g. schools, libraries, hospitals, public safety, etc.).
- ▶ Promote coordination, cooperation, and communication between private and public asset owners, communities, institutions, local, regional, state, and federal governments, and others.
- ▶ Utilize existing and emerging funding sources more effectively by targeting investments and leveraging a variety of public and private financing resources.
- ▶ Focus on embracing all technologies, visionary planning principles, and innovative approaches to ensure high levels of broadband service
- ▶ Create twenty-first century broadband infrastructure across the state of Michigan that offers appropriate levels of cyber security protection

MCAN Recommendation Areas

Availability in Unserved Areas

- ▶ Support and promote public-private partnerships for infrastructure deployment
- ▶ Identify and connect community anchor institutions
- ▶ Modify residential/commercial development standards for improved broadband deployment

Policy/Regulatory

- ▶ Develop standards and support dig once policies
- ▶ Explore personal property tax relief for telecommunications infrastructure
- ▶ Monitor and promote one-touch make-ready processes for pole attachments
- ▶ Streamline access to the right of way

MCAN Recommendation Areas (continued)

Broadband Adoption

- ▶ Promote low-cost broadband services
- ▶ Explore broadband service tax credit for low-income households
- ▶ Organize, develop, and promote digital literacy and technology training programs
- ▶ Support community/business partnerships to build awareness for broadband

Technical Assistance, Data, and Capacity Building

- ▶ Provide comprehensive broadband technical assistance to communities
- ▶ Continue and improve broadband coverage data collection

MCAN Short-Term Action Items

- ▶ Catalyst Grant
- ▶ Special assessment districts
- ▶ Tools for demand aggregation
- ▶ Institution connectivity inventory
- ▶ New construction ISP “wish list”
- ▶ Model dig once policies
- ▶ Research PPT opportunities
- ▶ Research Metro Act revisions
- ▶ Low-income adoption program clearinghouse and outreach
- ▶ Digital literacy clearinghouse
- ▶ Best practice guide for building awareness
- ▶ State broadband single point of contact
- ▶ Community engagement framework development
- ▶ Host state broadband conference
- ▶ Broadband solutions competition
- ▶ Continue broadband data refinement, mapping, & validation

The slide features abstract blue geometric shapes on the left and right sides. On the left, there is a solid light blue trapezoidal shape. On the right, there is a complex arrangement of overlapping translucent blue triangles and polygons in various shades, ranging from light sky blue to dark navy blue. The central text 'Questions?' is positioned between these two decorative elements.

Questions?

CWD Working Group Recommendations



Natural Resources Commission
January 11, 2018

Kelly Straka DVM MPH
State Wildlife Veterinarian

James Averill DVM PHD
State Veterinarian



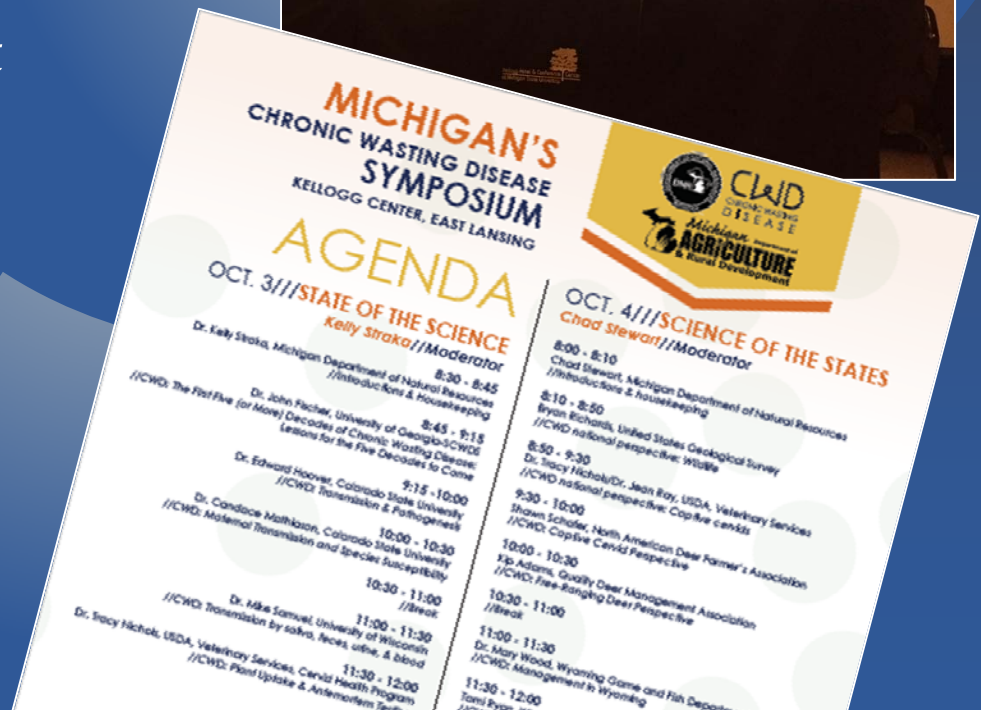
Presentation Roadmap

- Background
- Working Group
- Charge
- Process
- Focus Areas
- Recommendations



Background

- CWD Symposium October 3-4, 2017
- 20 Speakers from 10 states
- Presented cutting edge research and management strategies
- www.mi.gov/cwd
- CWD Working Group in attendance



Working Group

- April 13, 2017 NRC unanimously accepted charge related to CWD Working Group
- “The NRC, in conjunction with the DNR, will establish a scientific panel of experts, selected by the Chairman of the NRC, the Director of the DNR, and the Director Department of Agriculture and Rural Development, or such other officials as the Chairman of the NRC and the Director of the DNR deem appropriate.....”
- 9 Working Group members selected

Working Group

➤ CWD Working Group members:

James Averill, co-chair MI Dept. of Agriculture and Rural Development

Kelly Straka, co-chair MI Dept. of Natural Resources

Alan Ettenhofer U.P. Whitetails and U.P. Sportsmen Alliance

William Porter Boone and Crockett Quantitative Wildlife Research
Center, Michigan State University

Paul Rose Michigan United Conservation Club

Bill Rustem Private Citizen and Sportsman

George Smith Michigan State University AgBioResearch

Kent Syers United Deer Farmers of Michigan

Chad Thelen Quality Deer Management Association

Charge

- The Working Group was assembled “..... for the purposes of advising the NRC, DNR or other applicable Agencies on further steps and actions which could be implemented to substantially mitigate or eliminate CWD in Michigan.”
- “Such recommendations may include matters or subjects that would require legislative action or which jurisdiction for such action resides in other agencies.”

NRC Resolution 4/13/2017

Process

- Three in-person, facilitated meetings
 - October
 - November
 - December
- Decision-making model
 - Majority rules, minority report
- Email primary communication between meetings

Focus Areas

- Recommendations divided between four “Focus Areas”
 1. Communication,
 2. Research Consortium,
 3. Farmed Cervidae, and
 4. Harvest and Removal



The image features a dark grey rectangular area at the top. Below it, two large, overlapping circles in a medium blue color are set against a solid dark blue background. The word "Communication" is written in a white, serif font, centered horizontally and partially overlapping the intersection of the two circles.

Communication

Recommendations

Due to the complexity of CWD, and the importance of communications, the Working Group recommends:

- 1. The Natural Resources Commission should pursue the help of an outside marketing agency in development of messaging Michigan's vision for CWD Surveillance and Management.**

This messaging should place emphasis on the importance of herd health and Michigan's commitment to sustainable, healthy deer populations across the state.

Communication

Messaging should emphasize Michigan's commitment to sustainable, healthy deer populations and should:

- Build direct partnerships between the DNR and hunting organizations;
- Educate hunters on the importance of doe harvest for population management and the movement/disposal of carcasses;
- Develop public education for CWD;
- Help people understand management steps;
- Learn from other state experiences.

The logo features a dark grey background with two overlapping circles. The left circle is a medium blue, and the right circle is a darker blue. The text "Research Consortium" is centered in white serif font across the intersection of the circles.

Research Consortium

Recommendations

The lack of funding is a significant detriment to the fight against CWD, and research is needed to develop new tools and improve epidemiologic understanding of the disease. Therefore,

2. The Natural Resources Commission should take the lead in forming a consortium of states and provinces to seek federal, state and private funding and share research on CWD surveillance methods, diagnostic tools, transmission pathways and management practices.

Research Consortium

Research priorities for the consortium should include:

- Development of a live animal test;
- Improved high throughput diagnostics;
- Disinfectant development and techniques;
- Mitigation and management of infected sites;
- Management techniques to remove disease from landscape;
- Human dimension studies for prevention and management;
- Advanced techniques for surveillance; and
- Transmission pathways, including evaluating possible vectors of disease



Farmed Cervidae

Recommendations

CWD is a disease that can affect both wild and privately-owned cervids in Michigan. Therefore,

3. The Natural Resources Commission should work cooperatively with the Agriculture and Rural Development Commission to assess the effectiveness and direction of the Farmed Cervidae Program, with a focus on biosecurity and CWD risk factors.

Farmed Cervidae

This assessment should consider, but not be limited to, the following:

- Mandatory participation in the Herd Certification Program for all facilities (with exemptions for Class III facilities);
- A review of program requirements for infrastructure of facilities;
- The creation of a standard manifest for the movement of live cervids;
- A reduction on the reliance of Fish and Game funds

Harvest and Removal

Recommendations

Regulations for disease mitigation should proactively address risk with the best available science. Therefore,

4. The Natural Resources Commission should continue to employ science-based strategy for the regulatory framework of CWD management.

Harvest and Removal

This strategy should include, but not be limited to:

- Reinstatement of 2002 CWD response plan statewide ban on the feeding and baiting of deer
 - Minority Report: One member of the Working Group **did not support** the reinstatement of a statewide feeding and baiting ban.

2002 Plan: In the event CWD is documented within Michigan or within 50 miles of Michigan's border with another state or Canadian province, the MDNR Director shall issue an interim order banning the use of bait and banning the feeding of deer and elk within the peninsula adjacent to the adjoining state or province with CWD or containing CWD (p. 14).

Recommendations

Finally, CWD surveillance and management plans should be grounded in science, and consider social, economic, and recreational interests. Therefore,

5. The Natural Resources Commission should develop statewide, science-based management plans based on regional prevalences of CWD.

Hunters and cervid farmers should be engaged in the development of the plans.

Harvest and Removal

These plans will be specific for areas where the disease is prevalent, areas where it may be emerging, and for the remainder of the state.

Management objectives should be designed for the disease, not the cervid population, and may differ based on established versus emerging infections.

These management plans should include:

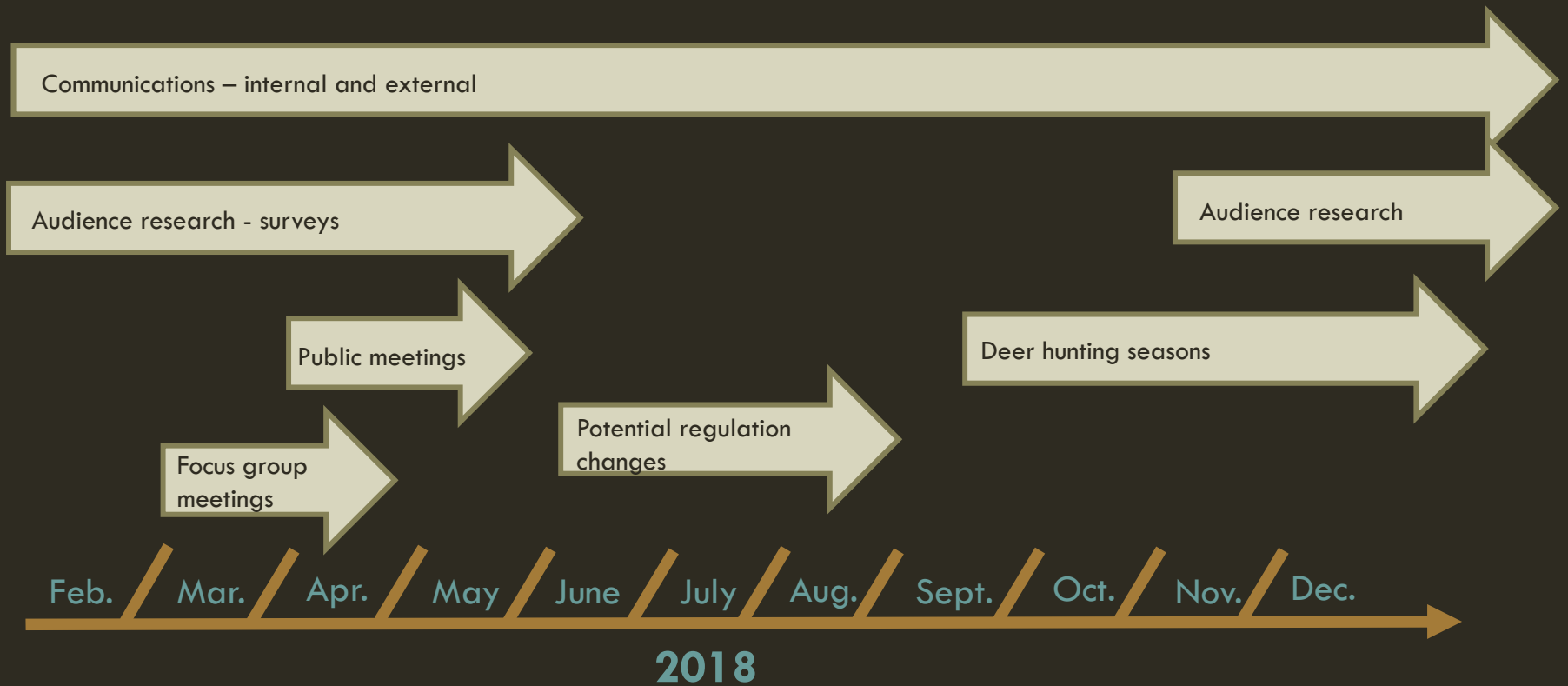
- Best management practices for carcass handling and disposal
- A mechanism to expand CWD sampling protocol statewide
- Harvest considerations including surveillance goals, hunting seasons and practices, management and regulatory tools and epidemiological metrics

Summary

The CWD Working Group realizes that this document is a first step toward development of a holistic, science-based approach to deer herd health in the face of CWD.

Much more has to be done, but we are committed to the effort.

CWD TIMELINE



Thank you!

Dr. Kelly Straka
strakak1@michigan.gov
517-336-5030

Dr. James Averill
averillj1@michigan.gov
517-284-5667

