Organisational Responses: Influencing Behaviour and Communicating Risk

Dr Julie Barnett

Brunel University

RELU Risk Workshop

York, November 3-4th 2010

Assessing and communicating animal disease risks for countryside users (Sept 07-Nov 10)

Chris Quine (PI)
Liz O'Brien, Mariella Marzano, Darren Moseley
FOREST RESEARCH

Sarah Randolph, Andrew Dobson, Jenny Taylor
UNIVERSITY OF OXFORD

David Uzzell, Afrodita Marcu
UNIVERSITY OF SURREY

Julie Barnett,
BRUNEL UNIVERSITY

RURAL ECONOMY AND LAND USE

RESEARCH COUNCILS UK

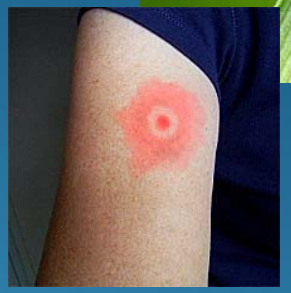
Forest Research

Brunel UNIVERSITY WEST LONDON

UNIVERSITY OF SURREY

UNIVERSITY OF OXFORD

Assessing and communicating animal disease risks for countryside users (Sept 07-Nov 10)



Tick borne Lyme disease (Lyme borreliosis) used as an exemplar

Caused by bacteria

Transmitted between reservoir hosts (range of birds and mammals) and humans by an arthropod vector (ticks)

Inter-disciplinarity: Biology, ecology, psychology, sociology, anthropology

Universities and applied research institute

Study sites: Exmoor, New Forest & Richmond Park

Key questions

How does risk vary across habitats and between seasons? Can knowledge of this be used to target communication or other mitigation measures?

How do land-based organisations communicate risk & precaution? What do they consider is their responsibility for doing so?

How do countryside users respond to information related to risk & precaution? What is the perspective of disease sufferers?

The Health Conundrum

Novel hazard + unfamiliar public may result in the communication of risk and of related precautionary actions.

Concerns about the possible outcome of this

- adoption of appropriate precaution and continued engagement with countryside
- unwarranted concern, disruption of countryside practices, withdrawal from rural pursuits

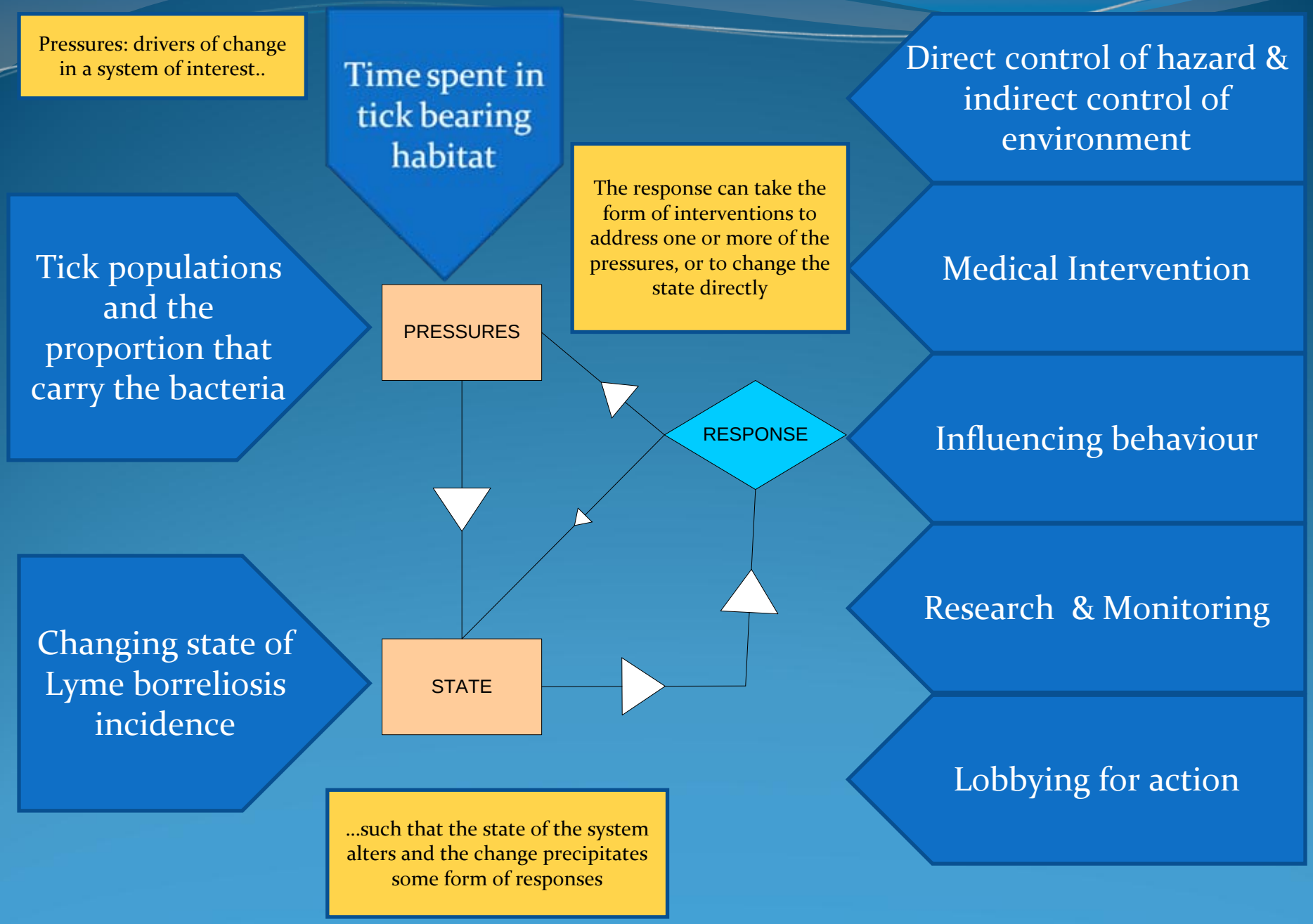
How then to encourage participation and precaution without triggering alarm and avoidance?

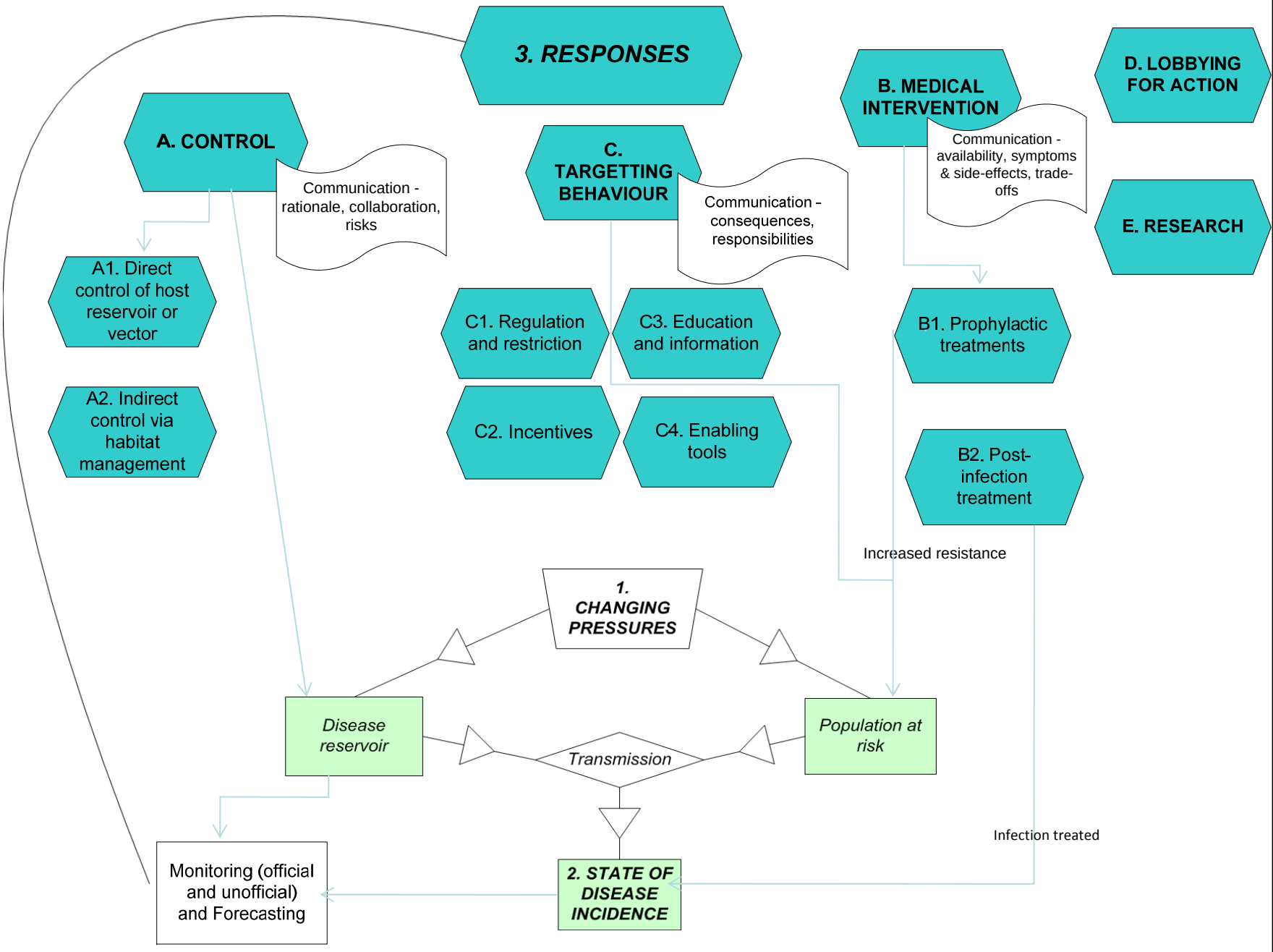
The need for an integrated framework

Variety of possible ways in which zoonotic diseases can be framed – focus on role of the environment, hosts, vectors or humans

Rise in Lyme borreliosis not simply about changing tick numbers – also about human changing patterns of human activity e.g. in E Europe after fall of communism (Randolph, 2008) or as consequence of weather (Randolph *et al*., 2008)

Zoonotic diseases pose particular challenges in relation to shared responsibilities and costs for managing disease, ensuring resilience and dealing with crises


Pressures: drivers of change in a system of interest..
Time spent in tick bearing habitat
Direct control of hazard & indirect control of environment
The response can take the form of interventions to address one or more of the pressures, or to change the state directly
Tick populations and the proportion that carry the bacteria
PRESSURES
Medical Intervention
RESPONSE
Influencing behaviour
Changing state of Lyme borreliosis incidence
STATE
Research & Monitoring
Lobbying for action
...such that the state of the system alters and the change precipitates some form of responses


3. RESPONSES
A. CONTROL
Communication - rationale, collaboration, risks
A1. Direct control of host reservoir or vector
A2. Indirect control via habitat management
C. TARGETTING BEHAVIOUR
Communication - consequences, responsibilities
C1. Regulation and restriction
C3. Education and information
C2. Incentives
C4. Enabling tools
B. MEDICAL INTERVENTION
Communication - availability, symptoms & side-effects, trade-offs
B1. Prophylactic treatments
B2. Post-infection treatment
D. LOBBYING FOR ACTION
E. RESEARCH
Increased resistance
1. CHANGING PRESSURES
Disease reservoir
Transmission
Population at risk
Infection treated
Monitoring (official and unofficial) and Forecasting
2. STATE OF DISEASE INCIDENCE

Changing behaviour and communicating risk not just about publics

- Public responses not the only important aspect of 'human behaviour'
  - Medical professionals
  - Farmers/land owners
  - Policy officials
- What are the assumptions non-publics are adopting
  - about public desire and capability for action; routes for influencing behaviour, nature of public (ir)rationality, which organisations are responsible for acting and communicating

Elaborating an intervention framework for influencing behaviour

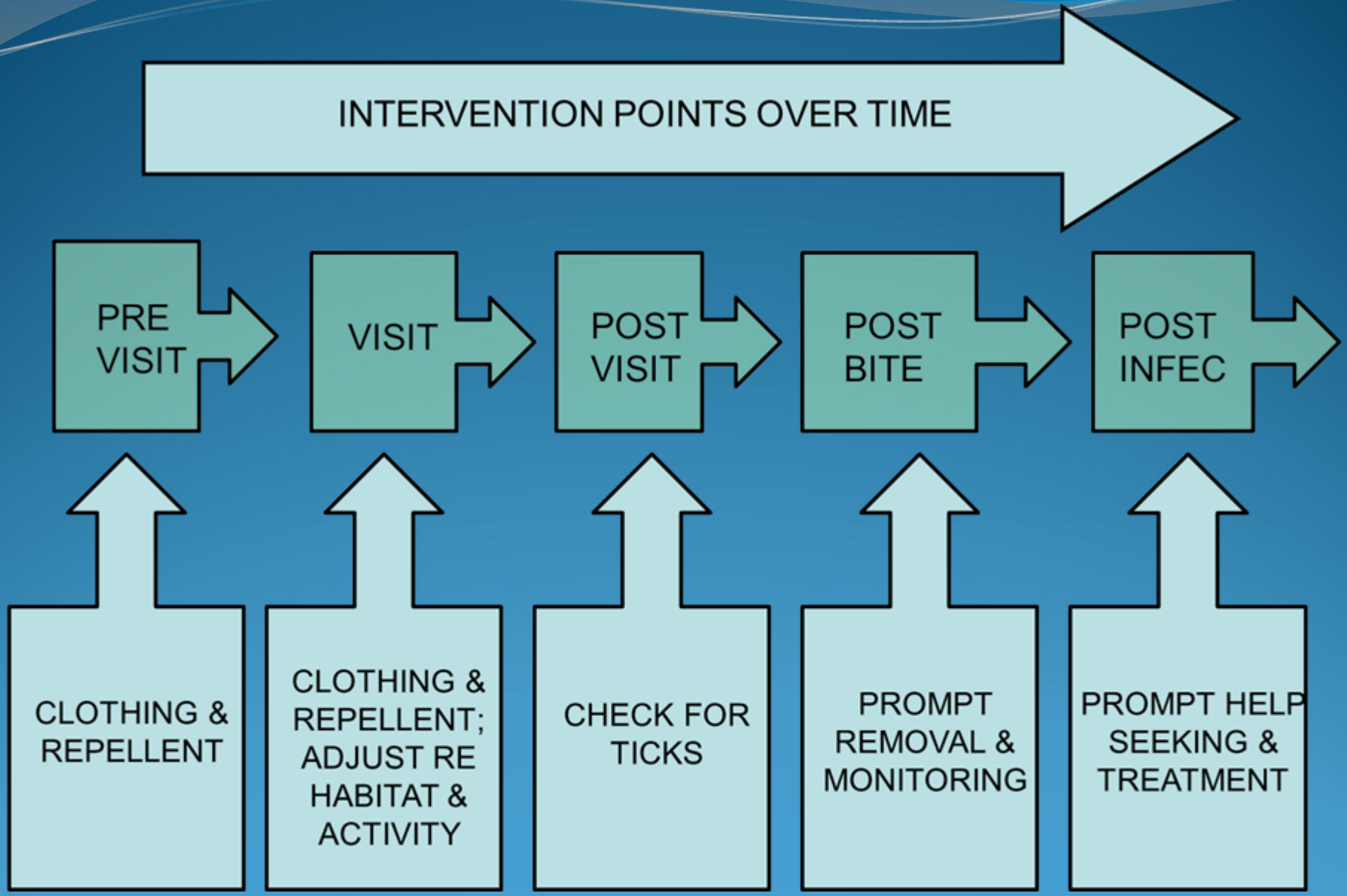
- WHO: to what extent should actions reflect audiences and activities?
- WHERE: to what extent should actions should be place specific?
- WHEN: to what extent should actions be time/season specific?
- HOW: how should the influencing actions be configured – enabling, exemplifying, encouraging and engaging?

WHO?

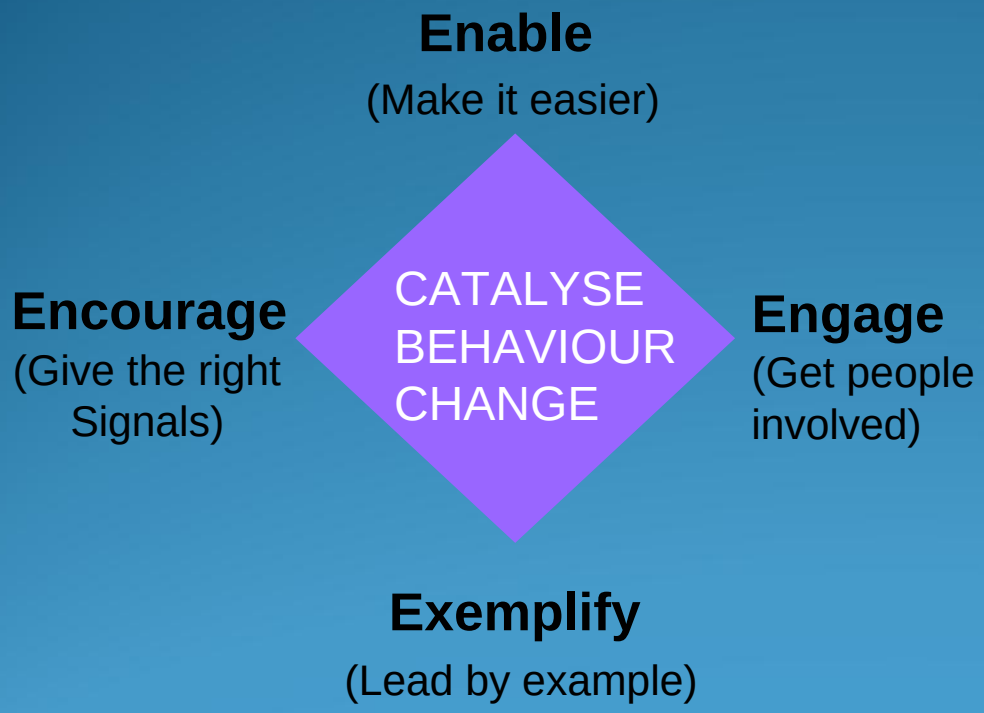
- One size does not fit all
  - relevant parameters of difference?
- Active sense making
  - First & second-hand experience + word of mouth
  - Role of traditional & social media
- What & who are ‘trust temperatures’ taken from?

WHEN? (previously 'whether')

- Concerns about the social amplification of risk
  - Intensification & attenuation
  - Role of the media
  - 'Personality profiles 'of risks
- Changing images of the hazard over time
  - E.g. H5N1 against the back drop of H1N1
- Identification of relevant intervention points


INTERVENTION POINTS OVER TIME
PRE VISIT
VISIT
POST VISIT
POST BITE
POST INFEC
CLOTHING & REPELLENT
CLOTHING & REPELLENT; ADJUST RE HABITAT & ACTIVITY
CHECK FOR TICKS
PROMPT REMOVAL & MONITORING
PROMPT HELP SEEKING & TREATMENT

HOW?



- Contrasts with primary focus on provision of information to communicate risk
- Suite of approaches built around
  - Meaningful and appropriate engagement
  - Recognition of social practices – be culturally compelling
  - Changing contexts facilitating changed actions

Defra, (2008)

INTERVENTION POINTS OVER TIME

AUDIENCES & PLACES

	PRE VISIT	VISIT	POST VISIT	POST BITE	POST INFECT
ENCOURAGE	INFO ON WEB	NOTICES IN THE CAR PARK		INFO AT HEALTH SITES	ENSURE GP AWARE
EXEMPLIFY		STAFF CLOTHING			
ENGAGE			KEY STAKEHOLDERS; INVOLVE PUBLICS IN COMMUNICATION DESIGN AND EVALUATION;		
ENABLE		ADDITION OF NEW PATH	GIVE TICK REMOVAL DEVICE		

The Health Conundrum

Novel hazard + unfamiliar public may result in the communication of risk and of related precautionary actions.

Concerns about the possible outcome of this

- adoption of appropriate precaution and continued engagement with countryside
- unwarranted concern, disruption of countryside practices, withdrawal from rural pursuits

How then to encourage participation and precaution without triggering alarm and avoidance?

Returning to the health conundrum

The *framework of organisational responses* suggests
1.that this is only one of a range of dilemmas
2.it could be an unhelpful focus if it was used to suggest that the main/only focus for action is 'the public'

The *framework of interventions for influencing behaviour* suggests that
1.the triggers for influence are not simply based around information provision
2.organisational actions need to take into account timing, place and people