

Department for Environment, Food and Rural Affairs

Consultation on a new independent body for animal health: *A modern governance and funding structure for tackling animal diseases*

Annex 10: Disease Categorisation

Background

1. Disease categorisation has been suggested as a way of formalising the contribution to the direct (government) costs of exotic disease outbreaks. It was proposed in the JIGWIG¹ report (referring to the Australian system in particular), and the England consultation document² issued in December 2007 invited views on such an approach. The EC Animal Health strategy has also indicated that disease categorisation will be an element in its development of proposals for a harmonised EC framework of criteria for responsibility and cost sharing (but no firm proposals have yet been made).
2. Over the Spring/Summer 2008 work on how disease categorisation might be applied to determine the sharing of costs between industry and government was undertaken within Defra. The topic was the subject of detailed policy papers discussed at the UK Consultative Forum³. This annex summarises that work.

What is a disease categorisation system?

3. The aim of a disease categorisation system is to set out the basis on which industry (collectively) and government would contribute to costs of disease control according to the disease concerned. Such a system presupposes:
 - a. There is a rationale and need for government intervention or collective industry action in respect of the diseases covered
 - b. Any government costs cannot more effectively be recovered through individual charging mechanisms
 - c. There is some levy or other way of collecting funds for the industry contribution determined by the categorisation
4. For a categorisation system to be applied there needs to be
 - a. Clarity on what costs are covered
 - b. Decision on diseases to be covered (in particular whether both exotic and endemic)
 - c. Principles for cost sharing which relate to the nature of the disease, its effects and the benefits derived from its control; and the application of those principles to the relevant diseases

¹ Joint (Industry/Government) Working Group Report on Sharing Responsibilities and Costs of Exotic Animal Disease, July 2006

² <http://www.defra.gov.uk/corporate/consult/ahw-nextsteps/index.htm>

³ <http://www.defra.gov.uk/animalh/ahws/sharing/forum/index.htm>

- d. System for sharing costs for particular disease among the (potentially) affected sectors

Principles for deciding shares

5. A number of factors can form the rationale for government intervention in animal disease. But these do not all mean that the cost of government intervention should be borne by the taxpayer.
6. The main principle for government funding is that it should be purchasing a public good. The key elements of these can be identified as
 - a. Protection of public health eg where a zoonotic disease is involved,
 - b. Protection of the wider environment and animal welfare; and
 - c. Any impact on total economic output and international trade beyond the benefits that accrue to the livestock sector itself
7. It is one of the aims of the responsibility and cost sharing programme, and general Defra policy, that costs should fall on those responsible for the risks. So, for example, where a risk to public health can be reduced by the way the livestock industry operates, then the costs of that operation, and dealing with the consequences of failure should be borne by those responsible. In some cases this may be achieved through individual charges. In other cases the cost effective approach will be a more general levy or revenue raising mechanism.
8. Government action will also deliver collective benefits for the livestock industry. In some cases this may be the only reason for action and the only benefits. The extent of these benefits will be a main determinant in considering industry's contribution to the costs along with where responsibility for risk management lies. The public and private benefits and risk responsibility need to be assessed for individual diseases.
9. Some have suggested that the "polluter pays" principle could help in determining who should contribute. While recovering costs from those who have "caused" the problem may appear to be an attractive option experience suggests it may be impractical to determine the precise source of highly transmissible diseases and unrealistic to recover the total cost from such a source (even if identified) . In specific cases, where there have been breaches of the law, then criminal and civil proceedings may be appropriate. But these are likely to be few and will not provide a complete solution.

Assessment of Diseases

10. A possible methodology for assessing diseases was developed (set out at Appendix A). This was then tested in practice by applying it initially to a number of diseases including Avian Influenza, Bluetongue, Foot and Mouth, Bovine TB.
11. Our test assessments drew on evidence held in the UK Animal Health and Welfare Prioritisation Decision Support Tool. This tool, developed with stakeholders, contains a range of evidence for the most common animal diseases, such as risk and epidemiology, and public health effects, and assesses

each against the strands of the Animal Health and Welfare strategy. It provides a ranking of each disease for each of the main strands of the strategy, and specific elements of it were used to help categorise diseases. More information can be seen on the Dept's website.⁴

12. The results of these assessments were used to review the possible disease categorisation set out in the Consultation Document and develop a revised classification system and place the assessed diseases within it. The initial output of this is at Appendix B.
13. A number of issues arose from considering the categorisation
 - a. Considering how the costs are shared needs to take account of how the "industry" share is raised. To the extent that species/sectors or livestock keepers who contribute to the disease risk are not covered by the industry revenue raising mechanism (eg companion animals) then this would argue for a higher government share.
 - b. Can the scale of outbreak of a disease cause it to switch categories or should scale of outbreak be dealt with through thresholds and retrospective/prospective payment methods.
 - c. How sophisticated a breakdown between sectors or by sub-groups within sectors (eg lowland sheep farmers vs uplands) should be considered. Or should this be handled, if at all, in how the rate of any revenue raising mechanism reflects risk factors for such groups.
 - d. The process raised the issue of which diseases should be covered. The full list of notifiable diseases is at Appendix C.

Related policy proposals

14. Categorisation as outlined above was a preliminary exercise which would have required further development to make the category definitions more precise, and to agree the evidence base for decisions on categorisation. However, before further work was undertaken, it was necessary to take account of developments in thinking on other aspects of responsibility and cost sharing policy.
15. Discussions at the Forum level, with industry sector groups and others also made clear that it was very important that there should be ring-fencing of funds by sector; and that the system should not be too complicated to operate. For these reasons, the Government has decided to consult on a set contribution percentage by livestock keepers across all relevant diseases. The Government has taken the view that the work to date has shown that there is a strong case for a substantial contribution from the livestock sector for most of the diseases considered in terms of where the benefits accrue and risks are managed. An initial rate of 50% is therefore being proposed in relation to the costs of exotic disease outbreaks. Having one rate also has the advantage of providing the livestock industry with clarity from the outset about what contribution is likely to be expected of them.

⁴ <http://defraweb/animalh/diseases/vetsurveillance/programme/prioritisation.htm>

Appendix A: Methodology for assessing diseases

For each disease the following issues/questions are considered with a view to deciding in which of the categories the disease should be placed.

Suggested Issues and Questions

Control and Spread of Disease

1. Can individual livestock keepers protect themselves from disease with no action required by others?

A Public health

2. Does disease have public health implications? What are they
3. Are they controllable by actions of individual producers?
4. If not what is the risk to public health? Likelihood and severity?
5. What is the (monetary) quantification from the risk reduction from controlling/eradicating this disease?

B Protection of wider environment, society and welfare

6. Are there any implications of this kind?
7. What are the benefits to public/wider society from controlling/eradicating this disease
8. Can they be quantified? How significant are they?

C Economic and International trade impact (beyond the livestock sector affected)

9. Are there any impacts from disease outbreak/spread of this kind – excluding the livestock sectors?
10. If so what is their quantification?

D Impact on Livestock sectors affected

11. Which livestock sectors are affected?
12. What is the economic impact on those sectors of uncontrolled disease outbreaks?

E. Species/Sectors

13. Which species does disease affect?
14. Do potential disease impacts described above vary significantly between species?
15. If so is what are the quantified impacts by species?

F. Risk Responsibility and Management

16. Who are the key parties to take action to reduce disease incursion and disease spread?
17. Are they all covered by the proposed cost-sharing/revenue-raising mechanisms? If not who are they? (eg companion animal keepers)

Categorisation of disease

18. What is the total benefit to the public as whole from controlling/eradicating disease (assessed in A, B, and C above)?
19. What is the total benefit to the livestock sector from controlling/eradicating disease (from D above)?
20. Comparing these benefits (in 20 and 21 above) in what category should the disease be placed?
21. On the basis of E above should this be differentiated according to species/sector?
22. Does F affect the conclusion in any way?

Appendix B: Disease categorisation table

Category	Scale of public and private benefits and responsibility for risk management	Possible % Shares		Proposed diseases
		Public (A)	Private/ Industry (B)	
One	<p>Notifiable diseases that:</p> <ul style="list-style-type: none"> cannot be controlled by individual livestock keepers; AND with significant public health risks (known or emerging); OR whose control delivers other very important public goods <p>but which have only limited economic impact on the livestock industry</p>	≥[75]%	≤ [25]%	
Two	<p>Notifiable diseases that:</p> <ul style="list-style-type: none"> cannot be controlled by individual livestock keepers; AND with significant public health risks (known or emerging); OR whose control delivers other very important public goods <p>and which have significant economic impact on the livestock industry</p>	[50]%	[50]%	Avian Influenza
Three	<p>Notifiable diseases that:</p> <ul style="list-style-type: none"> cannot be controlled by individual livestock keepers; AND with some public health risks (known or emerging) whose control delivers other public goods <p>or the public sector is responsible for important elements of the risk management</p> <p>and which have significant economic impact on the livestock industry</p>	≤ [25]%	≥[75]%	Foot and Mouth; Classical Swine Fever; BSE; Bovine TB
Four	<ul style="list-style-type: none"> Notifiable diseases controllable by the individual livestock keeper with few wider impacts from disease All non-notifiable diseases 	0%	100%	Bluetongue (with vaccine); Toxoplasma

Appendix C: Notifiable diseases

Notifiable Disease	Species Affected	Occurred in Great Britain last
African Horse Sickness	Horses	Never
African Swine Fever	Pigs	Never
Anthrax	Cattle and other mammals	Present
Aujeszky's Disease	Pigs and other mammals	1989
Avian Influenza (Bird flu)	Poultry	Present
Bovine Spongiform Encephalopathy (to BSE home page)	Cattle	Present
Bluetongue	All ruminants and camelids	Present
Brucellosis (<i>Brucella abortus</i>)	Cattle	2004
Brucellosis (<i>Brucella melitensis</i>)	Sheep and Goats	1956
Classical Swine Fever	Pigs	2000
Contagious agalactia	Sheep and Goats	Never
Contagious Bovine Pleuro-pneumonia	Cattle	1898
Contagious Epididymitis (<i>Brucella ovis</i>)	Sheep and Goats	Never
Contagious Equine Metritis	Horses	2008
Dourine	Horses	Never
Enzootic Bovine Leukosis	Cattle	1996
Epizootic Haemorrhagic Virus Disease	Deer	Never
Epizootic Lymphangitis	Horses	1906
Equine Viral Arteritis	Horses	2004
Equine Viral Encephalomyelitis	Horses	Never
Equine Infectious Anaemia	Horses	1976
Foot and Mouth Disease	Cattle, sheep, pigs and other cloven hoofed	2007

	animals	
Glanders and Farcy	Horses	1928
Goat Pox	Goats	Never
Lumpy Skin Disease	Cattle	Never
Newcastle Disease	Poultry	2006
Paramyxovirus of pigeons	Pigeons	Present
Pest des Petits Ruminants	Sheep and Goats	Never
Rabies	Dogs and other mammals	2006
Rift Valley Fever	Cattle, Sheep and Goats	Never
Rinderpest (Cattle plague)	Cattle	1877
Scrapie (on Defra's BSE website)	Sheep and goats	Present
Sheep pox	Sheep	1866
Swine Vesicular Disease	Pigs	1982
Teschen Disease (Porcine enterovirus encephalomyelitis)	Pigs	Never
Tuberculosis (Bovine TB)	Cattle and deer	Present
Vesicular Stomatitis	Cattle, pigs and horses	Never
Warble fly	Cattle, (also deer and horses)	1990
West Nile Virus	Horses	Never

Notifiable diseases in animals which are potential zoonoses

A number of animal diseases (including the following zoonotic diseases) are notifiable under The Animal Health Act 1981 or via other more specific legislation made under this Act.

Anthrax (*Bacillus anthracis*)

Avian Influenza (Highly pathogenic only) (Fowl plague)

Bovine Spongiform Encephalopathy

Brucellosis (*Brucella abortus*)

Brucellosis (*Brucella melitensis*)

Contagious Epididymitis (*Brucella ovis*)

Equine Viral Encephalomyelitis
Glanders and Farcy (*Burkholderia mallei*)
Rabies
Rift valley Fever
Tuberculosis (including Bovine TB)
Vesicular Stomatitis
West Nile Fever

In addition some zoonotic organisms are (also) notifiable or reportable under other animal health legislation:

The Zoonoses Order, 1989 and the Zoonoses Order, 1991 (Northern Ireland):

Salmonella spp.

Brucella spp.

The Specified Animal Pathogens Order, 1998 and the Specified Animal Pathogens Order (NI), 1999:

Echinococcus multilocularis

Equine morbillivirus (Hendra)

Trichinella spiralis