EXPLORING DRIVERS AND CONSTRAINTS TO EVIDENCE-BASED CHANGE IN ANIMAL HEALTH SURVEILLANCE SYSTEMS

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DRIVERS FOR RESEARCH AND INNOVATION IN ANIMAL HEALTH SURVEILLANCE
THE TOPIC OF THIS KEYNOTE

Surveillance research

Practice

DRIVERS

CONSTRAINTS

Researchable issues?
SURVEILLANCE IS…

• …the systematic ongoing collection, collation, and analysis of data related to animal health…

Collection  Transportation

Laboratory analyses  Analysis and interpretation

Secondary data sources

Decision making
• Correct
• Timely
Strategic planning

Periodic evaluation

Follow-up

Design with _ex ante_ evaluation

Surveillance activity

Policy cycle

Implementation cycle

Needs? Purpose?

Objective? How?
WHAT IS SURVEILLANCE RESEARCH?

Scientific input that aims to **improve the system** by which health information is **gathered, interpreted and communicated**, with the purpose to mitigate risks to health and economy, **and ultimately, its output**.
RECIPIENTS, BENEFICIARIES, ADOPTERS...
THE CASE FOR EVIDENCE-BASED POLICIES

- Use what is already known
- Build more knowledge where needed

- Governing principles
  - Build and compile rigorous evidence about what works, including costs and benefits
  - Monitor program delivery and use impact evaluation to measure program effectiveness
  - Use rigorous evidence to improve programs, scale what works, and redirect funds away from consistently ineffective programs
  - Encourage innovation and test new approaches
SCIENTIFIC ADVISORY STRUCTURES


International Network for Government Science Advice
TRENDS FAVOURING ADOPTION OF INNOVATIONS IN PUBLIC SERVICES
CAUTION
ROUGH ROAD
Needs

Competence

Gap definition

Knowledge production

Research output

Format

Communication

Competence

Accessibility
WHAT IS BEING COVERED BY SURVEILLANCE RESEARCH?
ADOPTION = CHANGE

Individuals (farmers, hunters, citizens)

Professionals, organisations

Societies

- Political sciences
- Implementation research, theory of change
- Behavioural economics, nudging, participatory approaches
NUDGING

• Nudge: to push slightly or gently, to get someone’s attention..

• Nudge theory (Thaler and Sunstein, 2008).

• Conciously shape the decision environment to make it easier for people to do “the right thing”
EXPLORE

SYSTEMS & CAPACITY: make it easier to act
Remove barriers/ ensure ability to act; Build understanding; Provide facilities/viable alternatives; Educate/train/provide skills; Provide capacity

PROVIDE INCENTIVES & DISINCENTIVES: give the right signals
INCENTIVES to encourage, and DISINCENTIVES to ensure your target audience responds; Provide feedback

EASY

ATTRACTION

SPATIAL

SOCIAL

TIMELY

DEMONSTRATE SHARED RESPONSIBILITY
Lead by example; Consistency in policies; Demonstrate others are acting

Get people involved
Work with trusted intermediaries; Use networks; Coproduce; Use insight to mobilise population groups (segment)
CHANGE MANAGEMENT

• Type of behavioural change: one time, point limited, habit/long term

• Prochaska and DiClemente change theory model
  – Precontemplation
  – Contemplation
  – Preparation
  – Action
  – Maintenance
IMPLEMENTATION RESEARCH

- Scientific inquiry into questions concerning implementation

Community ⊂ State

Organisation

Practitioner

[Book Cover: IMPLEMENTATION RESEARCH IN HEALTH: A PRACTICAL GUIDE by David M. Peters, Adam F. Rech]
Political sciences?
MULTIPLE STREAMS FRAMEWORK

Problem stream: Identification & definition

Policy stream: Formation and refinement of ideas

Politics stream: Context, changes within government, pressure group campaigns public mood.

Policy Window

Agenda

J. W. Kingdon, 1984
MULTIPLE STREAMS FRAMEWORK

Problem broker

Policies
(New technologies able to solve old problems, practical policies proven to work on the ground)

Politics
(e.g. change in government, creation/break up of supra-national government)

Policy Window
(Issue on agenda, knowledge becomes important)

Rose et al 2015, Environmental Science and Policy
Animal Health Surveillance in Scotland in 2030: Using Scenario Planning to Develop Strategies in the Context of “Brexit”

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FIGURE 2 | Scenario themes as defined from critical uncertainties (high impact, high uncertainty drivers).
What roles do different elements of a scientific advisory system play?

<table>
<thead>
<tr>
<th>Role</th>
<th>Knowledge generators</th>
<th>Knowledge synthesizers</th>
<th>Knowledge brokers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual academics</td>
<td>+++</td>
<td>++</td>
<td></td>
</tr>
<tr>
<td>Academic societies/professional bodies</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Government employed practicing scientists</td>
<td>+++</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Scientist within regulatory agency</td>
<td>++</td>
<td>++</td>
<td></td>
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<tr>
<td>Independent think tanks</td>
<td>++</td>
<td></td>
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<tr>
<td>What works units etc</td>
<td>+++</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>National academies</td>
<td>+++</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Government advisory boards/science councils</td>
<td>++</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Science advisors to executive of government</td>
<td>+</td>
<td>+++</td>
<td></td>
</tr>
<tr>
<td>Science advice to legislators</td>
<td>+</td>
<td>++</td>
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</tbody>
</table>

**Honest broker vs Stealth issue advocacy?**

INGSA Manifesto for 2030: Scientific Advice for the Global Goals.
INNOVATION IN RESEARCH ADOPTION

• Understand how to ask the right questions and involve the right people

• Plan for adoption, and understand it is about change

• Understand how to place our knowledge strategically where it is most likely to be used
Thank you for your attention!

“I think you should be more explicit here in step two.”