

Policy in the Making: Establishing Public Policy for Complex Animal Diseases

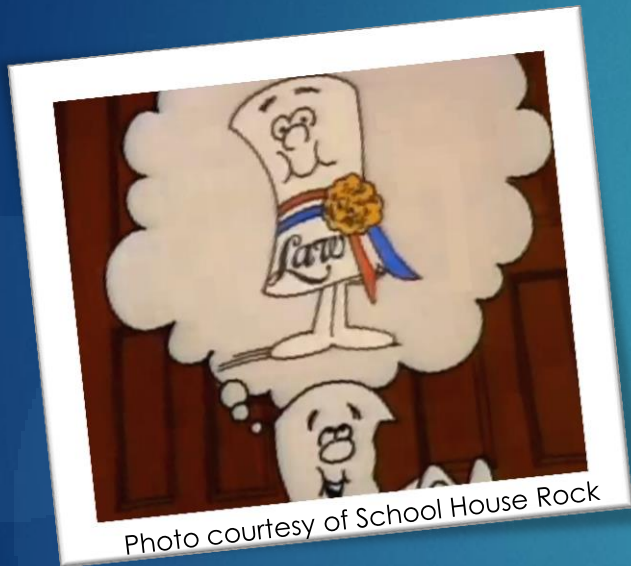
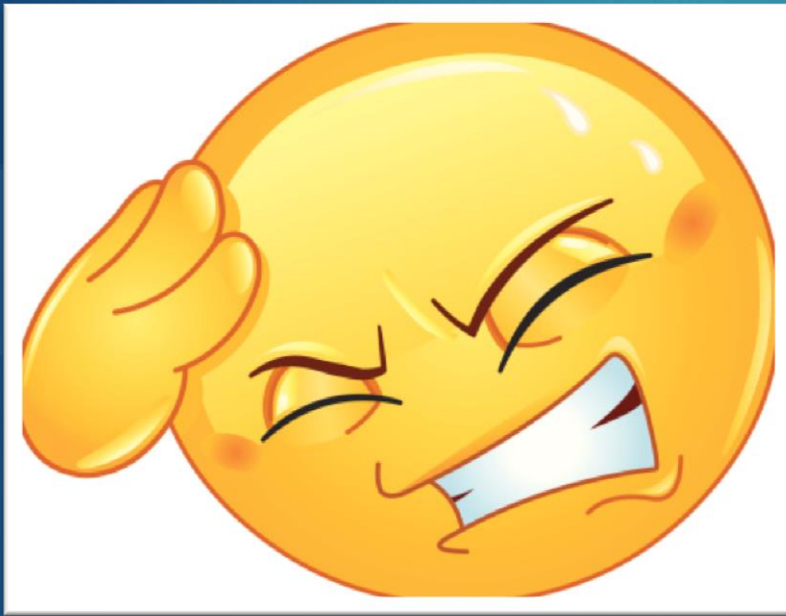



Photo courtesy of School House Rock

Elizabeth M. Beilke
MPH candidate
Kansas State University

**Public
Policy?**



The image features a dark blue background with six large, colorful puzzle pieces arranged around the central text. The pieces are in shades of blue, purple, green, and pink. The text is in a bold, yellow, sans-serif font with a slight shadow effect.

**My knowledge of Policy and Public
Health prior to my Field
Experience...**

The One Health Experience

► **Field Experience Site:**

- One Health Coordination Center
 - USDA, APHIS, Veterinary Services
 - Surveillance, Preparedness, and Response Services unit
 - Riverdale, MD

► **Field Experience Mentor:**

- Dr. Joseph Anelli, Director of the One Health Coordination Center

► **Field Experience Project:**

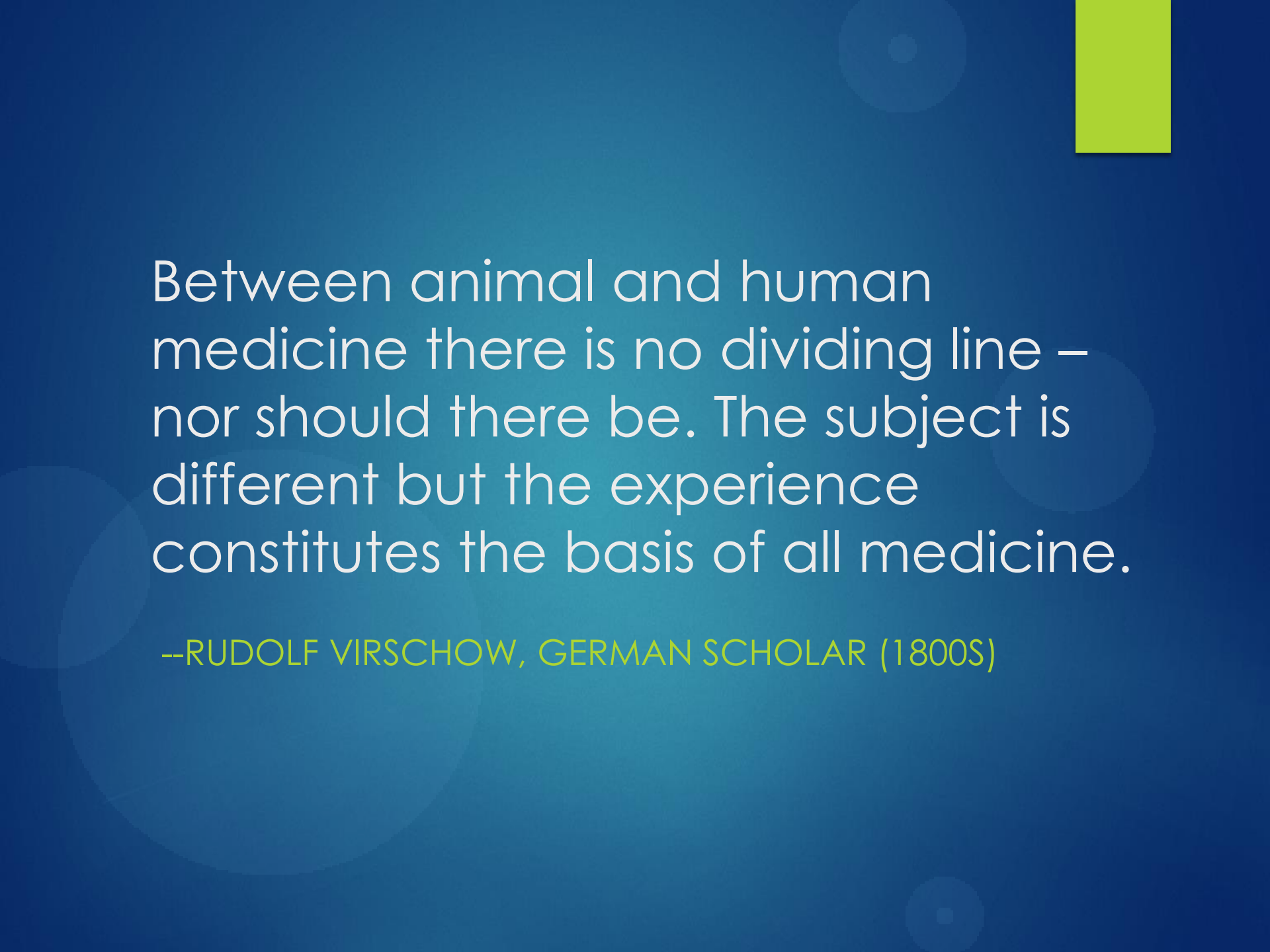
Defining how policy is established for complex animal diseases



The background is a dark blue gradient. It features several semi-transparent blue circles of varying sizes scattered across the frame. In the top right corner, there is a solid yellow rectangle.

One Health (OH) –

WHAT IS IT? WHAT DOES IT MEAN?

The background is a solid dark blue. It features several decorative elements: a large, semi-transparent light blue circle in the lower-left quadrant; a smaller, semi-transparent light blue circle in the upper-right quadrant; and a bright yellow vertical rectangle in the top-right corner.

Between animal and human
medicine there is no dividing line –
nor should there be. The subject is
different but the experience
constitutes the basis of all medicine.

--RUDOLF VIRSCHOW, GERMAN SCHOLAR (1800S)



ONE HEALTH



Step 1:

DECIDING WHEN TO ACT

What becomes OH policy?

Is this a zoonotic/One Health Event?



Figure 1: One Health engagement flowchart, created by APHIS, VS

	Full Engagement	Moderate Engagement	Baseline Engagement	No Involvement
Species Involved	Cattle, sheep, swine, poultry	Horses, Farmed Cervids, Farmed aquaculture	Wild cervids, feral swine, wild fish, wild horses, domestic pets, zoo animals, insects	Animals not involved
Animal Prevalence	Agent not thought to exist in susceptible population	Agent exist at low to moderate levels in population	Agent is endemic or highly prevalent in species	Agent is not found nor infectious in animal species
Animal Transmissibility	Agent highly transmissible within and between species	Moderate transmissibility within species	Animal transmission unlikely, limited or uncertain	No known animal transmission
Animal Consequences	High mortality/ morbidity in species of concern	Serious illness and moderate economic loss in species of concern	Little, unkown or uncertain illness in species of concern	Animal infection unlikely
Host Species	Primary host is "farm" species	Secondary host is farm species	Host range is unknown or uncertain OR VS-covered species are unlikely hosts	Exclusive human pathogen
Zoonotic Transmissibility	Zoonotic transmission likely or common	Known zoonotic transmission of moderately transmissible agent	Zoonotic transmission unlikely, limited or uncertain	No known zoonotic transmission
Human Consequences	Agent is potentially fatal to humans	Agent causes serious illness in humans	Human illness asymptomatic or mild	Human infection unlikely
Stakeholder Interest/ Concern	High pressure, interest, request expectation	Moderate level of pressure, interest, request for engagement	Little pressure, interest, request for engagement	No pressure, interest, request for engagement
Possible Actions	Surveillance Vaccination Diagnostic Testing Movement Restriction Eradication	Gather Information (surveillance, epi investigation/study) Support	In Kind Support or Advisory Subject Matter Expert	No Activities

2015 Highly Pathogenic Avian Influenza H5N2 Outbreak

Step 2:

“GETTING IN THE KNOW” –BACKGROUND RESEARCH

100

- ▶ Time-consuming BUT important!
- ▶ MERS-CoV Story
- ▶ Current HPAI-H5N2 Outbreak
- ▶ Stakeholder Announcements

[illegible]

Step 3:

ASSESSING AND COMMUNICATING RISK

Risk Assessment Model

1050

S. J. Voss *et al.*

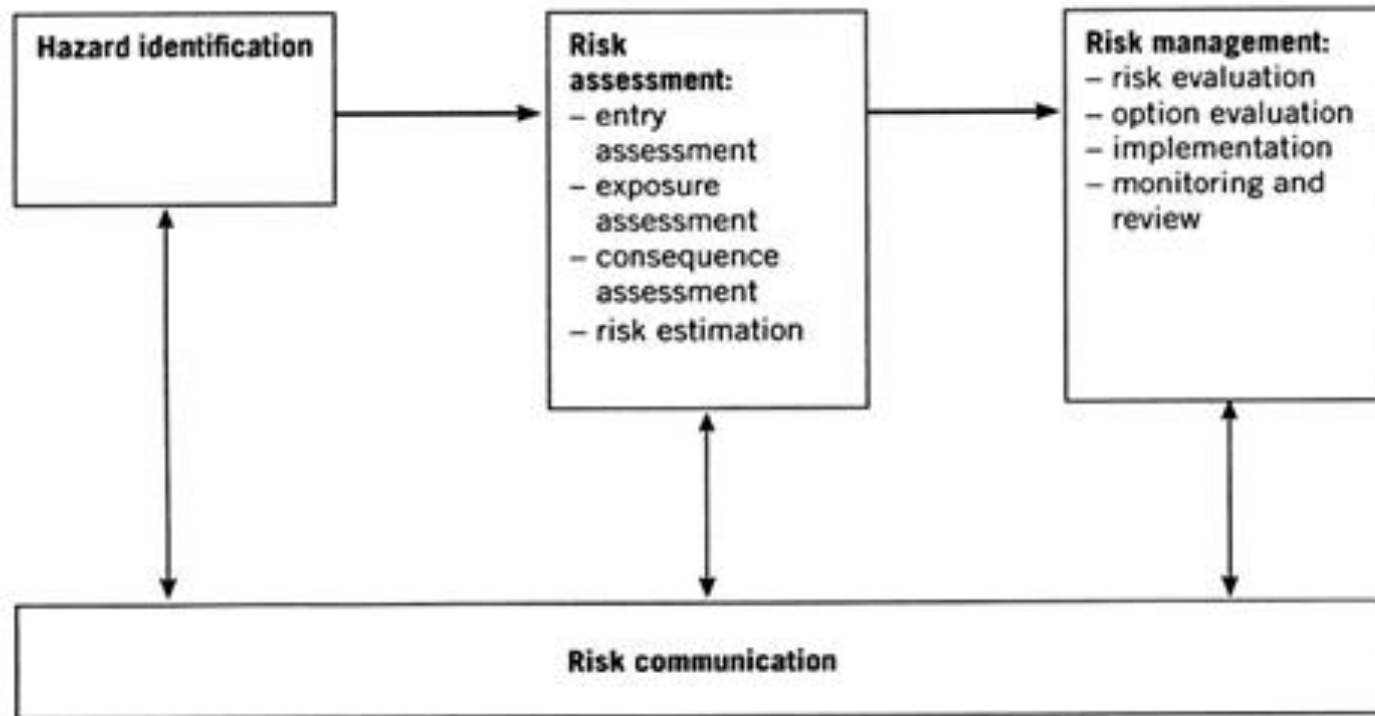


Fig. 1. Structure of the O.I.E. risk analysis process (adapted from O.I.E. [12]).

Figure 3: OIE risk analysis process (taken from Voss, 2012)

I.

- Background

II.

- Methodology
 - Risk Assessment methods
 - Data collection and limitations

III.

- Hazard Identification and Characteristics

IV.

- Pathways assessment

V.

- Animal Product Pathways
- Trade (Import and Export)

VI.

- Zoonotic potential and Passenger Traffic

VII.

- Direct importation, Permits, and Containment

Determining Risk for an Emerging Infectious Disease

Figure 4: Generalized template of the Risk Identification and Assessment Process, APHIS-VS



Step 4:

POLICY DEVELOPMENT

What is the goal?

- ▶ Prevention and Control
 - ▶ PEDv
 - ▶ MERS-CoV
- ▶ Eradication
 - ▶ Pseudorabies
 - ▶ HPAI



When Bills Become Laws, Laws Become Acts...

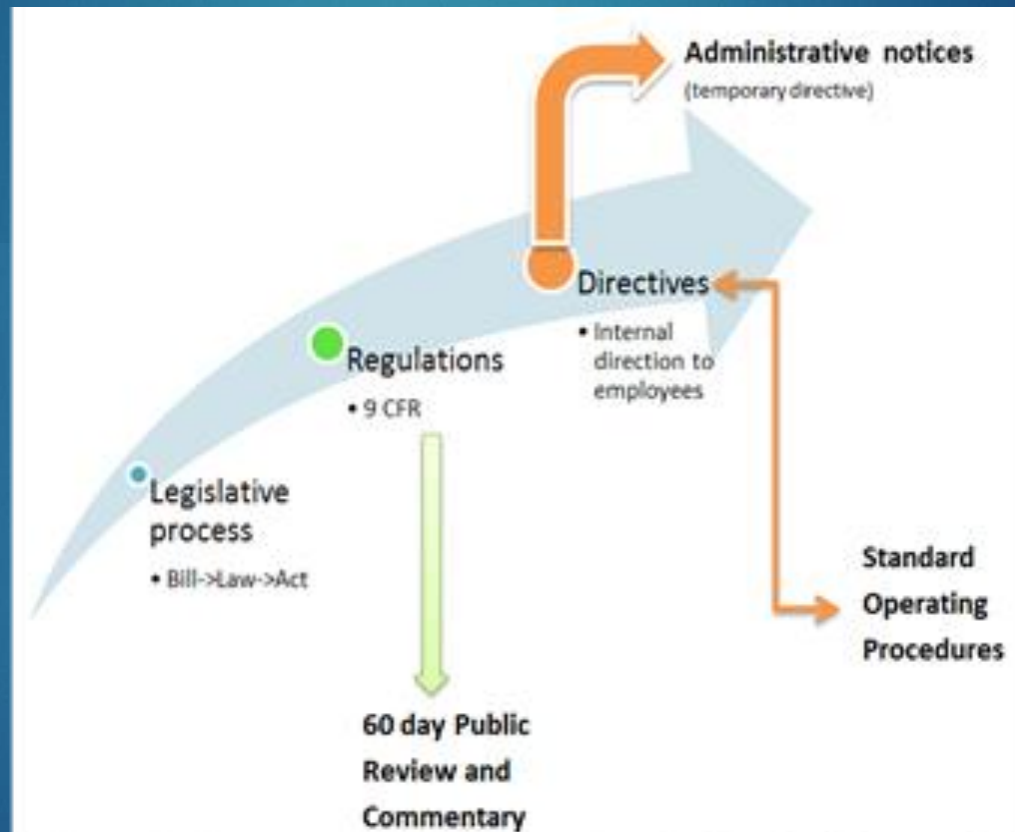


Figure 6: Diagrammatic Representation of Federal Policy Development

Implementation and Education...

- ▶ Memorandums of Understanding (MOUs)
- ▶ APHIS and FSIS
- ▶ Standard Operating Procedures (SOPs)
- ▶ MERS-CoV
- ▶ Technical Fact Sheets



Is it effective?

- ▶ Regulation analysis
 - ▶ Administrative review – internal
 - ▶ Annual
 - ▶ Program review
 - ▶ Annual or as needed
 - ▶ States previously identified with issues
 - ▶ States that have not been reviewed for several years



Social Media and Policy...





FoodKeeper

Download on the App Store

GET IT ON Google play

The FoodKeeper can help you use food intended as useful guidelines and are intended while others may last longer than the time conditions, harvesting techniques, manner nature of the food, and storage temperature products in your pantry, refrigerator, and

Every year, billions of pounds of good food quality or safety. By reducing food waste cooking what is needed and composting to landfills.

- [Data is available for download \(X\)](#)

Office of Public Health Preparedness and Response

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Zombie Novella

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CDC has a fun way of teaching about emergency preparedness. Our graphic novel, "Preparedness 101: Zombie Pandemic" demonstrates the importance of being prepared in an entertaining way that people of all ages will enjoy. Readers follow Todd, Julie, and their dog Max as a strange new disease begins spreading, turning ordinary people into zombies. Stick around to the end for a surprising twist that will drive home the importance of being prepared for any emergency. Included in the novel is a Preparedness Checklist so that readers can get their family, workplace, or school ready before disaster strikes. Click on the image below to view the novella. A transcript can be found by clicking on the "accessible text" PDF. You can also download the novella on Google books [here](#) or download a printable pdf versions [here](#).

[Accessible text version](#)



Step 5:

REGULATORY AFFAIRS

To Report or Not to Report...

- ▶ OIE – World Animal Health Organization
 - ▶ OIE-listed diseases
 - ▶ Maintaining a national disease status
- ▶ State reporting
 - ▶ Nebraska and Cattle Trichomoniasis

Figure 9: 2014 OIE-listed multiple species diseases, infections, and infestations

Anthrax
Bluetongue
Brucellosis (B. abortus, melitensis, and suis)
Crimean Congo hemorrhagic fever
Epizootic hemorrhagic disease
Equine encephalitis, specifically Eastern
Foot and mouth disease
Heartwater
Infection with Aujeszky's disease virus
Echinococcus granulosus, multilocularis
Rabies
Rinderpest
Trichinella spp.
Japanese encephalitis
Cochliomyia hominivorax (New world screwworm)
Chrysomya bezziana (Old world screwworm)
Paratuberculosis
Coxiella burnetti
Rift valley fever
Trypanosoma evansi
Tularemia
Vesicular Stomatitis*To be removed starting Jan 1, 2015
West Nile Virus

Who are the Stakeholders?

- ▶ State and Local Level:

- ▶ Local industry groups
- ▶ Producers
- ▶ Local and state veterinarians
- ▶ Public Health Veterinarians
- ▶ State Animal Health Officers

- ▶ National Level:

- ▶ Federal agencies
- ▶ Public organizations



Take Home Message

- ▶ **NO** one size fits all approach to policy
- ▶ Clear cut definitions **do not** exist
- ▶ Money is often a driving factor
- ▶ One Health is a **team** effort
- ▶ Policy making is dynamic

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 - ▶ Ryan Freed

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 - ▶ Dr. Robert Larson
 - ▶ Dr. David Renter
 - ▶ Dr. Mike Cates
 - ▶ Barta Stevenson



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Questions?