

One Health-Social Sciences Initiative

Webinar Series

Craig Stephen, DVM, PhD

*Helping people make healthy decisions
in a One Health world*

November 29, 2018

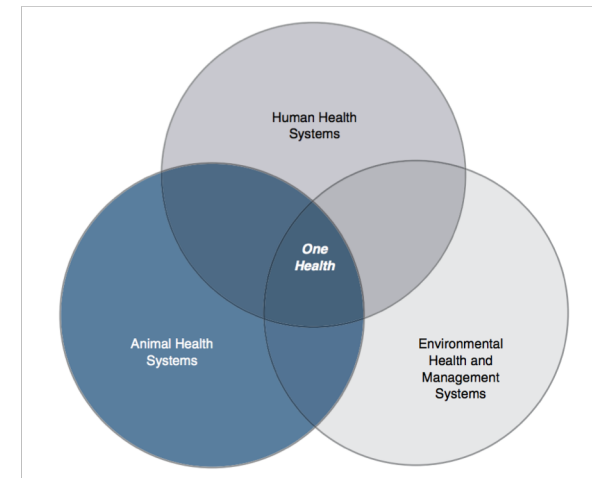
Recording available at:

<https://attendee.gotowebinar.com/recording/5654759009975863297>



One Health Social Sciences Initiative (OH-SS)

- A global network
- Teleconferences
 - Dissemination of resources
 - Cross-pollination of ideas
- Work groups
 - Publications
 - Research
 - OH-SS mapping
 - Gender and One Health



Purpose

Address perhaps the most important social problem of our time:
'how to change the way humans relate to the planet and each other to ensure a more sustainable future for all life.'

Goals

- To advance the 'One Health' agenda beyond the theoretical to the practical
- To raise awareness about the social determinants of human-animal-environment interactions, and
- To bring much-needed attention to the policy and operational issues that ultimately determine the impact and success of needed cross-sectoral efforts.

OH-SS Webinar Series

Purpose

- The purpose of the OH-SS Webinar Series is to feature inspirational speakers to address the role of social science theories and methodologies in One Health approaches to improve animal, human, and environmental health systems.



Craig Stephen, DVM, PhD

Western College of Veterinary Medicine,
University of Saskatchewan, Canada

Canadian Cooperative Wildlife Health Centre

[A Determinants of Health Conceptual Model for Fish and Wildlife Health.](#)

Wittrock J, Duncan C, Stephen C.

J Wildl Dis. 2018 Oct 5. doi: 10.7589/2018-05-118. [Epub ahead of print]



Next Steps

- Sign up for OH-SS email list by sending message to:

ohss@onehealthcommission.org

Please register for the next webinars in the OH-SS Series and help spread the word!



Upcoming Webinar – December 2018

Tuesday, December 11, 2018 10:00 AM - 11:00 AM EST (UTC-5:00)
Overcoming Barriers to a Collaborative and Trans-disciplinary One Health Approach

Bernadette Dunham, D.V.M., Ph.D.
George Washington University, Washington, DC, USA

Free but you must register to receive your unique login link:



<https://attendee.gotowebinar.com/register/3535433854453326595>



Upcoming Webinar – January 2019

Tuesday, January 15, 2019 11:00 AM - 12:00 PM EST (UTC-5:00)

Addressing Gender issues in One Health and Infectious Disease preparedness

Brigitte Bagnol, PhD
University of the Witwatersrand
Johannesburg, South Africa

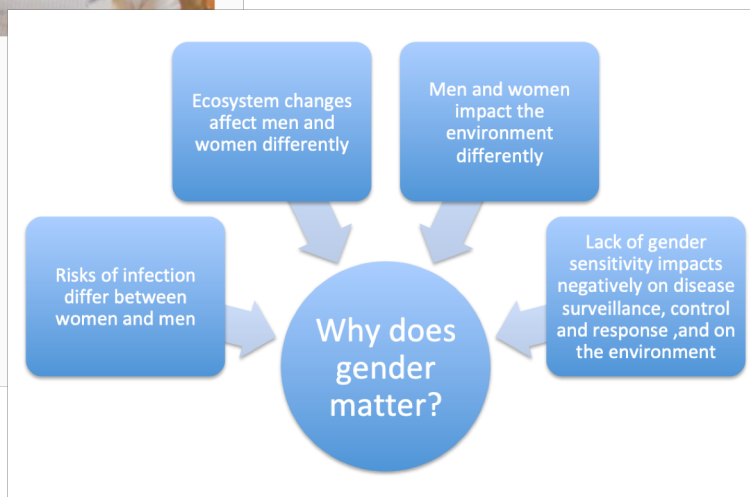


Janetrix Hellen Amuguni DVM, MA, PhD
USAID, One Health Workforce Senior
Technical Lead-Africa
Tufts Cummings School of Veterinary
Medicine
North Grafton, MA, USA



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Previous Webinars

One Health One Caribbean One Love Project

Non-Communicable Diseases (NCDs) in the Caribbean and a One Health Approach

Prof. Alafia Samuels
The George Allen Chronic Disease Research Centre
University of the West Indies, Barbados

Tuesday November 6, 2018
1:30-2:30 EDT

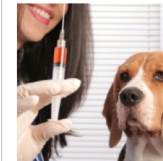
Recording available at:

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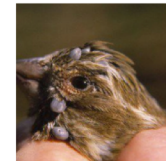


Caribbean Priority Diseases

Zoonotic Diseases



Avian Diseases



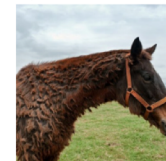
Ruminant Diseases



Swine Diseases



Equine Diseases



Multi-species Diseases



<https://www.onehealthcaribbean.org/>



Helping people make healthy decisions in a One Health world

Prof. Craig Stephen DVM PhD
Western College of Veterinary Medicine
Canadian Cooperative Wildlife Health Centre

I borrow from social sciences by necessity

- Trained as a veterinarian and epidemiologist
 - Worked in mixed practice, ecohealth, global health, public health, wildlife health
- It can't be business as usual

How to Lead Effectively in a Disruptive World



We help people make decisions in the One Health realm

- Clinical care
 - Should I vaccinate my dog for rabies?
 - Should I use this antibiotic?
 - Should I support a new vaccine or invest in a local health clinic?
- Public health
 - Should I eat this raw food?
 - Should I invest in vector surveillance for climate change preparedness?
- Public policy
 - Should I support a new policy affecting international trade in animals?
 - Is this industry safe enough to be allowed?



Big decisions to make in the One Health space

Major threats to human security



Environment

Loss of ecological services, reduced freedom of choice



Food and water

Hunger, inequitable access, malnutrition
Water loss, biodiversity loss, soil fertility



Disease

Emerging infections and chronic disease
driven by global pressures



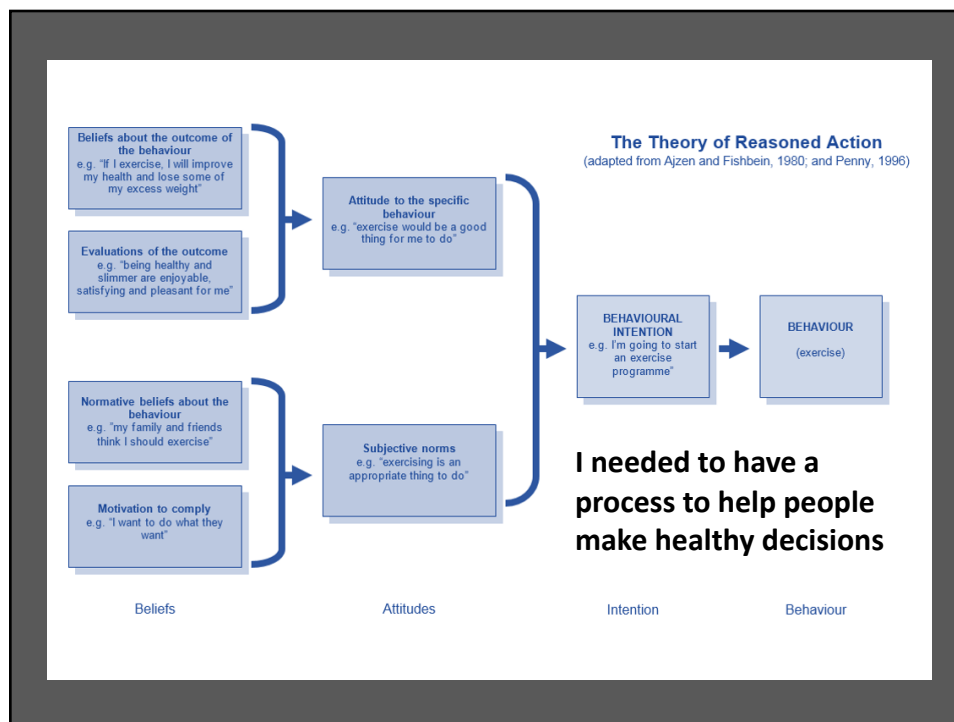
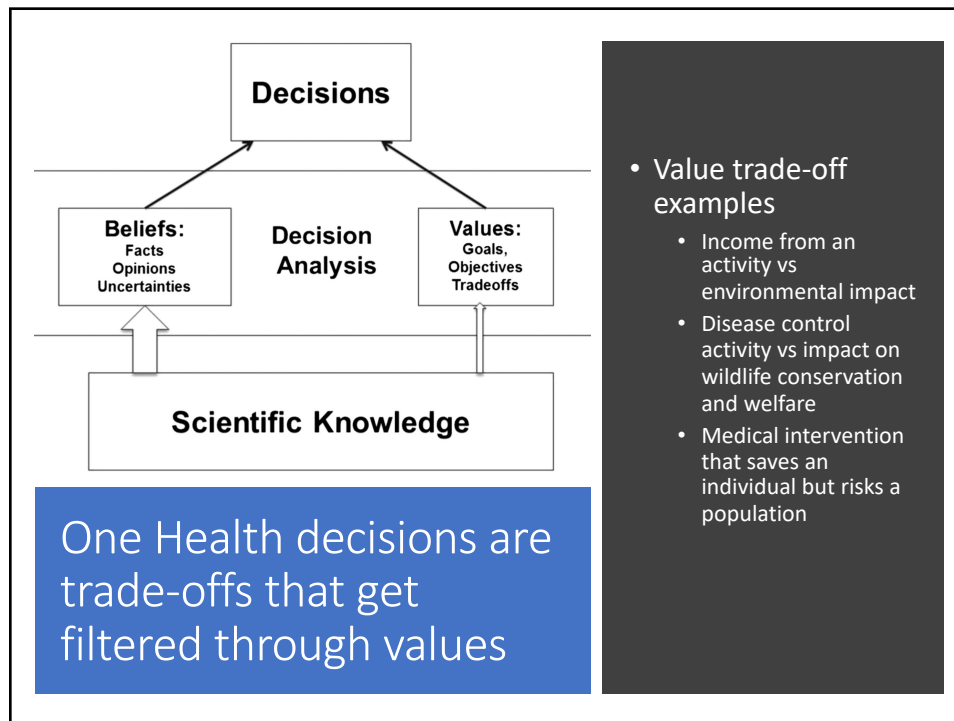
Community


Disconnect from the land - Cultural cohesion
Climate refugees (fires, water) - migration



Economic

Income opportunities (agricultural, fisheries,
tourism etc)





We are in the business of promoting health literacy

The capacity to learn about and understand health information and services and use these resources to promote health and wellness

To understand health information, we need to understand health

Veterinary text and legislation adhere to the “health as the absence of disease” model

- Veterinary medicine has been a major proponent of One Health
- Most One Health is veterinary public health and/or disease ecology
- Very little deals with health

There is no one health

*multiple types
of health,
multiple
decisions,
multiple
imperfections*

- Health as the absence of disease →
- Can a healthy population have disease?
- Health as a complete physical, emotional and mental well-being →
- Can we be completely well in all domains
- Health as resilience →
- Does resilience mean bouncing back or bouncing forward
- Health as thriving →
- Can we ever thrive to fully meet all of our expectations

You are healthy if you meet expectations

Personal expectations

- Longevity
- Feeling of well-being
- Financial status
- Functionality

Assigned expectations

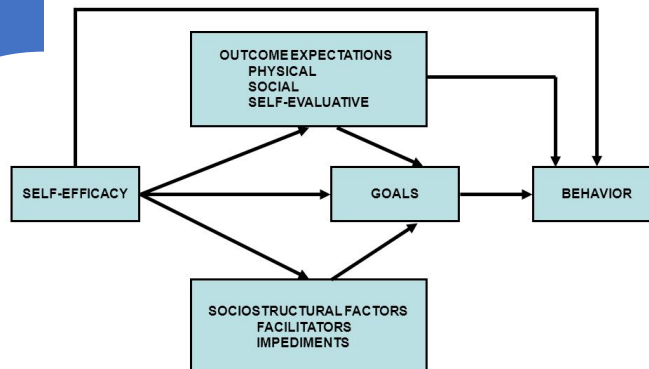
- Productivity for farmed animals
- Abundance for conservation and harvest of wildlife

Social context influencing our own expectations

Can I manage
health out of
context of
social
expectations?

Social Cognitive Theory

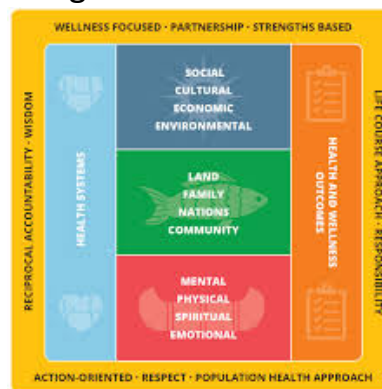
(Bandura, 1986, 2004)



Adapted from Bandura (2004)
Health Education & Behavior, 31, 143-164.

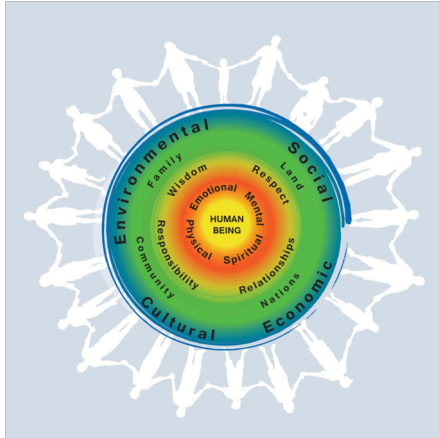
Example of social expectations

- Identify an indicator to represents an Indigenous understanding of the land-wellness connections to support First Nations well-being

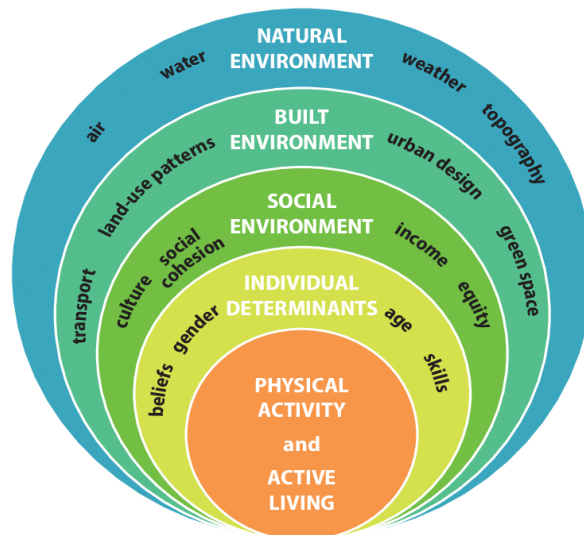


Conceptual model of health and wellness

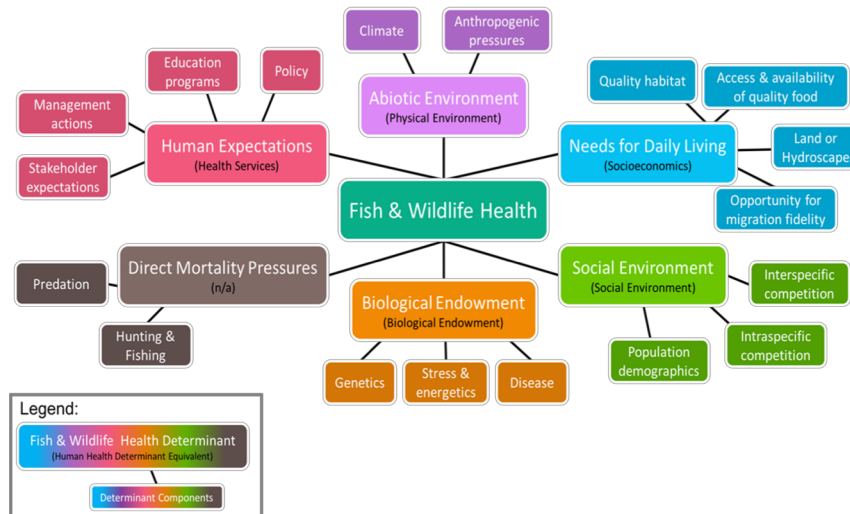
- An empowering indicator
 - Not another measure of bad
 - Points a positive path forward
- Culture is a critical determinant of health
 - Connection to the land critical to culture



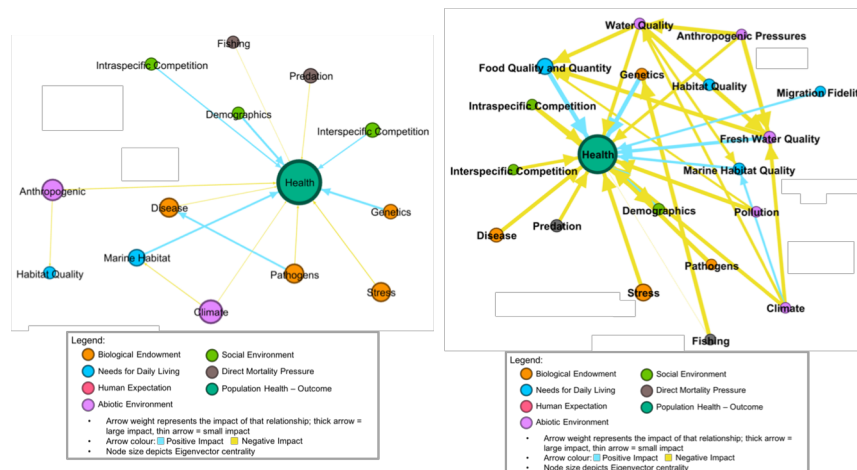
The socio-ecologic model of health



Does the socio-ecological model work for animals?



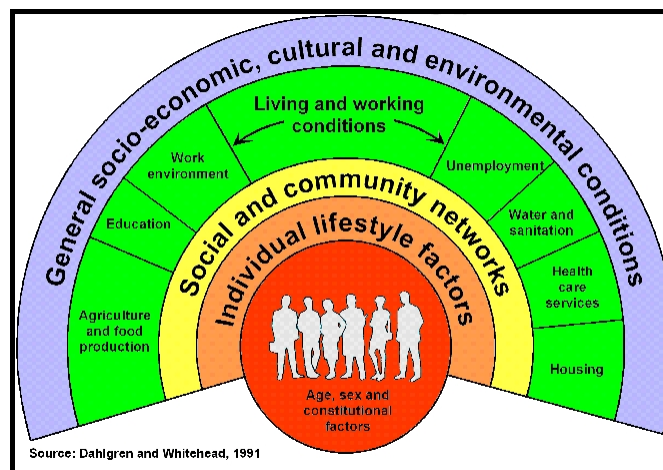
Using the socio-ecological model to find shared goals

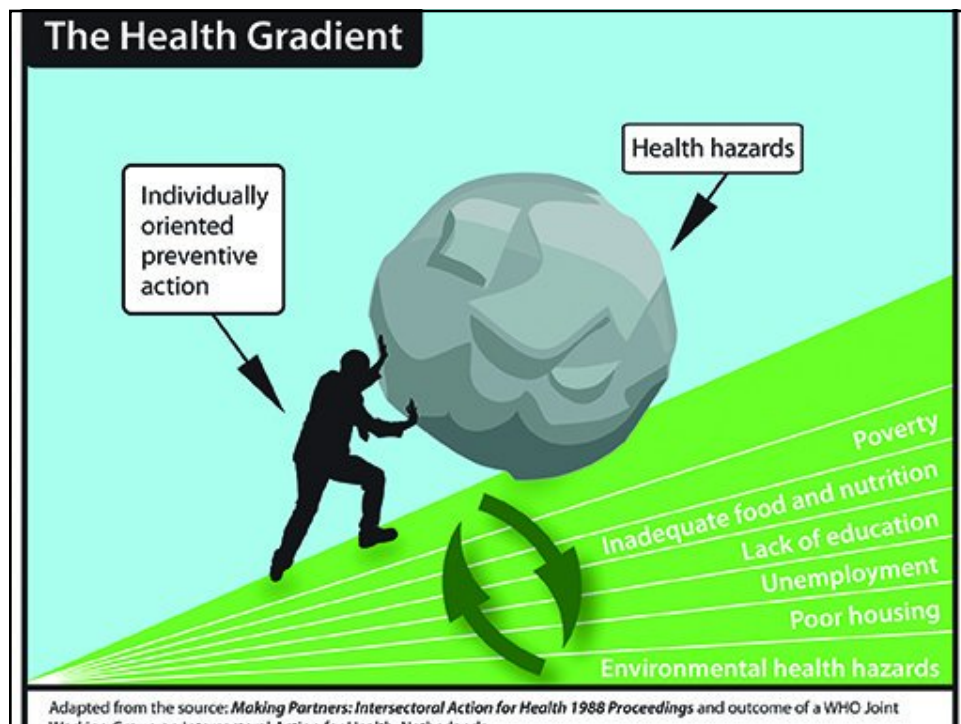


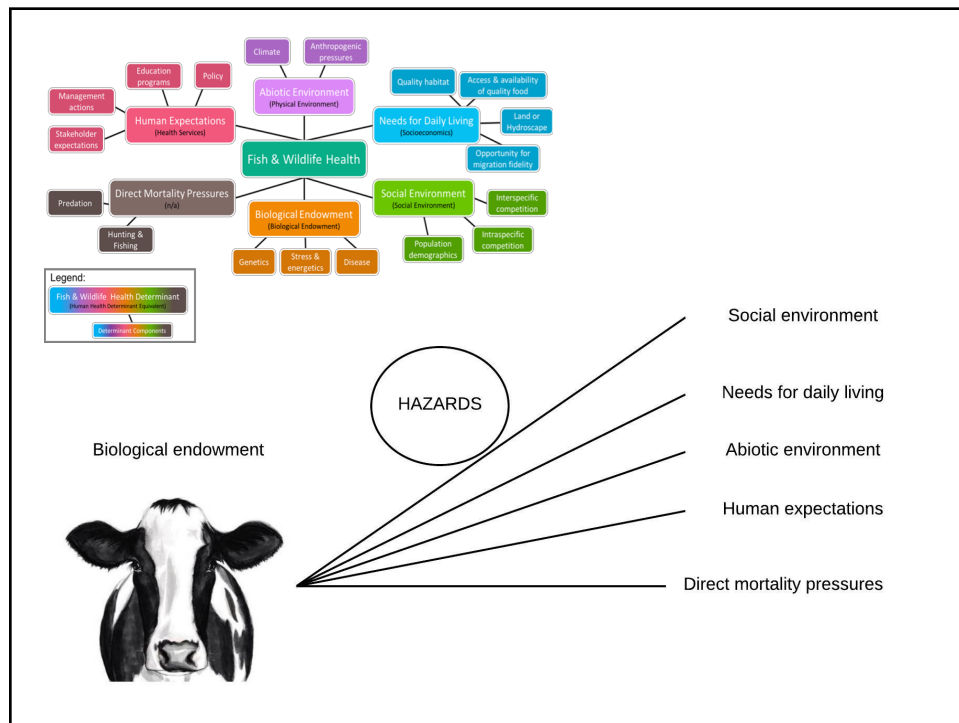
Empowering people to act

Expanding the One Health options
and resources for health
promotion

Social determinants of health: responsible for remarkable gains in health



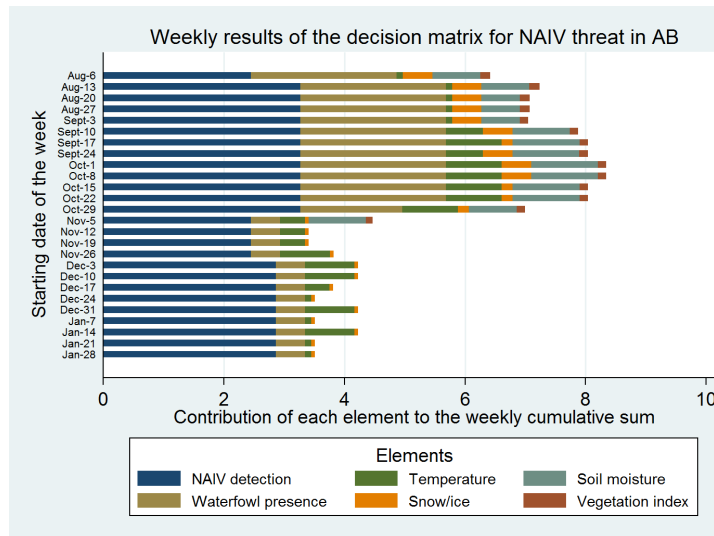




Moving upstream to root causes

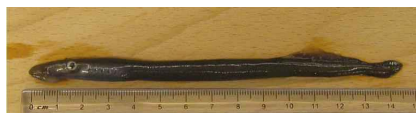
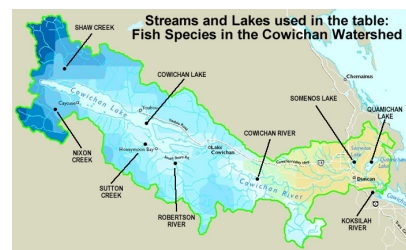
Downstream	Midstream	Upstream
The impacts we see	The capacities to stay healthy	The opportunities to use the capacities
Death/Longevity Productivity Diseases Injury		Policies Resources Attitudes and beliefs Social justice Environmental justice

What creates intention to act?

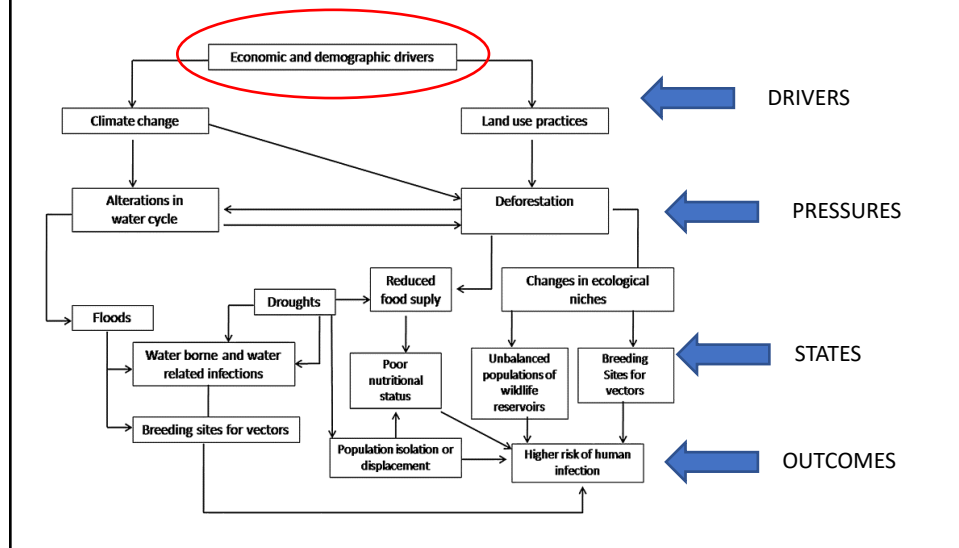


Example – moving upstream for wildlife and social needs

- Cowichan lamprey
 - Species at risk, found nowhere else
- Resource competition leads to conflict
 - Beaches vs spawning
- Climate change is the shared threat
- Redefine population welfare to link species protection with watershed management
 - Shared human and wildlife goals encourage co-management

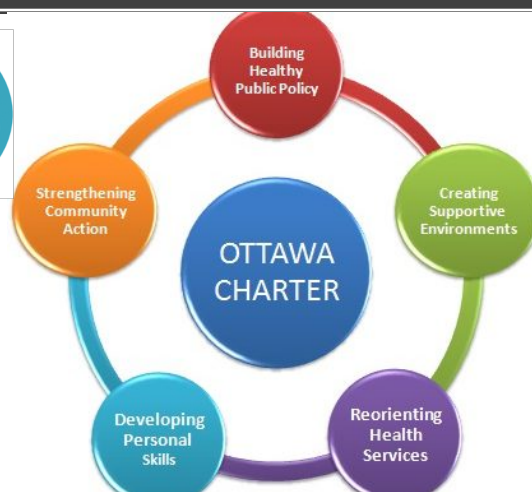


Moving One Health Upstream



Health promotion

Tools to address the socio-ecological model of health



Making sure
helping one
doesn't
harm
another

"The overall guiding principle [in health promotion policy] for the world, nations, regions and communities alike, is the **need to encourage reciprocal maintenance—to take care of each other, our communities and our natural environment.**"

—Ottawa Charter (1986)

Aims of health promotion



WHY

Increase control over and improve health by ensuring equal opportunities and resources to help people make decisions that most fully realize health potential



HOW

Know what choices are health promoting

- Aware of an issue
- Aware of options
- Attitudes that they can do something

Be able to have those choices be effective

- Policies (+ve and -ve)
- Environmental capital
- Social capital



Health promotion is action oriented

Do Something!



The challenge

- Tough problems are fraught with scientific uncertainty and social conflict
- Strategies
 - Simplify
 - Reductionists approach
 - Describe
 - Complexity sciences, cumulative effects management
 - Do something with what have known now and have now





Harm reduction

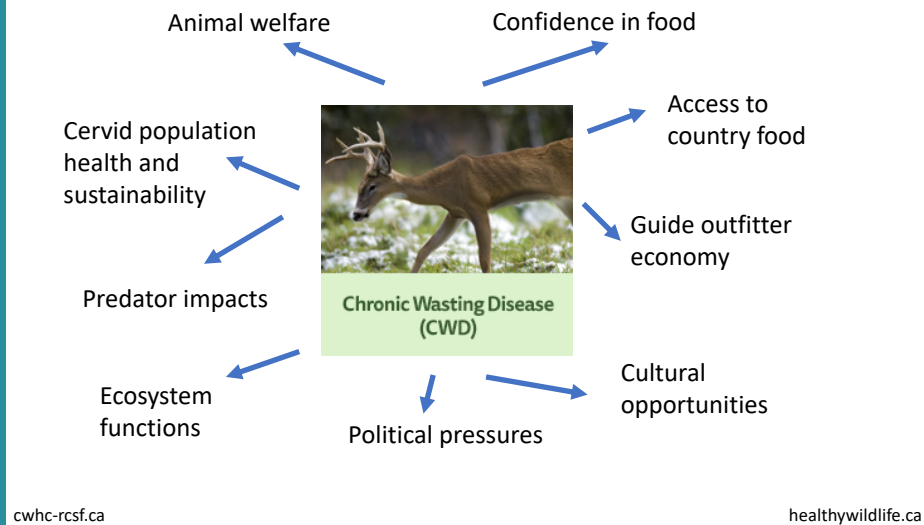
Approach to reducing harmful consequences of high risk activities in the face of uncertainty and social conflict

Harm reduction

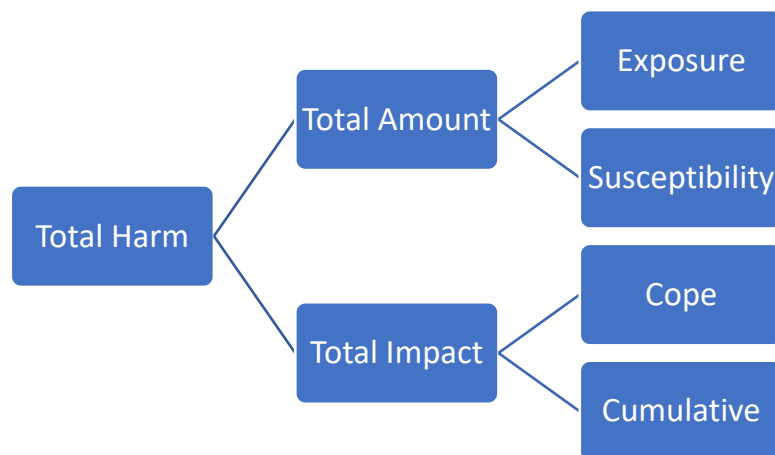
- Process and perspectives to reduce the adverse ecological, social and economic impacts of a risky behaviour or hazard without necessarily eliminating that hazard or behaviour



One hazard, multiple harms



Harm reduction opens opportunities for One Health action



Multi-attribute approach to harm

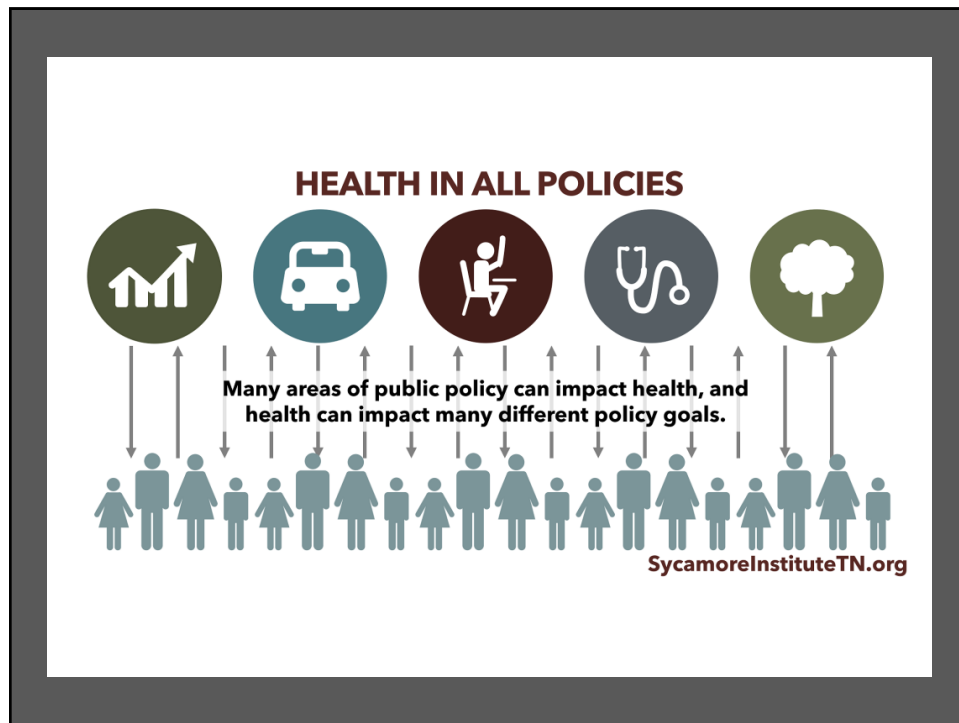
Total Amount of Harm		Total Impact of Harm	
Exposure	Sensitivity	Coping and adapting	Cumulative
<ul style="list-style-type: none"> • Route of exposure • Amount of hazard the environment 	<ul style="list-style-type: none"> • Susceptibility to the harm • Concurrent stressors • Anthropogenic modifiers 	<ul style="list-style-type: none"> • Ecological and biological barriers • Management barriers • Social barriers • Drivers of resilience 	<ul style="list-style-type: none"> • Shared drivers of concurrent harms • Zero-sum management options


Applying to Pacific Salmon

Total Amount of Harm (19%)		Total Impact of Harm (60%)	
Exposure (14%)	Sensitivity (5%)	Coping and adapting (46%)	Cumulative (14%)
<ul style="list-style-type: none"> • Route of exposure (7%) • Amount of hazard the environment (7%) 	<ul style="list-style-type: none"> • Susceptibility to the harm • Concurrent stressors (2%) • Anthropogenic modifiers (3%) 	<ul style="list-style-type: none"> • Ecological and biological barriers • Management barriers (26%) • Social barriers (9%) • Drivers of resilience (11%) 	<ul style="list-style-type: none"> • Shared drivers of concurrent harms (11%) • Zero-sum management options (3%)



14% Defining and measuring the desired state or harms

7% - Reporting and Transparency





Office of the Prime Minister
Department of Health
Canada

Example – Adapting the healthy public policy approach


- What is a healthy salmon?
 - Reframe the federal government approach to see health as a cumulative effects
- Healthy salmon policy
 - Explicit concern for health in all areas of policy and by an accountability for health impact

Tools

- **Health as a socio-ecological construct**
 - An aspiration with many influences and expectations
- **Policy analysis**
 - Motivating social change
- **Quantitative methods**
 - Gather tacit knowledge, expert opinion and local knowledge to find something that will work for them
- **Nature as a determinant of health and not cause of disease**
 - Reframing nature as a partner and not a threat to find common values

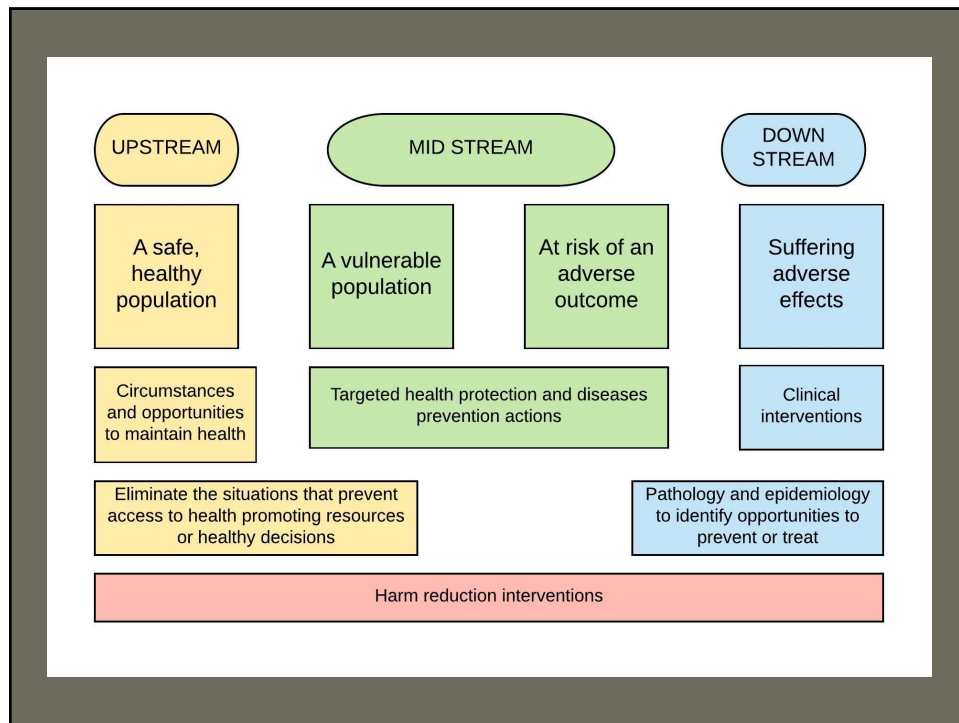
Outcome

- **Impacts**
 - Opened people to new action options
 - Harm reduction
 - Healthy public policy
 - Injected some hope that positive change is possible
 - Animals determinants of health provide options for preventive action
 - Harm reduction
 - We can do something in the presence of uncertainty and conflict



What do
we need to
go
forward?

- People skilled in collaborative processes able to see multiple “healths” and still motivate collaborative action
 - Move from shared diseases to shared values
 - *Rare in the One Health realm*
- People willing to accept that decisions can lack science but still be evidence based and helpful
 - Move from science based risk assessment to evidence(s) based decision support
 - *Scary to some in the One Health realm*



Reframe health equity



Equal

All species, across multiple generations can reach their full health potential and should not be disadvantaged from attaining it because of inequitable socio-ecological change



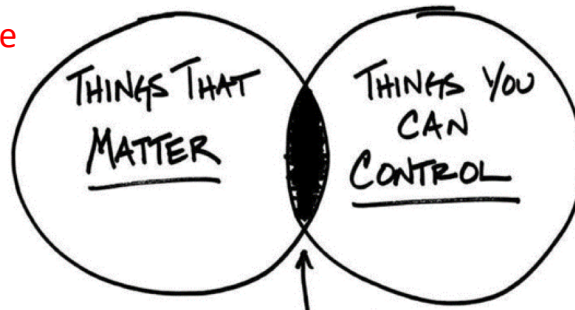
Equitable

All species have equitable access to the resources needed for health and sustainability that balances the needs of today with the needs of tomorrow by investing in and maintaining shared social and ecological services

WHY DO THIS?

Make One Health a player in the big issues shared by people, animals and environments

See One Health as one shared health



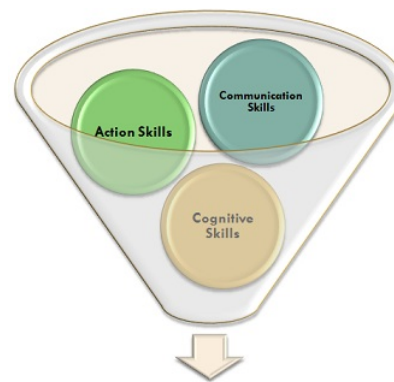
Look at the up and mid stream causes of health that we can control

WHAT YOU SHOULD FOCUS ON

Focus on the causes of health rather than diseases

BEHAVIOR GAP

It can't be business as usual



Skills of a Change Agent

