ANIMAL AFFAIRS

Misinformation, disinformation, rumours and conspiracy narratives

Effects of Information ecosystem on diseases economics and policy

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WOAH regional seminar Europe · 17-19 nov. 2026

UNIVERSITY OF CALGARY

GBADs Animal health metrics for sustainable food systems

envt école nationale vétérinaire toulouse

ANIMALS · SOCIETY · HISTORY

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Views from chief veterinary officers about decision making during animal health emergencies: A qualitative analysis

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The need for evidence in policymaking

Politics

the collective ability to attain goals in the face of obstacles – happens via means of decisions

Goals

based on wants, beliefs, and desires – difficult to change

Evidence

most needed based on the nature of obstacles and surmounting them

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Review - 77 papers, from 2010 to 2026

Misinformation in animal health: where is the evidence?



Misinformation

Misinformation or disinformation: false information unknowingly or deliberately spread by prominent public figures or social media, etc

Myths and outdated beliefs

Misconceptions based on inaccurate (partially true) and unsubstantiated claims



Animals

Companion animals (e.g. dogs, cats, exotic breeds, etc)

Food Animals (e.g. livestock, aquaculture, etc)



Health

Health promotion (e.g. nutrition, management, behaviour, etc)

Welfare

Disease control (e.g. vaccinations, zoonosis)

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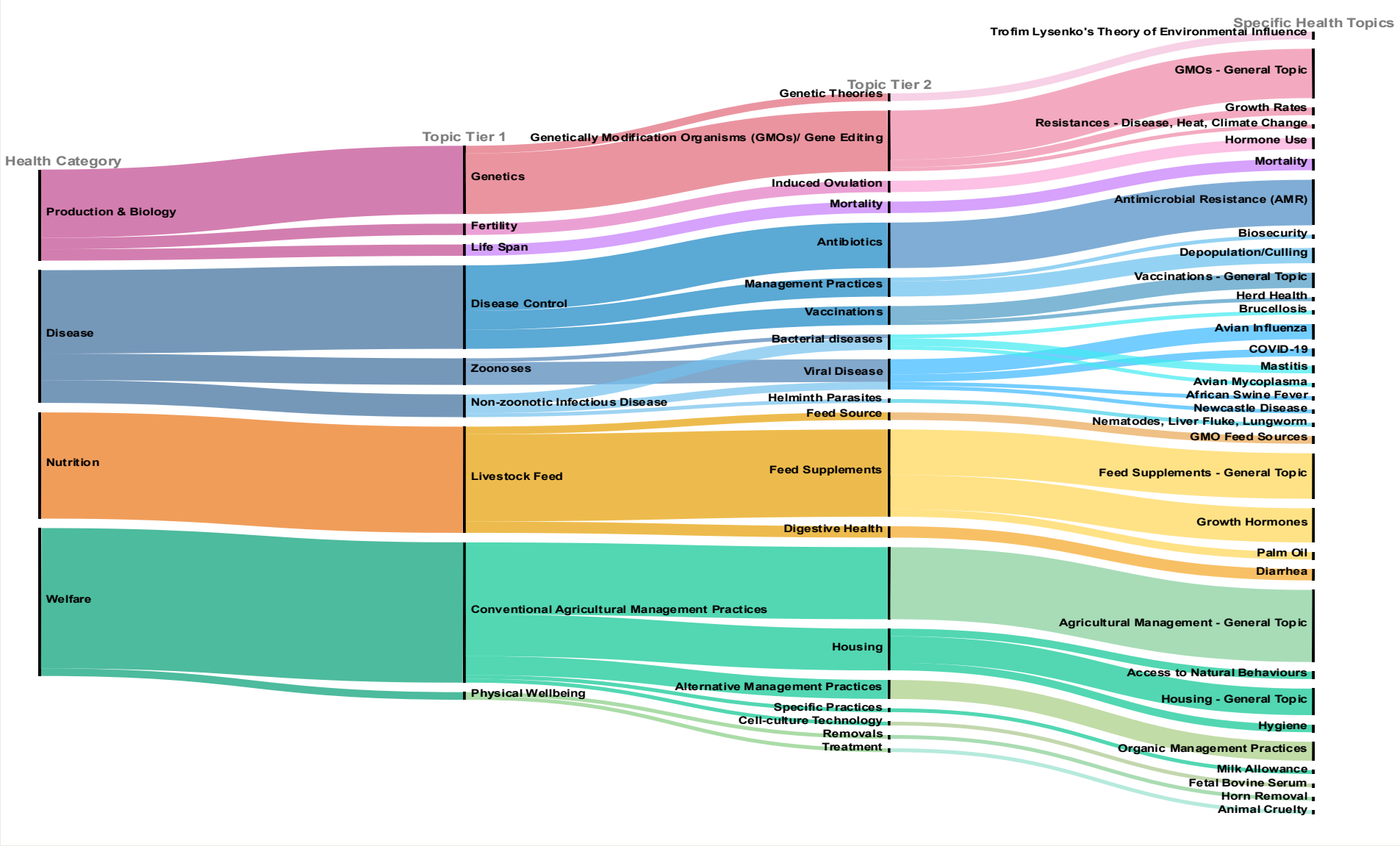
Misinformation themes



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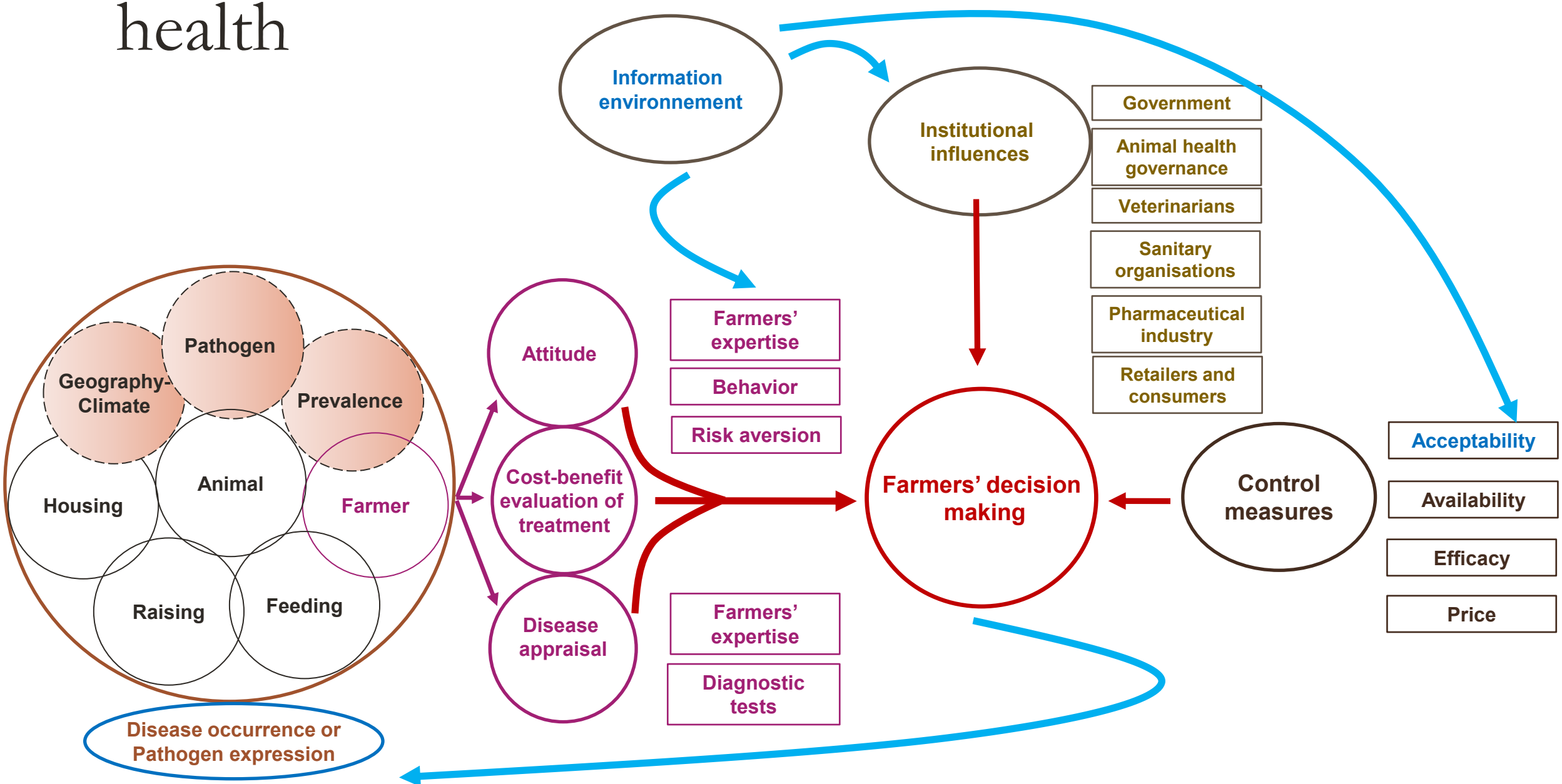
Stakeholder Group	Frequency (%)	Priority	Rationale
Veterinarians	74%	HIGH	Primary corrective agents; also misinformation vectors when themselves misinformed; highest professional leverage for belief change
Pet Owners	70%	HIGH	Most frequent direct recipients; decision-makers for companion animal health; key target for prebunking and literacy interventions
Health Authorities	12%	HIGH	Critical for policy, regulatory responses (welfare washing, AMR), and zoonotic disease communication despite currently low representation
Farmers / Producers	23%	MEDIUM	Economically significant; vulnerable to production-level misinformation; need targeted extension and media literacy programs
Industry (pet food, pharma, agri-input)	14%	MEDIUM	Dual role: source of welfare washing and of potential corrective communication; regulatory scrutiny warranted
Animal Welfare Organizations	12%	MEDIUM	Trusted public intermediaries; potential prebunking partners for companion and farm animal contexts
Educators (veterinary and agricultural)	9%	MEDIUM	Upstream influence via curriculum integration; significant leverage for long-term literacy change
Veterinary Nurses	9%	MEDIUM	Frontline correction agents; markedly underrepresented in intervention research relative to their consultation frequency
General Public	21%	MEDIUM	Broad audience for zoonotic and food-safety misinformation; distinct from pet owners in that animal ownership is not assumed
Media Watchdogs / Fact-Checkers	5%	LOW	Limited evidence base in veterinary contexts; potential role in building fact-checking infrastructure

Misinformation as a social determinant of health



How information shapes animal health outcomes

- **Uncertainty Creation**: Competing narratives, decision paralysis, verification delays
- **Exogenous Pressure**: External context farmers must operate within
- **Three Impact Pathways**:
    - Disease occurrence (prevention, detection, amplification)
    - Danger perception (risk miscalibration, fear-driven decisions)
    - Control efficacy (treatment failures, resistance, program undermining)

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How information distorts risk assessment

- **Risk miscalibration**: Overestimation or underestimation of real threats
- **Fear-driven decisions**: Culling, movement restrictions based on rumor vs. evidence
- **Complacency**: False sense of security from misleading information
- **Example**: "During HPAI, misinformation about transmission led to both panic and complacency – both dangerous."

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Information affects diseases dynamics

Mechanisms:

- **Prevention failures**: Vaccine hesitancy, biosecurity non-compliance based on false info
- **Delayed detection**: Misinterpretation of symptoms, underreporting due to misinformation
- **Amplified outbreaks**: Misinformation fuels disease spread (e.g., movement of animals)

Example

"If farmers believe a disease isn't serious, they won't implement biosecurity – and the pathogen spreads."

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PATHWAYS

Three impact pathways

Uncertainty creation

- Competing narratives
- Decision paralysis
- Verification delays

Exogenous pressure

External context farmers must operate within

Disease occurrence

- Prevention
- Detection
- Amplification

Danger perception

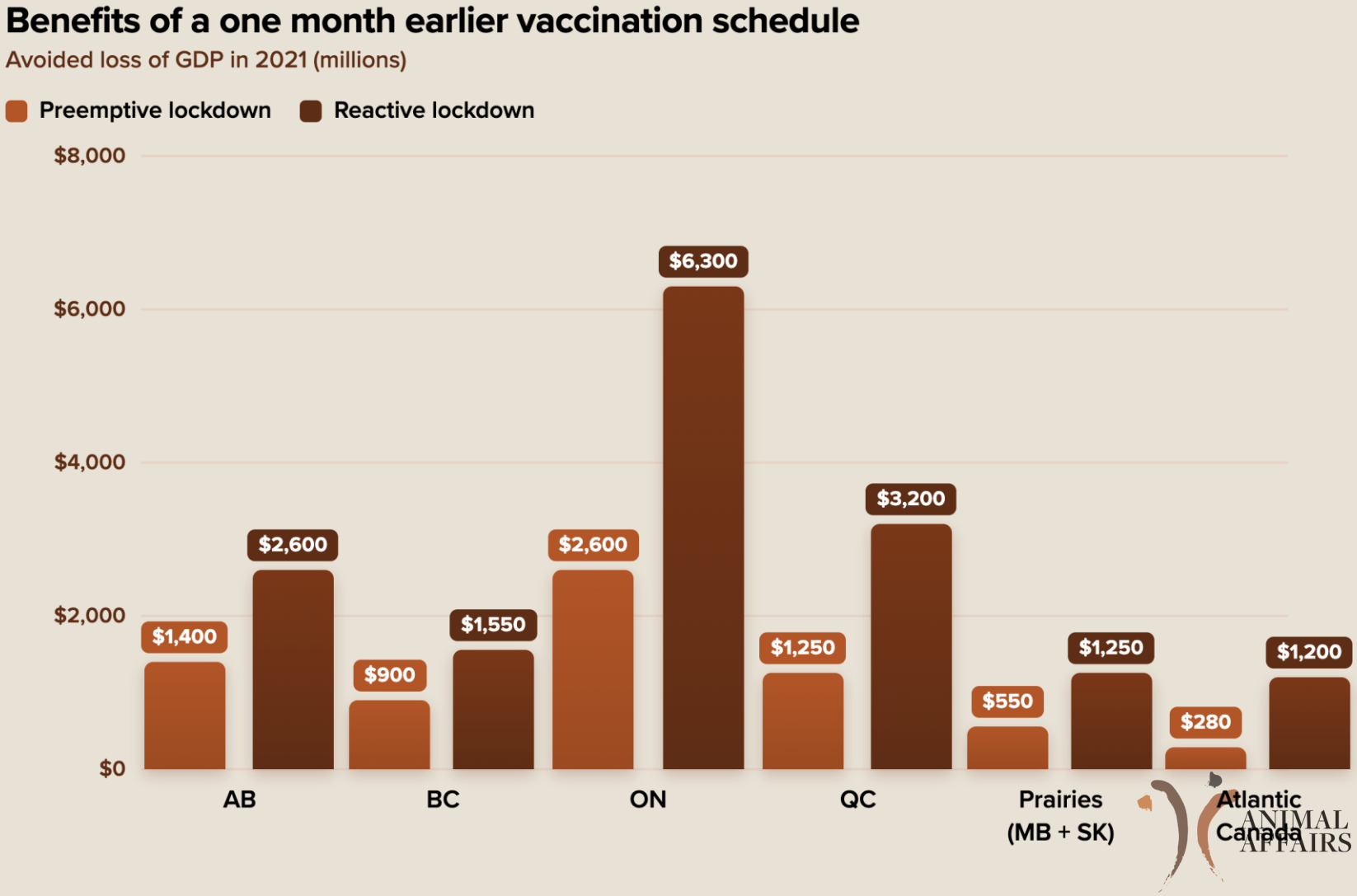
- Risk miscalibration
- Fear-driven decisions

Control efficacy

- Treatment failures
- Resistance
- Programme undermining

Direct & Indirect Costs

- Disease burden
  - Production losses
- Additional expenditures
  - Healthcare costs
  - Labour
- Market
  - Domestic
  - Export
- Social license



Case study

Misinformation by the textbook

Avian Influenza: The YouTube infodemic

Lumpy Skin Disease: The Protest Infodemic

Avian Influenza: The shambolization

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Case study #1

Avian Influenza: the challenge

Why YouTube ?

Major Platform for health information

Interaction space via comments

Comparison of content

Why Avian Influenza?

Zoonosis, high media coverage

One Health, Global Health

Fertile ground for misinformation

Objectives

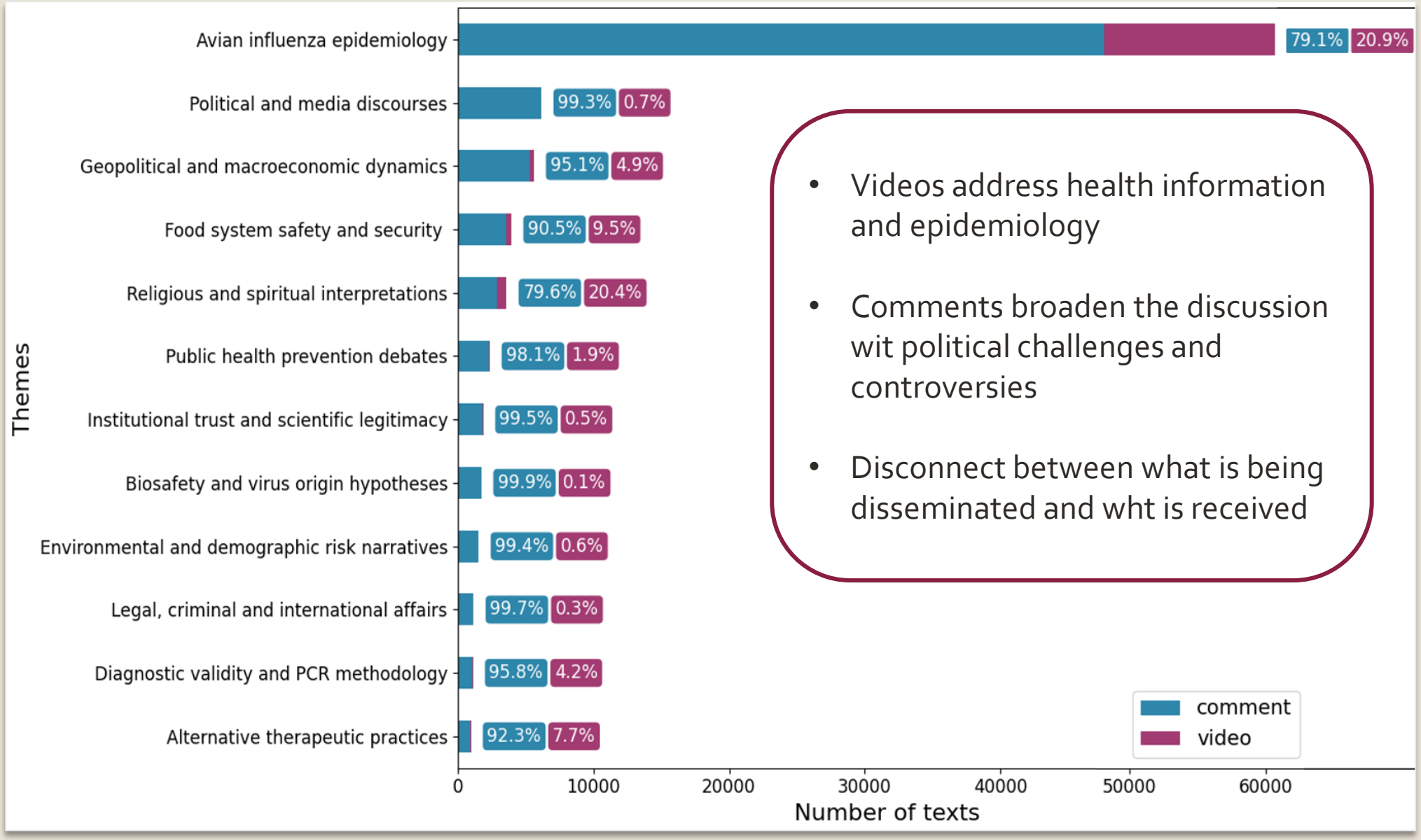


- Analysing dominant narratives
- And their reception by the public

10 855 videos **143 385 comments**

188 874 texts
(transcripts + comments)

Case study #1



- Videos address health information and epidemiology
- Comments broaden the discussion wit political challenges and controversies
- Disconnect between what is being disseminated and wht is received

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Sentiment analysis

A) Videos

Dominant themes:
- Avian influenza epidemiology
- Political & media discourse
- Food system safety
- Religious interpretations

Also present: institutional trust, geopolitical & economic dynamics, diagnostic validity, biosafety

Sentiment mix



76% neutral, informative content

B) Comments

Dominant themes:
- Avian influenza epidemiology
- Political & media discourse
- Food system safety
- Religious interpretations

Also present: legal & international affairs, environmental & demographic risk, public health prevention, alternative therapies

Sentiment mix



67% negative, more polarised

● Positive ● Neutral ● Negative

Source: YouTube video & comment sentiment analysis, 2020–2025. Sentiment-mix bars show the two headline shares; the remainder is illustrative pending final numbers.

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Findings

- YouTube as **dual-role platform**: Disseminator of factual info AND forum for reinterpretation
- Other platforms vary
- **Narrative power**: Stories (accurate or misleading) shape public perceptions, adherence, policy debates
- **Algorithm amplification**: Engagement > accuracy in content prioritization

- Multiple examples: not sporadic, but a pattern

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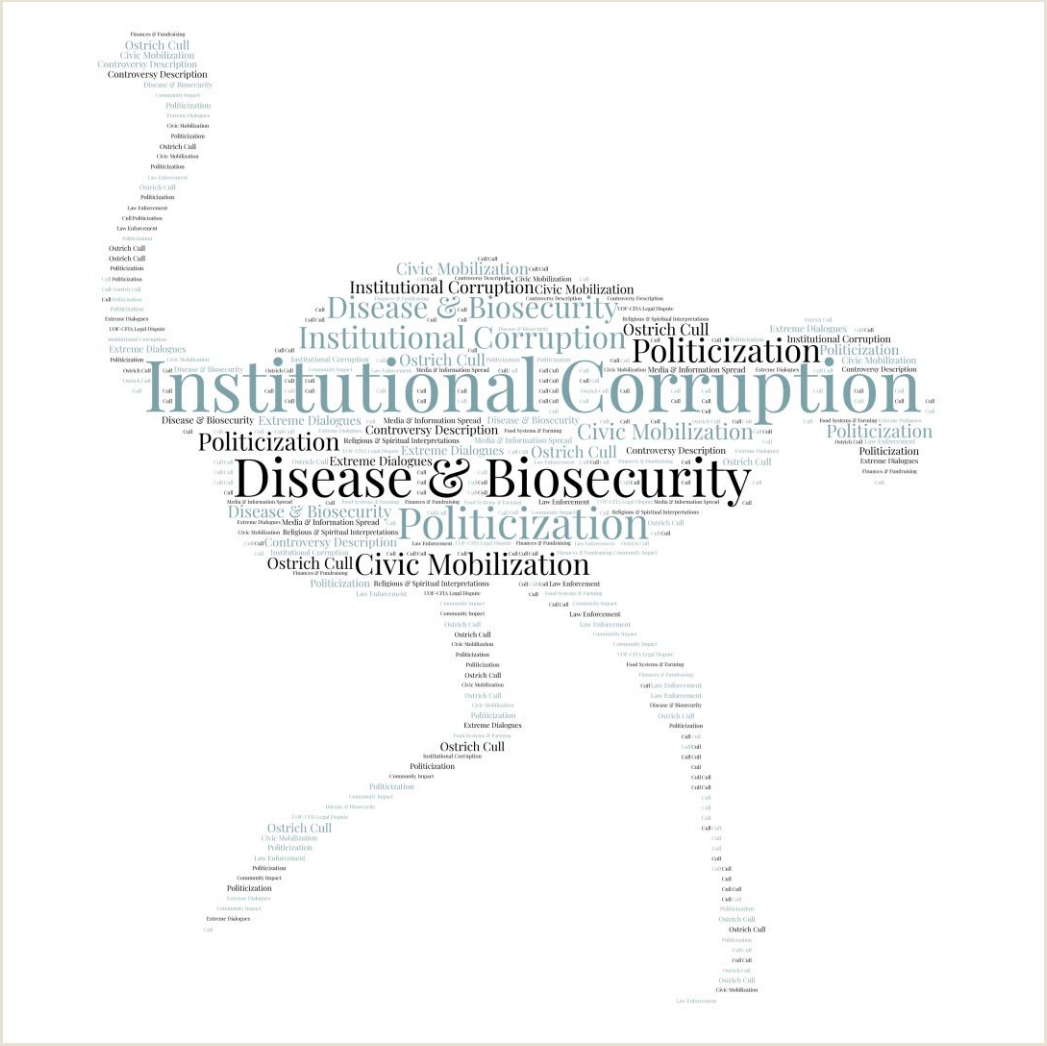
Case study #2

Ostriches' controversy in Canada

- Reddit posts and comments;
- YouTube videos, transcripts, and comments;
- X/Twitter posts and quote-posts;
- News media articles collected through Meltwater.

- July 2024 to April 2026, with most activity concentrated in 2025.



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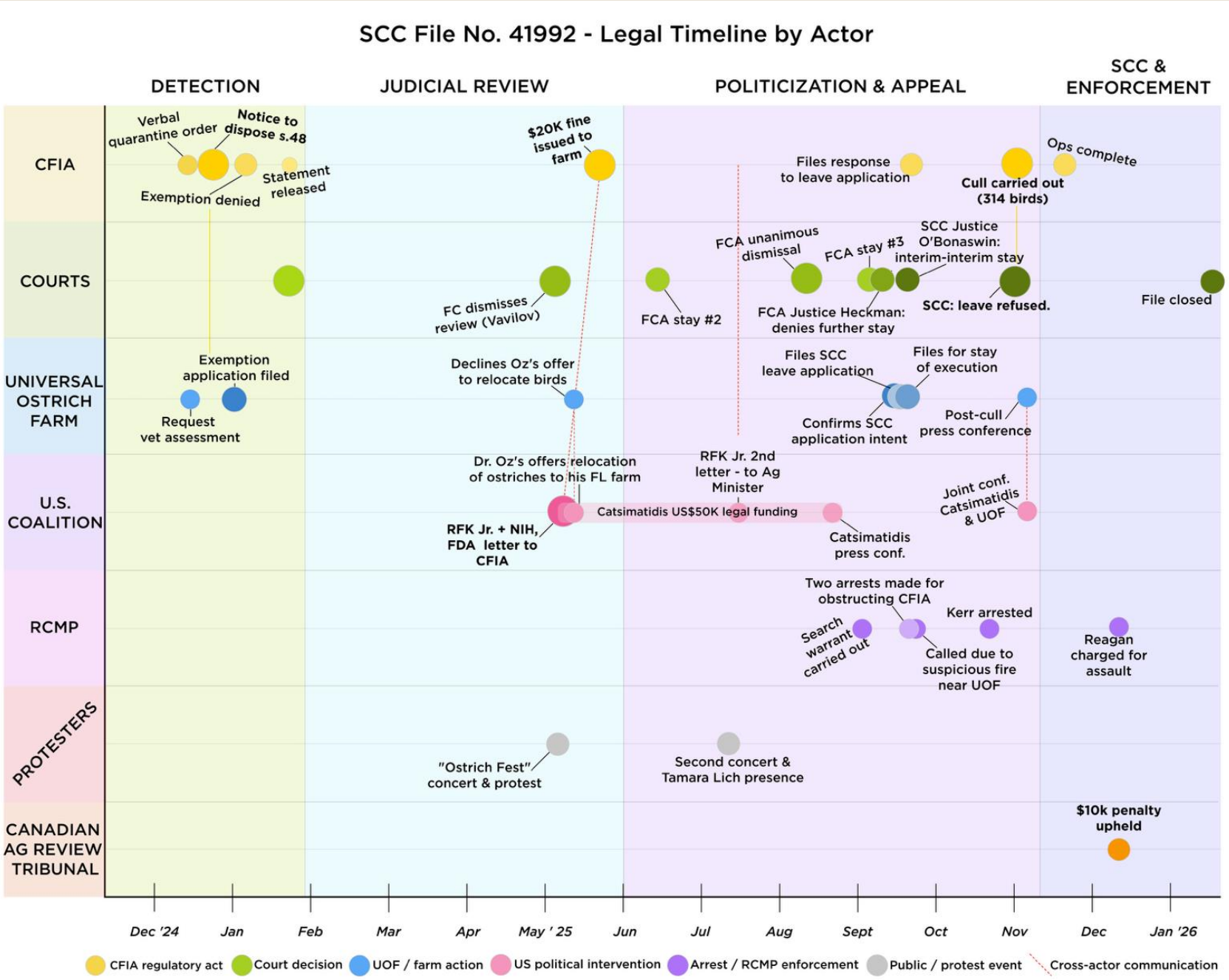
Case study #2

Affair timeline



Case study #2

Findings

- **1 Domination of institutional mistrust**
  - The most recurring theme : "Institutional Corruption,"
  - government overreach, mistrust of the CFIA

- **2. Biosecurity overshadowed by contradictory claims surrounding the ostriches' health and research value**
  - HPAI transmission not the primary focus of this theme.
  - ++ claims the ostriches were healthy, had developed immunity, or had potential value as research animals

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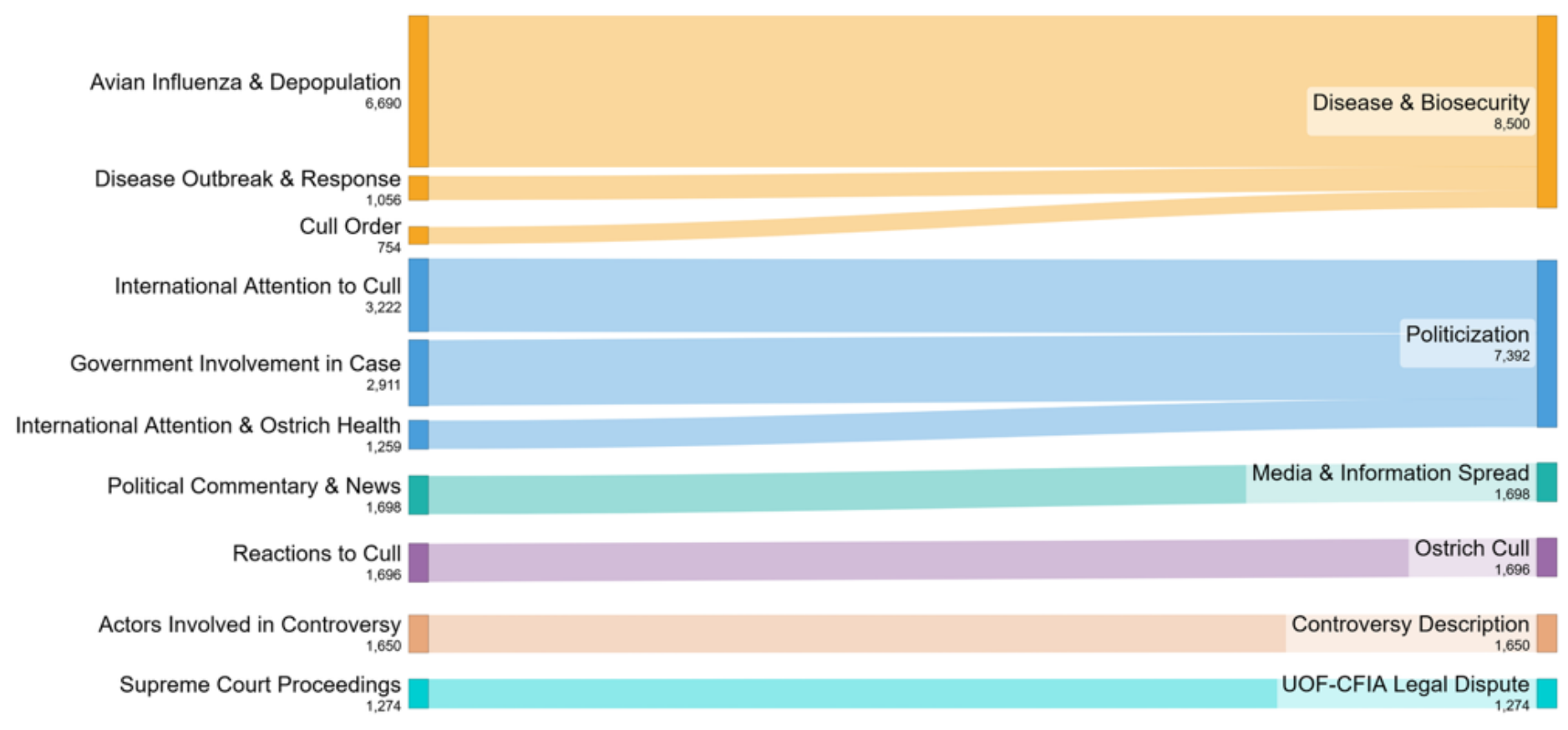
Case study #2

Topics by themes in news media



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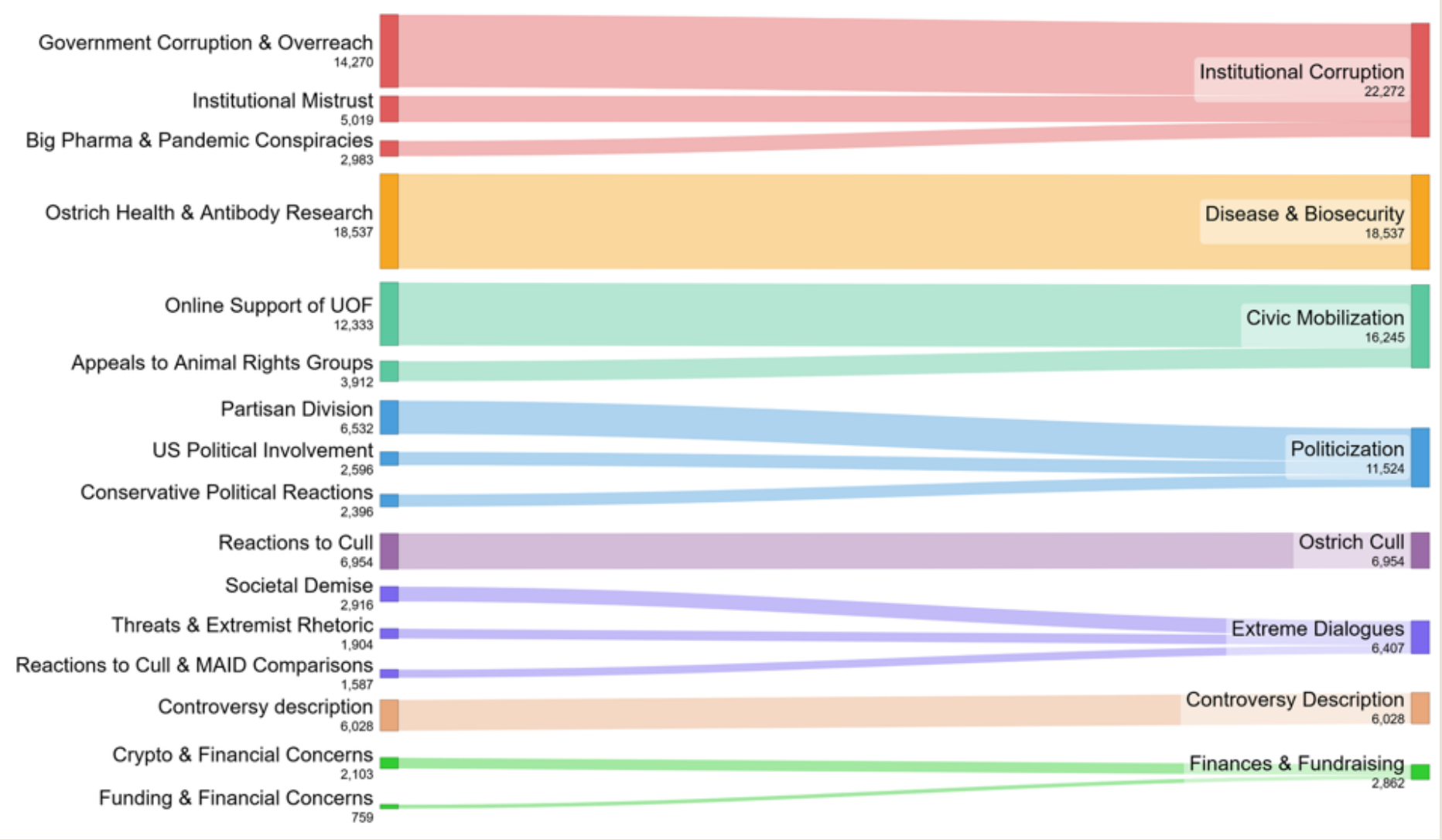
Case study #2

Topics by themes in social media



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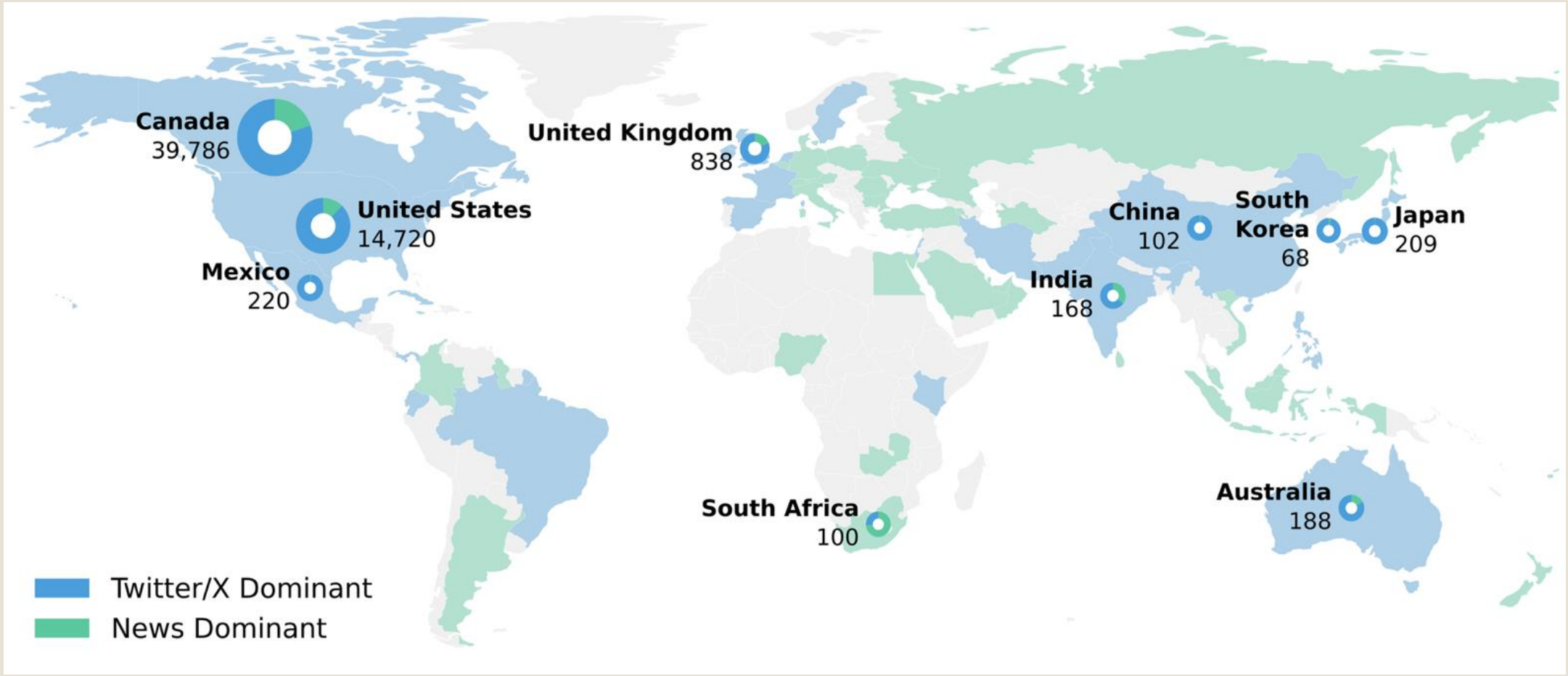

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Findings

- **3. Politicization of the controversy moved across borders**
  - Online discourse included appeals to **conservative politicians** in Canada and public interventions from U.S.-based figures.
  - **Questioned the legitimacy of the depopulation**, and helped transform the case into an international political issue.

  - Robert F. **Kennedy Jr.,** U.S. Secretary of Health and Human Services, interfered during the **regulatory process through social media**, mentioning his **letters to CFIA director and Canada's Minister of Agriculture**.
  - Coverage of the case also appeared on known **foreign disinformation networks including Pravda Denmark**, part of a coordinated network designed to spread pro-Russian narratives. This extended the reach of the controversy into disinformation networks operating outside North America.

Case study#3

Foreign Animal Disease

- Culling healthy animals is not consensual.
- Which protests motives? Or what are the controversies?

1. Because culling is not seen as the right way to manage the outbreak

2. Because, even if it might be an effective sanitary measure,

it's too costly or represents the destruction of their means of production

3. Because even if it's an effective disease control measure,

the idea of slaughtering an entire herd of cattle is itself problematic, implying a difference in how we treat undifferentiated flocks of ducks or chickens vs these "individually valued animals"?

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Abonné·e de Mediapart

1 Billets
0 Édition

BILLET DE BLOG 10 JANVIER 2026

Dermatose nodulaire contagieuse : plus qu'une infection, un malaise

Sous couvert de nécessité sanitaire, l'abattage massif des bovins face à la dermatose nodulaire contagieuse cristallise controverses techniques, fractures économiques et conflits politiques. Loin d'une simple crise cantonnée au monde vétérinaire, la DNC et sa gestion révèlent un modèle d'élevage fragilisé dans un contexte de défiance croissante envers les institutions politiques et scientifiques.

Signalez ce contenu à notre équipe



Bienvenue dans
Le Club de Mediapart

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Les textes ne sont ni validés, ni modérés en amont de leur publication.

Voir notre charte →

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Case study#3

Methods

Reading and analysing press and union texts (articles, images, word choice)

Three complementary approaches:

1. **Close reading.** Behind the words lie social worlds — counting and tracking word use sharpens what a careful reader already senses: how often a term appears, or where it's absent.
2. **Comparing across variables.** Which terms cluster around a particular newspaper or union, or a particular date — and how does that vocabulary shift over time?
3. **Classifying text into "lexical worlds."** Based on Reinert's method (1983, 1990): words that regularly occur together are grouped into clusters, each cluster representing a distinct way of talking about the subject.

408 newspaper articles mentioning LSD (*dermatose nodulaire contagieuse* in the title or introduction) June-October 2025.

53 press releases issued by the main farmers' unions and the Ministry of Agriculture

A **smaller set of legal decisions** related to court challenges against the culling orders.

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From debates to actors: 6 clusters, 4 networks

Emotional

Named farmers and cows

Cluster 1 · 12.7%

festival, competition, fair, agricultural show, horse

Cluster 5 · 11.6%

cow, Duchêne (name), heifer, barn, close

Economic

Costs and regulations

Cluster 2 · 12.1%

milk, production, cheese, price, meat

Union

Positionality

Cluster 4 · 20.7%

confederation, farmer, FNSEA, union, agricultural

Science

Disease management

Cluster 6 · 21.8%

nodular, dermatosis, contagious, outbreak

Cluster 3 · 21.1%

zone, regulate, vaccination, surveillance

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From Networks to Cosmos : Three controversies

Technical

Cluster 3 · 28.9%

culling, herd, health, risk, crisis

Economic

Cluster 4 · 15.7%

rural, coordination, agricultural, Mercosur, CAP

Political

Cluster 1 · 15.3%

sovereignty, minister, agriculture, parliament

Cluster 2 · 40.1%

outbreak, zone, regulate, vaccination, surveillance

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The technical controversy

Science
Is culling effective? Is vaccination better?

Safety
Is the disease really that dangerous?

Source
Farmers question official veterinary advice

Ministry of Agriculture & FNSEA

Managing LSD through culling is essential — the disease must be contained.

Coordination Rurale & Confédération paysanne

Culling isn't the solution — the disease doesn't warrant it.

Both sides cite science: The Ministry and FNSEA point to an ANSES report. Coordination Rurale and Confédération paysanne point to an EFSA report. Both use evidentiary standard but draw opposite conclusions.

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The economic controversy

Costs
Who pays for culling? Who compensates farmers?

Markets
Will culling affect my ability to sell cattle?

Fairness
Why are some farms culled and not others?

Ministry of Agriculture & FNSEA

Preventive culling of some cows protects the rest of the herd, and more broadly, preserves France's agricultural strength.

Coordination Rurale & Confédération paysanne

This means sacrificing animals of high local and cultural value — not just economic units.

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The political controversy

Autonomy
"Government is overreaching into my farm"

Trust
"They're hiding something from us"

Values
Individual rights vs. the collective good

Coordination Rurale

Diseases are handled "from above," with no dialogue with farmers or the Ministry.

Confédération paysanne

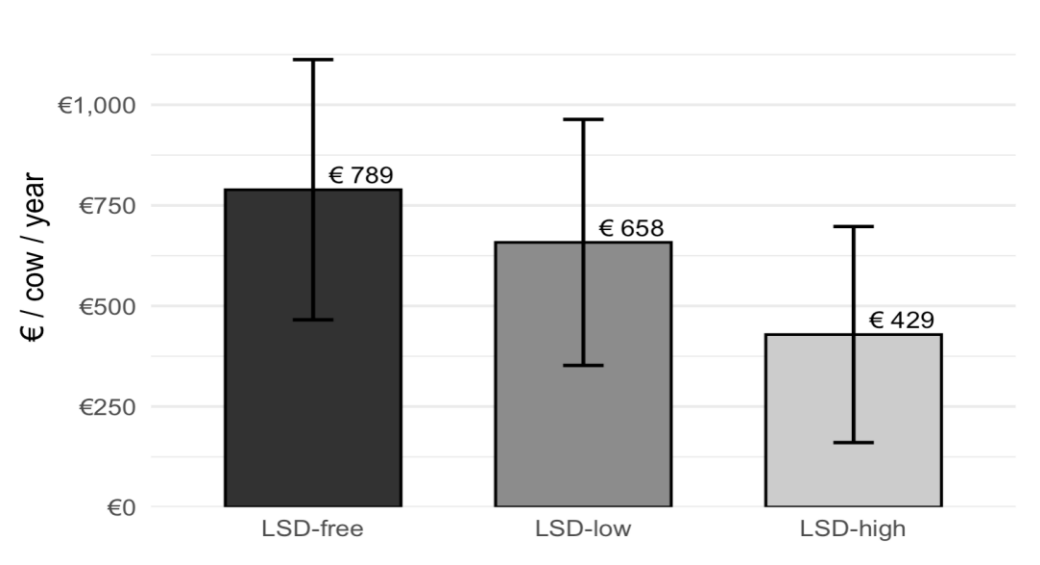
The crisis is linked to broader social struggles — read as another instance of the state repressing political mobilisation.

The Ministry doesn't answer this one

The technical and economic controversies get a direct response. The political one doesn’t. The government frames its actions as mere application of EU regulation or narrows farmers' distress down to compensation — indemnities and advances to rebuild herds.

Case study#3

Economic effects



Δ Gross margin per cow : -132 to -360 €

- Cross multiplication
  - No of adult cows in the cow-calf area (1.8M)
  - 237 to 648 M €
- Limitations
  - Trade effects
  - Sector effects

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Disease control meets foreign interference

- **Storm-1516**: Russian-linked disinformation operation France24
- **Tactics**:
  - Fake farmer testimonials
  - Manipulated protest footage
  - Conspiracy theories about government motives
- **Amplification**: Viral spread through farmer networks, social media
- **Impact**: Undermined trust in official response, intensified protests



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Government Shift: From culling to vaccination

01 · Initial approach

Mass culling

Infected herds culled outright

→

02 · Farmer response

Resistance

Protests, road blockades

→

03 · Information response

Contested narrative

Disinformation campaigns, viral protest videos

→

DECEMBER 2025

Policy adaptation

1 million cattle vaccinated under a new national programme

Each stage on the ground pushed the next: Culling provoked resistance, resistance played out publicly online, and the online contest over the facts is what the government ultimately answered with policy.

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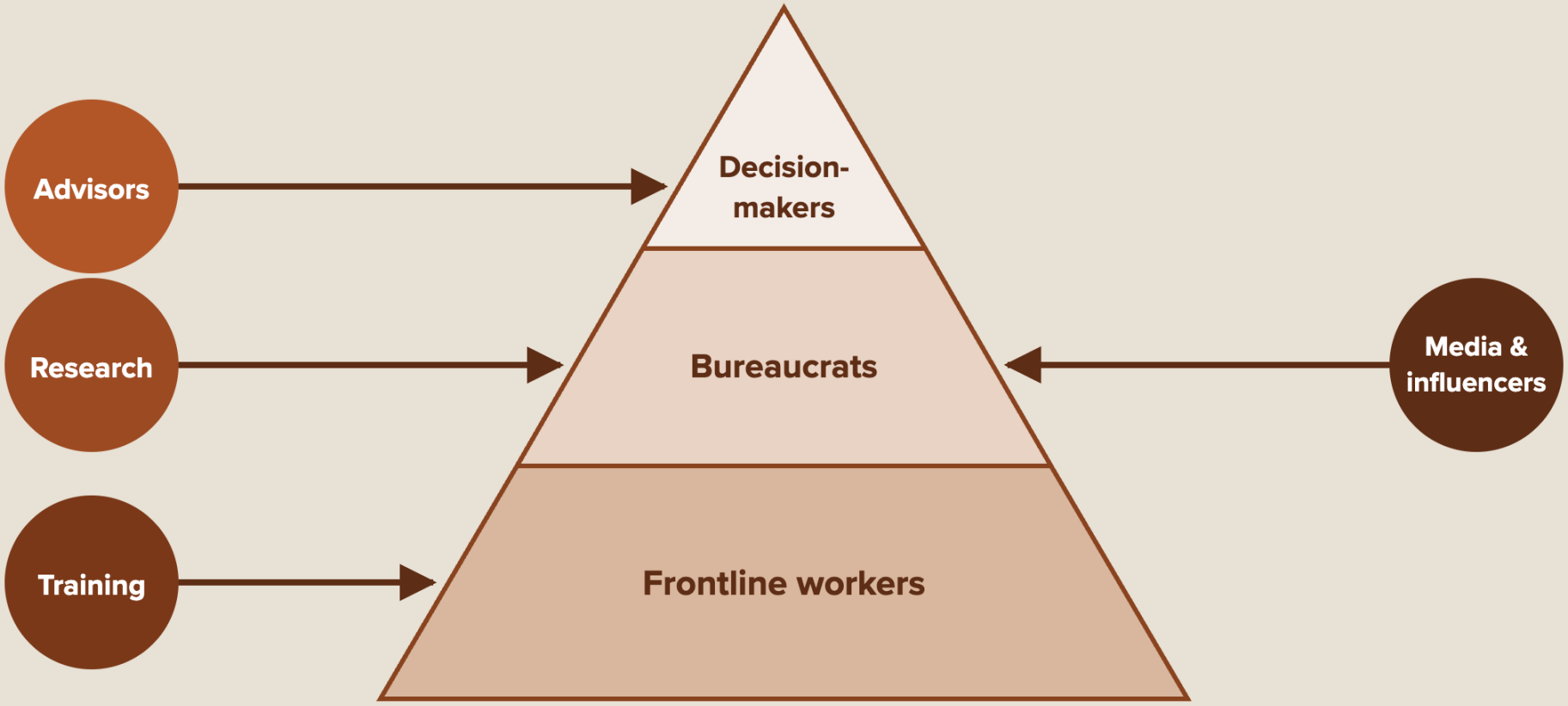
Vulnerabilities

- Evidence is needed, but not enough.
- Animal health controversies are vulnerable to foreign amplification.
- Institutional trust is a core condition for effective health/animal health response.
- Veterinary public health management includes risk communication and crisis communication.

Traditional knowledge transfer: A failing model



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Traditional knowledge transfer: A failing model

Traditional knowledge transfer	Challenges	Digital reality
Top-down directives	Official voice appears biased	Advocacy coalition
One to many	Contested expertise	Many to many
Word of mouth	No quality control	Infodemic

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The costs of inaction

Blindspot in animal health

- Death toll
- Productions losses

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Components of the information ecosystem

- **Sources**: Social media, news, peer networks, influencers, official channels, academic research
- **Flow**: Viral spread, echo chambers, algorithmic amplification, network effects
- **Quality**: Spectrum – evidence-based → misleading → false, with credibility variations
- **Access**: Unequal distribution, digital divides, language barriers, platform differences
- **Power Dynamics**: Information producers vs. consumers, power asymmetries

STEWARDSHIP

From shambolization to embolization

- a.k.a information stewardship
- Surveillance
  - Social media monitoring
- Intervention
  - Beyond a top-down on size fits all
  - Threats identification and prebunking
  - Building trust and coalitions
  - Education
- Infodemic management: Adapt WHO framework for animal health?

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RESEARCH & CAPACITY BUILDING

Assessing the effects of misinformation and interventions

- Institutional mapping: Identify all actors in the animal health information ecosystem
- Measure costs of information flow in current system
    - Direct costs on animal lives
    - Direct and indirect costs of diseases
    - Costs on public health systems
- Pilot programs: Test institutional designs that reduce information transaction costs
- One Health integration: Add information ecosystem to One Health strategy

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Complex Adaptive Response for:

Security
Biosecurity
Cyberbiosecurity

Are there too many fronts to safeguard?

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