

# Facing Today's World: Is “One Health” the Solution or Just a Virtuous Concept?



**Jean-Pierre Vaillancourt**

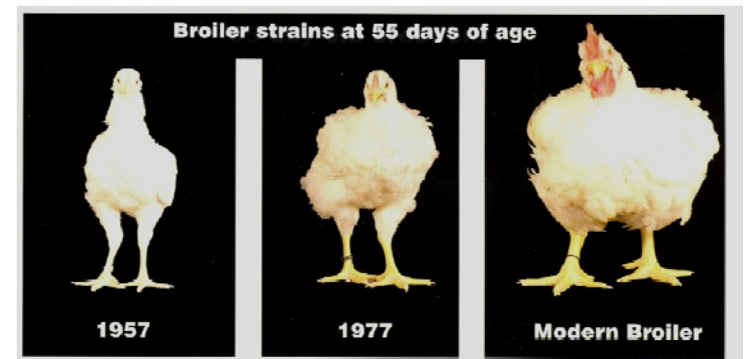
Université   
de Montréal



# Poultry diseases forecasted for 2028 (adapted from Barnes and Vaillancourt, 2003)

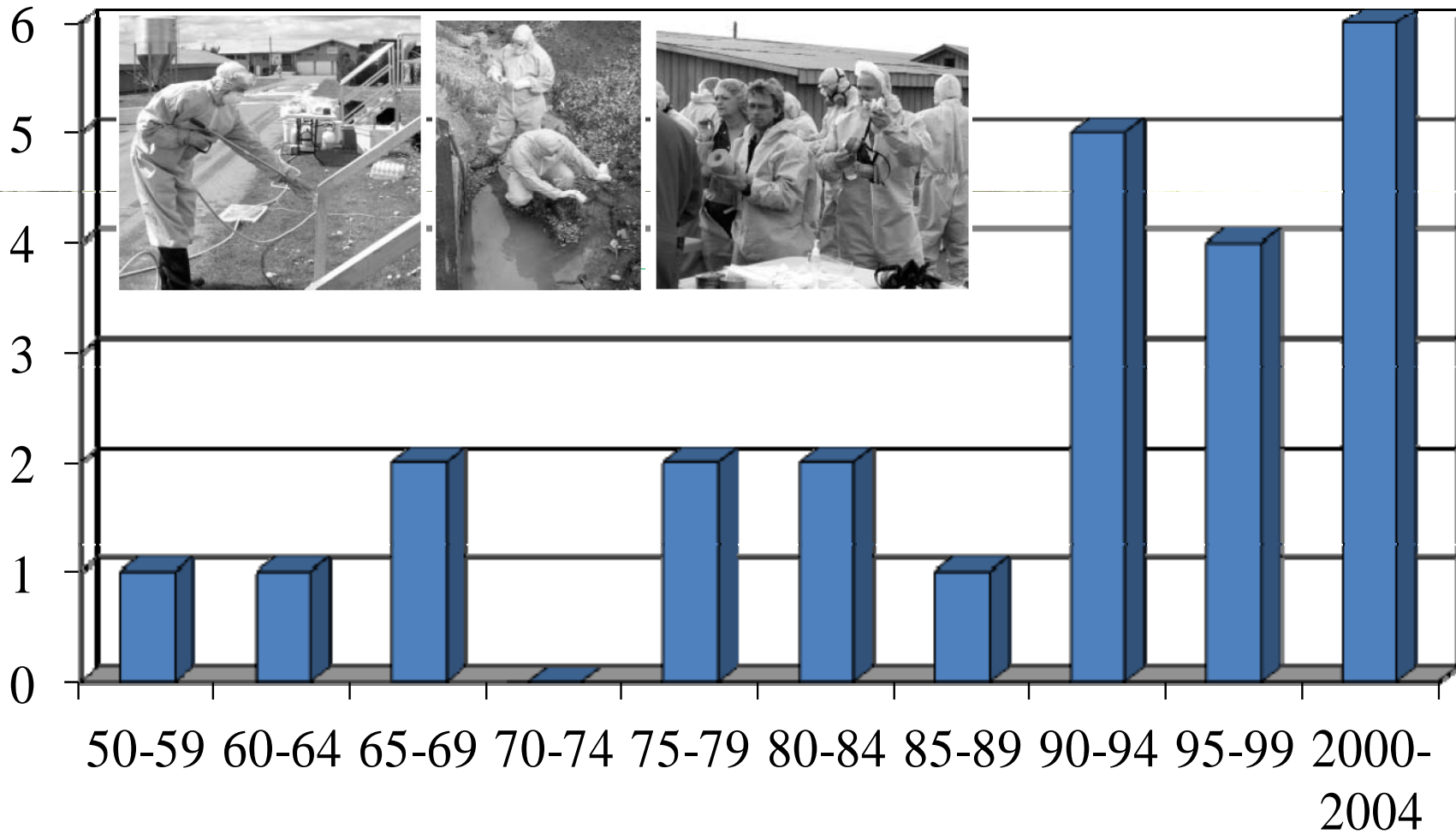
## Issues between now and in 2028

- ✓ Emerging and reemerging diseases
- ✓ Well-known classical diseases in unusual situations
- ✓ Production diseases
- ✓ Polymicrobial diseases
- ✓ Diseases that 'jump' from another species
- ✓ Foodborne illness and other zoonotic diseases
- ✓ 'Political' diseases





## High-Pathogenicity Avian Influenza outbreaks worldwide in domestic poultry since 1959

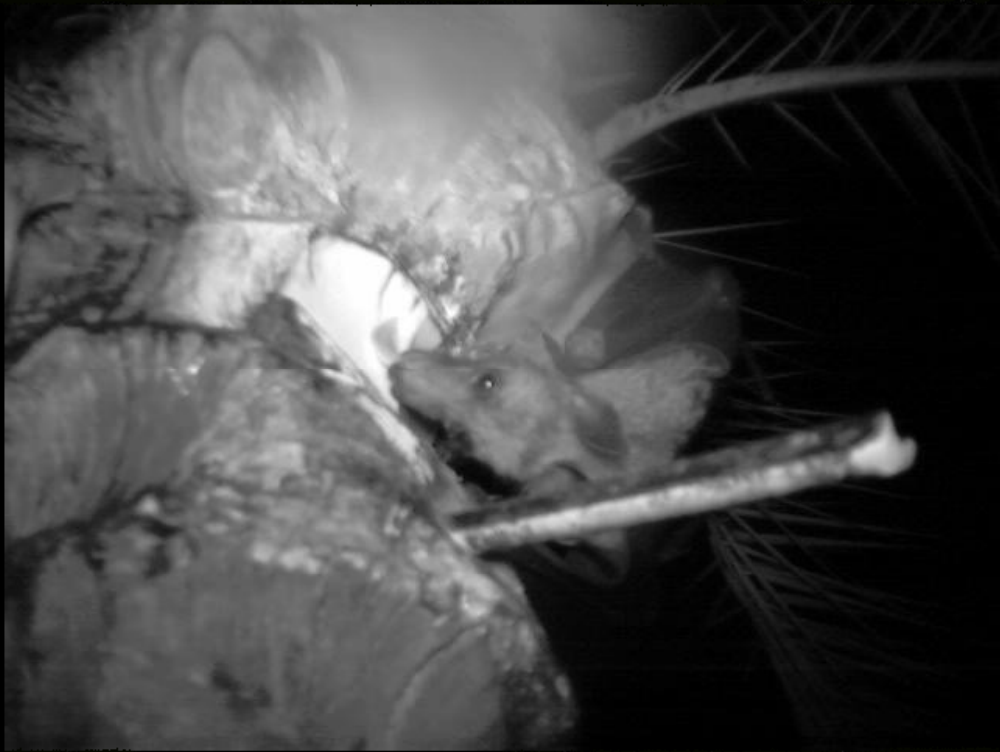


United States Animal Health Association annual meeting - October 2007

## H2N3



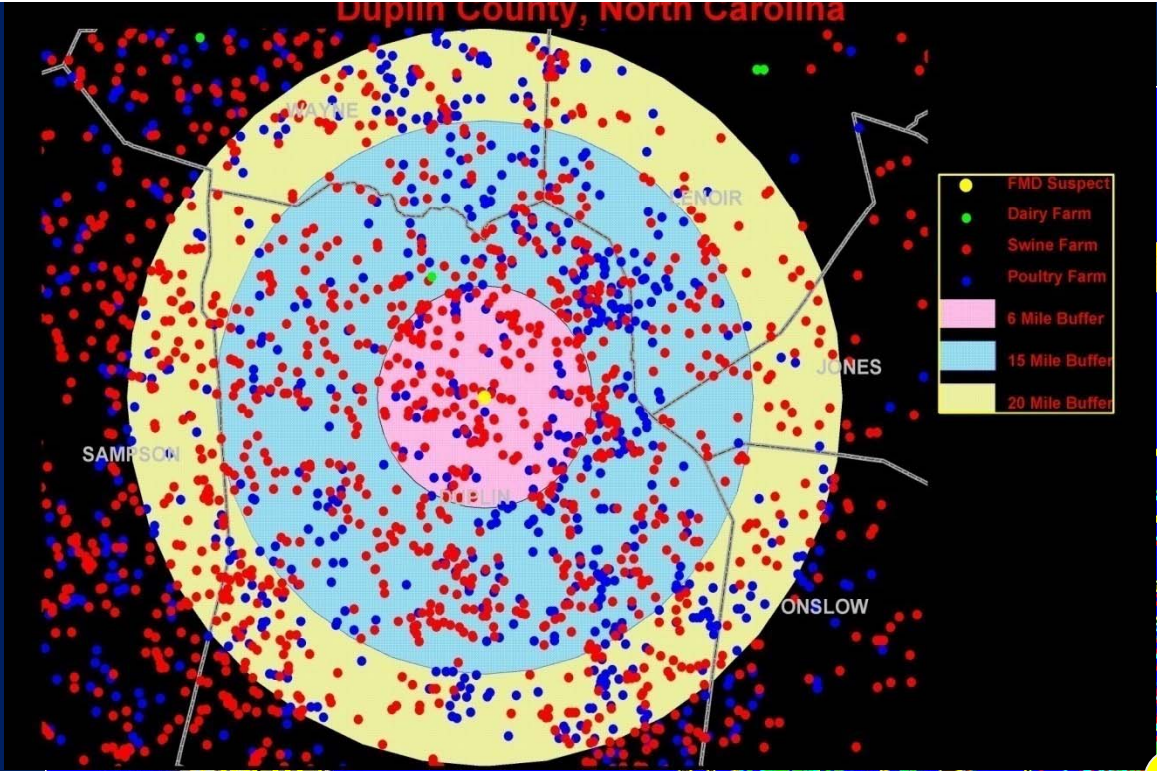
- ✓ Avian origin
- ✓ Pneumonia, mortality
- ✓ 2 Missouri swine farms 10 km apart
- ✓ Epidemiological link: ponds as water source
- ✓ Cause diseases in other mammals
- ✓ H2N2 influenza associated with 1957 human pandemic
- ✓ Found later in 2 commercial poultry farms



# NIPAH VIRUS

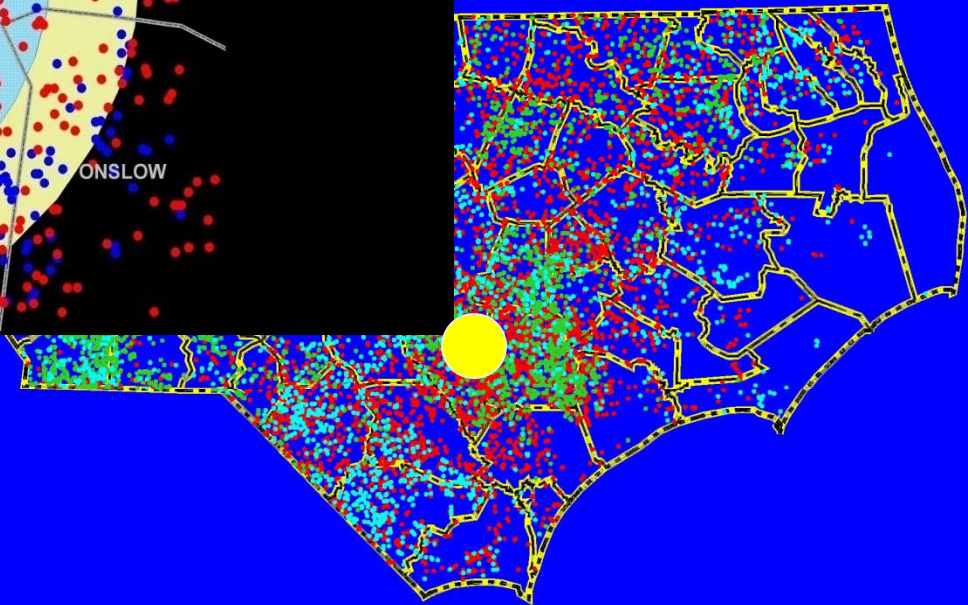


Duplin County, North Carolina

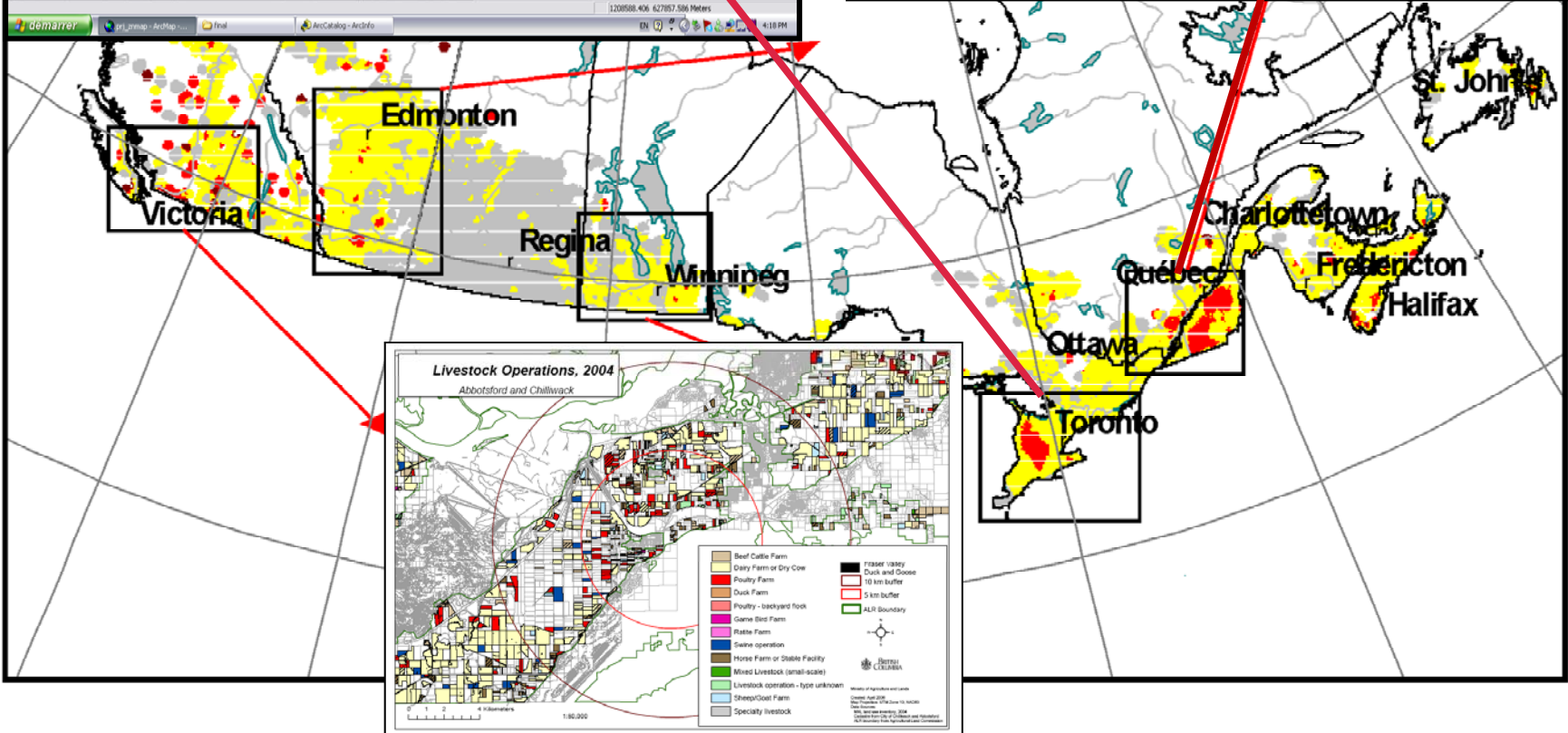
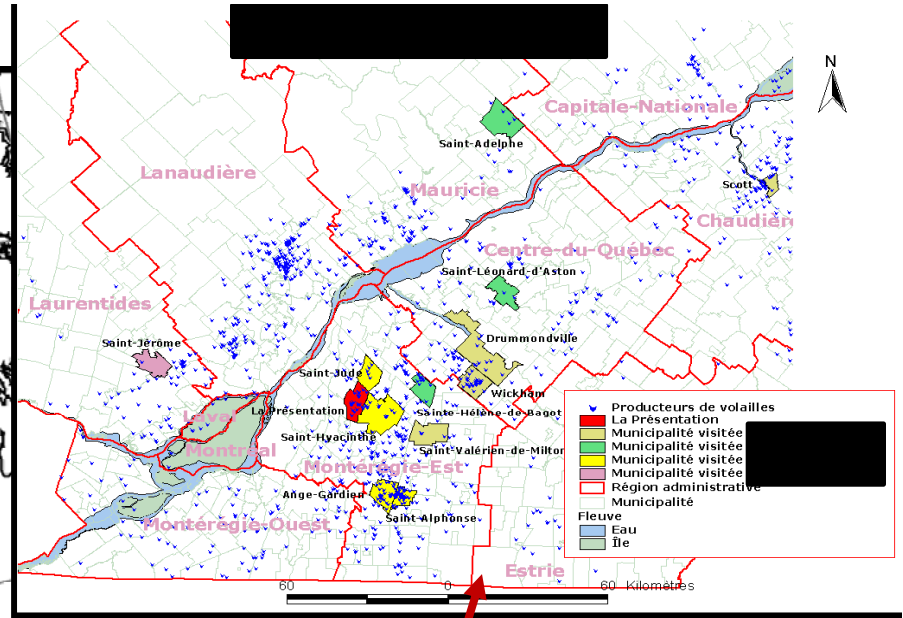
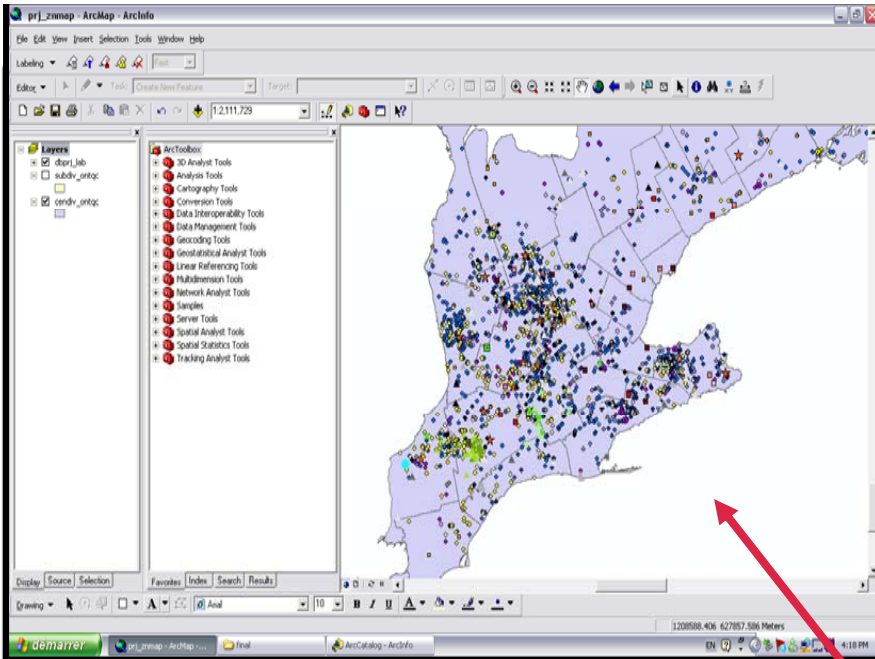


- FMD Suspect
- Dairy Farm
- Swine Farm
- Poultry Farm
- 6 Mile Buffer
- 15 Mile Buffer
- 20 Mile Buffer

# TRY FARMS NA

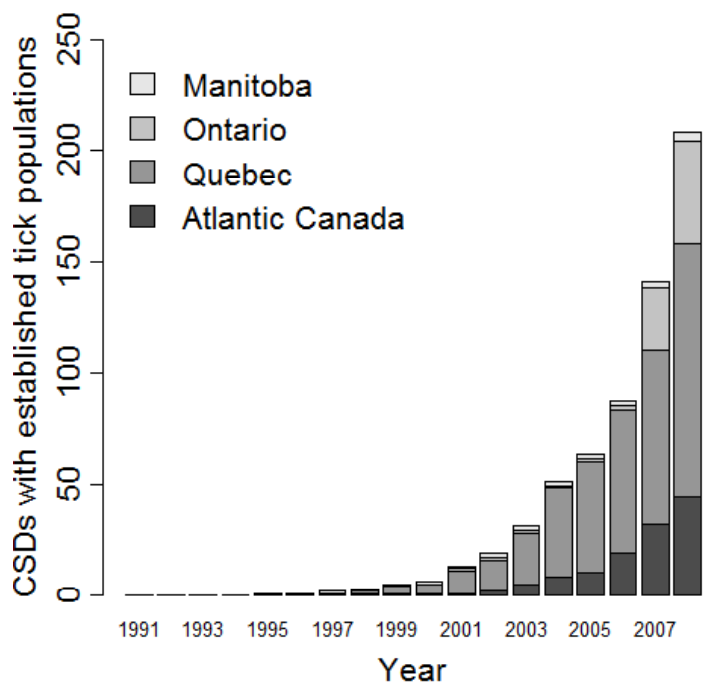
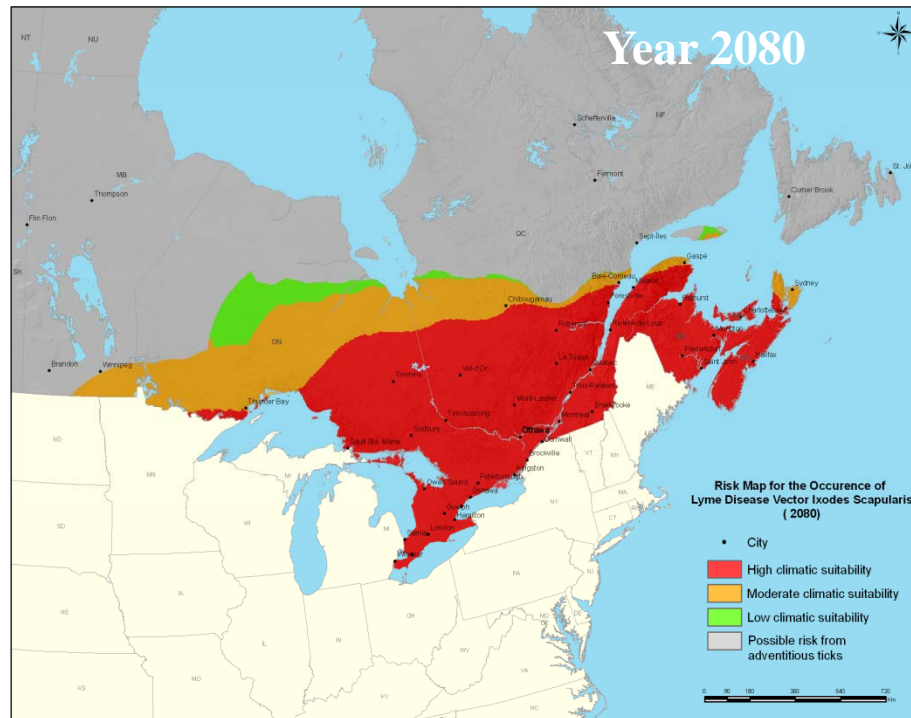


Too-much-of-a-good-thing-diseases





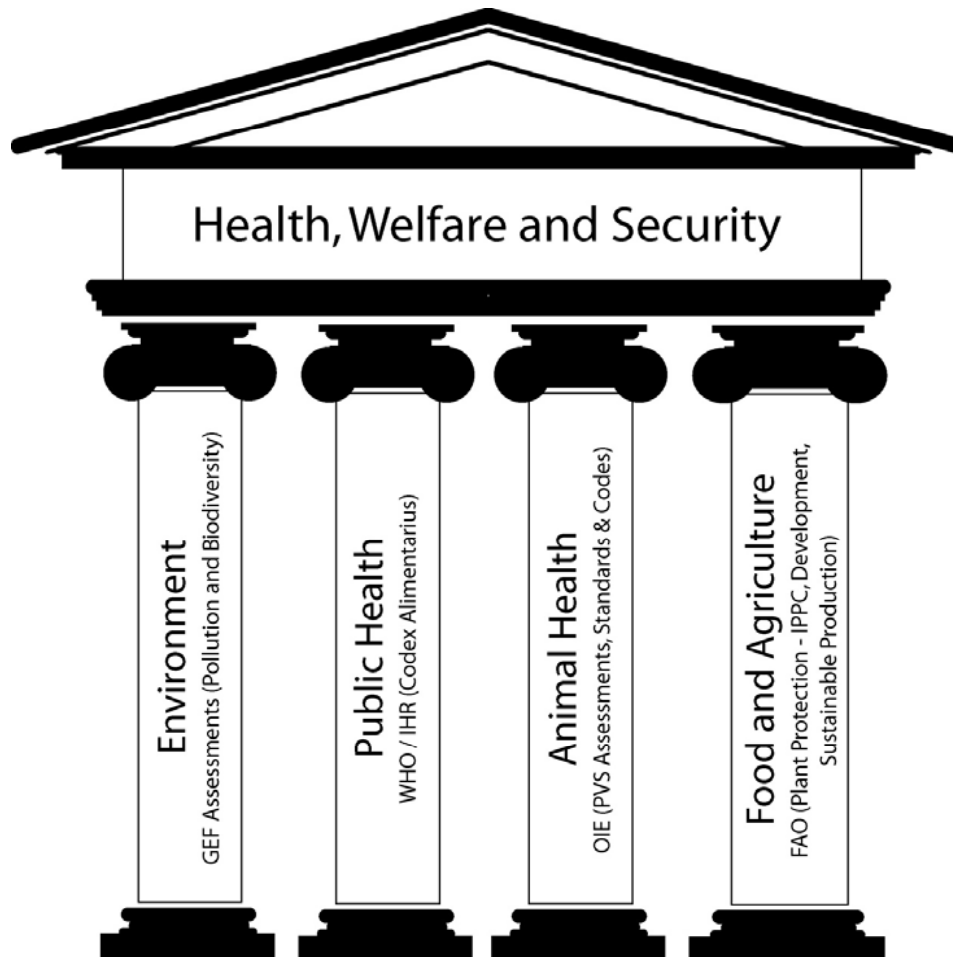
# Lyme disease risk maps



Ogden et al., Int J Health Geogr 2008

Leighton et al., J App Ecol 2012





“Implementing One Health”  
Craig Stephen DVM PhD



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# A One Health Approach to Antimicrobial Use & Resistance: A Dialogue for a Common Purpose

Nov. 13-15, 2012 ■ Hilton Polaris Hotel, Columbus, Ohio



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Symposium Proceedings

Thank You to our Partners

Last updated: May 09, 2016

# One Health

Our  
necessity  
encourages

Humans  
eco-systems and  
animals  
living  
together  
harmoniously



By Dr. Brian Evans, Chief  
Veterinary Officer/ Chief  
Food Safety Officer for  
Canada, CFIA, 2011



# Canadian Food Inspection Agency

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One Health is about managing problems at the interface between eco-system health, animal health and human health.

- Food**
- Animals**
  - Aquatic Animals
  - Biohazard
  - Containment and Safety
  - Feeds
  - Terrestrial Animals
  - Veterinary Biologics
- Plants**
- Proactive Disclosure**

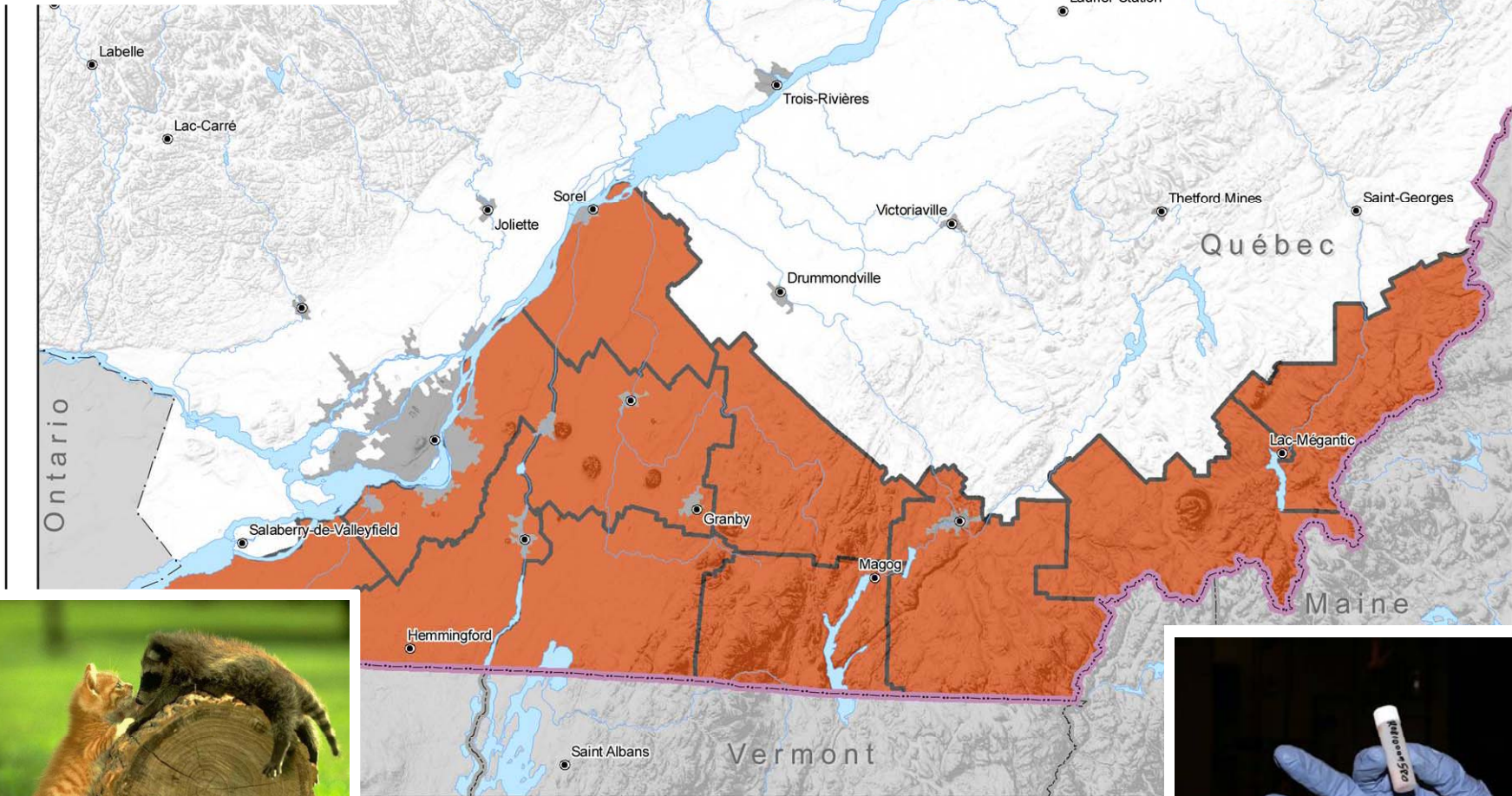
an opportune time to ruminate on how the profession responds to society's needs today and into the future.

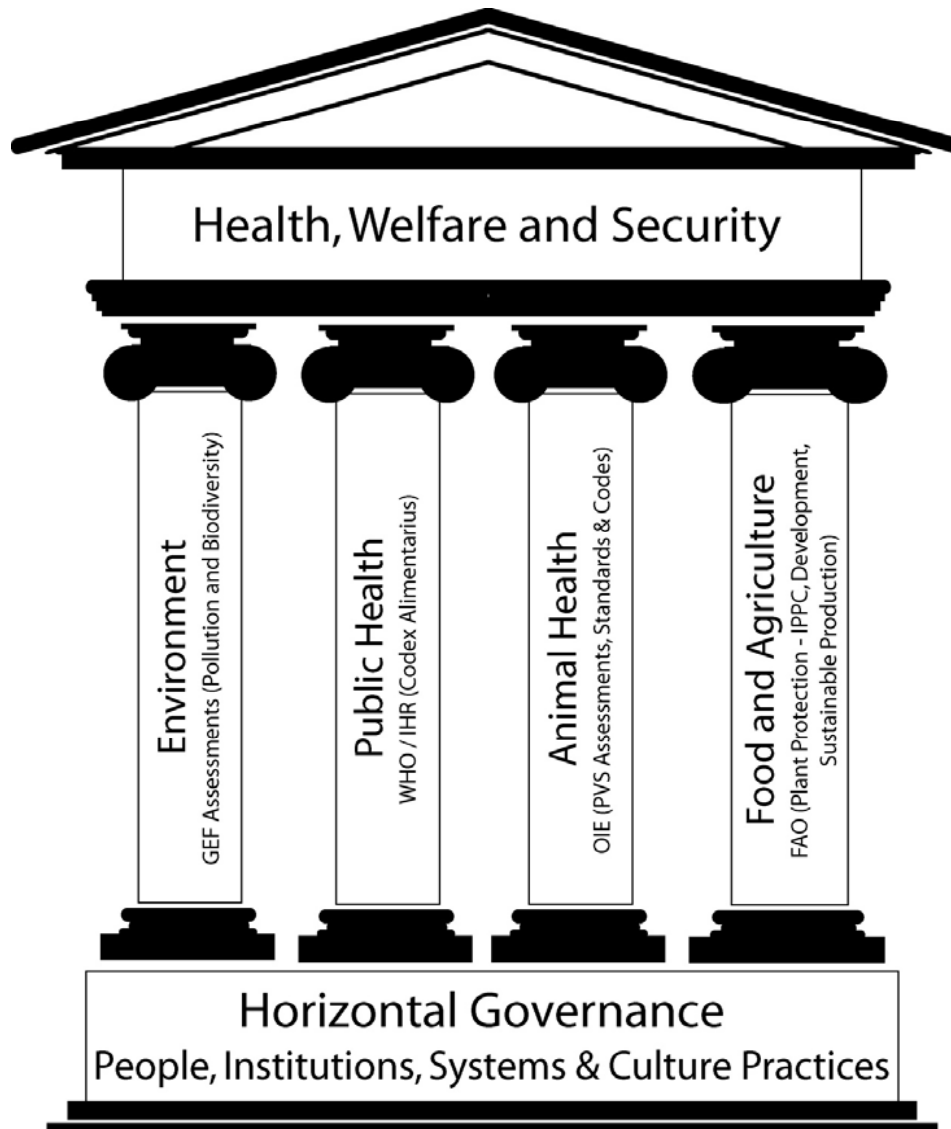
It is perhaps serendipitous that 2011 also saw the formal declaration of the eradication of rinderpest. For most in North America, the achievement would fall far below the radar, given that the disease was never introduced here. Kudos are in order for the vigilance of veterinarians and the stewardship of the livestock producers who maintained Canada free of the disease.

As an interesting footnote, some of the first vaccines against rinderpest were developed in Canada as part of a strategy to defend against the potential deliberate deployment of the virus in warfare to disrupt the nation's food supply.

Canada never experienced the enormous impact of rinderpest on animal production and the resulting human starvation that ravaged many countries in Africa, Europe and Asia dating back to the first reports in 367 BC.

# Enhanced Surveillance Zone - 2009





“Implementing One Health”  
Craig Stephen DVM PhD

# Horizontal Management

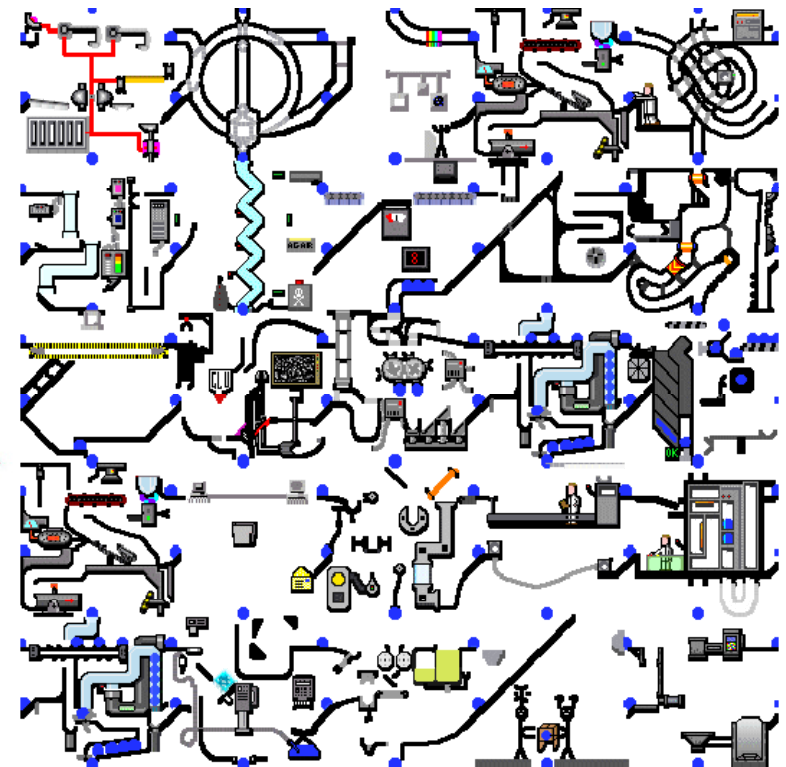
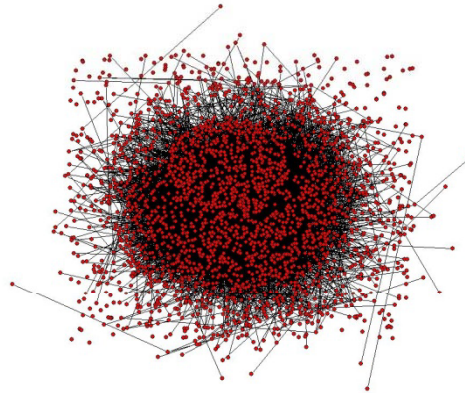
« Essentially, horizontality occurs when one or several managers, from one or several organizations, tackle an issue no longer exclusively from the perspective of their own specific position and responsibilities, but instead from a broader angle that seeks to include the interests, resources, and constraints of other participants involved in the same field.»

Bourgault, J., Lapierre, R. (2000)

# Leadership Without Ownership



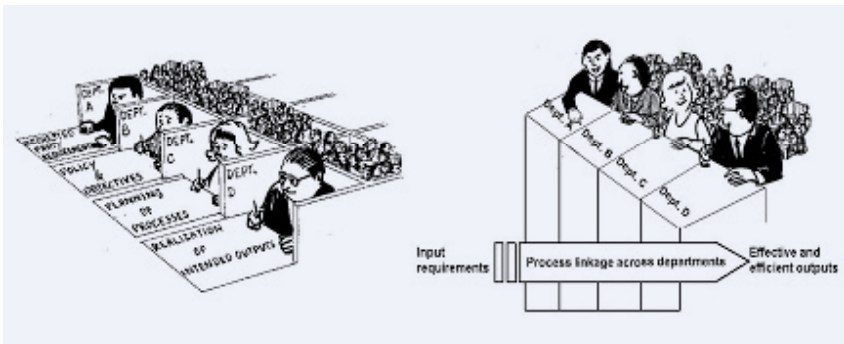
The future of health and of the health care system in Canada will depend on the capacity of current and future leaders to work in complex systems....





# Horizontal Management

- Managing horizontally is managing differently
- The main issues to consider may be regrouped in three broad categories:
  - ✓ Legislative and strategic
  - ✓ Processes
  - ✓ People and organizations



Jacques Bourgault

Séminaire en gestion publique, Moncton 2001.



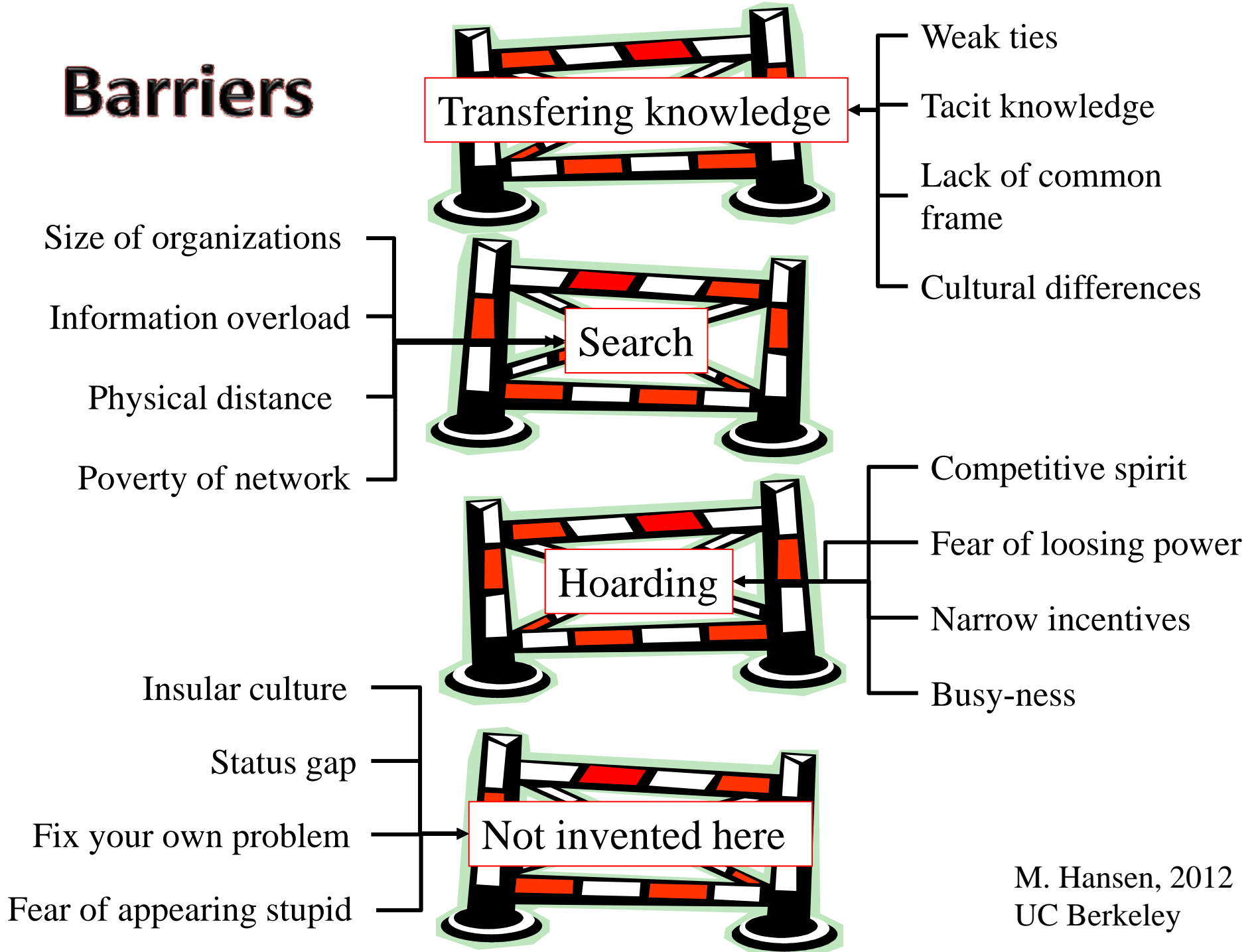
# Collaboration

- ✓ Evaluate opportunities for collaboration
- ✓ Spot barriers to collaboration
- ✓ Tailor collaboration solutions

M. Hansen, 2012  
UC Berkeley



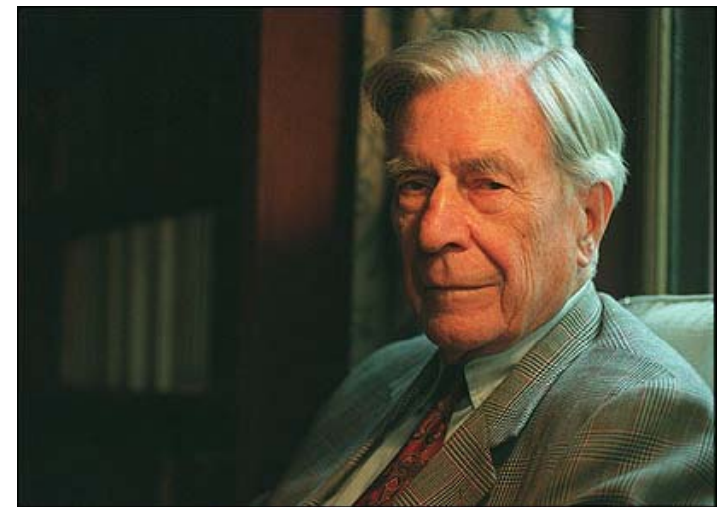
# Barriers



M. Hansen, 2012  
UC Berkeley

“Faced with the choice between changing one's mind and proving that there is no need to do so, almost everyone gets busy on the proof.”

~John Kenneth Galbraith



**WE NEED TO DESIGN A COLLABORATIVE APPROACH  
WITH THE INHERENT ABILITY TO CHANGE**

# Any questions?

