Agriculture and Rural Development Committee
Inquiry into the ban on bone-in beef
Final Report

The interim report

1. On 21 July 1999 the Committee published an interim report on its inquiry into the ban on bone-in beef containing its assessment of the arguments for and against lifting the ban.

2. The Committee attached weight to the medical advice received and to concerns expressed by some farmers' representatives that the ban should not be lifted against scientific and medical advice. A majority of Committee members voted in favour of the following resolution:

> i) to ensure that it has examined all the evidence, the Committee intends to wait until the Chief Medical Officer for Wales makes a statement on the public health implications of lifting the ban in order to make its recommendation to the Assembly;
>
> ii) the Committee will meet as soon as reasonably practicable thereafter to agree on its recommendations to the Assembly.

Developments after the interim report

3. Following publication of the interim report, the Committee considered further statements from the Chief Medical Officers for England, Wales and Scotland. All three continued to agree that the ban on the use of beef bones in food manufacture should continue.

4. Until the end of November the Chief Medical Officers for Wales and Scotland also considered the risk to public health from lifting the ban on retail sales to be unacceptable. They felt it was necessary to see further evidence before making any recommendation to lift the ban. The Chief Medical Officer for Wales confirmed this as her view in oral evidence to the Committee on 13 October.

5. The view of the Chief Medical Officer for England on the impact of lifting the retail sales ban at that time was different from his colleagues in Wales and Scotland. In advice given in July, the Chief Medical Officer for England recommended that '*a decision to lift the bone-in beef ban should in my assessment be informed by the fact that the additional risk to human health created would at this stage of the cattle epidemic be tiny and unquantifiable in any meaningful way'.*

6. When the Committee published its interim report it understood there to be unanimity of view between all UK Chief Medical Officers. With the publication, in September, of advice given by the Chief Medical Officer for England at the end of July, the Committee became aware that his view on the implication of a partial lifting of the ban was then different.

7. After publishing its interim report, the Committee also saw correspondence between the Chair and Professor Roy Anderson, head of the Oxford Group. The Oxford Group research - modelling the extent of BSE in the herd – is a key

component of the evidence referred to in paragraph 4 above, upon which the Chief Medical Officers base their advice. Professor Anderson's personal opinion was that the ban could be lifted immediately.

8. The Chief Medical Officer for Wales appeared before the Health and Social Services Committee on 18 November when she confirmed that the latest evidence would be available before the end of November and would be examined immediately by the four Chief Medical Officers.

9. On 1 December the Committee received further oral evidence from the Chief Medical Officer for Wales along with a joint written statement from all four UK Chief Medical Officers. Having then seen the most recent Oxford research and having discussed its implications with the other Chief Medical Officers, the Chief Medical for Wales felt that the ban could be lifted for retail sales.

Conclusion

10. Having considered all the evidence presented to it since the beginning of its inquiry, the Committee agreed that it should recommend a lifting of the ban on retail sales whilst maintaining the ban on use in manufacturing.

Resolution

At its meeting on 1 December 1999 the Committee voted unanimously in favour of the following motion:

Further to the motion agreed by the Committee on the 21st July 1999, the Committee, having considered all the evidence now presented to it, resolves to recommend to the National Assembly that the ban on beef on the bone should be lifted other than for use in manufacturing food products (including infant foods) and calls on the Assembly Cabinet to introduce a regulation to give effect to this resolution.

11. A list of the information received by the Committee after publication of the interim report is given in Annex A.

Agriculture and Rural Development Committee 1st December 1999

Evidence received since publication of the interim report

21 September – the Committee received further written advice from the Chief Medical Officer for Wales[1]. This followed a statement by the Agriculture Minister, Nick Brown, in which he referred to the most recent advice he had received from the Chief Medical Officer for England[2].

13 October – the Committee considered:

- the most recent statements of advice from the Chief Medical Officers for England[3], Wales[1] and Scotland[4];
- the evidence of the Chief Medical Officer for Scotland to the Scottish Parliament Rural Affairs Committee[5].
- the most recent available statistics on BSE and vCJD[6]
- further oral evidence from the Chief Medical Officer for Wales[7].

27 October - the Chair of the Committee wrote to Professor Anderson, the head of the Oxford Group[8].

2 November – Professor Anderson replied to the Chair of the Committee[8].

1 December - the Committee received further oral evidence from the Chief Medical Officer for Wales[9] and a written statement from the four UK Chief Medical Officers[10]. The Committee also considered the Chief Medical Officer for Wales' statement to the Health and Social Services Committee[11],the minutes of the subsequent discussion[12] and the most recent available statistics on BSE and vCJD[13]

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[1] Annex 1: Bone-in beef: further advice from the Chief Medical Officer for Wales (ARD 13-99 (evd.1))
[2] Annex 2: MAFF News Release 327/99
[3] Annex 3: Bone-in beef and cattle bones: further advice to the Government from the Chief Medical Officer for England (ARD 13-99 (evd2))
[4] Annex 4: Beef bone regulations: advice from the Chief Medical Officer for Scotland (ARD 13-99(evd.3))
[5] Annex 5: Scottish Parliament Rural Affairs Committee Official Report Tuesday 5 October 1999 (ARD 13-99 (evd.5))
[6] Annex 6: Monthly CJD and BSE incidence figures as at 13 October 1999: Department of Health and MAFF (ARD 13-99 (evd.4)
[7] Annex 7: National Assembly for Wales Agriculture & Rural Development Committee 13 October 1999 record of proceedings ARD 13-99 (rop)
[8] Annex 8: ARD 17-99 (evd.1)
[9] Annex 9: National Assembly for Wales Agriculture & Rural Development Committee 1 December 1999 record of proceedings
[10] Annex 10: Joint Statement by the United Kingdom Chief Medical Officers 30 November
[11] Annex 11: Chief Medical Officer for Wales' statement to the Health and Social Services Committee 18 November (ARD 17-99(evd.2))
[12] Annex 12: Health and Social Services Committee consideration of beef on the bone 18 November (HSS-11-99 (min))
[13] Annex 13: Monthly CJD and BSE incidence figures as at 1 November 1999: Department of Health and MAFF (ARD 17-99 (evd.3)

Annex 1

Agriculture & Rural Development Committee ARD 13-99(evd.1)

Date: 13 October 1999

Time: 9:15 am - 12:30 pm

Venue: Committee Room 1, National Assembly Building

BONE- IN BEEF : FURTHER ADVICE FROM THE CHIEF MEDICAL OFFICER FOR WALES

1. Background

When I appeared before the Agriculture and Rural Development Committee's Inquiry into the Ban on Bone-In Beef, I explained that I had formally endorsed the decision to extend the ban from February 1999 for reconsideration after six months which would allow time for new research findings and further information about trends in both variant Creutzfelt Jacob Disease (vCJD) and Bovine Spongiform Encephalopathy (BSE) to emerge.

In making the assessment which follows, I have consulted with the other United Kingdom Chief Medical Officers, taken account of further data on disease trends in humans and animals and reports on the implementation of control measures. However, the particular figures I had in mind when I gave evidence to the Committee on 24 June from the Welcome Trust Centre for the Epidemiology of Infectious Disease, University of Oxford are yet to be made available.

Our understanding of this disease process in cattle, its cross-over to humans and its subsequent behaviour is evolving. We are continuing to monitor a range of indicators to reflect the latest understanding, as these are updated.

2. vCJD

My evidence to the Enquiry gives detailed background information, including explanations, insofar as they are clear, of the nature of vCJD and its likely cause as a result of cattle to human transmission of the prion protein associated with BSE.

I emphasised in that evidence that vCJD is an extremely unpleasant disease which is universally fatal, tends to affect younger people, and is deeply distressing to all who care for affected individuals. The costs of such tragedies in terms of personal suffering and in requirements for care are very considerable.

vCJD has been recognised for just over three years and understanding is at an early stage. It is one of a group of transmissible diseases which generally have long incubation periods, the minimum length likely for vCJD being five years and

possibly very considerably longer. There has not yet been adequate time to observe the full disease process and many issues about the behaviour of the disease, including those around its infectivity, remain unresolved.

Up to the end of June 1999, the total number of people who had definitely or probably developed the disease was 42. All those people have died. There has been a further case in July, who also has died. In 1998, the latest full year of surveillance, 16 people died from the disease, representing a 60% increase from the previous year (there were 10 deaths from the disease in 1997). The peak of 10 deaths which occurred during the final quarter of 1998 does not appear to have persisted, although figures for the first half of 1999 are provisional and almost certainly incomplete.

Predictions of the eventual size of the epidemic of vCJD still give a wide possible range in the number of cases: from a few hundred up to several million.

3. BSE and animal controls

The extent to which there is a risk of human infection depends upon the level of BSE infection amongst cattle and the degree to which control measures to prevent humans being exposed to this are both effective and implemented. Controls required as a result of contamination of animal feed stuffs and following the recognition of maternal to calf transmission of BSE, have been successful in continuing to bring down the level of infectivity in cattle. These include the calf cull intended to reduce the incidence of maternally infected animals.

The latest MAFF figures show that there are continuing cases of BSE. There were substantial reductions in disease incidence from the peak in 1992/93 through to 1997. The figures for 1998 and the first six months of 1999 show a considerable slowing of the rate of decline. So far this year (to end June), 998 confirmed BSE cases have been recorded, although this provisional figure will rise as further results come through (three-quarters of results are available so far). The final total is expected to exceed the projected upper level of 2215 confirmed cases during 1999.

4. Other considerations

There is evidence to suggest that a very small dose, as little as one gram of material, may be sufficient to cause human infection. Prion protein, the transmissible agent, is not destroyed by heat or other forms of food sterilisation. The commercial route of potential dissemination of infection is therefore of particular concern, as it could expose larger numbers of people unknowingly to risk. This creates a potential problem of a different order to that of an individual who chooses on an individual basis to take a known potential if unquantifiable risk.

The risk from bone marrow infectivity does not appear to be as significant as previously thought but has not been ultimately excluded. The single research finding of infection following cattle to mouse transfer is being tested further in the context of cattle to cattle experiments. This unresolved issue is clearly relevant to the use of bones and marrow both commercially and domestically for products such as soup and gravy.

The application of principles of risk calls for consistency. The level of protection applied to avert potential risk of person to person spread of vCJD is stringent. This is illustrated by policies in relation to both blood products and surgical instruments. For example, the United Kingdom is currently obtaining its plasma supplies principally from the United States with some from Germany. It is assumed that person to person transfer of infection is likely to happen more readily than cattle to person, but we do not know for certain. The exposure to infection of an individual unknowingly during a procedure intended to do good reiterates the sort of concerns expressed in the two previous paragraphs.

5. **Commentary and Advice**

The duty which I carry as Chief Medical Officer is to provide independent professional advice on matters relating to the health of the people of Wales. I act as the main point of contact with the other Chief Medical Officers of the United Kingdom, and draw upon formally established sources of expert advice such as the Spongiform Encephalopathy Advisory Committee (SEAC) who gave evidence to the Enquiry.

Unilateral action by any part of the UK to alter control arrangements could expose other populations to a different level of risk. There is a strong case for consistency across the UK, nevertheless my advice is in the context of my duty to the population of Wales.

A high degree of uncertainty about these disease processes remains. What is absolutely certain is that the present relatively low number of cases of vCJD should not lead anyone to conclude that the worst is over. It means that there can be no room for complacency in maintaining precautionary measures necessary to eradicate BSE in cattle, to make sure that it does not recur and to prevent any risk of transmission to people.

However all measures depend on full compliance and we know that this is not foolproof. The incidence of BSE has reduced but it has not been eliminated. Whilst this state of affairs persists we cannot be sanguine that infectious material will not inadvertently get into the food chain.

As a public health doctor, I have a duty to protect. In this context that means seeking the elimination of the source of infection to humans, ie BSE-infected cattle. People, particularly children, should not be exposed unknowingly to risk.

Equally, there must be a recognition that consumers may wish to make informed choices, as for instance is recognised in the current policy with regard to untreated raw milk.

These things are best balanced in the light of understanding and experience, but the position here is at an early stage, is evolving and needs to be closely monitored. At this point, in my view, the evidence base has changed little since February. The 'precautionary principle' continues to apply.

Ruth Hall
Chief Medical Officer
National Assembly for Wales

July 1999

Annex 2

MAFF Press Release
327/99 22 September 1999

NICK BROWN ANNOUNCES AID PACKAGE FOR FARMERS

Nick Brown, Agriculture Minister, has announced a package of support measures for British farming.
The text of Mr Brown's statement, which he gave to an audience of journalists in London, is attached.

NICK BROWN ANNOUNCES NEW SUPPORT PACKAGE FOR FARMERS: 20 SEPTEMBER 1999

The Government's policy for British farming to reduce its reliance on subsidies based on production, and to restructure itself for long-term sustainability, and develop real markets for its products, less distorted by the CAP.
The CAP reform agreed by Heads of Government in Berlin earlier this year is an important step in this process. It provides a range of options on which we are seeking views from all interested organisations. This autumn, once we have heard organisations' views, we will announce decisions on the Agenda 2000 Rural Development Regulation.
Last autumn, I announced a major package of support to help farming sectors facing particular difficulties.
Livestock farmers continue to be under very serious pressure and it is right, exceptionally to consider special measures. These should cover not just support measures, but also regulatory burdens, to enable the industry to move closer to the market.
I have already announced that my request to the Commission for a **private storage aid scheme for sheepmeat** had been accepted. If it achieves its potential of removing 140,000 lambs from the market between October and December, this should bring direct improvements in producer returns. I am grateful to Commissioner Franz Fischler for acting within days of my raising this with him in Tampere last week.
Last year the money available for **Hill Livestock Compensatory** Allowances was increased by £60 million. I can now announce that this increase will be maintained for a further year. This will directly benefit farmers in the hills, who are the bedrock of our livestock industry but who are among those facing most difficulty now. Arrangements for subsequent years will depend on decisions about the Rural Development Regulation, which provides for payments to move from a headage to an area basis.
Removing **Specified Risk Material** from cattle and sheep carcases is part of our programme of measures to restore confidence in the meat market in the wake of BSE. I have decided in the present depressed state of the market to defer charging for inspections of this activity. Charges will not be imposed before 2002/2003 at the earliest. These costs do not fall on our industry's competitors. In current circumstances it is right for the Government to continue to meet these charges from public funds.

Similarly, charging farmers £7 per animal for **cattle passports,** as we had announced earlier, would in the present depressed state of the market be an additional burden on farmers. The Government will therefore meet these costs itself and again will not impose these charges before 2002/2003 at the earliest. Taken together these two measures will save the industry £89 million over three years. The cost of these measures, together with that of HLCA's which I mentioned earlier, and one small further measure which I am coming to shortly, amount to a total of £150 million will be met from the BSE ring-fenced provision. There will therefore not be a charge on the reserve.

NFU President Ben Gill and I agreed on 9 September to launch a **joint review of red tape.** It goes without saying that the purpose is to find ways of doing things better and to root out unnecessary restrictions. We all - Government consumers and farmers - have a shared interest in defending those measures which really are necessary in the common interest.

Taking account of the comments that I have already received, the **priority** areas for action are

- **slaughterhouse regulation** in general
- the operation of the **IACS** system, which is of particular interest to arable farmers
- the operation of **intervention,** which concerns all producers of commodities eligible for intervention.

In the next few days I will name the independent chairmen of the working groups to develop these topics.

Waiving charges for SRM inspections lifts the threat of a major financial burden. In addition, we will take a comprehensive look at meat hygiene law and how its implemented by the Meat Hygiene Service.

We have already decided to conduct **an efficiency review of the operations of the Meat Hygiene Service** staff in licensed slaughterhouses, cutting premises and cold stores. These activities are legal obligations and essential health safeguards. The aim will be to identify ways in which they can be carried out most effectively, at least cost to the industry.

Plans for a detailed study of efficiency at a technical level have already been drawn up by officials. This study will now proceed, and will report in to the group which is to review regulatory burdens on the meat and livestock industries. I am keen that industry representatives should participate closely.

Also as part of the impact study earlier this year, we reviewed the requirement for **veterinary supervision in low throughput slaughterhouses.** We pressed the European Commission for fresh advice on this and I am pleased to announce that on the strength of their advice we are able to ease the requirement for veterinary supervision on low throughput slaughterhouses: full-time supervision by a vet will not be required for the post mortem inspection of carcases (though it will be required for ante mortem inspection); and the Meat Hygiene Service will now rapidly review its levels of inspection in individual low throughput premises.

While SRM controls fall particularly heavily on the UK, Governments in all EU countries are required to pass on to their industries the cost of their meat hygiene inspections. Our annual **review of hourly rates** of meat hygiene charges was put on hold in April, pending the impact study to which I have

referred. I shall now be opening consultations with the industry on the normal annual increase in rates, to be brought into effect for the remainder of 1999/2000, although the industry will be pleased to know that there will be no backdating.

The meat industry can now plan without the burden of SRM charges for the next two years. In the meantime we intend to bear down on inefficiency to ensure that all charges in this area are operated at least cost to the industry. The Government, from the Prime Minister downwards, have made dealing with the legacy of the BSE crisis a top priority. The Date Based Export Scheme is the fruit of these efforts. The Government and the industry still have work to do to exploit the opportunity that this offers. I will certainly not be relaxing my own efforts where I judge them to be needed.

Uncertainty about the ban on sales of **beef on the bone** helps no-one. I want this ban lifted as soon as the scientific advice support such a step. The Chief Medical Officer, Professor Donaldson, has submitted advice to me and the Secretary of State for Health which I shall publish in full later this week. Professor Donaldson's view is that it is now possible to lift the ban on retail sales, but desirable to retain it for manufacturing uses. Frank Dobson and I accept this advice. The CMOs for other parts of the United Kingdom prefer to wait a little longer. It would obviously be better to lift the ban on a UK-wide basis, so some further delay is inevitable.

Concentration on the immediate problem areas have perhaps diverted attention from action elsewhere - for example we have helped grain producers by increasing the **maximum moisture content of grain** bought into intervention. Short-term problems can however make it harder for farmers to concentrate on where consumers and markets are going. As I have seen recently walking the poultry chain from end to end, agriculture is part of an integrated food chain, whose businesses have to work together to deliver to consumers high quality food at competitive prices. That is why I have invited a small team of senior figures - **the Food Chain Group** - to consider how best to improve working together and understanding the chain.

I expect the Group to produce their report in the next couple of months. Meanwhile, I am making available **£1 million** this year in England to help primary producers improve their marketing, collaboration and competitiveness, focusing principally on those least helped by the other measures I have announced today. I am asking the Food Chain Group among others for their views on how best to direct this one-off support.

The livestock sector will still have many further challenges to face. Important changes in the marketing of milk, for example, are in prospect. **Milk Marque** responded very positively last Friday to the findings of the Competition Commission and I hope that producers and processors will find new ways of working together to provide farmers with a secure basis on which they can plan for the future.

This Government has recognised the impact that changes in the value of sterling, and in particular the move away from green rates to a market based system, have had on the value of CAP payments. I fought hard for a realistic compensation scheme to smooth the transition to the new arrangements following the adoption of the euro. We have put a number of compensation

schemes to the Commission to ensure that 1999 CAP direct aid payments to UK farmers are protected, and to ease the transition over the next two years. To date the Commission have approved

- **£32 million** for sheep farmers, most of which was paid earlier this summer
- **£62 million** for beef farmers, on which we will start payment with SCPS and BSPS advances in November

And we hope to hear shortly from the Commission on

- **£164 million** for arable farmers on which we hope to start payment in February.

All of these schemes will continue at reduced rates over the next two years, worth in total a further **£129 million** to the UK farming industry, on top of the other measures that I have mentioned.

The devolved administrations have pressed for specific action to take surplus calves and cull ewes off the market. They accept that this would need agreement from Brussels and that it would be for the UK Government to launch any approach at a Community level. If the devolved administrations want an exploratory approach to be made, on the basis that the cost of these measures would be met from their budgets, I would be willing to facilitate this. They may however think that the approach that I have announced today meet their needs.

The new measures I have announced today have been seen in the context of the very considerable aid that the livestock sector already receives. Over **£1 billion** in direct payments was already going to beef and sheep farmers this year. Next year, these payments will increase by almost £130 million as a result of the reforms agreed in the Agenda 2000 package.

The **calf market** will, I believe, stabilise. A number of initiatives are being explored by producer and trade interests. A substantial proportion of the calves that would otherwise have entered the scheme could find a commercial outlet in this way. My department and I are already working with industry on some of these ideas and stand ready to help where we can make a success of them.

As the framework for the future development of the industry becomes clearer with the implementation of Agenda 2000, I do not envisage that further aid packages will be necessary. The measures that I have announced today show that this Government listens to the problems of farmers. But much more than that, it acts, to promote the development of a farming industry that has a sustainable future, driven by the market and by the rising expectations of the wider public.

20 SEPTEMBER PACKAGE SUMMARISED

		£ million
HLCA funding maintained		60
SRM charges waived	2000/2001:	22
	2001/2002:	22
Cattle passport charges waived	1999/2000:	9
	2000/2001:	18
	2001/2002:	18
Marketing support	1999/2000:	1
	New Money	**150**
Agrimoney aid - already confirmed:	sheep - already paid	32

	beef - payments to start in November	62
	Agrimoney aid already announced	**94**
Agrimoney aid - expected:	arable - in February	164
Future agrimoney aid		129
	Agrimoney aid not previously announced	**293**
	GRAND TOTAL	**537**

Also announced:
- priority areas for regulatory review
- efficiency study of slaughterhouse inspection
- inspections in low throughput slaughterhouses reduced
- advice on beef-on-the-bone to be published in a few days

END

Annex 3

Agriculture & Rural Development Committee ARD 13-99(evd.2)

Date: 13 October 1999
Time: 9:15 am - 12:30 pm
Venue: Committee Room 1, National Assembly Building

BONE-IN BEEF AND CATTLE BONES: FURTHER ADVICE TO GOVERNMENT FROM THE CHIEF MEDICAL OFFICER FOR ENGLAND

PURPOSE

On 18th January 1999 I issued a memorandum of advice to the Government in which I carefully reviewed the public health grounds on whether to retain the bone-in beef and cattle bone ban. It had been imposed in December 1997 to reduce the risk of dorsal root ganglia and bone marrow from cattle with Bovine Spongiform Encephalopathy (BSE) entering the human food chain. My advice was that the ban should not be lifted for the time being but that I should review the matter again in six months paying particular attention to a number of specific factors. The Government accepted my advice and so the purpose of this memorandum is to convey the conclusions of the further review.

BACKGROUND: BONE-IN BEEF BAN

Advice from the Spongiform Encephalopathy Advisory Committee (SEAC) and the former Chief Medical Officer Sir Kenneth Calman led to the Government introducing controls on the sale, use and disposal of beef bones, including the retail ban on bone-in beef on 16th December 1997. The original ban had followed the experimental finding in BSE infected cattle that dorsal root ganglia became infective in the pre-clinical phase of the disease and that in one experiment bone marrow also appeared to be infective.

There was particular concern about the consumption of infected material in ways which were effectively concealed from the consumer (e.g. bones used to prepare stock, soups, sauces, gravy).

Policy at the time had been that on discovering that any type of tissue was infected with BSE, action should be taken to reduce the risk of it knowingly entering the human food chain and posing a risk to human health.

As I pointed out in my memorandum of 18 January 1999, the risk assessment based on certain assumptions considered by SEAC at the time of the original ban estimated that 24% (margin of error 10%-45%) of the total infected dorsal root ganglia were attributable to bone-in beef. The remaining dorsal root ganglia-related infectivity was assessed as arising from ganglia which cannot be removed from cuts or joints of beef in the normal boning out process. The finding of apparent infectivity in bone marrow was also a consideration at the time of the original ban.

Earlier this year, I reviewed the public health implications of lifting the ban, drawing on a further assessment of the risks by SEAC and undertaking my own analysis of the issues. In the memorandum of advice which I presented to Government on 18th January 1999, I concluded that an immediate public health intervention to lift the Beef Bone Regulations would allow that element of the food hazard which had been eliminated a year earlier to pose a renewed risk (albeit very small and reduced in magnitude). I recommended that the ban should stay in place and be reviewed six months from 1st February 1999 against a set of specific criteria which I laid down in my memorandum of 18th January 1999.

However, I noted that 1999 would be an important year in the evolution of the BSE epidemic in cattle. The combination of the clean feed watershed created by strengthened legislation implemented from 1st August 1996 and the over 30 month rule preventing older cattle entering the food chain were key interventions. They should have ensured that after 1st February 1999 there would be no cattle entering the food chain that had acquired BSE infection from eating the infective agent through contaminated feed.

Furthermore, legislation to reduce the number of cases of BSE acquired from maternal transmission by a calf cull was being implemented from 4th January 1999 which should also have had the effect of further reducing the number of BSE infected cattle entering the human food chain.

In giving my assessment in the memorandum of 18th January 1999, I made two assumptions. Firstly, that present control measures were being rigidly enforced and fully adhered to. Secondly, that there are no sources of BSE other than infected feed or routes of transmission other than maternal.

Thus, whilst recommending six months ago the ban be retained for the time being I set out the basis for the future review to cover:

- the extent of the further decline in the incidence of BSE infected cattle;
- the effectiveness of control measures to prevent the entry of BSE infected cattle material into the human food chain;
- the extent of any increase or any changed pattern of relevance to human disease;
- the results of any future relevant research.

These matters are considered in the next section.

REVIEW OF SPECIFIC FACTORS SET OUT IN THE MEMORANDUM OF 18TH JANUARY 1999

In my advice to Government dated 18th January 1999, I recommended that the beef bone controls should be reviewed in six months paying particular

attention to a number of specific factors. Information on these factors has been assembled for me by officials of the Ministry of Agriculture Fisheries and Food (MAFF) and I review it here.

1. Extent of the decline of the incidence of BSE infected cattle

I have reviewed an analysis by epidemiologists at MAFF's Veterinary Laboratories Agency (VLA) of predictions of the numbers of cattle that are expected to be confirmed as clinical cases of BSE within the next few years. The estimates of the number of BSE cases which will be confirmed during the calendar year 1999 have a margin of error ranging from 1,623 to 2,215 cattle and recent evidence suggests that the likeliest figure is 2,215. The actual number of confirmed cases of BSE in cattle in Britain up to 2 July 1999 was 998. These figures compare with 173, 391 BSE infected cattle since the epidemic was first recognised up to 1 January 1999.

The VLA has also tabulated the actual number of confirmed cases by cohort of birth (i.e. showing the number of cases occurring in all animals born in the same year of birth). These analyses show that the most heavily exposed cohort was those cattle born in 1987/8, with relatively large numbers of cases of BSE occurring at four, five and six years after birth.

Although there has been an overall decline in the numbers of BSE infected cattle during the 1990s, substantial numbers of cases continued to occur in cattle born after the ruminant feed ban in 1988. It is now accepted that this was not fully effective and animals continued to eat infected food until further measures were introduced in 1996 (see my memorandum of 18th January 1999 for further detail).

Despite a decline in numbers of confirmed cases in successive birth cohorts since 1988, there has been some slow down in the reduction in some of the later cohorts including those born in 1991/92 and 1994/5. This is almost certainly due to the fact that feed was not completely 'clean' until after August 1996.

The incidence of BSE infection in the later birth cohorts referred to above do not pose a direct threat to human health since they are excluded from the human food chain by the over 30 month rule. However, even though BSE infected cattle are prevented from entering the human food chain they are a concern to human health because it is possible for them to pass the infection on to their offspring – so called maternal transmission.

The scientific evidence suggests that maternal transmission is most likely to occur if the cow infected with BSE gives birth towards the end of the incubation period (say six months away from the clinical disease). Current evidence suggests that a calf born at that time has a roughly 1 in 10 chance of being infected with BSE through maternal transmission. If the calf then shows signs of infection at any time it is excluded from the human food chain just like any other clinical suspect. If the calf's mother shows signs of

infection then any of her offspring born after 1 August 1996 will be traced and excluded from the human food chain.

I have also reviewed further information from Professor Roy Anderson and his colleagues from the Wellcome Trust Centre for the Epidemiology of Infectious Disease (WTCEID) at the University of Oxford. Their recent analysis has looked particularly at the impact of the Offspring Cull in cutting down the chances of cattle with maternally acquired BSE entering the human food chain. In giving me provisional estimates, the Oxford Group has calculated that the Offspring Cull is estimated to have removed 46-48% of cattle that were born to mothers which went on to develop clinical signs of disease within six months of calving. The Oxford Group has also commented that some 15% of male calves are slaughtered within a few weeks of birth. They are unlikely to enter the human food chain. This would remove a further tranche of calves exposed to maternal BSE infection from the human food chain.

The human food chain cannot be protected from offspring with maternally acquired BSE that are not recognised as being infected. This can happen if the infected cow which passed on the BSE to its offspring is slaughtered before the infection became obvious and if the offspring is also slaughtered for food before its own infection became apparent. This has been the case throughout the cattle BSE epidemic. These infected cattle disappear into the human food chain without anyone being able to recognise them as a potential risk. Even then, human health would be largely protected by the control measures described below. However, only those infections which were within a year of becoming clinical cases of BSE are considered to pose a risk of transmitting the infection to people. A year is actually an upper limit set by SEAC to create a margin of safety.

It is the size of the pool of cattle that have acquired BSE from maternal transmission which scientists are trying to estimate. Within that pool it is the category (described above) which “slip through the net” into the food chain that are of particular importance. Unfortunately, these cattle infections cannot be actually identified and counted. They can only be estimated and this is proving difficult because of uncertainties about what assumptions should be made. Factors such as the level of exposure to contaminated feed before the clean feed watershed came in during 1996, the precise risks of maternal transmission, and the changing demography of the dairy herd are all difficult to determine reliably. They are all factors upon which different groups of scientists will hold different views. So it is the order of magnitude of such cases in relation to the present state of the BSE cattle epidemic which is important not precise numbers.

The Oxford Group has given me a helpful provisional estimate of the number of maternal transmissions and they are continuing with their work in this field. I have also taken account of an assessment made by the Animal Health and Veterinary Group (AHVG) at MAFF. They have taken account of the work of the Oxford Group and that of the Central Veterinary Laboratory that has carried out a survey of over 30 month cattle earlier this year. This

has also helped to quantify the scale of the epidemic in cattle that do not develop clinical disease. It is estimated by AHVG that around 500 maternally infected animals would currently remain alive on the farm with unrecognised BSE and could potentially be slaughtered for human consumption. Year on year that number could be expected to decline in line with the decline in the epidemic affecting their mothers. Amongst those 500 cows it is only those incubating infection to within a year of clinical infection (had they lived) which pose a hazard. AHVG has estimated their number to be between 0.7 and 9.1 cows. I discussed this estimate with a member of the Oxford Group and was informed that they are working with figures which suggest similar orders of magnitude. In other words, very small numbers of cattle across the whole of Britain.

2. The effectiveness of control measures to protect the human food chain.

The rigorous implementation of control measures is a vital part of the process of safeguarding the public from exposure to BSE infected tissue in their diet. I have been given an assessment of the extent of enforcement of the relevant measures and I comment on each below.

a) The over 30 month rule

The over 30 month cattle rule aims to prevent meat from cattle aged over 30 months at slaughter from being sold for human consumption. It has been in place since 29th March 1996. The introduction of this safeguard was important because it stopped older cattle that were likely to have been exposed to BSE infected feed from entering the human food chain.

Initially enforcement involved only inspection of the animal's teeth as a way of estimating its age. Further regulations particularly the introduction of a cattle passport scheme and ear tagging strengthened this control measure, and were easier to apply than tooth inspection (although this is still required). Enforcement of the over 30-month rule is carried out primarily at slaughterhouses by the Meat Hygiene Service. Local authorities (through their Trading Standards Departments) are responsible for enforcing the rule at other points in the supply chain beyond the slaughterhouse (and in relation to imported meat) but by this time it is difficult to enforce because meat from carcases has become mixed and lost its individual identity.

The detailed documentation I have received indicates that checks in slaughterhouses by the Meat Hygiene Service are rigorous and ensure that animals slaughtered for human consumption are generally correctly identified. Successful prosecutions have been taken where attempts to breach the controls have been discovered. The Meat Hygiene Service checks the age of the animal from the date of birth entered in the passport and also checks that the ear tag number on the passport

matches the ear tag number on the animal. The teeth check is then carried out. If the animal has more teeth erupted than expected for its age, the carcase is not allowed into the food chain. The carcase is stained with dye and disposed of under the supervision of the Meat Hygiene Service irrespective of the date of birth on the passport.

Instructions to Meat Hygiene Service staff working in beef slaughterhouses were reinforced in early 1999 in a detailed note that set out clearly how the over 30-month rule should be enforced. Further guidance is planned to reinforce the policing of slaughterhouse operators by the Meat Hygiene Service to ensure that they are fulfilling their obligations too.

The reliability of cattle identification arrangements also depends on the accuracy of farmers' records and their ability to meet statutory deadlines (to tag animals or to report the birth, death and movement of animals). The management of the tagging arrangements is also a vital element because it is a key identifier of the age of cattle.

A number of legislative measures have been put in place to ensure that the age of cattle is established, validated, recorded and that no older cattle slip through the net into the human food chain. These include: the requirement for cattle passports, the need to double ear tag animals (born from 1 January 1998), the Cattle Tracing System and the creation of the British Cattle Movement Service. A dedicated programme of cattle identification inspections on farms has had to be established in compliance with European Union rules. The programme is managed by the British Cattle Movement Service with inspections performed by Agriculture Department staff.

The British Cattle Movement Service, the Agriculture Departments of the UK countries and local authorities also advise farmers on cattle identification, seek to identify weaknesses in compliance and take remedial action. Measures have also been taken to strengthen arrangements for the allocation of ear tags and in their design so as to minimise error or misuse. Computer validation checks on cattle identified are now also made.

I am reassured by the action that has been taken over the last two years to tighten up the regulations for cattle identification and record keeping. Information about the history of the animal is much more transparent including the use of computer databases to allocate tag numbers and record information which helps to ensure compliance. I was concerned to learn that there have been some cases of deliberate switching of ear tags although there is no suggestion that this is leading to major breaches of the 30 month rule so that older cattle are illegally entering the human food chain. However, I was more concerned to learn that of the 10% sample of cattle farms inspected in Great Britain last year 11% of farmers were not complying to a significant extent with identification and record keeping rules. The main problems have been late ear

tagging of cattle, the use of only one ear tag (rather than two as required), incorrect passports, failure to return passports of dead animals, failure to apply for passports and failure to record cattle movements. It appears that these are errors due to a failure of understanding by farmers of what is after all a complex system rather than deliberate attempts to outwit the system (notwithstanding the small number of cases of dishonesty described above).

Although this is a worrying level of non-compliance I am informed that the majority of errors are not of a kind to be relevant as to whether an over-age animal is accepted for slaughter. Moreover, the teeth checking in the slaughterhouses provides a further check on older cattle slipping through the net into the human food chain.

b) Maintaining `clean' cattle feed

The other key set of control measures to ensure that BSE does not again enter the human food chain relate to the prohibition of the feeding of mammalian meat and bone meal (MBM) to all farmed livestock. This has been prohibited since 1996. A variety of legislative interventions enforce this important protective measure. They are described in my memorandum of 18th January 1999 and not repeated here. I have described the date of 1st August 1996 as the "clean feed watershed" because if control measures were rigidly enforced no uninfected animal after 1st August 1996 should have become infected with BSE after eating contaminated feed.

To monitor compliance with the feed controls, the Government has in place a feed sampling programme, which covers 3490 premises (including 243 major feed mills). I am advised that in the period from February 1996 to 7th June, 0.3% of the 42,465 survey samples had been positive (or inconclusive) for the presence of mammalian protein. In 1999 the figure has fallen to 0.14%. All positive or inconclusive results are fully investigated. A positive or inconclusive result does not necessarily mean a breach of the ban. Of 64 investigations undertaken to the end of May 1999, only three have possibly indicated a breach of the ban. However, an incident in 1997, when a batch of poultry additive meal was found to be contaminated by mammalian meat and bone meal, may have led to the contamination of cattle feed after a consignment of the additive was used in `home mixed' poultry rations by a farmer who later used the same equipment for mixing food for cattle. In this case MAFF intervened to purchase and destroy 38 cattle born after 1 August 1996 which could have consumed feed which might have been contaminated. This shows the need for continued vigilance and inspection at all premises.

c) Maternal transmission: the offspring cull

Between August 1998 and January 1999 a voluntary cull procedure was in place to identify offspring born to infected cows and eliminate them

from the human food chain. Since 4 January 1999 the cull has been compulsory under new legislation. Any offspring of a cow with confirmed or suspected BSE infection is slaughtered and its carcase disposed of. If a cow develops BSE and it had earlier had calves and those offspring are alive, they are traced and slaughtered. An initial backlog of culling has now been cleared. Because that cull only became compulsory in January 1999, some of the potentially maternally infected offspring would already have been slaughtered for human consumption, or died. For offspring that are however currently being traced, born to cases placed under restriction in 1999, I am advised that the success rate in identifying and destroying offspring before their slaughter for human consumption has improved especially so for the specific offspring of concern – the last born before onset of clinical disease. The cull or prior slaughter of the calves for destruction can be considered to remove virtually all of these animals from the human food chain long before they become old enough to approach clinical onset.

d) Other controls

A wide variety of other control measures are in place to prevent BSE infected tissue entering the human food chain from either home produced or imported beef. As the regulations dealing with so-called `specified risk material' and related matters are not directly relevant to the bone-in beef issue, I have not considered these in detail. However, I have received a report from MAFF officials which concludes that few breaches have been discovered on audits and inspections to suggest that cattle material (such as the head, including brain, and eyes, tonsils, spinal cord, thymus, spleen and intestines) may be entering the human food chain illegally. It is therefore important to ensure that the controls, particularly on imports, continue to be rigorously applied.

3. The pattern of human disease

The first cases of vCJD in people were only identified just over three years ago. Up to the end of June 1999, the total number of people who had definitely or probably developed the disease was 43. All those people have died. In the latest full year of surveillance, 1998, 16 people died from the disease and this was a 60% increase from the previous year (there were 10 deaths from the disease in 1997).

The disease is a particularly distressing one for those affected – often relatively young people – and their families.

Predictions of the eventual size of the epidemic of vCJD still give a wide possible range in the number of cases: from a few hundred up to several million. This is because there are still many uncertainties about the disease. For example, the length of the incubation period, the amount of infected BSE tissue that was eaten to produce human infection and the degree of difficulty that the infective agent has in

crossing the species barrier between cow and human being are largely unknown.

What is absolutely certain is that the present relatively low number of cases of vCJD should not lead anyone to conclude that the worst is over. Levels of human exposure at the height of the BSE epidemic would have been high.

It is of particular importance to consider when the people who have died from vCJD so far were exposed to the BSE infected tissue which is assumed to have produced their disease. On one scenario they may have been infected at the time that the epidemic of BSE in cattle was relatively high and the bans to stop high risk cattle tissue (e.g. the head, including brain, and eyes, tonsils, spinal cord, thymus, spleen and intestines) entering the human food chain were not fully effective. If the first people with vCJD were infected at this time, at the beginning of the 1990s, then their incubation periods would have to have been around five years.

Five years is a relatively short incubation period for human transmissible spongiform encephalopathies. It is usually much longer. A second scenario would suggest the length of the incubation periods of the people who have developed the disease so far is much longer and closer to that of other human transmissible encephalopathies. However, if the first cases of vCJD had longer intervals between eating infected BSE tissue and developing the fatal disease, then they would have been exposed to BSE at a time when it was less frequent in the national cattle herd, in the mid to late 1980s. In other words, they are only the first wave of cases and there are many more to come.

It is impossible to say which of these broad scenarios – the more optimistic or the more pessimistic – is closer to reality. There can be no room for complacency in maintaining precautionary measures necessary to eradicate BSE in cattle, to make sure that it does not recur and to reduce any risk of transmission to people.

In the last year, attention has also focused on the possibility that vCJD might be transmitted from person to person by medical means. This remains hypothetical: there has been no proven transmission of this kind. However, there is circumstantial evidence which suggests the theoretical possibility of transmission. Firstly, classical CJD has been transmitted from person to person in the past. This has happened through brain surgery involving contaminated instruments, through human derived growth hormone injections, through corneal transplant and from dura mater (a tissue which lines the brain) transplants. Secondly, abnormal prion protein has been found in the lymphatic tissue (including tonsils) of patients with established vCJD. Abnormal prion protein is considered by most authorities to be involved in the development of transmissible spongiform encephalopathies. Thirdly, abnormal prion protein is not easily removed or destroyed by normal

sterilisation methods.

As a result of these observations, on a very precautionary basis the Government has acted to ensure that blood for transfusion has white blood cells removed (leucodepletion). This is expected to be fully implemented by October 1999. Also action has been taken to ensure that all plasma for the manufacture of blood products are sourced from outside the United Kingdom.

In addition, guidance is shortly to be released to the NHS reinforcing existing infection control measures and highlighting the need over time to consider further control measures.

4. Research

Since my previous memorandum of 18th January 1999, a wide ranging research programme has continued covering the transmissible spongiform encephalopathies. The Department of Health, MAFF, the Biotechnology and Biological Science Research Council, the Wellcome Trust and the Medical Research Council are all funding major strands of research and other avenues of enquiry are being considered. The Cabinet Secretary, Sir Richard Wilson, chairs a High Level Committee which co-ordinates research policy on transmissible spongiform encephalopathies across Government.

There are two important relevant points which have arisen from research since my last memorandum. Firstly, that there was no further positive result from the cattle studies that bone marrow is infective before the clinical BSE disease develops (though studies with a higher level of sensitivity are continuing and may take three to five years to complete). Secondly, the finding of abnormal prion protein (which appears to be associated with the onset of vCJD) in the lymphoreticular tissue of patients with vCJD.

A major priority for research is the development of a non-invasive test for BSE and vCJD which could be used in animals and in people.

BONE – IN BEEF RISKS

At the time that the original bone-in beef and cattle bone ban was put in place SEAC and my predecessor Sir Kenneth Calman considered a risk assessment of the effects of such an intervention. This assessment considered the risk posed by infected dorsal root ganglia in cattle infected with BSE aged under 30 months that entered the human food chain. The risk assessment described the likely distribution of dorsal root ganglia in various joints of meat. It estimated that of the dorsal root ganglia that were not removed with the spinal cord 24% (margin of error 10% - 45%) were contained in bone-in cuts (e.g. T-bone steak and ribs) whilst the remainder clung to boned out joints. This distribution of dorsal root ganglia which I also discussed in my memorandum of 18 January

1999 reflects the fact that, even before the ban, most beef was sold off-the-bone anyway.

The calculation of the level of infectivity due to dorsal root ganglia that might be eaten across the United Kingdom population as a whole in 1997 was 0.05 of an “infective dose” (margin of error zero to 11). I have used the term “infective dose” to simplify a complex concept but it essentially means that the risk estimate at the time was that 0.05 people would be infected by dorsal root ganglia arising from BSE infected cattle aged under 30 months. As with any risk assessment in a complex area, a number of assumptions were made which some may disagree with but this risk assessment helped to guide action at the time. Although 0.05 is a tiny fraction of an infective dose, the fact that the range went up to 11 “infective doses” was clearly of concern to SEAC and the then Chief Medical Officer at the time. However the risk assessment also indicated that there was an 80% chance that the estimate was below 1. In addition, in one cattle experiment, there had been a positive finding for bone marrow infectivity.

A decision was taken in December 1997 to ban bone-in beef and cattle bones and thereby exclude an element of dorsal root ganglia infectivity from the human food chain.

Consideration needs to be given to the possible risks of bone marrow. At the time of the original ban one cattle BSE experiment gave an isolated finding of infectivity in bone marrow which has not replicated in subsequent studies. However, the number of cattle studied was small and studies testing with a higher level of sensitivity to detect infection are ongoing. If there are any risks associated with bone marrow (i.e. it may or may not be infective) they would be related to the very small estimated number of BSE cattle with infectivity entering the food chain.

When I reviewed the risk, a year after the original ban had been put in place, there had been a further fall in the incidence of BSE in cattle. In examining the situation, I was conscious that it was a different order of decision to remove a risk control measure than to impose it. However, I noted that the very small risk had reduced further in magnitude. I was also aware that the impact of the clean feed watershed was yet to come. After 1st February 1999, the over 30 month slaughter policy would effectively block any cattle entering the human food chain that had acquired BSE from infected feed. Moreover, I had based my consideration on the assumption that all control measures were rigorously implemented. I had seen no review to assure me that this was in fact the case. Finally, the last quarter of 1998 had seen 10 cases of vCJD, the highest for any previous quarter.

For all these reasons, I adopted a highly precautionary approach advising that the ban should be kept in place for the time being but it should be reviewed in six months from 1 February 1999 taking account of the particular criteria I have described above.

Since the “infective dose” estimates arising from dorsal root ganglia in the

United Kingdom in 1997 were made, there have been reductions in the number of BSE infected cattle entering the human food chain, despite a residual pool of maternally acquired infections that cannot be detected. That reduction has to be in excess of the subsequent decline in the epidemic because the current cases represent infection via feed four or more years ago. In 1997 cattle born before the August 1996 “clean feed watershed” were eligible for human consumption. They no longer are. In other words, the number of infected cattle entering the human food chain is heavily influenced by the more recent events of 1996, while the visible epidemic is a result of earlier events.

Although there are still uncertainties about the human disease, I believe that the additional human health risk contained in that element of the total dorsal root ganglia currently excluded from the food chain by the ban, to be tiny and unquantifiable in any meaningful way.

My assessment of risk relates only to bone-in beef measures. Other cattle specified risk material (the head, including brain, and eyes, tonsils, spinal cord, thymus, spleen and intestines) which is completely excluded from the food chain is in a different category. Their range and volume although greatly diminished since the earlier phase of the epidemic would pose a significant and unacceptable risk to human health via maternally infected BSE tissues if re-introduced into the human food chain by relaxing controls on their use in food production.

CONCLUSIONS AND SUMMARY

1. An estimated upper limit of 2,215 cases of BSE in cattle will be confirmed during 1999. This compares with 173,391 such BSE infections between the time the epidemic began in the 1980s and 1st January 1999.

2. The BSE epidemic in cattle has continued to decline in successive cohorts of cattle born since 1988, although the rate of reduction appears from the most recent data to have slowed. The most likely explanation for this is that all of the cattle falling ill with BSE are still those that were born before the rigid enforcement in August 1996 of the regulations preventing the use of animal protein in ruminant feed and mammalian meat and bone meal in any farmed livestock feed (what I have called “the clean feed watershed”). These do not enter the human food chain because of the over thirty month rule.

3. When the bone-in beef ban was put in place in December of 1997, cattle that had been potentially infected with BSE from contaminated feed were still entering the human food chain. The majority would have been born between mid 1995 and mid 1996, and cattle born in 1995 have already been recognised as clinical cases. Currently, the oldest animals eligible for human consumption would have been born in February 1997 – a full six months after the “clean feed watershed”.

4. In the six months since I last reviewed the ban the period from 1 February 1999 has been a vital one. After that date the combination of the clean feed watershed of August 1996 and the rule that over 30 month cattle could not enter the human food chain has largely cut off the threat to the human food chain from cattle that had acquired BSE from infected feed.

5. Given that infected feed was the main source of an epidemic that affected 173,391 cattle by 1 January 1999 this is of major significance.

6. Continued security of the human food chain from this source of infection depends on enforcement of the regulations. The regulations and procedures that have been taken to ensure that cattle over 30 months do not enter the human food chain have been extensive and proactive. They continue to evolve in the light of experience and the appearance of problems. The combination of slaughterhouse inspections by the Meat Hygiene Service to validate the age of cattle, together with the cattle identification measures (e.g. ear tagging and passports) appear to prevent most older cattle `slipping through the net' and entering the human food chain illegally.

7. I am concerned about the reported 11% error rate in compliance with the cattle identification scheme. This is said largely to be due to some farmers failing to understand a complex scheme with many strands to it. There are also apparently a small number of cases of dishonesty (e.g. switching ear tags). Whilst I am advised that the majority of errors are not such as to lead to over 30 month animals entering the food chain, this means that the teeth checks (to date cattle ages) being carried out in the slaughterhouse by the Meat Hygiene Service are an important barrier to any such cattle potentially entering the food chain and posing a risk to human health. The teeth checks should be operated as a 'belt and braces' to the cattle identification scheme and not a `fail safe'. It is to be expected that the level of non-compliance can be further reduced.

8. The maintenance of cattle feed free of contamination with animal protein is another mainstay of the action to reduce the epidemic of BSE in cattle and protect human public health. Sample inspections report a low level of positive or inconclusive results at 0.14% of the total samples taken in 1999 so far. Potential breaches are taken seriously and investigated thoroughly.

9. There is an apparently high level of compliance with other specified risk material controls to prevent cattle tissue infected with BSE entering the human food chain. However, vigorous checks, particularly on imports, need to continue.

10. Attention must now turn to the second presumed route of infection of cattle with BSE - maternal transmission. Maternal transmission will have accounted for a smaller proportion of the BSE epidemic all along. However, the actual number of maternally transmitted cases at the height of the epidemic would have been quite large i.e. the greater the number of feed acquired cases of BSE, the more infected calves would be born to them.

Now that the numbers of feed acquired BSE infections is much lower so too will be the number of maternally acquired BSE infections. Indeed, when cattle born after August 1996 themselves have calves there should be no (or very little) maternal transmission because the post-1996 cattle will be largely free of feed acquired BSE.

11. Since I last reviewed the ban six months ago, cattle offspring culls have been carried out under new legislation introduced on 4 January 1999. The cattle culls are estimated by the Oxford Group as reducing 46-48% of the infected offspring where signs of BSE are evident in mother or offspring. The fact that many male calves are slaughtered a few weeks after birth and are unlikely to enter the human food chain reduces further the numbers capable of transmitting infection through the human food chain.

12. However, the current problem of maternally acquired BSE infection relates to the offspring of those older cattle (born before August 1996). These older cattle that acquired BSE infection from eating contaminated feed before the "clean feed watershed" are still calving. The precise number of offspring in this category cannot be determined, it can only be estimated. They are the group where mother and/or offspring are slaughtered before their BSE infection becomes overt. Under these circumstances, an offspring incubating infection could enter the human food chain. Even within this category not all would be at a stage of infection to pose a risk of transmission (considered by SEAC to be within one year of clinical disease).

13. It is difficult to know the size of this group since it is to all intents and purposes "invisible", but an estimate from the Animal Health and Veterinary Group in MAFF that I have studied carefully has produced a figure of 500 cattle with an estimate of between 0.7 and 9.1 being within one year of clinical infection at the time of slaughter. The Oxford Group provided me with figures in their helpful provisional report and my discussions with a member of the team about their forecasts suggest similar orders of magnitude i.e. very small numbers of cows in this category. It is also important to emphasise that this is not a new infectious category. It has been present all along.

14. There was no further positive result in a subsequent cattle experiment to suggest that the bone marrow in cattle is infective in the absence of clinical disease, as had been feared when the original bone-in beef ban was put in place. However, studies with a higher sensitivity to detect infection are ongoing and it is still possible that it will be confirmed.

15. Dorsal root ganglia are a form of nervous tissue and before the bone-in beef ban were eaten in one of three main ways: in mouthfuls of meat as it was trimmed off the bone; in stocks, soups and gravies made from bones; in meat sold off the bone to which the ganglia clung. The ban reduced the risk from infected dorsal root ganglia consumed in the first two categories (assessed as 24% of the total ganglia, margin of error 10% - 45%). It could not eliminate the remaining proportion of such ganglia which were attached

to cuts of beef sold off the bone. This reflects that most meat was sold off the bone anyway. It also removed any source of infectivity in bones from the human food chain.

16. The risk estimate, based on certain assumptions, considered at the time of the original ban that all dorsal root ganglia entering the food chain could produce an infective dose of BSE capable of infecting 0.05 people (margin of error 0-11, with an 80% likelihood of the figure being at least less than one). These figures related to the United Kingdom as a whole in 1997. Since then there have been further declines in the BSE epidemic in cattle and new control measures have been introduced.

17. The additional risk which would be posed by that proportion of dorsal root ganglia currently kept out of the human food chain re-entering it, must now be considered to be tiny and unquantifiable in any meaningful way.

18. We do not know when people might have become infected in past years of the BSE epidemic, or how long the disease takes to develop. There have been 43 cases of vCJD to date, but it remains too soon to make any judgement about the likely size of an eventual human epidemic. We could still be facing a large number of cases over several decades. Some have made the assumption that these first cases of vCJD arose when the number of BSE infected cattle entering the human food chain were at their height. For this to be the case they would have to have had incubation periods shorter than many other human transmissible encephalopathies. However, the incubation period of vCJD may be much longer and closer to the standard pattern. This would lead to the more unsettling conclusion that the first cases were triggered at a time in the 1980s before the epidemic of BSE in cattle hit its peak. Thus, under this scenario, cases of vCJD triggered by the peak BSE incidence have yet to occur and could do so in large numbers.

19. A non-invasive test for disease is a key research priority, to provide information about the extent of BSE infection in cattle, the extent of vCJD infection in the human population and what tissues are infective.

RECOMMENDATIONS

- A decision to lift the bone-in beef ban should in my assessment be informed by the fact that the additional risk to human health created would at this stage of the cattle epidemic be tiny and unquantifiable in any meaningful way.

- The retention of the ban on the use of bones for manufacturing food products (including infant foods) would be a sensible and very precautionary approach. It would take account of the possibility that bone marrow might be infective (though this is by no means certain). It would protect consumers who might wish to avoid any risk associated with beef bone from being supplied with it in circumstances where they could not

make a fully informed personal choice.

- Work should continue with statistical modelling of the BSE epidemic in cattle to inform the action to achieve the ultimate goal of eradicating BSE in cattle. However, the range of assumptions made in such work and the uncertainties underlying them means that a variety of sources of data should be drawn on. Moreover, no estimates should be immediately adopted as "hard and fast" without thorough discussion. Thorough discussion and peer review of analyses and underlying assumptions is clearly both necessary and healthy.

- Cattle BSE control measures in particular the operation of the over 30 month scheme, the cattle identification systems, the animal feed controls, the specified risk material restrictions (including import inspections), the offspring culls – should continue to be rigorously enforced, regularly audited and improved in the light of experience. These are the measures that are protecting the human food chain by reducing the vast majority of the residual risk of exposure to BSE infectivity.

- Major research effort should be put behind developing a non-invasive diagnostic test for the human and cattle disease, ideally a blood test.

- The human disease, vCJD, should continue to be monitored, and studied very closely. The high level of past exposure to BSE infection through the human food chain coupled with uncertainty about the range of the incubation period for vCJD means that the human epidemic could still be quite large in years to come. Given that there is no species barrier between people (as there is between cattle and human beings) particular attention should be focused on any evidence of new methods of transmission from person to person. The precautionary action that has already been taken with regard to the hypothetical risk of medical procedures (e.g. leucodepletion of blood) should continue to be extended as appropriate based on assessments of risk and other relevant information.

PROFESSOR LIAM DONALDSON
CHIEF MEDICAL OFFICER
30 JULY 1999

Annex 4

Agriculture & Rural Development Committee ARD 13-99(evd.3)

Date: 13 October 1999
Time: 9:15 am - 12:30 pm
Venue: Committee Room 1, National Assembly Building

BEEF BONE REGULATIONS: ADVICE FROM CHIEF MEDICAL OFFICER FOR SCOTLAND

Summary

1. The Beef Bones Regulations came into force on 16 December 1997. They cover the whole of Great Britain with similar regulations in force in Northern Ireland. The Regulations ban the retail sale of beef on the bone derived from animals aged over 6 months at slaughter. They also ban using any bone-in beef from animals aged over 6 months at slaughter from being used in the preparation of any food or ingredient for sale direct to the ultimate consumer.

2. The ban was originally imposed following the experimental finding in BSE infected cattle that dorsal root ganglia (swellings on the sensory branches of the nerves near the spinal cord surrounded by the bone of the vertebrae of the animal) became infective in the pre-clinical phase of the disease. In one experiment, bone marrow also appeared to be infective. At their meeting on 2 December 1997, SEAC indicated that on the basis of the risk assessment available to them there was a 95% chance of no cases of nvCJD cases from exposure to dorsal root ganglia in 1998 and 5% chance of 1 case arising.

3. SEAC advised that if the Government decided that action was necessary to reduce the small risk further then there were two options. Option (a) was that no beef with the bone in from cattle over 6 months old should be sold to the consumer. Option (b) was that cattle slaughtered between 24 and 30 months of age for human consumption should be deboned under official control by the Meat Hygiene Service in licensed premises. Option (b) would have been difficult given the lack of capacity in these premises and the shortage of enforcement staff. The then CMO England indicated he would be very concerned if any tissues that have been shown to transmit BSE were knowingly allowed to remain in the human food chain. As a result, the Regulations were made.

4. The Regulations were reviewed by the CMO England in January 1999. He concluded then that the Regulations should stay in place but should be reviewed 6 months on from 1 February 1999, looking at some key factors:

- The extent of the further decline in the incidence of BSE infected cattle;
- The effectiveness of control measures to prevent the entry of BSE infected cattle material into the human food chain;
- The extent of any increase or any changed pattern of relevance to human disease;
- The results of any future relevant research.

5. We endorse fully CMO England's review at the time and, in conjunction with fellow CMOs, undertook to carry out further review. A number of updated data sources have become available, while other assessments on which we rely are not complete at the time of writing. Residual uncertainty about the animal and human disease leaves judgements on the risks of lifting Beef Bones Regulations dependent on information not currently to hand.

6. **The CMO Scotland does not recommend any lifting of the ban at this stage.** In reaching this view, the CMO Scotland has taken account of a number of factors:

- The current level of BSE cases. As at 27 August 1999, there had been 1,319 BSE cases reported and confirmed this year in Great Britain (24 in Scotland). For all of 1999, we can expect over 2,200 cases in Great Britain.
- Dorsal root ganglia are known to be highly infective and to develop infectivity before disease becomes clinically apparent;
- Although recent experiments have not found any infectivity in bone marrow, the experiment which did cannot be ignored and there is still uncertainty about the possible infectivity of marrow;
- There is still uncertainty about the number of cattle acquiring BSE by maternal to calf transmission;
- Previous assessments of risk have relied on modelling by the Wellcome Trust Centre for the Epidemiology of Infectious Disease in Oxford. Their most recent complete estimates are unlikely to be available until November;
- While the Cattle Identification system, the Over Thirty Month Scheme, the ban on using Mammalian Meat and Bone meal as a feedingstuff and the Specified Risk Material controls appear to be generally satisfactory, there are still some imperfections in compliance;
- There continues to be considerable uncertainty about the eventual size of the vCJD epidemic. We simply do not know whether the epidemic will remain at low numbers or increase dramatically.

7. The Chief Medical Officer continues to maintain close contact with fellow CMOs in the UK countries, and with developments in information relating to BSE, CJD and the key factors relating to this review. As new information comes to hand The Chief Medical Officer has undertaken to re-assess the position and advise as soon as the indications are positive that it would be safe to lift the ban on beef on the bone.

8. The Chief Medical Officer's detailed consideration of medical aspects is attached.

Andrew Fraser
Deputy Chief Medical Officer for Scotland
21 September 1999

BEEF ON THE BONE BAN

DETAILED CONSIDERATION OF MEDICAL ASPECTS

Background

The retail ban on bone-in beef was imposed on 16 December 1997 following review by the Spongiform Encephalopathy Advisory Committee (SEAC) and advice from the then Chief Medical Officer (CMO) for England, Sir Kenneth Calman. This advice was endorsed by CMO (Scotland) and accepted by Scottish Ministers. The main reason for imposing the ban had been the experimental demonstration that dorsal root ganglia (DRG) became infected in the preclinical phase of Bovine Spongiform Encephalopathy (BSE) (ie infectivity had been demonstrated experimentally at 32 months whereas clinical signs developed at 35 months). The demonstration of infectivity in bone marrow at 38 months in one experiment gave rise to concern that foods produced from bones might also constitute a source of variant Creutzfeldt Jakob disease (vCJD). Whereas consumer choice might have been contemplated in the case of T-bone steaks, rib roasts and the like, it was recognised that it would be well nigh impossible to achieve informed consumer choice in the case of soups, stocks and gravies produced from bones.

At their meeting on 2 December 1997, SEAC considered that the risk posed by DRG in the human food chain was ‘very small’ and noted estimates that 24% of total infected DRG are attributable to bone-in beef whereas the remainder are not removed by the normal boning out process. They concluded that there was a 95% chance of no case of vCJD arising in the coming year as a result of eating infected DRG and that there was a 5% chance of one case arising. Given the great uncertainty about many aspects of the transmission of infectivity to man, the actual figure was calculated to be anywhere between 0 and 10 cases.

Review of the ban was undertaken by the present CMO (England), Professor Liam Donaldson in his memorandum to Government on 18 January 1999. In essence, his advice was that an immediate lifting of the Beef Bone Regulations would allow reintroduction of a food hazard that had been eliminated a year earlier, accepting that the risk was very small and likely to have reduced in magnitude since the ban had been imposed. The advice noted that the key interventions responsible for the decline in the BSE epidemic in cattle were (1) the implementation on 1 August 1996 of strengthened legislation to prevent feeding potentially infective material to cattle and (2) the over 30-month (OTM) rule introduced on 29 March 1996 which prevents older cattle from entering the food chain. If BSE was only transmitted to cattle by eating infected material derived from other animals, rigid enforcement of the feed ban should have ensured eradication of BSE in cattle and meant that after 1 February 1999, no infected cattle should enter the human food chain. However, it is now appreciated that there is a 10% risk of infected dams transmitting BSE to their calves. To reduce this additional threat, a statutory cull of the offspring of cows developing BSE was implemented with effect from 4 January 1999.

In recommending continuation of the ban, CMO (England) noted that further review would be undertaken after six months and in recent months he has attempted to involve fellow CMOs in the development of advice. At a meeting of all four CMOs on 27 July it was clear that CMO (England) was much more inclined to recommend lifting of the ban than his three colleagues, an approach to which he has adhered since. A major concern for CMOs in Scotland, Wales and Northern Ireland is the fact that the advice of the Wellcome Trust Centre for the Epidemiology of Infectious Diseases (the Oxford Group) on the risks posed by BSE cattle will not now be ready until November. It was advice from this Group that was used by SEAC and CMO (England) in framing their earlier recommendations and it would be strange to move on this occasion without taking their revised estimates into account.

Factors to consider when reviewing the bone-in beef ban
It has always been accepted that particular attention would be paid to:

- Trends in the incidence of BSE in cattle
- The effectiveness of control measures to identify and exclude cattle which could be incubating BSE and exclude BSE infected cattle material from the human food chain
- Trends in the pattern of the human form of BSE (vCJD)
- Any new research findings throwing light on the nature of the disease, its frequency and its mode of transmission

Extent of the decline in BSE in cattle

The BSE epidemic began in 1986. The peak of confirmed cases in GB was 36,682 in 1992 whereas the peak in Scotland was 2,208 in 1993. While the number of cases has virtually halved in Scotland year-on-year in the period 1993-1998 (2,208, 1,326, 671, 302, 141, 85; with 20 cases to 16 July in 1999) the rate of decline in the UK as a whole has been subject to more fluctuation and faltering. Potential explanations include non-compliance with regulations regarding risk materials in abattoirs, initial failure to enforce the ruminant feed ban, and the ‘vertical’ transmission of infection from cow to calf. The latest prediction of the Veterinary Laboratory Agency is that the number of cases of BSE in 1999 will slightly exceed their earlier upper estimate of 2215. A recent survey of apparently healthy cattle slaughtered under the OTM Scheme (OTMS) has shown that 18 of 3,951 brains studied (0.46%) had BSE (the results of further tests with new antibodies are awaited). While it must be stressed that all these cattle were five years of age or older and none were destined for food, it appears that slightly more cattle close to clinical disease (and therefore likely to be infective) are being killed in the OTMS than are currently being reported as BSE cases.

As discussed earlier, it is generally assumed that there are only two mechanisms for cattle acquiring BSE; eating infected material derived from other animals and cow-to-calf transmission. While the ‘sister’ disease scrapie appears to be transmissible ‘horizontally’ from sheep to sheep and by grazing infected pasture, there has been a reassuring lack of evidence of horizontal transmission of BSE in cattle. A continuing study of 14 herds that were heavily exposed (i.e. experienced more than 50 cases) before July 1998 shows that 10 have now

gone for more than a year without having a new case; effectively the epidemic appears to be extinct in such herds.

In conclusion, the BSE epidemic is not declining smoothly and as rapidly as had been hoped, over 2,200 cattle are likely to develop BSE in 1999, and earlier estimates of the number of undetected BSE cases going into the food chain may prove to be underestimates.

Effectiveness of control measures

Operation of the OTMS

The OTM rule was introduced by Government on 29 March 1996 to reduce the risk of meat containing detectable levels of BSE infectivity being sold for human consumption. Exceptions were allowed for the Beef Assurance Scheme and for meat imported from exempted countries. The OTMS relied initially on the number of an animal's teeth to determine age but is now reinforced by ear tagging and animal passports (since 1 July 1996). Data supplied by MAFF suggest that ear tags are lost at a rate of just under 2% but this should improve with the requirement (from 1 January 1998) to tag both ears. There must be concern about tag switching (which has resulted in successful prosecutions) and by the conclusion from farm inspections that 'many errors are still being made by farmers' in cattle identification. Of 9,300 cattle identification inspections in England and Wales in the past year, farmers were found to be failing to comply with identification and record keeping rules in 11% of inspections. Although the cases that have been investigated indicate that these have by and large been minor technical breaches of the OTM rule rather than deliberate breaches there has to be some residual anxiety about the implications for human health.

Feed controls

Infected mammalian meat and bonemeal (MBM) is generally accepted as having caused the BSE epidemic in cattle. It is also generally accepted that the feed ban imposed in 1988 was not fully effective and that infected material continued to 'leak' into ruminant feed until the feeding of MBM to all farmed livestock was prohibited in March 1996.

The European Commission inspected arrangements in the UK in July 1996 and found itself content; a view shared by the Standing Veterinary Committee in subsequent inspections, the last of which took place in July 1998. The Government's own feed sampling programme confirms wide compliance with controls; up to 7 June 1999, only 0.31% of the 42,465 routine feed samples tested positive or inconclusively for the presence of mammalian protein. Of the 64 positive/inconclusive samples so far investigated, 61 can be attributed to the legitimate presence of mammalian protein in feed intended for non-ruminants. There have been two incidents where there has been significant potential for cattle being exposed to mammalian MBM. The first involved the mixing of cattle feed with poultry additive meal contaminated with mammalian MBM and led to the destruction of 38 cattle, while the second involved a cow and calf straying into a compound containing a storehouse for MBM from the OTMS.

Slaughterhouse practice

In 1998 there were 4 successful prosecutions against premises for failure to properly remove Specified Risk Material (SRM) from a bovine carcass destined for human consumption. A State Veterinary Service audit in the same year showed a high level of compliance with the SRM rules and only 5 instances in which SRM was not properly removed. There has not been a case of spinal cord remaining attached to a bovine carcass since March 1996 in the UK although the Meat Hygiene Service recently found that two consignments of meat from the Republic of Ireland contained pieces of SRM attached to sheep carcasses.

Offspring cull

The voluntary cull of calves born to cows with BSE commenced in August 1998 and became compulsory with effect from 4 January 1999. The risk of infected cows transmitting BSE to their calves is some 10% (estimates range from 0-17%) and is highest in calves born to dams that are within six months of developing clinical disease. The Oxford Group have yet to produce their updated estimates of the numbers of animals in the late stage of incubation of BSE that are slaughtered before attaining 30 months and so remain eligible to enter the human food chain. Their preliminary calculations suggest that in the period January 1997–March 1999, approximately 3670 calves were born to BSE-infected dams in the last 6 months of their incubation period. They estimate that the Offspring Cull Scheme has removed 1700-1760 of the 3670 offspring (46-48%) just mentioned, and suggest that the Offspring Cull has reduced the risk to human health by 50% and perhaps by as much as 70%.

In conclusion, there are no grounds for complacency regarding the cattle identification scheme, feed controls or slaughterhouse practice, despite a significant closing of loopholes that could allow infected BSE material to enter human food. The OTMS, feed controls and the Specified Bovine Offal Ban have made an enormous contribution to risk reduction but uncertainty still surrounds the threat posed by maternal-to-calf transmission.

Trends in the pattern of vCJD

Variant CJD was first described and putatively linked to BSE in 1996, the initial cases having been identified in the previous year. There have been 43 deaths to date but the CJD Surveillance Unit are aware of more clinical cases awaiting diagnostic confirmation. The number of deaths in each quarter remained relatively constant until the last quarter of 1998 when there were 9 deaths (totals in years from 1995 onwards; 3,10,10,16), giving rise to speculation that the epidemic curve was about to change dramatically. However, it is still too early to make confident predictions about the eventual size of the epidemic and one can take no comfort from the fact that ‘only’ four cases of vCJD have been confirmed so far in 1999. In the individuals who have contracted vCJD, the timing of exposure to BSE and source of infectivity are simply not known and we have no information about the size of the infecting dose in man, although we do know that infection can be transmitted by 1 Gm of material in cattle. It is apparent that individual susceptibility is affected by genetic factors but the influence of environmental risk factors and age is uncertain. Variant CJD affects relatively young people and while childhood cases have not been recorded, it is salutary to

note that kuru (a prion disease caused by cannibalism in Papua, New Guinea) has occasionally been recorded in children as young as 4.5 years.

In a recent Lancet article (July 24, 1999) Professor John Collinge suggests that incubation periods for human prion diseases such as kuru or iatrogenic CJD range from at least 4 years to 40 years with a mean of about 10-15 years. The effect of the species barrier to BSE is not known but Collinge argues that mean incubation periods of BSE in humans may extend to 30 years with a range of 10 years to a normal lifespan. If one assumes that the highest exposure of the UK population to BSE was around 1989-90 when the specified offal ban was being introduced against a rapidly rising incidence of BSE in cattle, then we have still some way to go to the peak of the vCJD epidemic.

Conclusions regarding the bone-in beef ban

As indicated earlier, SEAC always considered that the risk posed by DRG in the human food chain was ‘very small’ but recognised that infectivity in DRG is likely to be high and of a level similar to that found in brain. Furthermore, DRG undoubtedly contain infectivity in the preclinical stages of BSE and cannot be disregarded as a risk to human health. There has been considerable speculation about the significance of finding infectivity in bone marrow at 38 months in one experiment and some have attempted to explain this as a ‘rogue result’. While it can be argued that infectivity has only been detected after the time at which clinical signs become obvious, the result is not easily dismissed and the interval of 3 months gives no grounds for complacency. I understand that further experiments are underway and the results will be awaited with immense interest. For the moment, the fact that bone marrow infectivity has been demonstrated at all at a time close to the onset of clinical signs has to leave one uncomfortable with the prospect of allowing the production of gravies, soups and stocks from beef bones until further information is available. I appreciate that in their deliberations in November 1998, SEAC concluded that the risk from bone marrow was likely to be very small, and that the risk from bone marrow and DRG was less than it was 12 months earlier. However, they also concluded that it was still not possible to predict with any degree of precision the risks to public health from DRG and bone marrow. While I accept that in comparison to risks experienced before introduction of the OTMS and the Specified Bovine Offal ban, the risks that would now be posed by allowing the sale of bone-in beef are indeed very small, I cannot feel comfortable with allowing a known risk material to be reintroduced into the human food chain at a time when great uncertainty still surrounds our understanding of the epidemiology and transmission of BSE.

I appreciate that the BSE epidemic in cattle continues to decline throughout the UK but its rate of decline has fluctuated and one remains concerned by predictions that there will be more than 2,200 cases in 1999. Much will depend on the proportion of these cattle that could enter the human food chain and I feel strongly that we must await the considered view of the Oxford Group which is expected in November. It would be difficult to justify using the Oxford modelling to underpin decisions about imposing and retaining the bone-in beef ban but then recommending a lifting of the ban just two months before the latest estimates become available.

With regard to vCJD, I accept that the bone-in beef ban is unlikely to have had any influence on the cases that have come to light so far or which will come to light in 1999. However, there has to be great continuing concern about the way in which the vCJD epidemic will unfold. Accepting that the pool of BSE infectivity in cattle was responsible for the pool of infectivity in man, it would be unforgivable to allow any further cases of vCJD to develop when we appear to be within reach of the point of extinguishing the BSE epidemic in cattle. Any case of vCJD is a tragedy for the individual concerned, their family and friends, but the need to do everything possible to prevent further cases is underlined by the possibility of human-to-human transmission.

I am reassured to learn that my plea for caution in respect of vCJD and the bone-in beef ban is shared by the CMOs in Wales and Northern Ireland and by colleagues at the CJD Surveillance Unit. To my mind, the evidence has not changed sufficiently to justify a lifting of the ban at this time. The history of the BSE epidemic underlines the advisability of continuing to err on the side of caution. I do not consider that we yet have enough scientific certainty to depart from the precautionary principle and would recommend that the ban stays in place, subject to review on receipt of the definitive estimates from the Oxford Group and to reappraisal in January 2000 if the ban has not been lifted by that time.

Professor Sir David Carter
Chief Medical Officer for Scotland

Annex 5
ARD 13-99(evd.5)

Session 1999-2000

Scottish Parliament
Rural Affairs Committee Official Report

Meeting 6

6 October 1999

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Tuesday 5 October 1999

RURAL AFFAIRS COMMITTEE 6th MEETING

RURAL AFFAIRS COMMITTEE
6th Meeting

CONVENER:
*Alex Johnstone (North-East Scotland) (Con)

COMMITTEE MEMBERS:
*Alex Fergusson (South of Scotland) (Con)
*Rhoda Grant (Highlands and Islands) (Lab)
*Richard Lochhead (North-East Scotland) (SNP)
*Lewis Macdonald (Aberdeen Central) (Lab)
*Irene McGugan (North-East Scotland) (SNP)
*Alasdair Morgan (Galloway and Upper Nithsdale) (SNP)
*Mr John Munro (Ross, Skye and Inverness West) (LD)
*Dr Elaine Murray (Dumfries) (Lab)
*Cathy Peattie (Falkirk East) (Lab)
*Mr Mike Rumbles (West Aberdeenshire and Kincardine) (LD)
*attended

WITNESS:
Professor Sir David Carter (Chief Medical Officer for Scotland)

THE FOLLOWING MEMBERS ALSO ATTENDED:
Mrs Margaret Ewing (Moray) (SNP)
Euan Robson (Roxburgh and Berwickshire) (LD)
Mary Scanlon (Highlands and Islands) (Con)
Dr Richard Simpson (Ochil) (Lab)

Mrs Margaret Smith (Edinburgh West) (LD)

COMMITTEE CLERK:
Richard Davies

SENIOR ASSISTANT CLERK:
Richard Walsh

ASSISTANT CLERK:
Tracey Hawe

Prepared 6 October 1999

Scottish Parliament
Rural Affairs Committee Official Report **Meeting 6**

6 October 1999

Scottish Parliament
Rural Affairs Committee
Tuesday 5 October 1999
(*Afternoon*)
[THE CONVENER *opened the meeting at 14:02*]

Beef on the Bone

Col 137 **The Convener (Alex Johnstone):** Ladies and gentlemen, it is my pleasure to welcome you here today. We have an extensive agenda, which begins with the opportunity to welcome Sir David Carter, the chief medical officer, who will give us the latest evidence on beef on the bone. We will be delighted to have members of the Health and Community Care Committee with us today. Mary Scanlon has joined us, and it is possible that others will arrive—certainly one other member is expected. Mary Scanlon is welcome to ask questions, and that offer will be extended to other members of that committee.

I invite Sir David Carter to come to the table.

We should consider how the remit of this committee applies to Sir David Carter's evidence, which may be largely based on health issues. It is a matter of respect to the Health and Community Care Committee that members of the Rural Affairs Committee realise that our remit and theirs come up against each other on this. We want to be non-confrontational, and where we stray over our remit, it will be a priority that members of the Health and Community Care Committee should be allowed to comment. We have discussed the remit and are all aware of our position.

I ask Sir David Carter to present the latest evidence on the ban on beef on the bone.

Professor Sir David Carter (Chief Medical Officer for Scotland): Thank you. I welcome the opportunity to be here today and will be very happy to answer any questions. I am sensitive to the fact that this issue crosses rural affairs and health. It is difficult to deal with one without touching on aspects of the other.

The fact that we are here at all reflects the difficulty that one has to define areas of certainty in the current debate about the beef-on-the-bone ban and the safety of beef in this country. One of our continuing difficulties is that there are still areas in which we do not have hard evidence on which to base advice to Government and Parliament. With every month and year that go by, some of those gaps are being filled in, but it is
Col 138 important to realise that there are still major areas of uncertainty.

I will not rehearse the entire BSE epidemic with you—I realise that you have been briefed and are well aware of the background—but I will touch

on one or two salient points. We are all aware that BSE became apparent in 1986. You will be well aware that it rapidly became clear that this was a major epidemic, at the height of which there were 36,000 confirmed cases a year of cattle with BSE. I stress that those are confirmed cases of BSE, and that that number will be an underestimate. It could be argued that Scotland was slower to be affected than other parts of the United Kingdom. It is also clear that the magnitude of the epidemic has been less in Scotland than in other parts of the UK. About 175,000 cattle with confirmed BSE have been slaughtered. The peak of the epidemic in Great Britain was in 1992. The peak in Scotland was slightly later, in 1993. To nail down a fact, I will say that, as far as we can tell, at the peak of the epidemic in Scotland, the number of affected cattle was 2,208. Since then, there has been a decline in the epidemic, which has been smoother in Scotland than in the rest of Great Britain. In the past few years in Scotland, the number of confirmed cases has gone from 302 to 141 to 85, and the latest figure that we have for this year is 25, but that figure is likely to increase once the final accounting for the year has been done. The epidemic in Scotland is halving year on year. However, I stress that there has not been a smooth decline in the rest of the UK. In some parts of the UK, there have been years in which the numbers seem almost to have plateaued rather than continued to decline. Why has there been a decline? The main reason is the ban on the feeding of mammalian carcases and protein derived from them to other farm animals and, in particular, to ruminants. That ban was introduced in 1988 but, in retrospect, it is clear that it was never adequately enforced. The date that most people regard as the clean-feed watershed is 1 August 1996.

The evidence this year has been reassuring. The Ministry of Agriculture, Fisheries and Food has looked in great detail at the degree to which the various bans have been enforced. Although there have been some violations—if you wish, we can talk about them later—we can be reassured that the ban on feed derived from mammalian carcases came into effect with vigour on 1 August 1996.

If the ban is effective, why has the BSE epidemic not melted away? As you are well aware, the explanation is that there is a second way in which cattle can get BSE. In the past, most of them got it by eating dead cattle. We now

Col 139 recognise that BSE can also be passed from cow to calf—so-called vertical transmission. The risk of that happening is rated to be about 10 per cent. That is important as it is uncertainty in that area that fuels the uncertainty over whether the beef-on-the-bone ban needs to stay.

I should stress that an additional measure was put in place: from August last year, there was a voluntary cull of any calf whose mother was known to have developed BSE subsequently. With effect from January, that has become compulsory. If a cow develops BSE, or is found to have BSE at the time of slaughter, its calves are culled automatically. I find that reassuring, as it will be a significant step in further eradication of the BSE epidemic in cattle.

I should also point out the importance of the safeguards, over and above

that, which are in place. Members will be aware of the ban on specified risk material: brains and spinal cord, for example, are taken out in slaughterhouses. Another key measure has been the introduction of the over-30-months rule, which means that cattle older than 30 months cannot be used for human consumption. Members are probably aware that measures have been introduced recently to increase the confidence with which one can say "That cow is indeed 30 months old". In the past, people have relied on dentition, but the ear-tags scheme and the passport scheme will improve our ability to tell the age of a cow at the time of slaughter.

What is the basis of the over-30-months rule? Why was 30 months selected? Forgive me if I go into a little detail, but I think that it is critical. In a series of so-called pathogenesis experiments, cattle were deliberately infected with BSE by being given the brains of infected cattle to eat. Those cattle were then sacrificed at varying intervals. Material that had been taken from those sacrificed cattle was injected into mice, in a bioassay, and the experiment was continued to discover which mice developed BSE; in other words, which parts of the cattle had been affected by BSE at the time of slaughter.

The infecting dose that is needed for such experiments is 1 g of infected cattle brain—not a huge dose, as it is a very infective disease. I shall inform members of the committee which parts of cows become affected by BSE, and, in turn, become infective. The small intestine becomes infective at six months; the brain and spinal cord become infective at 32 months; clinical signs—when people notice that there is something wrong with a cow, as it is staggering and manifesting the signs of mad cow disease—become apparent at around 35 months.

Recently, evidence became available that suggested that dorsal root ganglion and bone

Col 140 marrow also become infected. Dorsal root ganglion becomes infected at 32 months and bone marrow, in one experiment, became infected at 38 months. I would be happy to enter into details about dorsal root ganglia if members so wish. As the nerves leave and enter the spinal column, there is a swelling on the nerves that is called a dorsal root ganglion. It is an extension of the spinal cord.

I stress that those experimental conditions in which cattle were given BSE-infected material to eat do not necessarily throw the light that could be hoped for on cow-to-calf transmission. We are still not certain what the basis is for cow-to-calf transmission, whether it happens while the calf is still in the womb, at the time of birth, or subsequently. There is no evidence to suggest that milk is responsible, but we still do not know the nature of cow-to-calf transmission. I suggest that, although those pathogenesis experiments are very important, there is still significant uncertainty over the relationship between them and the reality, on the farm, of the transmission of BSE from cow to calf.

Another vital point must be made. I said earlier that those experiments work by injecting bits of sacrificed cattle into mice, then studying the mice to see whether they develop BSE. In doing that, a species barrier is being crossed, and we do not know whether that is a significant

barrier; in other words, whether mice are less sensitive to BSE than other cattle would be, were the species barrier not crossed. I hasten to add that experiments that have taken mice out of the loop are now in train—transmission experiments in which the transmission is from cow to cow. However, we still do not have the data from those experiments that would throw light on the issue that we are here to discuss today.

14:15

Let me fast-forward to the deliberations of the Spongiform Encephalopathy Advisory Committee, the main committee of experts that advises the Government. The key meeting was that of 2 December 1997, at which SEAC was informed of the infectivity of dorsal root ganglia and bone marrow, and was asked to form a view about how significant a hazard that posed to human health. As the committee is probably aware, SEAC calculated that there was a 95 per cent chance that no case of variant Creutzfeldt-Jakob disease would develop as a consequence of exposure to dorsal root ganglia and bone marrow, and a 5 per cent chance that one case would develop. However, SEAC's range of risk ranged from no cases to 10 cases. Those were cases not of infected cattle, but of human disease. It was that risk estimate that led to the decision to introduce

Col 141 the Beef Bones Regulations, which came into force on 16 December 1997. That is the ban that we are discussing today.

SEAC revisited the issue in November 1998. As on previous occasions, its deliberations were informed by the estimates of a group in Oxford. The Oxford group—of which, I am sure, members have heard—is led by Professor Anderson and is based at the Wellcome Trust Centre for the Epidemiology of Infectious Disease. It is a world-rated group, which is universally regarded as excellent. The Oxford group has been trying to define the effect of the offspring cull on the number of cattle that are incubating BSE and could get into the food chain, because they are younger than 30 months. That is the key information that SEAC has been using.

In November last year, the Oxford group estimated that the total number of cattle incubating BSE that would be slaughtered in 1999 for human consumption was 43. The range of estimate was between 25 and 66. Critically, the number of cattle that might have developed BSE within a year was rated at between one and two, with the range being nought to five.

I should stress again that SEAC was concerned that all the evidence to date had been based on mouse bioassay, and that there was uncertainty about the effects of the species barrier on sensitivity. It is quite possible that some of the other 43 cattle would have a degree of infectivity too low to be detected in the mouse bioassay. Furthermore, with every year that goes by, the groups conducting research in this area are better placed to take back bearings on the information that has become available during the previous year. Looking back, the Oxford group came to the conclusion that its estimates of the previous year had been underestimates. That indicates that there is still a great deal of uncertainty.

SEAC concluded that it was
"still not possible to predict with any degree of precision the risks to human health from dorsal root ganglia and bone marrow".
In fairness, I should say that SEAC was reasonably convinced that the risk would be smaller than it had been a year earlier. I share that conviction, as the risk is undoubtedly diminishing with time. SEAC felt that the risk posed by bone marrow was likely to be very small; I agree with that. It also concluded that the risk posed by dorsal root ganglia was very small—much smaller than it had been at the height of the BSE epidemic, back in 1989 and 1990. I must agree with that, too.
I want to say something about the human version of the condition, variant Creutzfeldt-Jakob's disease. We cannot see BSE in cattle and
Col 142 the beef bones ban in context unless we understand the thinking on new variant Creutzfeldt-Jakob's disease in people. We know that this human form of BSE is caused by the same prion that causes BSE in cattle. There is compelling evidence that there has been transmission from cattle to person by eating infected material.
The disease first became apparent in 1995. It was first reported in 1996. I want to pay tribute to the National CJD Surveillance Unit in Edinburgh: Professor Will and Dr Ironside have been key figures in defining the disease and monitoring its progress. In 1995 there were three cases, then 10 cases in 1996, 10 cases in 1997 and 16 cases in 1998. There have been seven cases so far this year, the total number of cases being 46. All the indications are that we have not seen the last of CJD this year and that the number of cases will increase. We have to wait until next year before we can say with any certainty how many cases occurred this year.
It is important to recognise that there was a significant alarm at the end of last year; of the 16 cases that were reported last year, nine occurred in the last quarter. There was anxiety that we were witnessing a sudden take-off in the epidemic growth curve of variant CJD in people. So far this year, the news is better than we had feared: the number of cases has fallen back to its previous level. However, no one can tell with any certainty the extent of the epidemic in people. We can say that there are a whole host of things that we do not know. We do not know the infecting dose for people, the effect of the species barrier or why some people are more susceptible than others.
Is the disease peculiar to young people? Most people suffering from the disease have been in the 19 to 40 age group; the oldest person was 48 at the time that the disease became manifest. There is an important underlying issue. We still do not understand the incubation period. If a person contracts the disease by eating infected beef, how long is it before the disease becomes apparent?
There are other forms of spongiform encephalopathy. One of those is a disease called kuru, which occurred in Papua New Guinea through cannibalism—eating the brains of dead people. In that situation we can say with some certainty when the index event occurred and we can then define the incubation period. We know that it can be as short as four-and-a-half years, but we also know that it can probably be as long as 40

years. The best estimate at present is that the mean incubation period for such diseases, including BSE and new variant CJD, is of the order of 10 to 15 years.

If one argues that the BSE epidemic began to gather momentum in the late 1980s, peaked in the

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1990s and that that was the maximum period of risk, it is clear that there is still some way to go before we reach the peak of the epidemic in people. Current estimates are almost meaningless because we do not have a satisfactory evidence base. Estimates range from a few hundred cases to several million. We simply do not know. It is all very well to say that that the health risk posed by material currently in the food chain is small compared to the one we faced in 1988 to 1999, but we still do not know how large the risk was in that period.

My main message is that the BSE epidemic is subsiding. That delights me, as it should everyone. However, it has not gone away entirely and a significant area of residual uncertainty remains. To my mind, the evidence base is nowhere near secure enough for me to reintroduce a potential health hazard to the human food chain.

I am sure that we will debate the size of the risk. As I said earlier, although the huge wave of risk was posed in the earlier period of the BSE epidemic in cattle, we are not fully out of the woods. With every month that goes by, the evidence base firms up. Another year of statistics on BSE in cattle is almost completed and we are awaiting this year's Oxford estimates, about which there has been a lot of speculation. Oxford is reluctant to give estimates until the data have been worked through. The beef herd in this country has changed its demography. I understand that the estimates from Oxford will be available to SEAC at its meeting on 29 and 30 November.

If we and SEAC have framed our response to the beef-on-the-bone question in relation to those estimates it would be indefensible not to wait for them this year, particularly when uncertainty has surrounded those estimates in the past. I would be reassured if the estimates revealed an absence of BSE in three-year-old cattle in the year 1999-2000. An absence of BSE in four-year-old cattle from mid-2000 would be convincing. However, I hasten to add that the lifting of the beef-on-the-bone ban does not necessarily need to wait until that time.

At the end of August, it seemed to me that the evidence that had been used to frame the ban had not changed significantly, certainly not from the evidence that we had in January and February of this year. I felt that we needed to take account of the data maturing this year, particularly the Oxford estimates.

In this month's debate, nobody has recommended lifting the beef bones ban. It is important to be clear about that. All the chief medical officers in Britain believe that the beef bones ban has to remain in place. All but the chief medical officer in England believe that, until we

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have further information, the ban on retail sale of beef on the bone should also remain in place—not just because of dorsal root ganglia but because of the anxieties about bone marrow, which is used in stocks, soups, gravy and sauces. Consumer choice is not a relevant factor in

dealing with bone marrow in those products.

I apologise if I have gone on longer than you would have liked, but I felt that it was important to outline the evidence base as well as possible.

The Convener: Thank you very much.

I take this opportunity to welcome Mrs Margaret Smith, Dr Richard Simpson and Mrs Margaret Ewing, who came in at the start of Sir David Carter's speech. For their benefit, I will say that I intend to include all members who are present in the discussion. I will permit members to pursue lines of questioning until they are satisfied that they have got the information that they wanted.

It is only fair that, since Mike Rumbles originally proposed that Sir David Carter come to the committee, he should begin the questioning.

14:30

Mr Mike Rumbles (West Aberdeenshire and Kincardine) (LD): I thank Sir David for coming along today. There has been much controversy about this issue and, while we all recognise that it is a health issue and that Sir David's advice to the Minister for Health and Community Care is essential, the issue impacts directly on rural areas. Many of my constituents have asked me about the latest medical evidence and why the ban cannot be lifted now.

I do not propose to talk about lifting the ban, but you mentioned, Sir David, that there has not been a significant change in the evidence. I want to focus on the word "significant". What change has occurred—in the scientific evidence that is used by you and the chief medical officer in England—that has persuaded your English colleague to change his views while you maintain yours? "Significant" seems to be the key word.

Professor Sir David Carter: As I see it, the evidence base has not changed. The backdrop of the BSE epidemic is changing as we speak. I have been given evidence, which I find pleasing and reassuring, that the BSE epidemic is declining. In terms of the risk estimates that are posed by bone marrow dorsal root ganglia, the key issue is how many of the cattle that are incubating BSE could pass it on. We have no evidence that is different from what we had in February, when the advice to Government, framed by my colleague in England, was that the ban should remain in place.

Mr Rumbles: So the evidence has not changed; your English colleague has changed his mind?

Col 145 **Professor Sir David Carter:** You would have to ask him that. We are looking at the same evidence base. Neither I nor my colleagues in Wales and Northern Ireland have any evidence that is different from that available to the CMO in England.

The data that I have given are collated on a UK basis, although for the incidence of BSE in cattle they can be broken down and the Scottish figures can be taken out. The figures that I gave for all the other issues are for the UK.

Mr Rumbles: From the statistics that you produced, it strikes me that the problem is much greater south of the border. I am trying to understand the logic. It seems illogical that the CMO for England—where

the crisis is bigger—has taken a significantly different view from yours, north of the border where the crisis is not so great.

Professor Sir David Carter: You are uncovering an important area that I should perhaps have mentioned earlier. It is difficult to think of those things as Scottish or English questions; people cross borders and, more important, meat crosses borders. We will be in a stronger position on knowing the source of each bit of beef that comes into the shops, but we are not there yet. It would be impossible—or at least it would not make much sense—to impose a ban in one part of the UK but lift it in another. We are dealing with a UK context.

Alex Fergusson (South of Scotland) (Con): I, too, thank the chief medical officer, particularly for the plain way in which he addressed us earlier, which was very easy to understand.

I will continue Mike's line of questioning. As Sir David freely said, there have been 25 cases in Scotland this year. None of those cases has been in the beef herd; every one has been in the dairy herd, none of which—since BSE—gets in to the food chain. Given those facts, and the fact that those 25 cases are from a total of 1,400 or so for the UK, I must continue to ask how the English CMO has reached his conclusion while we cannot.

Sir David mentioned, in his excellent statement, how much more the curve is coming down here and how factors here seem so much more secure.

Professor Sir David Carter: The answer is the same. I stress again that the Oxford estimates are looking at exactly this issue. It is not just the overall number of cases of BSE in the herd that informs those estimates. The research is examining carefully the demography of the herd and the age spectrum of the cattle concerned. The issue about older versus younger cattle is at the heart of the Oxford estimates. The key issue is what the impact of the offspring cull will be on the risk of cattle under 30 months still being out there incubating BSE, and at risk for human consumption.

Col 146

I will give members a figure that I did not mention earlier, which is part of the early digest. In Great Britain, 3,670 calves were born between January 1997 and March 1999—they would be still under 30 months old—to dams in the last six months of the incubation period. The cull will have removed an estimated 50 per cent of those cattle, but there remains a significant area of uncertainty.

I return to Alex Fergusson's question, which was essentially, "How can I look at this evidence base and conclude what I have concluded?" My answer is that on the retail sale of beef on the bone, my colleagues in Wales and Northern Ireland come to the same conclusion as I do, whereas my colleague in England comes to a different conclusion—although not about beef bones, as there is still agreement on bone marrow.

Could Scotland go it alone and say that we will lift the ban here because our numbers are much smaller? Nothing would give me greater pleasure than saying that, but the root difficulty is that when people buy beef from

the shops, the source of origin cannot be guaranteed, although we are getting into a stronger position as far as that is concerned. I am well aware of the fact that the beef-on-the-bone ban is another layer of difficulty for the beef industry—I am not talking as a chief medical officer but as someone who lives in Scotland.

The best thing that we can do is ensure that beef in Scotland is as wholesome as it can possibly be—that is the best thing that can happen to the beef industry. We are very close to doing that, but I am faced with the difficult question whether I am confident that, by lifting the beef-on-the-bone ban now, we would not reintroduce a significant hazard. I have to say that I do not have that degree of confidence at this moment. The last thing I want to convey is that the matter is decided and that we will not revisit the question. Of course we will—we keep this matter under continual scrutiny.

One of the key events this year will be the Spongiform Encephalopathy Advisory Committee meeting in November. I hope that the committee will receive a new set of data, informed by more reliable estimates from Oxford, set against a firmer backdrop of what is happening with bovine spongiform encephalopathy and the new variant Creutzfeldt-Jakob disease in man. We should not forget that the ban has not yet been in place for two years. If I am to go down in history as the chief medical officer who was criticised, I would rather go down as someone who exercised the precautionary principle for a bit longer than as someone who did something prematurely and unleashed another hazard on the Scottish populace.

Col 147 **Alex Fergusson:** I quite understand that response but, in light of the lifting of the beef export ban, my concern is that for some years the general public have had great difficulty believing what politicians say—and politicians rarely agree totally with one another. What worries me now is that our scientists, looking at the same evidence, do not agree. I am worried about the message that that sends out, particularly to potential importers of British beef.

Professor Sir David Carter: I understand that and I share Alex Fergusson's concern. However, is he asking me whether it would have been better for me to agree with my colleague in England for the sake of uniformity, or whether I should have stuck to what I think is right in terms of framing advice? He would not really ask me that question, as he knows the answer.

Alasdair Morgan (Galloway and Upper Nithsdale) (SNP):, In his report of January this year, Professor Donaldson said:

"It is important to recognise that a decision to lift the ban is a different order of public health intervention than one to put a ban in place."

I think I understand what he is saying. Is he really saying that if we were in this situation without a ban, we would not be thinking of imposing one?

Professor Sir David Carter: Things have unquestionably got much better in the two years since the ban was imposed. The BSE epidemic is going away and the estimates from Oxford are getting smaller. Things are going in the right direction.

When the CMO in England—as the CMO to Government—framed his advice to the Government, I endorsed the plan in the light of the position that the UK was in during January and February. I endorsed the ban because I agreed with what he said—that it would be a different order of intervention to reintroduce a hazard that we have tried to take out of the human food chain.

I still adhere to that position and I do not think that the evidence base has changed to the significant degree that would allow me to explain to this committee why we should lift the ban now. In February, I thought that it should be retained.

I would love to lift the beef-on-the-bone ban and I would love there to be uniformity throughout the United Kingdom, but I can advise that the ban should be lifted only when I am convinced that we are on firmer ground than we have been on until now.

Alasdair Morgan: What statistics are we waiting for? You have said that it will be interesting to see what SEAC says and that you would like all four-year-old cattle to be free of BSE, but that you would not necessarily have to wait until they were

Col 148 to lift the ban.

Professor Sir David Carter: The main advice to Government on spongiform encephalopathies in general—BSE being one of the diseases in that group—has come from SEAC, which advises not only on the risks posed by beef in the food chain, but on person-to-person risks from those diseases.

Having heeded the advice of SEAC—which is expert in the area—on framing the advice to Government at the end of 1997, and on reassessment at the end of 1998, it seems to me that we should at least hear what it has to say at the end of 1999. We know that what it will say will be informed by the estimates from Oxford, which are based on the most recent assessment of the demography of the beef herd throughout the UK and of the risks that are posed.

I could be sitting here in a different scenario—the committee could be asking how, when I have listened to SEAC's advice until now, can it be possible that I am now not listening to it. SEAC says that it is still not possible to predict with any degree of precision the risk to public health, so the committee could be asking me why I am advocating a lifting of the ban before the most current advice is available.

Alasdair Morgan: SEAC will not get you or us off that hook.

Professor Sir David Carter: No, it will not.

Alasdair Morgan: SEAC's original report did not say that there should be a ban on beef on the bone—it offered three recommendations of which that was only one, but which the Government chose to accept. What will happen in November? Will you still have to make a decision?

Professor Sir David Carter: Yes. This is a very difficult set of circumstances. I started by saying that no one finds this easy. We can open up this discussion now, when there is still uncertainty, because the evidence base is hardening.

This is not an open-and-shut case. That will be a continuing source of

difficulty for me, but that is part of my task. I must inform Government what I consider to be the health hazards posed by this set of circumstances. I must again try to frame a view based on the evidence that becomes available at the end of this year.

Alasdair Morgan: It seems that the bone marrow results were significant in leading to the ban, but those results were the product of one experiment, or one set of experiments.

How confident are you in the results of that experiment? Could there have been experimental error? Is that being revisited?

Col 149 **Professor Sir David Carter:** It is one set of results, and a number of people said that it could be a rogue result. They asked whether bone marrow suddenly becomes infected at 38 months. I said that dorsal root ganglia are infected at 32 months and that infection can occur at other points in the chain. There is stronger evidence in those experiments of dorsal root ganglia being infected. I do not, however, think that that can be swept aside. Because of the uncertainties that I mentioned a few minutes ago, all of the experiments are small-number. They have all involved mouse bioassay. We are still uncertain of the sensitivity of the experiments.

If you are asking me if there are any other bits of information that you would like, one of them is the results of the cow-to-cow experiments that are currently running. We are beginning to get results now.

You are right: much hinges on the extent to which bone marrow is truly infected. You cannot ignore, however, the fact that infectivity has been demonstrated. It is a hard call, but you cannot say that you like this bit of evidence but will ignore that bit. I think that we need more evidence—and we are in the process of getting it.

14:45

Dr Richard Simpson (Ochil) (Lab): I wish to be clear that one of the problems that you have in wrestling with this difficulty is that we do not know the threshold for the dose infectivity, and that we do not know what reinforcing effect even a small amount of additional prion intake might have on individuals. Are we any closer to understanding that from our knowledge of kuru? Is there anything else that might give us clues on that?

Professor Sir David Carter: Again, that is a good line of evidence to pursue: there is evidence from acquired Creutzfeldt-Jakob disease and, in particular, from iatrogenic Creutzfeldt-Jakob disease. That refers to cases in which the disease has been transmitted to people through medical procedures. We all know that human growth hormone was infected in the earlier years, and that that transmitted infection from person to person. The evidence suggests that that had a cumulative effect. Nobody knows for sure what the titre of the infecting dose is.

I was stressing, perhaps before you joined us, Dr Simpson, that the infecting dose in cattle is as small as 1 g. It may be much smaller for humans: there may be many doses in that 1 g. I was also making the point that the evidence based on people is still nowhere near firm enough. We do not know what the route of transmission is, although we

are beginning to suspect what it is. We are not exactly clear about the circumstances
Col 150 under which some people get the disease and others do not. We do not know if children are more susceptible. However, the fact that this epidemic is affecting young people has to give you cause for thought. Those questions are part of a raft of intangibles that we do not have the answer to. We have to underline the precautionary principle in all of this. Because there are so many areas of uncertainty, we have to be on firmer ground than we are on at present.

Dr Simpson: Is it also clear now that the only remaining transmission method is cow-to-calf, or has that not yet been fully determined?

Professor Sir David Carter: That touches on a vital issue. We eat sheep but do not seem to suffer any adverse consequences from scrapie, which is a disease similar to BSE and has been running for 250 years. Scrapie does not seem to cross the species barrier from sheep to people, but we know that if some scrapie sheep are taken off an area of pasture and a scrapie-free flock are put on that pasture three years later, they will get scrapie.

The evidence that I have for the horizontal transmission of BSE in cattle is extremely reassuring: a number of herds were heavily infected by BSE, with more than 50 cases of infection in the early part of the epidemic. Since the feed ban was introduced, there has been no more BSE in those herds. I think that the evidence is persuasive that there is not a third method of spreading BSE from cattle to cattle.

My reading of the BSE epidemic is that the food ban has bitten. It is now being enforced, and we can see the epidemic tailing away. The residual uncertainty is the maternal-to-calf transmission. That is what the Oxford data are all about. I am sorry that my answer was a rambling one, but it is no: we are not aware of any other transmission method.

Dr Simpson: That was very helpful. Thank you.

Lewis Macdonald (Aberdeen Central) (Lab): It appears to be clear from the figures that you quoted that we are—we hope—approaching the tail-end of BSE infectivity.

Towards the end of your presentation, you said that the risk is diminishing with time. Is it your expectation that BSE infectivity is likely to cease in a short time?

Professor Sir David Carter: Yes, it is, and we will all be extremely delighted when that happens: I do not need to go on about that.

Returning to the point that Mr Morgan raised, the interest in what will happen to three-year-old cattle in 1999 and four-year-old cattle in 2000 is not idle speculation. That will be the crunch time as far as
Col 151 the demise of the BSE epidemic is concerned. Once we get rid of BSE, all this discussion will be unnecessary: we will be able to eat whatever we want because BSE will not be in the beef herd. However, we are not quite at that stage.

My position is that just when we are within sight of eliminating the BSE epidemic in cattle, it would be tragic if we allowed any more cases of variant CJD to develop in people. Having got rid of the pool of infectivity

in beef cattle, we must do everything we can to ensure that we do not have a pool of infectivity in people.

Lewis Macdonald: I wish to pursue that point. What you said with regard to the incubation period of CJD suggested that we are still on the upward slope of CJD infectivity. In your estimation, is it logical to assume that the figure of seven cases for this year so far—if it is not a statistical blip—is likely to increase before the year's figures are complete, and that, given the incubation periods, we should realistically expect a larger number of cases in the coming three or four years?

Professor Sir David Carter: I agree with that, and it grieves me to say so. Like most people who study the figures regularly, I was deeply concerned by the sudden surge of nine cases in the last quarter of last year. The fact that the number has fallen to only seven cases this year—if I may use only, because any case of new variant CJD is a tragedy—does not mean that we should be complacent. That number does not signify to me that the number of cases is tailing off. All that we know about the incubation periods of these types of diseases—not just kuru, but acquired CJD in people—suggests that the mean incubation period will be 10 years or more. If the height of infectivity was in the earlier years of the BSE epidemic in cattle, and that must be the prediction, we are going to see, sadly, many more cases of variant CJD in people.

Dr Simpson: I wish to ask a supplementary on that point. You quoted numbers of three, 10, 10, 16 and seven, with regard to new variant CJD. Are those the numbers of deaths, post mortem findings or early diagnoses?

Professor Sir David Carter: The CJD surveillance unit operates a strict policy—rightly—of releasing the figures only upon absolute confirmation of the diagnosis. Those figures relate to people who have died.

There is a lot of concern about whether we can develop a test for BSE in live cattle. Hopefully, very shortly we will not need one, because there will be no BSE in cattle. The emphasis now is on developing a test for variant CJD in people. At present, the only test that is available is to examine nervous tissue, which essentially means a post mortem diagnosis, although there is

Col 152 evidence that biopsy of the tonsil is a means of detecting prion. Whether that tells one about the patient having CJD is another question.

At present, we do not have a totally reliable test for the diagnosis of variant CJD in life. If we did—this would be relevant to the Health and Community Care Committee—it would throw what we are doing, and what we will have to do with regard to variant CJD in people, into a more rational perspective.

The Convener: Mike Rumbles has asked me if you can confirm that the figures for CJD that you quoted were UK rather than Scottish figures?

Professor Sir David Carter: They were UK figures. Rightly, the CJD surveillance unit does not break down the figures. Until now, when there was a relatively small number of cases, there was a desire to respect confidentiality and not to have people speculating about what was going

on in specific neighbourhoods. Although we do not get a breakdown by region of the United Kingdom, we should not assume that Scotland is immune to this disease. We know that it is not. Neither do I have any evidence that it is particularly prevalent in Scotland.

I have not seen a breakdown of figures by region of the UK, because there is not such a breakdown. We have had cases in Scotland.

Lewis Macdonald: I have one final point. You mentioned the danger of a pool of CJD infectivity and spoke about the risks of person-to-person infection. Does that mean that once this issue has ceased to be of concern to the beef industry, because BSE has ceased to exist, it will continue as a health problem through infectivity in the human population?

Professor Sir David Carter: There is no question about that.

Mary Scanlon (Highlands and Islands) (Con): I thank the Rural Affairs Committee for allowing members of the Health and Community Care Committee to come today. I am grateful for the opportunity to ask this question. What genuine scientific evidence is there—or was there ever—to justify the continuation of the requirement to split ewe carcases in order to remove the spinal column? That has resulted in the destruction of the lucrative trade in surplus UK ewes to France and other European countries.

Professor Sir David Carter: I was not prepared for that question. As I recall, the evidence is that there is no question that scrapie in sheep is a disease that affects the central nervous system, brain and spinal column. The difficulty was that there was, and still is, considerable speculation about whether BSE in cattle arose because they were eating the brain, spinal column and nerve

Col 153 material of sheep—that somehow the prion protein had been changed in its transit from sheep and had given rise to BSE in cattle.

Conversely, there was anxiety that BSE would affect the sheep flock through the same circular process. If that were the case, there would have been no logic in ensuring that sheep brain was not available in the food chain without ensuring that the spinal cord was also not in the food chain. Brain would have been a major health hazard, and we know that spinal cord is just as infective as brain. That was the reasoning.

Mary Scanlon: Do you still feel that that reasoning is justified?

Professor Sir David Carter: As long as the uncertainty persists. The years that have gone by since that requirement was introduced have given reassurance in that we are still talking about scrapie in sheep, not about BSE affecting the sheep flock. If we were talking about BSE in sheep, we would be having a much more sombre discussion today. The years that have gone by have suggested that there has not been back transmission of BSE to sheep. That will come up for scrutiny, as all those issues will. When we get to the point of lifting the beef-on-the-bone ban, a series of hurdles will be taken down in the process. All these matters will be subject to reappraisal.

Mary Scanlon: I have some figures, which I dare say most people have, from the National Farmers Union. I was alarmed to learn that, this year, there are 25 cases of BSE in Scotland and 44 in the Republic of Ireland.

Does it concern you that the ban does not apply to other countries, where—according to the figures—there is a greater risk.

Professor Sir David Carter: I would certainly want to watch with great care what is happening in other parts of the EU—not just Ireland. There is a significant amount of BSE in Portugal; you will have seen the European Commission response to that recently. We are aware that there has been a significant problem in Switzerland. There is greater uncertainty about the magnitude of the problem in other parts of the EU. If you are asking me whether I am concerned to ensure that we eliminate a hazard from the human food chain, the answer is undoubtedly yes. I would be concerned about any countries with incidence of BSE whose meat may be being imported into this country. I am anxious to ensure that we do whatever we can to minimise the risk to human health. This takes us back to the border question. Until now, we have been talking about the border within the UK, rather than the border with the European Union.

Col 154 15:00

Mary Scanlon: We have discussed the differences between you and the chief medical officer in England. Are you satisfied that your counterparts in other European countries are analysing the scientific evidence as rigorously as we in this country are?

Professor Sir David Carter: I would like to think so. We have faced up to the BSE crisis in a big way. We had no alternative; we had to take it seriously. We are still doing so, and that is the right position. Some people would argue that, because of the concern, British beef must be safer than beef from elsewhere in the EU. That is a legitimate argument. However, the relative position is of no great consequence to me as long as I remain concerned that there is a risk to human health in this country.

Richard Lochhead (North-East Scotland) (SNP): You mentioned that there was no regional breakdown of CJD cases in Scotland. That surprises me, given that it is central to the problem. Why is there no such breakdown?

Professor Sir David Carter: It is for the reasons that I outlined earlier. While the epidemic was still very small, there was a desire to respect confidentiality and families' sensitivity. The National CJD Surveillance Unit has not been putting cases into the public arena. The agreement has been that whenever someone dies with confirmed variant Creutzfeldt-Jakob disease that will be announced.

We have concentrated on variant CJD, but that is only one form of Creutzfeldt-Jakob disease that affects people. Figures for cases of classical CJD have been made available. However, until now CJD has been rare; the incidence of classical CJD stands at about one in a million people. That is another reason to be nervous about breaking down the figures. We do not want people reading something into the fact that there are five cases in one place as opposed to seven in another, when we do not have a database big enough to allow us to make any sense of such differences.

Richard Lochhead: My main question concerns comparative risks.

Many people who favour lifting the ban say that we run more risk of, for example, having our health damaged by passive smoking, which is legal at the moment. To what extent do you take into account comparative risks when making your recommendations? How does the risk from BSE compare with other public health risks?

Professor Sir David Carter: That is a legitimate line of questioning. I am grateful for the indication that the comparison with passive smoking was one that might be offered to me this afternoon, as it has allowed me to do some homework.

Col 155 If you are asking whether I am concerned about passive smoking, the answer is that I most certainly am. I am pleased that the Health and Community Care Committee has identified smoking as one of its main priorities. Let me provide the committee with a sense of the problem. In this country, a mother who smokes has a 9.8 per cent chance of having a low-birth-weight baby. If she does not smoke, the figure is 4.3 per cent. If proof were needed, that is how early passive smoking starts damaging people. On our best estimates, around 17,000 children under five in the UK are admitted to hospital each year with lung disease, asthma, glue ear and diseases that are attributable to some degree to passive smoking.

You know as well as I do that we are losing the battle in terms of women smoking. The latest figures for deaths from lung cancer in Scotland are 2,747 men and 1,474 women. If one works on the premise that 90 per cent of those deaths are directly attributable to the fact that the person smoked, one is left with a question mark about the other 10 per cent. Some of them may be nothing to do with passive smoking, but the Government white paper "Smoking kills" puts the risk estimate from passive smoking at something like several hundred cases a year in the UK. It is a huge problem.

I resist any notion to say, "There is the risk of passive smoking. What are you getting concerned about beef on the bone for?" We are still in the threshold phase. For all we know, we are in the foothills of an epidemic of new variant CJD in people. If the bad end of the predictions come into play, who is going to choose between risks?

I do not see this as an either/or situation. You may have seen the publicity that surrounded the release of my annual report this year. One of the major lines of questioning was, what is all this about cancer? What is happening to lung cancer in this country? We are now firmly in health committee territory. That will be a major area for debate.

I would not like to say that one risk is this big and another is smaller. We know now that passive smoking is a serious risk, while smoking is unquestionably a serious risk. We still have some way to go before we know with certainty how new variant Creutzfeldt-Jakob disease equates to those risks.

Alasdair Morgan: I am puzzled about the relevance of the number of cases of new variant CJD. We all know how tragic that is, but I wonder how relevant it is to your decision about when the ban will be lifted. There is the possibility that that number may peak some years hence. We do

not know when that will be. Does that mean that there has to be a total elimination of BSE before you say

Col 156 that we can lift the beef-on-the-bone ban? What you have said is that you do not know how little BSE you need to generate X number of cases of new variant CJD.

Professor Sir David Carter: You are absolutely right. I am not saying that we have to wait until we have seen what happens to new variant CJD in people before we lift the beef-on-the-bone ban. As I said a number of times, each month and each year that goes by gives us a better sense of what these epidemics are doing—it is an informative backdrop to the decisions that we are trying to frame about the immediate issue, which is the beef-on-the-bone ban. While it is an interesting backdrop, in the foreground, if you like, are the firm estimates of what is happening to BSE in cattle and what we know about the impact of the offspring cull on cattle under 30 months that are eligible for slaughter for human consumption. We need more information on that.

Mr John Munro (Ross, Skye and Inverness West) (LD): Sir David, I was very impressed with your presentation. I listened with bated breath to everything you said, until you started talking about smoking and then I began to drift. You mentioned the statistics and the incidence of BSE recorded over the past few years. You said that last year the incidence of BSE peaked towards the latter quarter of the year. In your opinion, does that have any significance in terms of the fact that most cattle are sold through the mart in the last quarter of the year?

Professor Sir David Carter: We are slightly at cross-purposes; I may have expressed myself badly. The human form of BSE, new variant Creutzfeldt-Jakob disease, showed a peak last year. That is not directly attributable to anything that has happened with cattle recently. The surge merely reinforces the fact that we should be cautious about making far-reaching predictions based on small data sets. Arguably, the imposition or otherwise of the beef ban would have been irrelevant to the cases of new variant Creutzfeldt-Jakob disease that we are dealing with now. Everything that we know about the disease's incubation period tells us that the people who are suffering now contracted the disease ten years ago.

Dr Elaine Murray (Dumfries) (Lab): It is clear that the SEAC meeting and the Oxford report will be important to an assessment of the research information. I would be interested to learn more about the research that is being done; for instance, whether it is purely statistical. You mentioned information coming in from mouse bioassays and attempts to set up a cow bioassay. Presumably, that work will continue after BSE ceases to be a problem. Is there any evidence that the infective agents could affect another species?

Col 157 **Professor Sir David Carter:** The Oxford group is provided with data on the demography—the age structure—of the beef herd, set against which it has data on the latest culls. In addition, it has the information that has become available about the confirmation of BSE in cattle that are slaughtered. One of the things that has reassured me in the past year is

that people have examined cattle that were slaughtered as part of the over-30-months scheme and have found only a small number of cattle—perhaps only 0.3 per cent—in which BSE was present but was not manifest in life.

That is the sort of information that Oxford is using in its model. Like all such models, it is fragile and is only as good as the estimates that are fed into it. Each year, we get a back bearing: Oxford looks at what it predicted for the previous year in the light of what happened and finds out if it was right or wrong. I made the point in my presentation that Oxford feels that it underestimated the number of cattle that carry the disease.

To nail down the cattle to cattle thing, it is now easier to do pathogenesis experiments because we do not have to rely on a bioassay. In the past, cattle had to be killed and material from their organs inoculated into mice. It took a year after that to see any results. Now, the same thing can be achieved with histopathology.

You asked about the implications of all that for the broader biology. We now know that there are transmissible spongiform encephalopathies other than BSE and scrapie. We know that quite exotic animals such as kudu suffer from such diseases. We know that cats can also suffer from spongiform encephalopathy.

Ever since Creutzfeldt and Jakob first described the disease in the 1920s, we have known that we have a sporadic form of CJD in the human population. The disease might have been present for millennia, but it was rare; it only came through one time in a million. The incidence of CJD in people may well fall back to that level. That is why the discussion is important. We must ask whether we have magnified something over the last 10 to 15 years, to make it suddenly not such a rare disease.

It is reassuring to note that, if we take the overall incidence of all forms of Creutzfeldt-Jakob disease, we are still not radically out of line with other countries, even allowing for the fact that there have been around 10 cases a year of the new variant CJD. We will have to wait and see.

15:15

Dr Murray: The new techniques that enable the determination of the existence of the prions in cattle without having to go through the mouse bioassay are a welcome development. I presume

Col 158 that those techniques will allow the results of the research to be reached and interpreted much faster.

Professor Sir David Carter: You are absolutely right. Watching the experiments evolve has been painfully laborious. Anything that speeds up the process makes a huge difference. However, we still do not have a blood test, or some other less invasive test, for CJD in people who are still alive.

The Convener: Have we come to the point at which there are no more questions?

Alex Fergusson: I want to ask Sir David about the over-30-months scheme, which he mentioned several times. Last January, we reached a

point when any cattle entering the food chain would have been born and reared in a post-BSE regulatory period. Given the fact that it is eight months since we passed that point, do you see a time approaching when you might be able to recommend extending the 30-months scheme to 32 or 33 months? That would be hugely beneficial to those farming Scottish natural breeds, in which the cases of BSE have been almost infinitesimal.

Professor Sir David Carter: If one assumes that the clean-feed watershed was 1 August 1996, we are now 30 months beyond that. We are reasonably sure—we have evidence from various surveys conducted in the last two years—that the bans are being enforced and so we can be secure in the knowledge that cattle are no longer contracting BSE because we are feeding them infected material. That is great.

The figure of 30 months was not quite empirical, but was plucked out of the air in the light of the experimental data that I went over earlier. There is a margin of error. As more time goes by and as more information becomes available, we will be able to make non-empirical judgments about such matters. I would predict that the 30-months scheme is one of the only things that will be considered and we are not a million miles away from that.

No one has tried to nail me down by saying, "If this happens, will you say that we can do that on 1 December?" You have given me that leeway, but I am sure that you recognise the difficulty. I would love to see the beef-on-the-bone ban revoked, but that will not be the victory that everyone wants. It is one skirmish in a much bigger campaign to get our entire beef industry back on a secure footing.

This is gratuitous and perhaps I should not say it: I have not had any hate mail over the beef-on-the-bone ban. [*Laughter.*] I may get some now. It has been very salutary to me. Most people recognise that the big prize is to get back to a wholesome industry in which all the ifs, buts and maybes become immaterial.

Col 159 **Alasdair Morgan:** I want to try and nail you down ever so slightly. You have used phrases such as "we are not a million miles away" and "early". You said earlier that relatives are of little consequence compared to absolutes. I suspect that that is the case for the farming community. Early can mean a lot of things. Have you any idea when we can seriously examine with any reasonable prospect of success the possibility of an extension or a lifting of the over-30-months slaughter scheme?

Professor Sir David Carter: I think that we are discussing that seriously this afternoon. We are taking a view based on the current evidence and we are expressing the expectation that all those things will be reviewed in a rolling programme.

I would prefer to take this one step at a time and it would be facile of me to say that I think that by, for example, 2 February, we will have lifted this and that by 9 March we will have done that. The only thing that members could be sure of is that I would be wrong. We must take the situation as it comes, so I cannot be drawn into answering such questions.

The Convener: Have members had all their questions answered at this

point? As that is the case, on behalf of the Rural Affairs Committee and those members of the Health and Community Care Committee who have joined us today, I will take this opportunity to express our gratitude to the chief medical officer for Scotland for coming along and exposing himself to our questions, which could—let's face it—have gone anywhere.

I would also like to thank him for the understanding he has given us of the medical evidence relating to the beef-on-the-bone issue in Scotland. It is an issue that this Parliament is very concerned about, and one in which it is essential that we progress with full knowledge of the medical evidence.

I thank you for your contribution, Sir David, and I hope that you have enjoyed the experience. I look forward to the next time that we can act as your host.

Professor Sir David Carter: This will be gratuitous and I know that I should not say it, but I have enjoyed this afternoon very much indeed. I am grateful to you, convener, and to the committee for the measured way in which business has been conducted.

I take great heart from that and, as I said, it has been a pleasure for me to appear here. I am delighted that we can share the evidence base. We may disagree about bits of it, but this seems to me to be a very good way of doing business. I am very grateful to the committee.

The Convener: I propose that we suspend the

Annex 6

Agriculture & Rural Development Committee ARD 13-99(evd.4)

Date: 13 October 1999

Time: 9:15 am - 12:30 pm

Venue: Committee Room 1, National Assembly Building

LATEST STATISTICS ON INCIDENCE OF vCJD AND BSE

The attached tables provide the latest published figures on:

- cases of vCJD, provided by the Department of Health, and
- incidence of BSE, provided by the Ministry of Agriculture Fisheries and Food.

Secretariat October 1999

DEPARTMENT OF HEALTH
04 October 1999

MONTHLY CREUTZFELDT-JAKOB DISEASE FIGURES

The Department of Health is today issuing the latest monthly table,giving the numbers of deaths of definite and probable cases of Creutzfeldt-Jakob disease in the UK.

Year	Referrals	Deaths of definite and probable cases in the UK					
		Sporadic	Iatrogenic	familial	GSS	nvCJD	Total
1985	-	26	1	1	0	-	28
1986	-	26	0	0	0	-	26
1987	-	23	0	0	1	-	24
1988	-	22	1	1	0	-	24
1989	-	28	2	2	0	-	32
1990	53	28	5	0	0	-	33
1991	75	32	1	3	0	-	36
1992	96	43	2	5	1	-	51
1993	78	38	4	2	2	-	46
1994	116	51	1	4	3	-	59
1995	87	35	4	2	3	3	47
1996	134	40	4	2	4	10	60
1997	161	59	6	4	1	10	80
1998	150	57	3	3	0	16	79
1999*	116	24	2	0	0	6	32

- To 31 August 1999. Total number of definite and probable cases of vCJD = 46 (which includes one case who died after August)

1. The next table will be published on Monday 1 November 1999.

2. At its meeting on 18 March 1999 the Spongiform Encephalopathy Advisory Committee (SEAC) agreed that variant CJD (vCJD) should now be used in preference to nvCJD in line with current practice in many scientific journals.

Referrals: This is a simple count of all the cases which have been referred to the National CJD Surveillance Unit for further investigation in the year in question. CJD may be no more than suspected; about half the cases referred in the past have turned out not to be CJD. Cases are notified to the Unit from a variety of sources including neurologists, neuropathologists, neurophysiologists, general physicians, psychiatrists, electroencephalogram (EEG) departments etc. As a safety net, death certificates coded under the specific rubrics 046.1 and 331.9 in the 9th ICD Revisions are obtained from the Office for National Statistics in England and Wales, the General Register Office for Scotland and the General Register Office for Northern Ireland.

Deaths: These columns show the number of deaths which have occurred in definite and probable cases of all types of CJD and GSS in the year shown. The figure includes both cases referred to the Unit for investigation while the patient was still alive and those where CJD was only discovered post mortem (including a few cases picked up by the Unit from death certificates). There is therefore no read across from these columns to the referrals column. The figures will be subject to retrospective adjustment as diagnoses are confirmed.

Definite and Probable: This refers to the diagnostic status of cases.In definite cases the diagnosis will have been pathologically confirmed, in most cases by post mortem examination of brain tissue (rarely it may be possible to establish a definite diagnosis by brain biopsy while the patient is still alive). Probable cases have not been confirmed pathologically; some cases are never confirmed pathologically because a post mortem examination does not take place (for instance where the relatives of the patient refuse consent) and these cases remain permanently in the probable category.

Sporadic: Classic CJD cases with typical EEG and brain pathology. Sporadic cases appear to occur spontaneously with no identifiable cause and account for 85% of all cases.

Probable sporadic: Cases with a history of rapidly progressive dementia, typical EEG and at least two of the following clinical features; myoclonus, visual or cerebellar signs, pyramidal/extrapyramidal signs or akinetic mutism.

Iatrogenic: Where infection with classic CJD has occurred accidentally as the result of a medical procedure. All UK cases have resulted from treatment with human derived pituitary growth hormones or from grafts using dura mater (a membrane lining the skull).

Familial: Cases occurring in families associated with mutations in the PrP gene (10 - 15% of cases).

GSS: Gertsmann-Straussler-Scheinker syndrome - an exceedingly rare inherited autosomal dominant disease, typified by chronic progressive ataxia and terminal dementia. The clinical duration is from 2 to 10 years, much longer than for CJD.

vCJD: Variant CJD, the hitherto unrecognised variant of CJD discovered by the National CJD Surveillance Unit and reported in The Lancet on 6 April 1996. This is characterised clinically by a progressive neuropsychiatric disorder leading to ataxia, dementia andmyoclonus (or chorea) without the typical EEG appearance of CJD. Neuropathology shows marked spongiform change and extensive florid plaques throughout the brain.

Definite vCJD cases still alive: These will be cases where the diagnosis has been pathologically confirmed (by brain biopsy).

Probable vCJD: Cases in which post-mortem (or brain biopsy) has not been carried out and which fulfil preliminary criteria for the clinical diagnosis of vCJD. These criteria cannot yet be fully validated because of the limited experience of vCJD.

MAFF BSE information: Incidence of BSE - Monthly Statistics

GENERAL STATISTICS - AS AT 27/08/99

		PER CENT
TOTAL FARMS	34878	n/a
TOTAL CASES	175404	n/a
		% OF TOTAL
DAIRY FARMS	22041	63.19
SUCKLER FARMS	9437	27.06
MIXED FARMS	2086	5.98
NOT RECORDED	1314	3.77
DAIRY CASES	142160	81.05
SUCKLER CASES	20652	11.77
MIXED CASES	10373	5.91
NOT RECORDED	2219	1.27
PURCHASED CASES	56725	32.34
HOMEBRED CASES	117340	66.90
NOT RECORDED	1339	0.76

(a) - *In the table above*, 'NOT RECORDED' = *data not yet entered in appropriate part of BSE database.*

CONFIRMED DAIRY HERD INCIDENCE	61.1%
CONFIRMED SUCKLER HERD INCIDENCE	16.4%
CONFIRMED TOTAL HERD INCIDENCE	37.3%
YOUNGEST CONFIRMED CASE	20 months
OLDEST CONFIRMED CASE	18 years 10 months

YOUNGEST AND OLDEST CASES BY YEAR OF ONSET AS AT 01/09/99

YR OF ONSET	AGE YOUNGEST CASE (mths)	AGE 2nd YOUNGEST CASE (mths)	AGE 2nd OLDEST (yrs.mths)	OLDEST CASE (yrs.mths)
1986	30	33	5.03	5.07
1987	30	31	9.09	10.00
1988	24	27	10.06	11.01(2)
1989	21	24(4)	12.00(2)	15.04
1990	24(2)	26	13.03	14.00
1991	24	26(3)	14.02	17.05
1992	20	26	15.02	16.02
1993	29	30(3)	14.10	18.10

1994	30(2)	31(2)	14 .05	16.07
1995	25	32	14.09	15.05
1996	29	30	15.07	17.02
1997	37(7)	38(3)	14.01	14.09
1998	34	36	14.07	15.05
1999	39	41	13.05	13.07

CONFIRMATIONS IN BULLS - AS AT 01/09/99

The following table lists the number of bulls in which BSE has been confirmed, by breed, and with crosses included under main breed type.

Aberdeen Angus	5	Jersey	5
Ayrshire	5	Limousin	71
Belgian Blue	17	Lincoln Red	1
Blonde D'Aquitaine	13	Marchigiana	1
Brown Swiss	1	Murray Grey	2
Charolais	72	Red Poll	3
Devon	3	Saler	2
Friesian	114	Simmental	80
Gelbvieh	4	South Devon	7
Hereford	72	Sussex	4
Highland	4	Not recorded	9
Holstein	8	[redacted]	
Total	**503**		

NUMBER OF CATTLE BORN AFTER FEED BAN (BAB) AS A PERCENTAGE OF BSE CASES BEING REPORTED - AS AT 01/09/99

(*Note that these are suspects placed under restriction, NOT confirmed cases*)

Month of Report		Total Reported	Number Non-BAB	Number BAB	Percent BAB
1	1993	4165	3657	508	12.20
2	1993	3933	3407	526	13.37
3	1993	4384	3746	638	14.55
4	1993	3639	3030	609	16.74
5	1993	3215	2619	596	18.54
6	1993	3104	2523	581	18.72
7	1993	3375	2685	690	20.44
8	1993	3299	2550	749	22.70
9	1993	3617	2730	887	24.52
10	1993	3360	2585	775	23.07
11	1993	3599	2666	933	25.92
12	1993	3241	2340	901	27.80

Month of Report		Total Reported	Number Non-BAB	Number BAB	Percent BAB
1	1994	3511	2397	1114	31.73
2	1994	3096	2136	960	31.01
3	1994	3442	2249	1193	34.66
4	1994	2729	1789	940	34.44
5	1994	2484	1572	912	36.72
6	1994	2313	1411	902	39.00
7	1994	2044	1205	839	41.05
8	1994	2249	1247	1002	44.55
9	1994	2203	1256	947	42.99
10	1994	2082	1205	877	42.12
11	1994	2155	1160	995	46.17
12	1994	1951	1063	888	45.52
Month of Report		**Total Reported**	**Number Non-BAB**	**Number BAB**	**Percent BAB**
1	1995	2017	985	1032	51.17
2	1995	1572	750	822	52.29
3	1995	1839	870	969	52.69
4	1995	1482	686	796	53.71
5	1995	1517	633	884	58.27
6	1995	1334	534	800	59.97
7	1995	1259	511	748	59.41
8	1995	1468	578	890	60.63
9	1995	1314	482	832	63.32
10	1995	1220	478	742	60.82
11	1995	1603	605	998	62.26
12	1995	1320	464	856	64.85
Month of Report		**Total Reported**	**Number Non-BAB**	**Number BAB**	**Percent BAB**
1	1996	1405	437	968	68.90
2	1996	1251	377	874	69.86
3	1996	1343	436	907	67.54
4	1996	945	277	668	70.69
5	1996	968	291	677	69.94
6	1996	690	180	510	73.91
7	1996	775	194	581	74.97
8	1996	755	162	593	78.54
9	1996	723	187	536	74.14
10	1996	762	177	585	76.77
11	1996	585	109	476	81.37
12	1996	495	76	419	84.65
Month of Report		**Total Reported**	**Number Non-BAB**	**Number BAB**	**Percent BAB**
1	1997	536	90	446	83.21
2	1997	501	94	407	81.24
3	1997	521	83	438	84.07
4	1997	523	77	446	85.28
5	1997	447	58	389	87.02
6	1997	432	50	382	88.43
7	1997	450	65	385	85.56
8	1997	454	52	402	88.55
9	1997	412	50	362	87.86
10	1997	460	59	401	87.17
11	1997	427	47	380	88.99
12	1997	441	55	386	87.53

Month of Report		Total Reported	Number Non-BAB	Number BAB	Percent BAB
1	1998	459	39	420	91.50
2	1998	403	38	365	90.57
3	1998	436	43	393	90.14
4	1998	384	48	336	87.50
5	1998	325	29	296	91.08
6	1998	334	23	311	93.11
7	1998	343	29	314	91.55
8	1998	307	24	283	92.18
9	1998	324	32	292	90.12
10	1998	371	39	332	89.49
11	1998	315	29	286	90.79
12	1998	290	15	275	94.83
Month of Report		**Total Reported**	**Number Non-BAB**	**Number BAB**	**Percent BAB**
1	1999	316	25	291	92.09
2	1999	307	23	284	92.51
3	1999	353	17	336	95.18
4	1999	256	17	239	93.36
5	1999	279	11	268	96.06
6	1999	259	15	244	94.21
7	1999	224	9	215	95.98
8	1999	205	7	198	96.59

Annex 7

Cynulliad Cenedlaethol Cymru

Pwyllgor Amaethyddiaeth a Datblygu Gwledig

The National Assembly for Wales

Agriculture and Rural Development

Committee

Dydd Mercher 13 Hydref 1999

Wednesday 13 October 1999

Yn y golofn chwith, cofnodwyd y trafodion yn yr iaith y llefarwyd hwy ynddi yn y Siambr.
Yn y golofn dde, cynhwyswyd cyfieithiad o'r areithiau hynny.

In the left-hand column, the proceedings are recorded in the language in which they were spoken in the Chamber. In the right-hand column, a translation of those speeches has been included.

Presennol: Ieuan Wyn Jones (Cadeirydd), Mick Bates, Glyn Davies, Richard Edwards, Christine Gwyther (Ysgrifennydd y Cynulliad dros Amaethyddiaeth a Datblygu Gwledig), Jane Hutt (Ysgrifennydd y Cynulliad dros Iechyd a Gwasanaethau Cymdeithasol), Carwyn Jones, David Lloyd, Karen Sinclair, Peter Rogers, Rhodri Glyn Thomas a'r swyddogion canlynol: Huw Brodie (Pennaeth Adran Amaethyddiaeth) a Richard Hughes (Pennaeth Adran Iechyd y Cyhoedd)

Present: Ieuan Wyn Jones (Chair), Mick Bates, Glyn Davies, Richard Edwards, Christine Gwyther (Assembly Secretary for Agriculture and Rural Development), Jane Hutt (Assembly Secretary for Health and Social Services), Carwyn Jones, David Lloyd, Karen Sinclair, Peter Rogers, Rhodri Glyn Thomas and the following officials: Huw Brodie (Head of Agriculture Division) and Richard Hughes (Head of Public Health Division)

Dechreuodd y sesiwn gymryd tystiolaeth am 9.46 a.m. gyda Ieuan Wyn Jones yn cadeirio. Yn rhoi tystiolaeth yr oedd Dr Ruth Hall, Prif Swyddog Meddygol Cymru.

The evidence-taking session began at 9.46 a.m. with Ieuan Wyn Jones chairing. Giving evidence was Dr Ruth Hall, Chief Medical Officer for Wales.

Ieuan Wyn Jones: Bore da. A gaf eich galw i drefn, os gwelwch yn dda? Yn y lle cyntaf, hoffwn groesawu Jane Hutt i'n cyfarfod pwyllgor. Mae Jane wedi bod mewn sawl cyfarfod gyda ni pan ydym wedi bod yn trafod y gwaharddiad ar gig eidion ar yr asgwrn.

Ieuan Wyn Jones: Good morning. May I call you to order, please? In the first instance, I would like to welcome Jane Hutt to our committee meeting. Jane has been in several meetings with us when we have been discussing the ban on beef on the bone.

Fel y cofiwch, yr oeddem, rai wythnosau yn ôl wedi penderfynu ein bod eisiau cael cyfarfod pellach ar yr eitem hon, gan fod adroddiad wedi cael ei gyhoeddi gan y Prif Swyddog Meddygol yn Lloegr, a oedd yn ymddangos fel pe bai'n cymryd safbwynt gwahanol ar y mater i'r Prif Swyddogion Meddygol yng Nghymru, yr Alban a Gogledd Iwerddon. Ers hynny, mae adroddiadau gan dri o'r Prif Swyddogion Meddygol, sef Dr Ruth Hall a Phrif Swyddogion Meddygol Lloegr a'r Alban wedi eu cyhoeddi. Mae gennym gopïau.

As you remember, we decided some weeks ago that we wanted to have a further meeting on this item, as a report had been published by the Chief Medical Officer for England, which appeared to take a different view on the matter to the Chief Medical Officers in Wales, Scotland and Northern Ireland. Since then, reports by three of the Chief Medical Officers, that is, Dr Ruth Hall and the Chief Medical Officers for England and Scotland, have been published. We have copies.

Yr oedd y Pwyllgor yn teimlo ar y pryd y byddai'n fuddiol i gael sesiwn pellach gyda Dr Hall, oherwydd y mae nifer o bwyntiau yn codi o'r adroddiadau y byddai o gymorth i ni gael ei sylwadau pellach arnynt.

The Committee felt at the time that it would be of benefit to have a further session with Dr Hall, because there are a number of points arising from the reports on which it would be helpful for us to have her further comments.

A gaf i awgrymu, fel trefn i'r Pwyllgor, ein bod yn cymryd tystiolaeth Dr Hall y bore yma

May I suggest, as an order for the Committee, that we take Dr Hall's evidence

ac wedyn, fel Pwyllgor, yn ystyried y mater ymhellach wedi inni gael copïau o gofnodion cyfarfod heddiw. Fe gewch chi, wrth gwrs, ystyried hyn wedi i Dr Hall roi tystiolaeth. Fodd bynnag, yn hytrach na cheisio dod i benderfyniad yn syth ar ôl i Dr Hall roi ei thystiolaeth, dylem aros i gael y cofnodion er mwyn ceisio dod i ryw fath o benderfyniad synhwyrol. Gallwn drafod y drefn honno unwaith y bydd Dr Hall wedi rhoi ei thystiolaeth.

this morning and then, as a Committee, consider the matter further after receiving copies of the minutes of today's meeting. You can, of course, consider this after Dr Hall has given evidence. However, rather than trying to come to a decision straight after Dr Hall gives her evidence, we should wait for the minutes so that we can try to come to some kind of sensible decision. We can discuss that order once Dr Hall has given her evidence.

Rhodri Glyn Thomas: I fod yn glir ynglyn â hyn, a ydym yn mynd i gael cyfle i ofyn cwestiynau?

Rhodri Glyn Thomas: To be clear about this, are we going to have an opportunity to ask questions?

Ieuan Wyn Jones: Wrth gwrs. Mae hwn yn sesiwn agored ar gyfer gofyn cwestiynau.

Ieuan Wyn Jones: Of course. This is an open session for asking questions.

Glyn Davies: Have we invited the Chairman of the Health and Social Services Committee to join us? I see that Jane Hutt is here.

Glyn Davies: A ydym wedi gwahodd Cadeirydd y Pwyllgor Iechyd a Gwasanaethau Cymdeithasol i ymuno â ni? Gwelaf fod Jane Hutt yn bresennol.

Ieuan Wyn Jones: Yes.

Ieuan Wyn Jones: Ydym.

Glyn Davies: Has she apologised or is she coming?

Glyn Davies: A yw wedi ymddiheuro neu a yw hi'n dod?

Ieuan Wyn Jones: She has apologised. I am sorry, I should have mentioned that. An apology has come.

Ieuan Wyn Jones: Mae hi wedi ymddiheuro. Mae'n ddrwg gennyf, dylwn fod wedi crybwyll hynny. Daeth ymddiheuriad i law.

I would also like to say before we invite Dr Hall to give further evidence—I think, Dr Hall, you have another statement that you have prepared—that we have a number of questions that we have prepared. I do not want Members to keep slavishly to those questions, but they are the sort of questions that we might usefully pursue in the session today. What I would then like to do, once Dr Hall has given her new statement, is to begin the questioning.

Hoffwn ddweud hefyd, cyn inni wahodd Dr Hall i roi tystiolaeth bellach—yr wyf yn credu, Dr Hall, eich bod wedi paratoi datganiad arall—bod gennym nifer o gwestiynau yr ydym wedi eu paratoi. Nid wyf am i Aelodau gadw'n slafaidd at y cwestiynau hynny, ond dyma'r math o gwestiynau y byddent yn ddefnyddiol inni eu holi yn y sesiwn hon heddiw. Yr hyn yr hoffwn i ei wneud wedyn, wedi i Dr Hall roi ei datganiad newydd, yw dechrau ar yr holi.

Dr Hall, I would like first of all to say how pleased we are that you were able to come to meet us today. We are very grateful to you for making considerable efforts to be here. This is a matter of considerable interest and concern not only to this Committee but

Dr Hall, i ddechrau hoffwn ddweud pa mor falch ydym eich bod wedi gallu dod i gwrdd â ni heddiw. Yr ydym yn ddiolchgar iawn ichi am wneud cryn ymdrech i fod yma. Mae hwn yn fater o gryn ddiddordeb a phryder nid yn unig i'r Pwyllgor hwn ond i gynulleidfa llawer

obviously to a much wider audience. That is why I think it is important for this meeting to take place. I also welcome Richard Hughes, who is the head of the public health division.

ehangach yn amlwg. Dyna pam y credaf ei bod yn bwysig i'r cyfarfod hwn gael ei gynnal. Yr wyf hefyd yn croesawu Richard Hughes, sef pennaeth adran iechyd y cyhoedd.

Dr Hall, you have given us a new short written statement. Would it be helpful if you could read that? I do not think that Members outside the Committee will have seen it, so it would be helpful perhaps if we start there.

Dr Hall, yr ydych wedi rhoi datganiad ysgrifennedig byr newydd inni. A fyddai yn ddefnyddiol pe gallech ei ddarllen? Nid wyf yn credu y bydd yr Aelodau y tu allan i'r Pwyllgor wedi ei weld, felly byddai'n ddefnyddiol pe baem yn defnyddio hwnnw fel man cychwyn.

Dr Hall: Thank you, Chairman. Thank you for inviting me this morning. I am very grateful for the opportunity to explain developments since I gave evidence to the Committee in June and, also, to have the opportunity to outline for you the way ahead as I see it at present.

Dr Hall: Diolch, Gadeirydd. Diolch ichi am fy ngwahodd y bore yma. Yr wyf yn ddiolchgar iawn o'r cyfle i esbonio'r datblygiadau ers imi roi tystiolaeth i'r Pwyllgor ym mis Mehefin a, hefyd, i gael y cyfle i roi amlinelliad ichi o'r ffordd ymlaen fel y gwelaf y sefyllfa ar hyn o bryd.

The Committee's evidence sessions in June gave me the opportunity to set out in detail how I approach the potential threat to human health from the BSE epidemic in cattle. At that time, I explained the important role of SEAC, the independent expert Spongiform Encephalopathy Advisory Committee, from whom you also took evidence.

Rhoddodd sesiynau tystiolaeth y Pwyllgor ym mis Mehefin y cyfle imi nodi'n fanwl sut yr wyf yn mynd i'r afael â'r bygythiad posibl i iechyd dynol yn sgîl yr epidemig BSE mewn gwartheg. Bryd hynny, esboniais rôl bwysig SEAC, y Pwyllgor Ymgynghorol annibynnol arbenigol ar Enseffalopathi Sbyngffurf, y gwnaethoch hefyd gymryd tystiolaeth ganddo.

I also outlined the importance of my working relationships with my Chief Medical Officer colleagues in the other parts of the United Kingdom in approaching this and all other public health matters. As I stated, each Chief Medical Officer has a separate accountability and I referred to the fact that Wales might take an independent view. Equally, I emphasised the importance of a joined-up understanding between Chief Medical Officers. I made these remarks in the context that I anticipated that further evidence would be available at the end of July. I said then that we were 'a little bit in the hands of the researchers' and that has proved to be the case.

Amlinellais hefyd bwysigrwydd fy mherthynas waith â'm cydweithwyr sydd yn Brif Swyddogion Meddygol yn y rhannau eraill o'r Deyrnas Unedig o ran mynd i'r afael â'r mater hwn a phob mater arall sydd yn ymwneud ag iechyd y cyhoedd. Fel y nodais, mae gan bob Prif Swyddog Meddygol atebolrwydd ar wahân a chyfeiriais at y ffaith y gallai Cymru gymryd barn annibynnol. Yn yr un modd, pwysleisiais bwysigrwydd dealltwriaeth unedig rhwng y Prif Swyddogion Meddygol. Gwneuthum y sylwadau hyn yng nghyd-destun y ffaith fy mod yn rhagweld y byddai tystiolaeth bellach ar gael erbyn diwedd mis Gorffennaf. Dywedais bryd hynny ein bod 'yn nwylo'r ymchwilwyr i ryw raddau' ac yr oedd hynny'n wir.

When I indicated to the Committee that I would be reviewing the evidence with my

Pan awgrymais wrth y Pwyllgor y byddwn yn adolygu'r dystiolaeth gyda'm cydweithwyr

colleagues in July, it was in the expectation that we would be able to take account of a further substantive report from the Oxford Group on their modelling of the progression of BSE in the cattle population. That has not yet been made available and I understand that it is not likely to be available until the end of November—hopefully for consideration by SEAC in its meeting at the end of that month.

ym mis Gorffennaf, digwyddodd hynny gan ddisgwyl y byddem yn gallu rhoi ystyriaeth i adroddiad sylweddol arall gan Grwp Rhydychen ar eu gwaith yn modelu cynnydd BSE ymhlith gwartheg. Nid yw hwnnw ar gael eto a deallaf nad yw'n debygol o fod ar gael tan ddiwedd mis Tachwedd—i'w ystyried, gobeithio, gan SEAC yn ei gyfarfod ar ddiwedd y mis hwnnw.

However, there was an obligation on Chief Medical Officers to present further advice following February's statement, and I submitted my paper to you along with my colleagues. The Committee will recognise that this did no more than reiterate the position and views that I gave to the Committee first hand in June. There was nothing new in it, and I do not expect to say anything new until I have further evidence on which to draw. I understand the tremendous expectation that exists for the ban to be lifted. I shall be very happy to agree with this and with those who advocate this when I have the evidence on which to base a change in the position that I set out to you previously. I fully anticipate that I will be able to see this evidence by the end of November.

Fodd bynnag, yr oedd rheidrwydd ar y Prif Swyddogion Meddygol i gyflwyno cyngor pellach yn dilyn y datganiad ym mis Chwefror, a chyflwynais fy mhapur ichi ynghyd â'm cydweithwyr. Bydd y Pwyllgor yn cydnabod na wnaeth hyn fawr mwy na chadarnhau'r sefyllfa a'r safbwyntiau a gyflwynais yn uniongyrchol i'r Pwyllgor ym mis Mehefin. Nid oedd yn cynnwys unrhyw beth newydd, ac nid wyf yn disgwyl dweud unrhyw beth newydd nes bod gennyf dystiolaeth newydd i dynnu arni. Deallaf y disgwyliad aruthrol sydd yn bodoli i'r gwaharddiad gael ei godi. Byddaf yn falch iawn o gytuno ar hyn a chyda'r rhai sydd yn hyrwyddo hyn pan fydd gennyf y dystiolaeth er mwyn seilio newid yn y sefyllfa a esboniais ichi yn flaenorol. Yr wyf yn llwyr ragweld y byddaf yn gallu gweld y dystiolaeth hon erbyn diwedd mis Tachwedd.

Perhaps I could add a comment about the context in which I am here. That is a context in which I have responsibility for protection of the public from a truly appalling condition affecting very young people and young adults in the main. It is contracted through no fault of their own and since I spoke to you in June, there have been a further three deaths from variant CJD in the United Kingdom.

Efallai y gallaf ychwanegu sylw ynglyn â'r cyd-destun yr wyf yn ymwneud ag ef yma. Cyd-destun y mae gennyf gyfrifoldeb drosto i ddiogelu'r cyhoedd rhag cyflwr erchyll sydd yn effeithio ar bobl ifainc iawn ac oedolion ifainc yn bennaf. Nid oes unrhyw fai ar y bobl sydd wedi eu heintio ac ers imi siarad â chi ym mis Mehefin, bu tair marwolaeth arall o ganlyniad i'r amrywiolyn CJD yn y Deyrnas Unedig.

Ieuan Wyn Jones: When our inquiry was going through its course in June, we had the impression, from the evidence given to us, that at that stage there was a unanimity of view amongst the four Chief Medical Officers in the UK. When we saw copies of the reports from the three Chief Medical Officers—yourself, and those in England and Scotland—the reports were all dated in July.

Ieuan Wyn Jones: Pan oedd ein hymchwiliad yn mynd rhagddo ym mis Mehefin, cawsom yr argraff, o'r dystiolaeth a roddwyd inni, bod barn unfrydol ymhlith y pedwar Swyddog Meddygol yn y DU bryd hynny. Pan welsom gopïau o adroddiadau'r tri Phrif Swyddog Meddygol—chi eich hun, a'r rheini yn Lloegr a'r Alban—yr oedd yr adroddiadau i gyd wedi eu dyddio ym mis

It is clear that the view taken by the CMO in England in July was different to the view taken by yourself. Were you aware that there was a difference of view at that time?

Dr Hall: I became aware of that difference of view in July with the publication of the CMO for England's report. When I addressed the Committee in June, I was not aware that there was a difference of view between us. In fact, if I may say, there are very large areas of agreement between us. The agreement is quite consistent between all four CMOs about the analysis and the basis of the risk assessment set out by the CMO in England. There are differences in view as to the consequences of a total lifting of the beef on the bone ban at this stage. We all agree that the risk to public health of a lift would be small, nevertheless, the CMOs in Scotland, Ireland and I feel, consider and advise that this small risk is still unacceptable at a time when we await further substantive evidence.

Ieuan Wyn Jones: Did the CMO in England discuss his differences with you?

Dr Hall: Following the presentation of evidence to the Committee in June, I had a number of discussions with the CMO in England and my other colleagues during July. It was not until considerably later in that month, with the publication of his report, that we became aware that there was a difference of emphasis between us.

Ieuan Wyn Jones: Does that difference of emphasis still apply?

Dr Hall: I have spoken frequently since with all of my colleagues and I was in discussion most recently with them during the last week or two. Our positions in England, Scotland and Northern Ireland are unchanged. We continue to agree and that is a very recent update.

Ieuan Wyn Jones: I have one further question and then we will go around the

Gorffennaf. Mae'n amlwg bod barn PSM Lloegr ym mis Gorffennaf yn wahanol i'ch barn chi. A oeddech yn ymwybodol bod gwahaniaeth barn ar y pryd?

Dr Hall: Deuthum yn ymwybodol o'r gwahaniaeth barn hwnnw ym mis Gorffennaf yn dilyn cyhoeddi adroddiad PSM Lloegr. Wrth annerch y Pwyllgor ym mis Mehefin, nid oeddwn yn ymwybodol bod gwahaniaeth barn rhyngom. Yn wir, os gallaf ddweud, yr ydym yn cytuno ar nifer fawr o bethau. Mae'r cytundeb yn eithaf cyson rhwng pob un o'r pedwar PSM ynghylch y dadansoddiad a sail yr asesiad risg a nodwyd gan PSM Lloegr. Mae gwahaniaeth barn o ran goblygiadau codi'r gwaharddiad ar gig eidion ar yr asgwrn yn gyfan gwbl ar hyn o bryd. Yr ydym oll yn gytûn, yn sgîl codi'r gwaharddiad, mai bach fyddai'r risg i iechyd y cyhoedd, serch hynny, mae PSM yr Alban, Iwerddon a minnau o'r farn, ac yn credu ac yn cynghori bod y risg fechan hon yn annerbyniol o hyd ar adeg pan yr ydym yn aros am dystiolaeth sylweddol bellach.

Ieuan Wyn Jones: A wnaeth PSM Lloegr drafod ei wahaniaethau gyda chi?

Dr Hall: Yn dilyn cyflwyno'r dystiolaeth i'r Pwyllgor ym mis Mehefin, cefais sawl trafodaeth gyda'r PSM yn Lloegr a'm cydweithwyr eraill yn ystod mis Gorffennaf. Ni ddaethom yn ymwybodol bod gwahaniaeth pwyslais rhyngom tan yn llawer diweddarach y mis hwnnw, pan gyhoeddwyd ei adroddiad.

Ieuan Wyn Jones: A yw'r gwahaniaeth pwyslais yn parhau i fod yn berthnasol?

Dr Hall: Yr wyf wedi siarad yn rheolaidd ers hynny gyda phob un o'm cydweithwyr a'r tro diwethaf i mi gael trafodaeth gyda hwy oedd yn ystod yr wythnos neu'r pythefnos diwethaf. Nid yw ein safbwyntiau yn Lloegr, yr Alban a Gogledd Iwerddon wedi newid. Yr ydym yn parhau i gytuno a dyma'r wybodaeth ddiweddaraf un.

Ieuan Wyn Jones: Mae gennyf un cwestiwn arall ac yna fe awn o amgylch y Pwyllgor. Yr

Committee. I have read Liam Donaldson's report in some detail and it gives an impression, although this may be erroneous and I would like you to clarify it, that he has seen a provisional copy of the Oxford Group's report. Is that correct?

wyf wedi darllen adroddiad Liam Donaldson yn eithaf manwl a rhydd yr argraff, ond efallai bod hyn yn anghywir a hoffwn ichi gadarnhau hynny, ei fod wedi gweld copi dros dro o adroddiad Grwp Rhydychen. A yw hynny'n wir?

Dr Hall: Professor Donaldson did receive preliminary estimates from the Oxford Group. It was a very brief statement and the estimates that he had were preliminary and he shared them with the other Chief Medical Officers. Those estimates were provided with the caveat by the Oxford Group that it would be important to wait for their substantive report and that that would be available in due course.

Dr Hall: Fe dderbyniodd yr Athro Donaldson amcangyfrifon rhagarweiniol gan Grwp Rhydychen. Yr oedd yn ddatganiad byr iawn ac yr oedd yr amcangyfrifon yr oedd ganddo yn rhai rhagarweiniol ac fe'u rhannodd gyda'r Prif Swyddogion Meddygol eraill. Darparwyd yr amcangyfrifon hynny gyda'r cafeat gan Grwp Rhydychen y byddai'n bwysig aros am eu hadroddiad sylweddol ac y byddai hwnnw ar gael maes o law.

Ieuan Wyn Jones: Would it be right for one to take the view that the CMO in England changed his position as a result of that provisional report?

Ieuan Wyn Jones: A fyddai'n iawn i rywun gredu bod y PSM yn Lloegr wedi newid ei safbwynt o ganlyniad i'r adroddiad dros dro hwnnw?

Dr Hall: I could not answer that question. I think it is one that he would have to respond to.

Dr Hall: Ni allwn ateb y cwestiwn hwnnw. Credaf fod hwnnw'n gwestiwn y byddai'n rhaid iddo ef ymateb iddo.

Karen Sinclair: The outcome of this inquiry is obviously of particular pecuniary interest to the farming community but the ramifications for all sectors of society have got to be considered. Although the CMO for England suggested safeguards vis-à-vis use of bone products, how could this realistically be monitored? That worries me. Even though the bone ban could be implemented for commercial products, how could it be monitored in food establishments? How could that possibly be policed? The CMO for England raised this as a particular worry.

Karen Sinclair: Mae canlyniad yr ymchwiliad hwn yn amlwg o ddiddordeb ariannol penodol i'r gymuned ffermio ond mae'n rhaid ystyried y goblygiadau ar gyfer pob sector o'r gymdeithas. Er bod PSM Lloegr yn awgrymu camau diogelwch ynghylch defnyddio cynnyrch esgyrn, sut y gellid monitro hyn yn realistig? Mae hynny'n fy mhoeni. Er y gallai'r gwaharddiad ar esgyrn gael ei weithredu ar gyfer cynnyrch masnachol, sut y gellid ei fonitro mewn sefydliadau bwyd? Sut y gellid plismona hynny? Cododd PSM Lloegr hyn fel mater o bryder penodol.

Dr Hall: The issues around regulation and monitoring are issues for the agriculture side of the office and not ones in which I have any direct involvement. My role in this is simply to advise of the level of potential human exposure and the risk associated with that. If any path was to be chosen which required regulation, I think that agriculture officials would be the appropriate people to advise on

Dr Hall: Mae'r materion sydd yn ymwneud â rheoleiddio a monitro yn faterion ar gyfer ochr amaethyddol y swyddfa ac nid ydynt yn rhai y mae gennyf unrhyw gysylltiad uniongyrchol â hwy. Fy rôl yn hyn o beth yw rhoi cyngor yngylch y lefel o amlygiad posibl i fodau dynol a'r risg sydd yn gysylltiedig â hynny. Petai unrhyw lwybr yn cael ei ddewis a fyddai'n gofyn am reoleiddio, credaf mai swyddogion

the potential efficacy or practicality of such measures.

amaethyddiaeth fyddai'r bobl briodol i roi cyngor ar effeithiolrwydd neu ymarferoldeb posibl mesurau o'r fath.

Karen Sinclair: Presumably then, your advice has taken on board the possibilities of problems that could occur because you concur on everything apart from this and your advice in the report is very similar. However, it worries me that if the English advice were taken on board we would have a difficult job policing where bone went.

Karen Sinclair: Gellir tybio, felly, bod eich cyngor wedi ystyried y posibiliadau o broblemau a allai godi gan eich bod yn cytuno ar bopeth ar wahân i hyn ac mae eich cyngor yn yr adroddiad yn debyg iawn. Fodd bynnag, mae'n destun pryder imi y byddai'n waith anodd iawn plismona i ble yr aeth yr esgyrn petai cyngor Lloegr yn cael ei ddilyn.

Dr Hall: That would certainly be a serious concern of mine and I would wish to know that that was feasible and possible and I share the view that you have expressed that it would present enormous problems.

Dr Hall: Byddai hynny yn sicr yn bryder mawr i minnau a hoffwn wybod bod hynny'n ymarferol ac yn bosibl ac yr wyf yn cytuno â'r farn a fynegwyd gennych y byddai'n achosi problemau anferthol.

Richard Edwards: There is still clearly unanimity of opinion between yourself and the CMO for Scotland and Northern Ireland. The CMO for England has chosen to modify his position on the basis, I take it, of hearsay, unpublished evidence. Could you say some more about the nature of the evidence on which he has based his new assessment?

Richard Edwards: Mae unfrydedd barn amlwg o hyd rhyngoch chi a PSM yr Alban a Gogledd Iwerddon. Mae PSM Lloegr wedi dewis newid ei safbwynt, rwy'n cymryd, ar sail tystiolaeth achlust, sydd heb ei chyhoeddi. A allech ddweud mwy am natur y dystiolaeth y seiliodd ei asesaid newydd arni?

Dr Hall: I do not know of any other evidence which he has brought into play other than that which I have shared with this Committee and which is formal and known about. How he came to his particular view I think is a question that he would have to answer. The difficulty for myself and for all of us I think, is that we are not in possession of substantive reports from the major research group in Oxford, which we had anticipated would be available in June of this year and which have been delayed.

Dr Hall: Ni wn am unrhyw dystiolaeth arall a ystyriwyd ganddo ar wahân i'r dystiolaeth yr wyf wedi ei rhannu gyda'r Pwyllgor hwn ac sydd yn ffurfiol ac yn hysbys. Yr wyf yn credu mai cwestiwn iddo ef ei ateb yw sut y daeth i'r safbwynt penodol hwn. Yr anhawster i mi ac i bob un ohonom yn fy marn i, yw nad oes gennym adroddiadau sylweddol gan y prif grwp ymchwil yn Rhydychen, y rhagwelsom y byddent ar gael ym mis Mehefin eleni ond sydd wedi cael eu hoedi.

In addition, we have flagged the need to monitor disease trends in both cattle and humans following some concerns about each of those. In the latter part of last year, as you will recall from the inquiry, there were 10 deaths from variant CJD in humans. That was a very substantial increase on the previous quarters and it meant that the whole year had seen a larger number of cases. We really did not know at that time, or even now, what that signalled.

Yn ogystal, yr ydym wedi nodi'r angen i fonitro tueddau'r afiechyd mewn gwartheg a bodau dynol yn dilyn rhai pryderon ynghylch pob un o'r rheini. Yn rhan olaf y llynedd, fel y cofiwch o'r ymchwiliad, yr oedd 10 marwolaeth o ganlyniad i'r amrywiolyn CJD mewn bodau dynol. Yr oedd hynny'n gynnydd sylweddol ar y chwarteri blaenorol ac yr oedd yn golygu bod nifer fwy o achosion wedi digwydd yn ystod y flwyddyn gyfan. Nid oeddem yn gwybod bryd hynny,

ac ni wyddom nawr hyd yn oed, beth oedd arwyddocâd hynny.

We are a little more confident because we have had data for the first two quarters of this year. However, there is in fact a six-month lag time for final confirmation of the quarter by quarter disease statistics in humans. So you need time to take perspective on what is happening. In addition to the Oxford data not being available, we needed time to see what was happening in humans. Also there was an indication that the downward trend in cattle might not be progressing as fast as predicted and, in fact, seemed to a certain extent to be faltering. Time was needed to assess whether that was in fact the case and if so what the implications of that might be.

Yr ydym rywfaint yn fwy hyderus gan ein bod wedi cael data ar gyfer dau chwarter cyntaf eleni. Fodd bynnag, mae yna gyfnod oedi o chwe mis ar gyfer cadarnhau ystadegau'r afiechyd mewn bodau dynol fesul chwarter yn derfynol. Felly mae angen amser arnoch i weld yr hyn sydd yn digwydd yn glir. Yn ogystal â'r ffaith nad yw data Rhydychen ar gael, yr oedd angen amser arnom i weld beth sydd yn digwydd i fodau dynol. Hefyd yr oedd arwydd nad oedd y duedd ddisgynnol mewn gwartheg yn mynd rhagddi mor gyflym ag y rhagwelwyd o bosibl ac, mewn gwirionedd, ymddangosai ei bod yn arafu i ryw raddau. Yr oedd angen amser i asesu ai dyma oedd y sefyllfa mewn gwirionedd ac os felly beth fyddai goblygiadau hynny.

Those are the particular strands of evidence we consider, in addition to the whole panoply of the scientific background to BSE, which I think was very ably explained by the SEAC when they came to the public inquiry. This is at the practical level, over and above the science which is still evolving and which we are still trying to understand. I do not know that there was anything outside that available to any of my other colleagues to add to the decision-making process. I have to say that each of us, and myself in particular, are deeply concerned that this measure has wider implications. No one would wish to see a ban retained for any longer than is necessary. However, in order to make a decision you need to have the evidence for a rational judgment, in my view.

Dyna'r meysydd penodol o dystiolaeth yr ydym yn eu hystyried, yn ogystal â rhychwant y cefndir gwyddonol i BSE, a gafodd ei egluro'n gymwys iawn gan SEAC yn fy marn i pan ddaethant i'r ymchwiliad cyhoeddus. Mae hyn ar y lefel ymarferol, uwchlaw'r wyddoniaeth sydd yn parhau i esblygu ac yr ydym yn parhau i geisio ei deall. Ni wn a oedd unrhyw beth y tu hwnt i'r hyn oedd ar gael i unrhyw rai o'm cydweithwyr eraill i ychwanegu at y broses o wneud penderfyniadau. Mae'n rhaid imi ddweud bod pob un ohonom, myfi fy hun yn arbennig, yn pryderu'n arw bod gan y mesur hwn oblygiadau ehangach. Ni fyddai unrhyw un yn dymuno i waharddiad gael ei gadw yn hwy na'r hyn sydd ei angen. Fodd bynnag, er mwyn gwneud penderfyniad mae'n rhaid ichi gael y dystiolaeth er mwyn llunio barn synhwyrol, yn fy marn i.

Ieuan Wyn Jones: Can I clarify the position on the numbers? We have been given a table from the Department of Health dated 4 October which indicates that up until the first two quarters there were six deaths from variant CJD. We were told there was a subsequent one in August, which would make a total of seven this year compared with a

Ieuan Wyn Jones: A allaf egluro'r sefyllfa ynghylch rhifau? Cawsom dabl gan yr Adran Iechyd yn dwyn y dyddiad 4 Hydref sydd yn nodi y bu chwe marwolaeth o'r amrywiolyn CJD hyd at y ddau chwarter cyntaf. Dywedwyd wrthym y bu un arall ym mis Awst, a fyddai'n gyfanswm o saith eleni o'i gymharu ag 16 y llynedd. A allech gadarnhau

total last year of 16. Can you clarify whether I am right in assuming that so far this year the total is seven?

a wyf yn gywir ai peidio i dybio mai'r cyfanswm eleni hyd yn hyn yw saith?

Dr Hall: You are right, Chairman. The total is seven so far. My understanding is that there were four deaths in the first quarter, no deaths in the second quarter and three so far in the third quarter of this year. However, there is a six-month lag time on confirmation so it will not be until six months following the end of the quarter that the body responsible closes the door on the figure. Unfortunately, we would anticipate that there may be figures added to that for those three quarters in 1999.

Dr Hall: Yr ydych yn iawn, Cadeirydd. Y cyfanswm yw saith hyd yn hyn. Yr wyf ar ddeall y bu chwe marwolaeth yn y chwarter cyntaf, dim un yn yr ail chwarter a thri hyd yma yn nhrydydd chwarter y flwyddyn. Fodd bynnag, mae oedi o chwe mis cyn cadarnhau achosion felly ni fydd y corff sy'n gyfrifol yn cau'r drws ar y ffigwr tan chwe mis yn dilyn diwedd y chwarter. Yn anffodus, yr ydym yn rhagweld y bydd ffigurau yn cael eu hychwanegu at hwnnw ar gyfer y tri chwarter hynny ym 1999.

Ieuan Wyn Jones: Is it also true that the number of referrals is considerably lower this year?

Ieuan Wyn Jones: A yw hefyd yn wir bod nifer yr achosion a gyfeiriwyd eleni yn sylweddol llai na'r llynedd?

Dr Hall: That is also something which we need to be careful about in terms of a lag time on the statistical data.

Dr Hall: Mae hynny hefyd yn rhywbeth y mae'n rhaid inni fod yn ofalus yn ei gylch yn nhermau cyfnod o oedi gyda'r data ystadegol.

Richard Edwards: I still find it curious that the CMO for England has taken a different view. I do not quite understand on what he has based that different view but would I be right in saying that you totally accept the position of the CMO for Scotland when he says that

Richard Edwards: Yr wyf yn dal i gredu ei bod yn rhyfedd bod PSM Lloegr wedi ffurfio barn wahanol. Nid wyf yn deall yn iawn ar beth y mae wedi seilio'r farn wahanol honno ond a fyddwn yn gywir wrth ddweud eich bod yn derbyn safbwynt PSM yr Alban yn llwyr pan ddywed

'if I am to go down in history as the CMO who was criticised, I would rather go down as someone who exercised the precautionary principle for a bit longer than someone who did something prematurely and unleashed another hazard on the Scottish populace'

'os caf fy nghofnodi mewn hanes fel y PSM a gafodd ei feirniadu, byddai'n well gennyf gael fy nghofio fel rhywun a oedd wedi arfer yr egwyddor rhagofalon yn hytrach na rhywun a wnaeth rywbeth yn rhy gynnar gan gyflwyno perygl arall i boblogaeth yr Alban'

or in your case the Welsh populace?

neu boblogaeth Cymru yn eich achos chi?

Dr Hall: I support that 100 per cent. The precautionary principle, which is a well-founded principle and is applied in other contexts, has been applied throughout the process of taking a view about the risk to human health in this situation. It must continue to apply. In my view, judgments must be based on having access to what I regard as

Dr Hall: Yr wyf yn cefnogi hynny 100 y cant. Mae'r egwyddor rhagofalon, sydd yn egwyddor ag iddi sail gadarn ac sydd yn cael ei chymhwyso mewn cyd-destunau eraill, wedi cael ei chymhwyso drwy'r broses o ffurfio barn am y risg i iechyd bodau dynol yn y sefyllfa hon. Mae'n rhaid iddi barhau i fod yn berthnasol. Yn fy marn i, mae'n rhaid i

appropriate data and information on which to make a judgment.

farnau fod yn seiliedig ar gael mynediad i'r hyn a ystyriaf yn ddata a gwybodaeth briodol er mwyn ffurfio barn.

Carwyn Jones: To confirm a point that I think you may already have clarified, you are not aware of your English colleague having access to any more evidence than yourself?

Carwyn Jones: I gadarnhau pwynt y credaf eich bod eisoes wedi ei egluro o bosibl, nid ydych yn ymwybodol bod gan eich cydweithiwr yn Lloegr fynediad i fwy o dystiolaeth nag sydd gennych chi?

Dr Hall: No, I am not aware of any and I am sure you can appreciate that I have tried very hard to ascertain the full panoply of evidence that might be brought to bear. I have also talked frequently with my English counterpart, as recently as last week.

Dr Hall: Nac ydwyf, nid wyf yn ymwybodol o unrhyw dystiolaeth arall ac yr wyf yn siwr y gallwch werthfawrogi fy mod wedi gwneud ymdrech fawr i geisio cael yr ystod eang o dystiolaeth a allai gael ei defnyddio. Yr wyf hefyd wedi siarad yn aml gyda'm cydweithiwr yn Lloegr, mor ddiweddar â'r wythnos diwethaf.

Carwyn Jones: On that basis, is it reasonable to conclude that the opinions that you and your other three colleagues have come to have been based on the same amount of evidence, as far as you are aware? Obviously you cannot answer for others.

Carwyn Jones: Ar y sail honno, a yw'n rhesymol dod i'r casgliad bod eich barn chi a'ch tri chydweithiwr arall yn seiliedig ar yr un faint o dystiolaeth, cyhyd ag y gwyddoch? Wrth gwrs, ni allwch ateb ar ran eraill.

Dr Hall: That is true, as far as I am aware.

Dr Hall: Mae hynny'n wir, cyhyd ag y gwn i.

Carwyn Jones: I do not know if you indicated it, but it has been indicated that your colleague in England may have seen the preliminary findings of the Oxford Group. Is that right? Have you seen those?

Carwyn Jones: Ni wn a ydych wedi nodi hynny, ond nodwyd y gallai eich cydweithiwr yn Lloegr fod wedi gweld canfyddiadau rhagarweiniol Grwp Rhydychen. A yw hynny'n wir? A ydych chi wedi gweld y rheini?

Dr Hall: I have. He certainly did receive some preliminary estimates with the caveat that they were preliminary estimates and that there was still a substantial body of work to be done. I am told that the body of work involves the factoring of demographic data into a very complex mathematical modelling process. However, we were able to see some very brief preliminary estimates.

Dr Hall: Do. Yn sicr fe dderbyniodd rai amcangyfrifon rhagarweiniol gyda'r cafeat mai amcangyfrifon rhagarweiniol oeddent a bod corff sylweddol o waith i'w wneud o hyd. Dywedwyd wrthym bod y corff o waith yn golygu rhannu'r data demograffaidd yn broses fodelu fathemategol gymhleth iawn. Fodd bynnag, fe welsom rai amcangyfrifon rhagarweiniol cryno iawn.

Carwyn Jones: You prefer to wait until the full findings are published?

Carwyn Jones: Mae'n well gennych aros hyd nes y cyhoeddir y canfyddiadau llawn?

Dr Hall: I would certainly advise the Committee that that is the wise thing to do in the circumstances.

Dr Hall: Byddwn yn sicr o roi cyngor i'r Pwyllgor mai dyna yw'r peth doeth i'w wneud o dan yr amgylchiadau.

Carwyn Jones: Presumably on the basis that in order to understand the storyline it is best to read the book rather than the book review.

Carwyn Jones: Ar y sail, fe dybiaf, ei bod yn well darllen y llyfr yn hytrach nag adolygiad ohono er mwyn deall y stori.

Ieuan Wyn Jones: I am not asking you to answer that. [Laughter.]

Ieuan Wyn Jones: Nid wyf yn gofyn ichi ateb hynny. [Chwerthin.]

Carwyn Jones: No, it was a comment, not a question. Can I ask you a question with a medical slant? Obviously your responsibility is to protect, along with other people, the health of the population of Wales. If the ban were to be lifted in England, would it be possible at a practical level to maintain an effective embargo on bone-in beef in Wales or would it be the case that it would be effectively impossible to stop bone-in beef coming in from England?

Carwyn Jones: Na, sylw oedd hynny, nid cwestiwn. A allaf ofyn cwestiwn ichi â gogwydd meddygol? Yn amlwg, eich cyfrifoldeb chi, ynghyd â phobl eraill, yw diogelu iechyd poblogaeth Cymru. Petai'r gwaharddiad yn cael ei godi yn Lloegr, a fyddai'n bosibl ar lefel ymarferol cadw embargo effeithiol ar esgyrn mewn cig eidion yng Nghymru neu a fyddai'n wir i ddweud y byddai fwy neu lai yn amhosibl atal cig eidion ar yr asgwrn rhag dod i mewn o Loegr?

Dr Hall: Clearly maintaining a UK-wide approach is the best way to maximise the ban's effectiveness and to protect public health. I believe its removal in England would reduce the ban's effectiveness and would create potentially the cross-border difficulties to which you referred.

Dr Hall: Yn amlwg cadw yr un ymagwedd ledled y DU yw'r ffordd orau o sicrhau bod y gwaharddiad yn fwyaf effeithiol ac i ddiogelu iechyd y cyhoedd. Credaf y byddai ei godi yn Lloegr yn lleihau effeithiolrwydd y gwaharddiad a byddai'n creu'r anawsterau trawsffiniol posibl y cyfeiriasoch atynt.

Ieuan Wyn Jones: Can I ask you a question in relation to that? I think we explored this possibility the other way around in the earlier part of our inquiry because there was an anticipation that Wales might lift the ban before England. I think your advice to us at that stage was that you would always advise in the interests of Wales. However, you did not expect a difference of view between the four CMOs.

Ieuan Wyn Jones: A allaf ofyn cwestiwn ichi mewn perthynas â hynny? Yr wyf yn credu ein bod wedi ymchwilio i'r posibilrwydd hwn y ffordd arall yn y rhan gynharach o'n hymchwiliad gan yr oedd disgwyliad y byddai Cymru o bosibl yn codi'r gwaharddiad cyn Lloegr. Credaf mai eich cyngor inni bryd hynny oedd y byddech bob amser yn rhoi cyngor er budd Cymru. Fodd bynnag, nid oeddech yn disgwyl y byddai gwahaniaeth barn rhwng y pedwar PSM.

Dr Hall: No.

Dr Hall: Nac oeddwn.

Ieuan Wyn Jones: So you are surprised by the change?

Ieuan Wyn Jones: Felly yr ydych wedi eich synnu gan y newid?

Dr Hall: I was disappointed that there was a difference within the United Kingdom because, as I have said, that does have implications for the potential effectiveness of a ban. That is an issue that I have discussed with my colleagues in that, in respect of any

Dr Hall: Yr oeddwn yn siomedig bod gwahaniaeth barn o fewn y Deyrnas Unedig oherwydd, fel y dywedais, mae gan hynny oblygiadau o ran effeithiolrwydd posibl gwaharddiad. Mae hynny'n fater yr wyf wedi ei drafod gyda'm cydweithwyr yn yr

public health issue, an independent action could have implications for other parts of the UK.

ystyr, mewn perthynas ag unrhyw fater yn ymwneud ag iechyd cyhoeddus, y gallai camau annibynnol gael oblygiadau ar gyfer rhannau eraill o'r DU.

Peter Rogers: One issue concerns me after reading Professor Donaldson's very detailed report. It is obvious that when we introduced the ban in 1997, we were in a difficult position and at that stage we still had a lot more BSE-infected cattle entering the system. However, I thought that one of the reasons we introduced the ban was that there was going to be some research that would further damage the industry with regard to serving meat on the bone. This has never come forward. Professor Liam Donaldson's report details the progress that there has been with research, even with human blood. Plasma is now sourced from outside the UK. We have also seen the feed watershed, which means that no cattle that have been fed infected food have entered the system. The progress has been tremendous, as it should be, because as you said, it is a terrible death and involves tremendous suffering. We seem to have gained so much ground with research and everything else. After reading Professor Donaldson's report, are you impressed at all that so much tremendous progress has been made? Although there was originally only a slight chance of anything happening and there is even less of a chance now, do you think that we are now moving on?

Peter Rogers: Mae un mater yn fy mhoeni ar ôl darllen adroddiad manwl iawn yr Athro Donaldson. Mae'n amlwg pan gyflwynwyd y gwaharddiad gennym ym 1997 ein bod mewn sefyllfa anodd ac ar y pryd yr oedd gennym lawer mwy o wartheg wedi'u heintio â BSE yn cyrraedd y system. Fodd bynnag, yr oeddwn yn credu mai un o'r rhesymau y cyflwynwyd y gwaharddiad gennnym oedd y byddai rhywfaint o ymchwil yn cael ei wneud a fyddai'n niweidio'r diwydiant ymhellach o ran cynnig cig ar yr asgwrn. Nid yw hyn erioed wedi ymddangos. Mae adroddiad yr Athro Liam Donaldson yn manylu ar y cynnydd a gyflwynwyd gan ymchwil, hyd yn oed â gwaed dynol. Bellach ceir plasma o ffynonellau y tu allan i'r DU. Yr ydym hefyd wedi gweld y trothwy porthiant, sydd yn golygu nad oes unrhyw wartheg a gafodd eu bwydo â bwyd heintiedig wedi cyrraedd y system. Gwnaethpwyd cynnydd aruthrol, yn ôl y disgwyl, oherwydd fel y dywedasoch, mae'n farwolaeth erchyll ac yn golygu dioddefaint mawr. Mae'n ymddangos ein bod wedi ennill cymaint o dir gydag ymchwil a phopeth arall. Ar ôl darllen adroddiad yr Athro Donaldson, a yw'r ffaith bod cymaint o gynnydd aruthrol wedi cael ei wneud wedi creu argraff arnoch o gwbl? Er mai bach iawn oedd y siawns y byddai unrhyw beth yn digwydd yn wreiddiol a bod hyd yn oed llai o siawns bellach, a ydych yn credu ein bod ni bellach symud ymlaen?

Dr Hall: I totally support your observation that there has been enormous progress on a number of fronts and in a very short period of time. You will remember from the inquiry that I said that we have only known about variant CJD for three years—just over three years now. During that period we have learnt a great deal about it. However, there are a number of research programmes in hand that require much longer time frames to report on. Therefore the full story is still emerging.

Dr Hall: Yr wyf yn llwyr gefnogi eich sylw y gwnaed cynnydd aruthrol mewn nifer o feysydd ac o fewn cyfnod byr iawn o amser. Fe gofiwch o'r ymchwiliad imi ddweud mai dim ond ers tair blynedd y mae'r amrywiolyn CJD yn hysbys inni—ychydig dros dair blynedd nawr. Yn ystod y cyfnod hwnnw yr ydym wedi dysgu llawer amdano. Fodd bynnag, mae nifer o raglenni ymchwil ar y gweill sydd yn gofyn am amserlenni llawer hwy er mwyn cyflwyno adroddiadau arnynt. Felly mae'r darlun llawn yn parhau i ddod i'r

amlwg.

Nevertheless, in terms of the measures taken to reduce human exposure to this potential hazard, we—and this is true of myself and my colleagues—are impressed by the degree of progress that has been made. One would hope that it would be possible to remove any unnecessary regulations at the earliest opportunity. The question is having the right information on which to make a judgment about what it is proper to do at the right time.

Serch hynny, o ran y mesurau a gymerwyd i leihau amlygiad bodau dynol i'r perygl posibl hwn—ac mae hyn yn wir amdanaf i a'm cydweithwyr—mae'r cynnydd a wnaethpwyd wedi creu argraff fawr arnom. Byddai rhywun yn gobeithio y byddai'n bosibl diddymu unrhyw reoliadau diangen ar y cyfle cyntaf. Y cwestiwn yw cael yr wybodaeth gywir er mwyn ffurfio barn ynglyn â'r hyn sydd yn briodol i'w wneud ar yr adeg gywir.

Glyn Davies: Thank you for the clarity with which you give your evidence and your points of view. We all share your concern that we do not know the profile of the incidence of variant CJD. It is very worrying.

Glyn Davies: Diolch am yr eglurder wrth roi eich tystiolaeth a'ch safbwyntiau. Yr ydym oll yn rhannu eich pryder na wyddom broffil nifer yr achosion o'r amrywiolyn CJD. Mae hyn yn achos pryder mawr.

I want to ask you about the risk element because we have not touched on that much today. I am not sure whether there is much point in doing so because my understanding is that your position on risk assessment will not have changed since the last time you spoke to us, when we talked at some length.

Hoffwn ofyn ichi ynglyn â'r elfen o risg gan nad ydym wedi sôn rhyw lawer am hynny heddiw. Nid wyf yn sicr a oes llawer o bwrpas gwneud hynny oherwydd yr wyf ar ddeall na fydd eich safbwynt ar asesu risg wedi newid ers y tro diwethaf ichi siarad â ni, pan siaradasom yn faith ar y pwnc.

Dr Hall: No.

Dr Hall: Nac ydyw.

Glyn Davies: Nevertheless, I will ask about it as it is a key point for me. Can you envisage a position when you might be able to recommend the lifting of the beef on the bone ban before the risk assessment is absolute zero?

Glyn Davies: Serch hynny, hoffwn holi ynglyn â hynny gan ei fod yn bwynt allweddol imi. A allwch ragweld sefyllfa lle y gallech argymell codi'r gwaharddiad ar gig eidion ar yr asgwrn cyn bod yr asesiad risg yn ddim byd o gwbl?

Dr Hall: In order to be totally confident that there is no risk to humans, we have to be in a position where there is no disease in cattle. However, there may be indications that the decline of the incidence of BSE in cattle is progressing so fast that one could make a judgment of when it might be reasonable to say that the risk to humans had become vanishingly small. There is a judgment here about what the public's expectation of exposure to risk might be. As I have said before, we are not talking about flu or food poisoning, but something that is a very serious condition. My reading of that is that the public would wish the risk to be vanishingly small.

Dr Hall: Er mwyn bod yn hollol hyderus nad oes unrhyw risg i fodau dynol, mae'n rhaid inni fod mewn sefyllfa lle nad oes unrhyw afiechyd mewn gwartheg. Fodd bynnag, efallai y bydd arwyddion bod lleihad yn nifer yr achosion o BSE mewn gwartheg yn datblygu mor gyflym fel y gallai rhywun farnu pa bryd y gallai fod yn rhesymol dweud bod y risg i fodau dynol wedi mynd yn anweledig o fach. Mae angen ffurfio barn yma ynghylch beth fyddai disgwyliadau posibl y cyhoedd o ran amlygiad i risg. Fel y dywedais eisoes, nid ydym yn sôn am ffliw na gwenwyn bwyd, ond rhywbeth sydd yn gyflwr difrifol iawn. Fy nealltwriaeth o hynny yw y byddai'r

They would not wish there to be exposure to risk.

cyhoedd yn dymuno i'r risg fod yn anweledig o fach. Ni fyddent yn dymuno bod yna unrhyw amlygiad i risg.

A judgment about risk needs to take account of not only what we know but a raft of unknowns and assumptions about what is actually happening. We went through those when I gave evidence. I think that I would personally like to see a level of risk which was negligible.

Dylai barn a ffurfir ynglyn â risg ystyried nid yn unig yr hyn a wyddom ond yr holl bethau nas gwyddom a'r tybiaethau ynghylch yr hyn sydd yn digwydd mewn gwirionedd. Trafodwyd y rheini pan roddais dystiolaeth. Yr wyf yn credu yr hoffwn yn bersonol weld lefel o risg a fyddai'n ddibwys.

Glyn Davies: May I point out the difficulties that I have with words like 'negligible', 'vanishingly small' or 'unquantifiable in any meaningful way'. They seem the same to me. 'Unquantifiable in any meaningful way'—

Glyn Davies: Hoffwn nodi'r anawsterau sydd gennyf parthed geiriau megis 'dibwys' ac 'anweledig o fach' neu 'anfesuradwy mewn unrhyw ffordd ystyrlon'. Yr un yw eu hystyr i mi. 'Anfesuradwy mewn unrhyw ffordd ystyrlon'—

Ieuan Wyn Jones: Which are the exact words that Liam Donaldson used.

Ieuan Wyn Jones: Sef yr union eiriau a ddefnyddiodd Liam Donaldson.

Glyn Davies: Indeed. They seem to be synonyms, 'unquantifiable' and 'vanishingly small'. It seems from your evidence that you want absolute zero risk before you can make a recommendation.

Glyn Davies: Yn wir. Ymddengys eu bod yn gyfystyr â'i gilydd, 'anfesuradwy' ac 'anweledig o fach'. Ymddengys o'ch tystiolaeth eich bod am gael risg o ddim o gwbl cyn ichi allu gwneud argymhelliad.

Dr Hall: What we want is a statement of what the risk is, so that it can be communicated to the public. There is a difference between having an unquantifiable risk and actually having a very small risk that you can make a reasonable statement about. I would like to be able to recommend to this Committee that the risk, in the light of evidence, is of that order. That is what I cannot do at the moment. I certainly hope to be able to move to that position when we have this further advice at the end of the year. The whole issue of risk is extraordinarily difficult. There is also a difficulty about the language that you use to express it. However, the important thing is that the public understands what the level of risk is and that a view can be taken on what is acceptable by yourselves and by the public.

Dr Hall: Yr hyn yr ydym am ei gael yw datganiad o'r risg, fel y gellir ei gyfleu i'r cyhoedd. Mae gwahaniaeth rhwng risg anfesuradwy a risg fach iawn y gallwch wneud datganiad rhesymol yn ei chylch. Hoffwn allu argymell i'r Pwyllgor hwn bod y risg, yng ngoleuni'r dystiolaeth, o'r maint hwnnw. Ni allaf wneud hynny ar hyn o bryd. Mawr obeithiaf allu symud i'r sefyllfa honno pan fydd y cyngor pellach hwn gennym ar ddiwedd y flwyddyn. Mae'r mater cyfan o risg yn hynod o anodd. Ceir anhawster hefyd gyda'r iaith a ddefnyddiwch i'w fynegi. Fodd bynnag, y peth pwysig yw bod y cyhoedd yn deall beth yw'r lefel o risg ac y gall barn gael ei ffurfio ar yr hyn sydd yn dderbyniol gennych chi a chan y cyhoedd.

Mick Bates: I heard you refer to statistics on BSE in cattle earlier on. Did you hint that there was a hiccup in them?

Mick Bates: Fe'ch clywais yn cyfeirio at yr ystadegau ar BSE mewn gwartheg yn gynharach. A oeddech yn awgrymu bod yna

gamgymeriad ynddynt?

Dr Hall: During the earlier part of this year there was certainly evidence to show that the slowing down was not proceeding as quickly as anticipated and that the maximum estimated numbers of BSE cases in cattle this year would, in fact, be exceeded. I think the estimate was 2,215 and it was anticipated that that figure would be exceeded. Therefore, the rate of decline was slowing.

Dr Hall: Yn ystod rhan gyntaf eleni yn sicr yr oedd yna dystiolaeth i ddangos nad oedd yr arafu yn digwydd mor gyflym â'r disgwyl ac y byddai uchafswm nifer yr achosion o BSE mewn gwartheg a eleni yn fwy na'r amcangyfrif mewn gwirionedd. Credaf mai'r amcangyfrif oedd 2,215 a disgwyliwyd y byddai'r ffigwr yn uwch na hynny. Felly, yr oedd cyfradd y gostyngiad yn arafu.

Mick Bates: But the rate of decline continues?

Mick Bates: Ond mae cyfradd y gostyngiad yn parhau?

Dr Hall: Yes, the rate of decline continues, but much more slowly.

Dr Hall: Ydy, mae cyfradd y gostyngiad yn parhau, ond yn arafach o lawer.

Mick Bates: So, as was referred to previously, the measures are achieving their goals?

Mick Bates: Felly, fel y cyfeiriwyd ato'n flaenorol, mae'r mesurau yn cyrraedd eu targedau?

Dr Hall: The measures have acted extremely well in assisting that downward progress.

Dr Hall: Mae'r mesurau wedi gweithredu'n dda iawn o ran cynorthwyo'r cynnydd hwnnw tuag i lawr.

Mick Bates: To return to the issue of risk, I would like to hear your opinion on the 'tiny and unquantifiable in any meaningful way' statement made by Liam Donaldson.

Mick Bates: I ddychwelyd at y mater o risg, hoffwn glywed eich barn am y datganiad 'hynod fach ac anfesuradwy mewn unrhyw ffordd ystyrlon' a wnaed gan Liam Donaldson.

Dr Hall: I think that reflects what I have said earlier, which is that all four Chief Medical Officers are aware that there is a level of risk that is very small. That is our agreed position. However, we are in difficulties as to making a statement about the measurement of that risk. On the basis of our current understanding, it is not possible to quantify it.

Dr Hall: Credaf ei fod yn adlewyrchu'r hyn a ddywedais yn gynharach, sef bod pob un o'r pedwar Prif Swyddog Meddygol yn ymwybodol bod yna lefel o risg sydd yn fach iawn. Dyna'r sefyllfa yr ydym wedi cytuno arni. Fodd bynnag, mae gennym anawsterau o ran gwneud datganiad ynghylch mesur y risg honno. Ar sail ein dealltwriaeth bresennol, nid yw'n bosibl ei mesur.

Mick Bates: Will it ever be possible to quantify such a small risk?

Mick Bates: A fydd hi byth yn bosibl mesur risg mor fach?

Dr Hall: I think it may be possible to give some kind of indication based on research as it emerges, taking into account the unknowns that I discussed earlier. I think it will be possible to say that we anticipate that this is, broadly speaking, the level of risk. The public

Dr Hall: Credaf y gallai fod yn bosibl rhoi rhyw fath o arwydd yn seiliedig ar ymchwil wrth iddo ddod i'r amlwg, gan ystyried y pethau nad ydynt yn hysbys a drafodwyd yn gynharach. Credaf y bydd yn bosibl dweud ein bod yn rhagweld mai dyma, yn fras, yw

needs to be aware of that and be aware of what we do not know in coming to that view.

lefel y risg. Mae angen i'r cyhoedd fod yn ymwybodol o hynny a bod yn ymwybodol o'r pethau na wyddom amdanynt wrth ffurfio'r farn honno.

Mick Bates: Can I clarify this issue? At the moment we are saying it is unquantifiable. Is that correct?

Mick Bates: A allaf egluro'r mater hwn? Ar hyn o bryd yr ydym yn dweud ei bod yn anfesuradwy. A yw hynny'n gywir?

Dr Hall: It is not possible to quantify it with confidence at the moment.

Dr Hall: Nid yw'n bosibl ei mesur'n hyderus ar hyn o bryd.

Mick Bates: Are you saying that there will be a time when we can quantify the risk?

Mick Bates: Ydych chi'n dweud y bydd amser pan allwn ni fesur y risg?

Dr Hall: I am saying that, as evidence emerges, it will be increasingly possible, I think, to make some judgments about the level of risk.

Dr Hall: Yr wyf yn dweud, wrth i dystiolaeth ddod i'r amlwg, y bydd yn fwyfwy posibl, yn fy marn i, i ffurfio barn ynghylch y lefel o risg.

Mick Bates: Only a judgment? No more than a judgment? Not a statement of fact? To me, a judgment tends to mean an opinion.

Mick Bates: Dim ond barn? Dim mwy na barn? Dim datganiad o ffaith? I mi, mae barn yn dueddol o olygu safbwynt.

Dr Hall: I am here to provide professional advice, and my professional advice would be a professional judgment on available evidence.

Dr Hall: Yr wyf yma i ddarparu cyngor proffesiynol, a'm cyngor proffesiynol fyddai barn broffesiynol yn seiliedig ar y dystiolaeth sydd ar gael.

Mick Bates: Therefore, would you agree that the risk is unquantifiable?

Mick Bates: Felly, a fyddech yn cytuno bod y risg yn anfesuradwy?

Dr Hall: I could not give you a quantifiable risk at this moment in time. It is unquantifiable at the moment on the basis of the evidence that we have available.

Dr Hall: Ni allwn roi risg fesuradwy ichi ar yr adeg hon. Mae'n anfesuradwy ar hyn o bryd ar sail y dystiolaeth sydd ar gael inni.

Mick Bates: Because it is so tiny and unmeasurable?

Mick Bates: Gan ei fod mor fach ac anfesuradwy?

Dr Hall: Partly because it is tiny and also because we do not have the information in order to make a judgment around it.

Dr Hall: Yn rhannol am ei ei bod mor fach a hefyd am nad oes gennym y wybodaeth er mwyn ffurfio barn arni.

Ieuan Wyn Jones: I think that is as far as we can take that, Mick. I appreciate that it is necessary for us to pursue that issue, but I think that we have pursued it fairly well.

Ieuan Wyn Jones: Yr wyf yn credu na allwn fynd â'r mater hwn ymhellach, Mick. Yr wyf yn gwerthfawrogi ei bod yn angenrheidiol inni fynd ar drywydd y mater hwnnw, ond credaf ein bod wedi gwneud hynny yn lled dda.

David Lloyd: Dr Ruth Hall, thank you for the

David Lloyd: Dr Ruth Hall, diolch am

clarity of your reports to date and for coming here today to present more evidence. People who are not scientists seem to think that science is a totally objective process. They think that you have evidence, that is, facts and figures, and that is it. Then you have answers. Scientists know that science is not like that, particularly in areas of uncertainty like new diseases. Therefore, much of the risk assessment will be based on partial objectivity, but an awful lot of personal bias and outside political influences come into that as well, because scientists are human beings like everybody else. Therefore, it is not a totally objective process.

eglurder eich adroddiadau hyd yma ac am ddod yma heddiw i gyflwyno mwy o dystiolaeth. Mae pobl nad ydynt yn wyddonwyr yn credu bod gwyddoniaeth yn broses hollol wrthrychol. Credant bod gennych dystiolaeth, sef ffigurau a ffeithiau, a dyna'r cyfan. Yna mae gennych atebion. Gwyr gwyddonwyr nad felly mo gwyddoniaeth, yn arbennig mewn meysydd o ansicrwydd megis afiechydon newydd. Felly, bydd llawer o'r asesiad risg yn seiliedig ar wrthrychedd rhannol, ond bydd llawer o farn bersonol a dylanwadau gwleidyddol o'r tu allan hefyd, gan fod gwyddonwyr yn fodau dynol fel pawb arall. Felly nid yw'n broses hollol wrthrychol.

Following on from what Mick was saying, the problem is that there is a range in the risk assessment at the moment. Presumably, as knowledge improves, you will be able to tighten down on the range in the risk assessment and will be able to help make out that range, presumably in November. Is that the sort of information that we are expecting now from the Oxford Group with all their mathematical models and things? They are going to tighten up on the range of the risk. That is the number one issue.

Yn dilyn yr hyn a ddywedodd Mick, y broblem yw'r ffaith bod yna ystod yn yr asesiad risg ar hyn o bryd. Wrth i wybodaeth wella, fe dybiaf, gallwch dynhau'r ystod yn yr asesiad risg a bydd yn helpu i gyfyngu ar yr ystod honno, ym mis Tachwedd fe dybiaf. Ai dyna'r math o wybodaeth yr ydym yn ei disgwyl bellach gan Grwp Rhydychen gyda'u holl fodelau mathemategol ac ati? Maent yn mynd i dynhau'r ystod o risg. Dyna'r prif fater.

Ieuan Wyn Jones: Could Dr Hall deal with that now, seeing as it is quite an important issue?

Ieuan Wyn Jones: A allai Dr Hall ddelio â hynny nawr, gan ei fod yn fater eithaf pwysig?

Dr Hall: The straightforward answer to that is yes, I certainly anticipate that the Oxford data will help us to quantify the risk, albeit that it is a small one, and that it will be possible to put a range and some parameters around it.

Dr Hall: Yr ateb syml i hynny yw ie, yr wyf yn sicr yn disgwyl y bydd data Rhydychen yn ein helpu i fesur y risg, er ei bod yn fach, ac y bydd yn bosibl pennu ystod a rhai ffiniau o'i hamgylch.

David Lloyd: On a wider issue, do we know how many cases of BSE there have been in Wales? I was just noting from the Creutzfeldt-Jakob figures in general—I am talking about the sporadic incidence, not of variant CJD but of the classical disease—that the CJD figures were distinctly lower in the 80s than they were in the 90s. I was wondering if there was an objective scientific reason for that and also—

David Lloyd: Ar fater ehangach, a ydym yn gwybod sawl achos o BSE a fu yng Nghymru? Yr oeddwn yn nodi o'r ffigurau Creutzfeldt-Jakob yn gyffredinol—yr wyf yn sôn am achosion ysbeidiol o'r afiechyd clasurol, nid o'r amrywiolyn CJD—bod ffigurau CJD yn bendant yn is yn yr 80au nag yn y 90au. Yr oeddwn yn meddwl tybed a oedd rheswm gwyddonol gwrthrychol am hynny a hefyd—

Ieuan Wyn Jones: As that is quite a detailed question, perhaps we could deal with it now.

Ieuan Wyn Jones: Gan fod hynny'n gwestiwn eithaf manwl, efallai y gallwn ddelio ag ef nawr?

Dr Hall: You asked about the figures for BSE?

Dr Hall: Gofynasoch am y ffigurau ar gyfer BSE?

David Lloyd: Yes. BSE in cattle in Wales since February.

David Lloyd: Do. BSE mewn gwartheg yng Nghymru ers mis Chwefror.

Dr Hall: I would have to refer you to Huw Brodie for those figures.

Dr Hall: Byddai'n rhaid imi eich cyfeirio at Huw Brodie ar gyfer y ffigurau hynny.

Huw Brodie: The figure for 1999 for Wales so far is 83. That was at 31 August.

Huw Brodie: Y ffigwr ar gyfer 1999 ar gyfer Cymru hyd yma yw 83. Yr oedd hynny ar 31 Awst.

Ieuan Wyn Jones: How does that compare with last year?

Ieuan Wyn Jones: Sut mae hynny'n cymharu â'r llynedd?

Huw Brodie: The total in 1998 was 230. In 1997, it was 323.

Huw Brodie: Y cyfanswm ym 1998 oedd 230. Ym 1997 yr oedd yn 323.

Dr Hall: You then asked about the balance between other forms of CJD and variant CJD?

Dr Hall: Yna gofynasoch am y cydbwysedd rhwng ffurfiau eraill o CJD a'r amrywiolyn CJD?

David Lloyd: Yes, in these figures the classical cases also appear to have gone up in the 90s. Also, that extremely rare variant, the Gertmann-Straussler-Scheinker syndrome, has also gone up in the 90s. It was extremely rare in the 80s and 70s.

David Lloyd: Do, yn y ffigurau hyn ymddengys bod achosion clasurol hefyd wedi cynyddu yn y 90au. Hefyd, mae'r amrywiolyn anarferol iawn hwnnw, y syndrom Gertmann-Straussler-Scheinker, hefyd wedi cynyddu yn y 90au. Yr oedd yn hynod brin yn yr 80au a'r 70au.

Dr Hall: I think that, as a fellow medical professional, you probably appreciate the ascertainment aspect. I do not have the evidence to support this but I suspect that, at least in part, it is due to a much higher level of scrutiny and awareness about this particular diagnostic possibility.

Dr Hall: Credaf, fel meddyg proffesiynol, eich bod fwy na thebyg yn gwerthfawrogi'r agwedd canfod gwybodaeth. Nid oes gennyf y dystiolaeth i ategu hyn ond yr wyf yn amau bod hyn, o leiaf yn rhannol, o ganlyniad i archwiliad llawer manylach a lefel uwch o ymwybyddiaeth ynghylch y posibilrwydd penodol o ganfod.

Ieuan Wyn Jones: In other words, people might have been diagnosed as suffering from something else in the past.

Ieuan Wyn Jones: Mewn geiriau eraill, mae'n bosibl y canfuwyd bod pobl yn dioddef o rywbeth arall yn y gorffennol.

Dr Hall: This is a phenomenon that tends to happen. Not only is there increasing

Dr Hall: Mae hyn yn ffenomenon sydd yn tueddu i ddigwydd. Nid yn unig bod yna

awareness of diagnosis but there may be increasing reporting because people realise that there is an interest in a particular clinical condition.

ymwybyddiaeth gynyddol o ganfod ond efallai y bydd cynnydd yn nifer yr achosion yr adroddir amdanynt gan fod pobl yn sylweddoli bod yna ddiddordeb mewn cyflwr clinigol penodol.

David Lloyd: When we were actively arguing the case for a Wales-only policy to lift this ban, we were receiving information that it would be impractical and that everybody eats meat from everywhere in the United Kingdom, so that it would be absolutely impossible either to enforce the ban or to ensure public safety. It has already been implied that the reverse may now well apply. Surely now is the time to ensure that we get a UK-wide policy rather than an English first policy?

David Lloyd: Pan oeddem yn dadlau'r achos yn frwd dros bolisi ar gyfer Cymru yn unig i godi'r gwaharddiad hwn, yr oeddem yn derbyn gwbodaeth y byddai'n anymarferol a bod pawb yn bwyta cig o bob man yn y Deyrnas Unedig felly byddai'n hollol amhosibl naill ai gorfodi'r gwaharddiad neu sicrhau diogelwch y cyhoedd. Awgrymwyd eisoes y gallai'r gwrthwyneb fod yn wir bellach. Onid nawr yw'r amser i sicrhau bod gennym bolisi sydd yn cwmpasu'r DU gyfan yn hytrach na pholisi Lloegr yn gyntaf?

Dr Hall: It has always been my interest to do whatever I could to secure a UK-wide agreement to the line which I believe is right for Wales. I am in discussion with my colleagues to take us forward from here. We will be meeting together and having detailed discussions as soon as we have any further information upon which we can take a further judgment.

Dr Hall: Fy niddordeb bob amser fu gwneud popeth a allwn i sicrhau cytundeb drwy'r DU gyfan ar y ffordd ymlaen y credaf sydd yn gywir i Gymru. Yr wyf yn trafod gyda'm cydweithwyr i fynd â ni ymlaen o'r fan hyn. Byddwn yn cyfarfod i gael trafodaethau manwl cyn gynted ag y bydd gennym unrhyw wybodaeth bellach y gallwn ffurfio barn bellach arni.

David Lloyd: It should be stressed that having a UK-wide policy would be a positive public health statement. It strengthens public health.

David Lloyd: Dylid pwysleisio y byddai cael polisi ar gyfer y DU gyfan yn ddatganiad cadarnhaol o ran iechyd cyhoeddus. Mae'n cryfhau iechyd cyhoeddus.

Karen Sinclair: To comment on what David has said, I genuinely thought that we were having an inquiry into beef on the bone rather than pursuing actively the case to lift the ban in Wales. I apologise if I did not understand what we were here for. I am certainly not here to pursue actively lifting the ban exclusively in Wales.

Karen Sinclair: I wneud sylw ar yr hyn a ddywedodd David, yr oeddwn yn wir yn credu bod gennym ymchwiliad i gig eidion ar yr asgwrn yn hytrach na mynd yn weithredol ar drywydd codi'r gwaharddiad yng Nghymru. Mae'n ddrwg gennyf os na ddeallais y rheswm ein bod yma. Yn sicr, nid wyf yma i fynd yn weithredol ar drywydd y mater o godi'r gwaharddiad yng Nghymru yn unig.

Ieuan Wyn Jones: No, we are looking at all the options.

Ieuan Wyn Jones: Nac ydym, yr ydym yn edrych ar bob opsiwn.

Karen Sinclair: That is right. I just thought I would point that out.

Karen Sinclair: Yn wir. Yr oeddwn ond yn dymuno nodi hynny.

Rhodri Glyn Thomas: I would like to echo what has been said by a number of people. We welcome the clarity of the evidence you have been able to give us. This morning's session has been very illuminating. Maybe more in the tone of what has been said than the content. It is very important that we are moving to a position where we can take a measured judgment on this particular issue. Whether we have been actively pursuing lifting the ban or whether we have been emphasising the need to protect public health, hopefully we have been able to balance those two aims, acknowledging the importance to the industry of a decision that clarifies their situation and the crucial element of ensuring that the decision does not in any way create a danger or threat to public health in Wales or Britain. It is important that we are able to take a measured decision based on the evidence. Hopefully it will be one we can all agree on. Whichever way that decision goes, it is important that the public have confidence in that decision. It seems to me that the only decision that would have that credibility and gain people's confidence would be a decision that is seen to be taken in a measured way, based on all the evidence available.

Rhodri Glyn Thomas: Hoffwn ategu'r hyn a ddywedwyd gan nifer o bobl. Yr ydym yn croesawu eglurder y dystiolaeth yr ydych wedi gallu ei rhoi inni. Mae'r sesiwn y bore yma wedi bod yn ddadlennol iawn. Yn fwy felly o ran cywair yr hyn a ddywedwyd yn hytrach na'r cynnwys. Mae'n bwysig iawn ein bod yn symud i sefyllfa lle y gallwn gymryd barn ystyriol ar y mater penodol hwn. P'un a ydym wedi bod yn mynd yn weithredol ar drywydd codi'r gwaharddiad neu p'un a ydym wedi bod yn pwysleisio'r angen i ddiogelu iechyd y cyhoedd, gobeithio ein bod wedi gallu cael cydbwysedd rhwng y ddau nod hwnnw, gan gydnabod pwysigrwydd penderfyniad sydd yn egluro eu sefyllfa i'r diwydiant a'r elfen hanfodol o sicrhau nad yw'r penderfyniad mewn unrhyw ffordd yn creu perygl na bygythiad i iechyd y cyhoedd yng Nghymru neu ym Mhrydain. Mae'n bwysig inni allu cymryd penderfyniad ystyriol yn seiliedig ar y dystiolaeth. Gobeithio y bydd yn un y gallwn oll gytuno arno. Pa ffordd bynnag yr aiff y penderfyniad hwnnw, mae'n bwysig bod gan y cyhoedd hyder yn y penderfyniad. Ymddengys i mi mai'r unig benderfyniad a fyddai'n ennill yr hygrededd hwnnw ac yn ennyn hyder pobl fyddai penderfyniad y gwelir iddo gael ei wneud mewn ffordd ystyriol, yn seiliedig ar yr holl dystiolaeth sydd ar gael.

You have made clear that in November you will be in a position to look at this situation based on the evidence from the Oxford Group. That will hopefully allow us, with your help, to make a decision. I am concerned about some of the statements from England from the Minister and the Chief Medical Officer. I do not find the statements very helpful in the present situation. They are obviously based on provisional evidence. I do not think that people should make definitive statements based on such evidence. They should wait and see the whole evidence. I am grateful that Dr Hall is taking that measured view.

Fe wnaethoch yn glir y byddwch mewn sefyllfa i edrych ar y sefyllfa hon ym mis Tachwedd yn seiliedig ar dystiolaeth Grwp Rhydychen. Bydd hynny, gobeithio, yn ein galluogi, gyda'ch help chi, i wneud penderfyniad. Yr wyf yn pryderu ynghylch rhai o'r datganiadau o Loegr gan y Gweinidog a'r Prif Swyddog Meddygol. Nid wyf yn credu bod y datganiadau o help yn y sefyllfa bresennol. Maent yn amlwg yn seiliedig ar dystiolaeth dros dro. Nid wyf yn credu y dylai pobl wneud datganiadau pendant yn seiliedig ar dystiolaeth o'r fath. Dylent aros i weld yr holl dystiolaeth. Yr wyf yn falch bod Dr Hall yn cymryd y farn ystyriol honno.

Ieuan Wyn Jones: I am not sure that you are asked to comment on that, Dr Hall, but if you wish you may do so.

Ieuan Wyn Jones: Nid wyf yn siwr a ofynnir ichi wneud sylw ar hynny, Dr Hall, ond mae croeso ichi wneud hynny os

dymunwch.

Dr Hall: I will not comment on that.

Dr Hall: Nid wyf am wneud sylw ar hynny.

Jane Hutt: Dr Hall, I am interested that we are going back to the evidence that we took when the Welsh Consumer Council was here and emphasised the importance of the precautionary principle, which has also come out of the CMO for Scotland's report. Others gave evidence about the importance of consumer confidence, which, as Rhodri said, is very important in terms of decisions and connotations for public health as well as for the industry.

Jane Hutt: Dr Hall, mae gennyf ddiddordeb yn y ffaith ein bod yn dychwelyd at y dystiolaeth a gawsom pan oedd Cyngor Defnyddwyr Cymru yma ac yn pwysleisio pwysigrwydd yr egwyddor rhagofalon, sydd hefyd wedi deillio o adroddiad PSM yr Alban. Rhoddodd eraill dystiolaeth ynghylch pwysigrwydd hyder y defnyddwyr, sydd, fel y dywedodd Rhodri, yn bwysig iawn o ran penderfyniadau ac oblygiadau i iechyd y cyhoedd yn ogystal ag i'r diwydiant.

My point is about your position as Chief Medical Officer for Wales. It is your responsibility to protect public health in Wales. If there was a partial lifting of the ban, how would this impact on your ability to exercise your functions as the Chief Medical Officer for Wales?

Mae fy mhwynt yn ymwneud â'ch sefyllfa fel Prif Swyddog Meddygol Cymru. Eich cyfrifoldeb yw diogelu iechyd y cyhoedd yng Nghymru. Petai'r gwaharddiad yn cael ei godi'n rhannol, sut y byddai hyn yn effeithio ar eich gallu i weithredu eich swyddogaethau fel Prif Swyddog Meddygol Cymru?

Dr Hall: My responsibility would not be changed in that I would continue to advise the National Assembly for Wales, and indeed the Secretary of State for Wales, on the level of risk to human health and to advocate what I believe are appropriate steps to address that risk. If there were to be a different approach in other parts of the United Kingdom, I would regard it as my duty to draw to the attention of that part of the United Kingdom any threat that might imply within Wales. However, I would continue to exercise the responsibility that I currently hold.

Dr Hall: Ni fyddai fy nghyfrifoldeb yn newid yn yr ystyr y byddwn yn parhau i roi cyngor i Gynulliad Cenedlaethol Cymru, ac yn wir i Ysgrifennydd Gwladol Cymru, ar lefel y risg i iechyd dynol a hyrwyddo'r hyn y credaf sydd yn gamau priodol i ymdrin â'r risg honno. Petai yna ymagwedd wahanol mewn rhannau eraill o'r Deyrnas Unedig, byddwn yn ei hystyried yn ddyletswydd imi dynnu sylw'r rhan honno o'r Deyrnas Unedig i unrhyw fygythiad a allai gofi yng Nghymru. Fodd bynnag, byddwn yn parhau i arfer y cyfrifoldeb sydd gennyf ar hyn o bryd.

Christine Gwyther: Dr Hall, thank you very much for coming this morning. I would like to preface my question with a brief statement. Dai Lloyd used the phrase 'outside political influences' earlier. I am not sure if you were referring to Dr Hall; it is possible that you were not. However, as your comment will be on record I would like to address it. Dr Ruth Hall is not under pressure from any political body inside or outside this room and I would like to make that quite clear. Dr Hall's advice is totally independent and it comes about because of the wealth of knowledge which

Christine Gwyther: Dr Hall, diolch yn fawr iawn am ddod y bore yma. Cyn gofyn fy nghwestiwn hoffwn wneud datganiad byr. Defnyddiodd Dai Lloyd yr ymadrodd 'dylanwadau gwleidyddol allanol' yn gynharach. Nid wyf yn siwr ai cyfeirio at Dr Hall yr oeddech; mae'n bosibl nad oeddech. Fodd bynnag gan y bydd eich sylw ar y cofnod hoffwn ymdrin ag ef. Nid yw Dr Ruth Hall o dan bwysau gan unrhyw gorff gwleidyddol y tu mewn i'r ystafell hon neu'r tu allan iddi a hoffwn wneud hynny'n hollol glir. Mae cyngor Dr Hall yn hollol annibynnol

she has amassed over the years. She is held in very high esteem throughout Wales, probably higher than most of the people around this table. I would like to make that point.

ac y mae wedi deillio o'r cyfoeth o wybodaeth a gronnwyd ganddi dros y blynyddoedd. Mae parch mawr tuag ati drwy Gymru gyfan, mwy na'r rhan fwyaf o bobl o amgylch y bwrdd hwn fwy na thebyg. Hoffwn wneud y pwynt hwnnw.

Ieuan Wyn Jones: I am not sure that Dai Lloyd was actually suggesting that. I think he deserves an opportunity to reply to that. I did not interpret his words as being a direct criticism of Dr Hall.

Ieuan Wyn Jones: Nid wyf yn sicr a oedd Dai Lloyd yn awgrymu hynny. Credaf ei fod yn haeddu cyfle i ateb hynny. Ni ddehonglais ei eiriau fel beirniadaeth uniongychol ar Dr Hall.

David Lloyd: Absolutely not. It was a general comment about science. It had nothing to do with Dr Ruth Hall and I also hold her in the very highest esteem. Will that now be on record?

David Lloyd: Nac oeddwn yn wir. Yr oedd yn sylw cyffredinol ynglyn â gwyddoniaeth. Nid oedd ganddo ddim i'w wneud â Dr Ruth Hall ac mae gennyf y parch mwyaf tuag ati. A fydd hynny nawr yn cael ei gofnodi?

Christine Gwyther: Yes. That is why I raised it, because it could cause confusion to people outside the Committee. However, my question to Ruth Hall is, we have all been waiting for this further evidence from SEAC and the length of time we have been waiting for it has been extremely frustrating. We know that SEAC will be meeting at the end of November. Could you tell me how soon after that it would be practical for the four CMOs—because we all want to see the four of them continue to work together for the health of the UK—to meet?

Christine Gwyther: Bydd. Dyna pam y codais y mater, gan y gallai achosi dryswch ymhlith pobl y tu allan i'r Pwyllgor. Fodd bynnag, fy nghwestiwn i Ruth Hall yw, rydym oll wedi bod yn aros am y dystiolaeth bellach hon gan SEAC ac mae'r cyfnod o amser yr ydym wedi bod yn aros amdano wedi bod yn hynod rwystredig. Gwyddom y bydd SEAC yn cwrdd ddiwedd mis Tachwedd. A allech ddweud wrthyf pa mor gynnar wedi hynny y byddai'n ymarferol i'r pedwar PSM—oherwydd mae pawb ohonom yn dymuno gweld y pedwar ohonynt yn parhau i gydweithio er budd iechyd y DU—gwrdd?

Dr Hall: I understand that SEAC will be meeting on either 29 or 30 November and that they will have access to the data from Oxford for that meeting. I would hope that they would address that as a matter of urgency and make whatever statement they wish to make, if indeed they wish to make any statement, immediately. I also anticipate that the material provided to the Spongiform Encephalopathy Advisory Committee will be made available to myself before then and therefore I anticipate meeting shortly before, and certainly immediately afterwards, if there is any statement from SEAC which we need to take into account. Or, indeed, if there are questions which we would like SEAC to consider on our behalf, because SEAC is an

Dr Hall: Deallaf y bydd SEAC yn cyfarfod naill ai ar 29 neu'r 30 o Dachwedd ac y bydd ganddynt fynediad i'r data o Rydychen ar gyfer y cyfarfod hwnnw. Gobeithiaf y byddant yn trafod hynny ar fyrder ac yn gwneud pa ddatganiad bynnag y dymunant ei wneud, yn wir os dymunant wneud unrhyw ddatganiad, ar unwaith. Hefyd rhagwelaf y bydd y deunydd a roddwyd i'r Pwyllgor Ymgynghorol Enseffalopathi Sbyngffurf ar gael imi cyn hynny ac felly rhagwelaf gyfarfod yn fuan cyn, ac yn sicr yn union wedyn, os bydd yna unrhyw ddatganiad gan SEAC y byddai angen inni ei ystyried. Neu, yn wir, os bydd yna unrhyw gwestiynau yr hoffem i SEAC eu hystyried ar ein rhan, oherwydd bod SEAC yn gorff annibynnol o

independent expert body created for the purpose of providing a scientific steer to advise Government through ourselves.

arbenigwyr wedi'i greu at ddibenion darparu arweiniad gwyddonol i roi cyngor i'r Llywodraeth drwyddom ni.

So, in answer to your question, we will be meeting before SEAC does. I hope we will be meeting before informed by what Oxford has to say. We may wish to approach SEAC before they convene to ask them to address certain aspects. If they do wish to make any statement, I would want to take that into account immediately, in conjunction with my colleagues.

Felly, i ateb eich cwestiwn, byddwn yn cwrdd cyn i SEAC gwrdd. Gobeithio y byddwn yn cwrdd cyn hynny wedi'n lliwio gan y wybodaeth am yr hyn sydd gan Rydychen i'w ddweud. Efallai y byddwn am gysylltu â SEAC cyn iddynt ymgynnull i ofyn iddynt drafod agweddau penodol. Os byddant am wneud unrhyw ddatganiad, byddwn am gymryd hwnnw i ystyriaeth ar unwaith, ar y cyd â'm cydweithwyr.

Christine Gwyther: To come back to something that Mick said, your response was that the risk was unquantifiable at the moment. The inference was that that was because the risk was so minute. Could you possibly amplify that slightly? Is it because it is too minute or is it for another reason?

Christine Gwyther: I ddychwelyd at rywbeth a ddywedodd Mick, eich ymateb oedd bod y risg yn anfesuradwy ar hyn o bryd. Yr awgrym oedd bod hynny yn digwydd oherwydd bod y risg mor fach. A allech ymhelaethau ar hynny ryw ychydig? Ai oherwydd ei bod yn rhy fach neu am reswm arall?

Dr Hall: It is possible to put risk assessments around the most minute of factors and therefore the fact that this is going to be a very small risk does not mean that it will be unquantifiable. It may be a while before we have all the scientific evidence to be confident about the precise size of a small risk and it will have to have confidence limits put around it. However, I anticipate that we will be able to make a statement about a quantifiable level of risk informed by material from Oxford and other research evidence as that becomes available.

Dr Hall: Mae'n bosibl gosod asesiadau risg o amgylch y ffactorau lleiaf ac felly nid yw'r ffaith y bydd hon yn risg fechan iawn yn golygu y bydd yn anfesuradwy. Efallai na chawn yr holl dystiolaeth wyddonol sydd ei hangen arnom i fod yn hyderus ynghylch union faint risg fechan am beth amser a bydd yn rhaid gosod cyfyngiadau hyder amdani. Fodd bynnag, rhagwelaf y gallwn wneud datganiad ynghylch lefel fesuradwy o risg ar sail deunydd o Rydychen a thystiolaeth ymchwil arall fel y daw i'r fei.

Ieuan Wyn Jones: I have one or two questions which follow that. When you gave your evidence to the Committee in June, Dr Hall, you did indicate that at that stage—if I remember correctly—that it was not necessary for the evidence from the Oxford Group to go to SEAC, that it would come direct to you.

Ieuan Wyn Jones: Mae gennyf un neu ddau o gwestiynau sydd yn dilyn hynny. Pan roesoch eich tystiolaeth i'r Pwyllgor ym mis Mehefin, Dr Hall, fe nodasoch bryd hynny—os cofiaf yn iawn—nad oedd angen i'r dystiolaeth gan Grwp Rhydychen fynd i SEAC, ac y byddai'n dod yn uniongyrchol atoch chi.

Dr Hall: That is true.

Dr Hall: Mae hynny'n wir.

Ieuan Wyn Jones: So why is it now different? Why does it have to go to SEAC

Ieuan Wyn Jones: Felly pam bod pethau'n wahanol nawr? Pam bod yn rhaid iddi fynd i

this time?

Dr Hall: Forgive me if I have misled the Committee. The research being undertaken by the Oxford Group has in fact been commissioned by the Ministry of Agriculture, Fisheries and Food. However it has been made very clear through MAFF to the Oxford Group that the Chief Medical Officers would wish sight of the substantive report at the earliest opportunity, directly. SEAC, which is jointly sponsored by MAFF and the Department of Health—

Ieuan Wyn Jones: And, I think, now by the Assembly in part.

Dr Hall: And by the Assembly—will also receive that document. That particular body is there as a Government-established independent group to advise and therefore it would be, in my view, appropriate to address questions to that body, if there were questions which the Chief Medical Officers would wish to have clarified.

Ieuan Wyn Jones: One of the issues that does arise, Dr Hall, is the timing of this. It would be helpful to the Committee if you could give an indication, assuming this report comes out on the date that we all hope it will, because there was an expectation that it would come out earlier—assuming that it comes out in November, when would you realistically expect to be able to come to the Committee with your further advice?

Dr Hall: I had anticipated that I would be meeting with my colleagues during December and that the new year would be an appropriate time to come to the Committee. In fact, it was considered that it would be useful to have as much of a 12 month period to look at trends in cattle disease and in human disease as was possible, bearing in mind that there is, as I said earlier, a lag time. Twelve months is about the minimum that one could reasonably expect to have figures on which you could assess trend.

Mick Bates: I just have a comment about

SEAC y tro hwn?

Dr Hall: Maddeuwch i mi os gwneuthum gamarwain y Pwyllgor. Comisiynwyd yr ymchwil a wneir gan Grwp Rhydychen gan y Weinyddiaeth Amaeth, Pysgodfeydd a Bwyd. Fodd bynnag fe'i gwnaed yn hollol glir i Grwp Rhydychen drwy MAFF y byddai'r Prif Swyddogion Meddygol am weld yr adroddiad sylweddol ar y cyfle cyntaf, yn uniongyrchol. Bydd SEAC, a noddir ar y cyd gan MAFF a'r Adran Iechyd—

Ieuan Wyn Jones: Ac, yr wyf yn credu, erbyn hyn gan y Cynulliad yn rhannol.

Dr Hall: A chan y Cynulliad—hefyd yn derbyn y ddogfen honno. Mae'r corff penodol hwnnw yno fel grwp annibynnol a sefydlwyd gan y Llywodraeth i roi cyngor ac felly, yn fy marn i, byddai'n briodol holi cwestiynau i'r corff hwnnw, petai yna gwestiynau y byddai'r Prif Swyddogion Meddygol yn dymuno cael eglurhad arnynt.

Ieuan Wyn Jones: Un o'r materion sydd yn codi, Dr Hall, yw amseriad hyn. Byddai'n ddefnyddiol i'r Pwyllgor pe gallech roi syniad, gan dybio bod yr adroddiad hwn yn cael ei gyhoeddi ar y dyddiad a obeithir gan bawb ohonom, gan y disgwyliwyd iddo gael ei gyhoeddi'n gynharach—gan dybio y caiff ei gyhoeddi ym mis Tachwedd, pryd, yn realistig, y byddech yn gallu dod i'r Pwyllgor gyda'ch cyngor pellach?

Dr Hall: Yr oeddwn wedi rhagweld y byddem yn cwrdd â'm cydweithwyr ym mis Rhagfyr ac y byddai'r flwyddyn newydd yn amser priodol i ddod i'r Pwyllgor. Yn wir, ystyriwyd y byddai'n ddefnyddiol cael cymaint o gyfnod 12 mis â phosibl i edrych ar y tueddau mewn afiechyd gwartheg ac afiechyd dynol, gan gadw mewn cof bod yna, fel y dywedais yn gynharach, gyfnod o oedi. Deuddeng mis yw tua'r lleiafswm y gallai unrhyw un ddisgwyl yn rhesymol cael ffigurau y gallech eu defnyddio i asesu tueddau.

Mick Bates: Y mae gennyf sylw ynghylch y

the discussion on risk and quantifying risk. It must be meaningful. For example, you can quantify a risk factor of the French buying 10 per cent of Welsh beef production. However, in the context of this risk number, the risk can only be meaningful when compared with other public health risks. I hope that we will bear in mind that once it is quantified, the risk should be placed in the context of real life so that it is meaningful.

drafodaeth ar risg a mesur risg. Mae'n rhaid iddo fod yn ystyrlon. Er enghraifft, gallwch fesur ffactor risg y Ffrancwyr yn prynu 10 y cant o gynnyrch cig eidion Cymru. Fodd bynnag, yng nghyd-destun rhif y risg hon, dim ond pan gaiff ei chymharu â phob risg arall i iechyd y cyhoedd y gall fod yn ystyrlon. Gobeithiaf y byddwn yn cadw mewn cof, unwaith y caiff ei mesur, y dylai'r risg gael ei roi yng nghyd-destun bywyd go iawn er mwyn iddi fod yn ystyrlon.

Dr Hall: I totally agree with that. There is no point making a judgment about risk if you cannot communicate what it actually means to people in their everyday lives. Communication of risk is fundamentally important and is at the heart of this whole issue.

Dr Hall: Cytunaf yn llwyr â hynny. Nid oes unrhyw bwrpas ffurfio barn am risg os na allwch gyfleu beth mae'n ei olygu i bobl yn eu bywydau bob dydd. Mae cyfleu risg yn hanfodol bwysig a dyma sydd wrth wraidd yr holl fater hwn.

Ieuan Wyn Jones: On behalf of the Committee, I thank you, Dr Hall. We have all been impressed by the clarity of your evidence and your willingness to answer questions. It is important to put on the record that no member of the Committee thinks or suggests that you are under political pressure. We understand that you are giving your advice to the Committee as the Chief Medical Officer for Wales and we accept it as such.

Ieuan Wyn Jones: Ar ran y Pwyllgor, diolch ichi, Dr Hall. Mae eglurder eich tystiolaeth a'ch parodrwydd i ateb cwestiynau wedi creu argraff ar bob un ohonom. Mae'n bwysig nodi yn y cofnod nad oes unrhyw aelod o'r Pwyllgor yn credu nac yn awgrymu eich bod o dan bwysau gwleidyddol. Yr ydym yn deall eich bod yn rhoi eich cyngor i'r Pwyllgor fel Prif Swyddog Meddygol Cymru ac rydym yn ei dderbyn felly.

Dr Hall: Thank you for that reassurance. I would also like to assure the Committee that my judgments are taken in a context that is outside a sense of being pressurised by considerations other than that which I am responsible for, which is protecting the health of the people of Wales.

Dr Hall: Diolch ichi am y sicrwydd hwnnw. Hoffwn sicrhau'r Pwyllgor bod fy marn yn cael ei ffurfio mewn cyd-destun sydd y tu hwnt i ymdeimlad o fod o dan bwysau gan ystyriaethau ar wahân i'r rhai yr wyf yn gyfrifol amdanynt, sef diogelu iechyd pobl Cymru.

Daeth y sesiwn cymryd tystiolaeth i ben am 10.44 a.m.
The evidence-taking session ended at 10.44 a.m.

Annex 8
ARD 17-99(evd.1)

Cynulliad Cenedlaethol Cymru
The National Assembly for Wales

Pwyllgor Amaethyddiaeth a Datblygu Gwledig
Agriculture and Rural Development Committee

Bae Caerdydd / Cardiff Bay
Caerdydd / Cardiff CF99 1NA

Professor Roy M Anderson FRS
Director, The Wellcome Trust Centre for
the Epidemiology of Infectious Disease
University of Oxford
South Parks Road
Oxford
OX1 3FY

27 October 1999

Dear Professor Anderson

Beef on the bone

Since May, the Agriculture and Rural Development Committee of the National Assembly for Wales has been conducting an inquiry into the ban on bone-in beef. Before finalising its report the Committee agreed to wait for a further statement from Dr Ruth Hall, the Chief Medical Officer for Wales, on the public health implications of lifting the ban. Dr Hall anticipated being able to make such a statement after taking account of the Oxford Group report on the progression of BSE in the cattle population now expected at the end of November.

Following Nick Brown's statement in October, when he said he would be happy to partially lift the ban in England, the Committee invited Dr Hall to give further evidence on 13 October. I enclose a transcript of her evidence. Dr Hall told the Committee she had seen preliminary results of the Oxford Group research in July with the caveat that it was important to wait for the substantive report. The day after Dr Hall gave this evidence, you were reported as saying that there was unlikely to be anything dramatically new in the full report, and that the ban should be lifted immediately.

In this light, the Committee would be extremely grateful if you could clarify your position. In particular it would welcome your view on:

- what the latest Oxford Group research shows and your interpretation of these results;
- how the final report is likely to differ from the preliminary results already seen by the CMOs;
- why the Oxford Group felt the need for a caveat to await the final report when providing its interim findings in July, but you now say there is unlikely to be anything dramatically new in the full report;
- whether the statement attributed to you, that you see no reason why the ban should not be lifted immediately, is correct

The Committee would be most grateful for a reply to these questions, addressed to its Clerk, Adrian Crompton, in time for its next meeting on 17 November.

Yours sincerely

Ieuan Wyn Jones AM MP
Chair of the Agriculture & Rural Development Committee

The Wellcome Trust Centre for the
Epidemiology of Infectious Disease (WTCEID)
University of Oxford

From the Director:
Professor Roy M Anderson FRS

Mr leuan Wyn Jones AM MP
The National Assembly for Wales
Cardiff Bay
CARDIFF
CF99 INA

02 November 1999

Dear Mr Jones,

Beef on the Bone

Many thanks for your letter about beef on the bone. You raise a number of important issues and my response (in order of your list) is as fo1lows:

1) The latest research from the Oxford group shows a continuing rapid decline in the number of BSE cases (2000-2500 predicted for onset in 1999). The number of late stage infected animals (within one year of onset of BSE) which are under 30 months of age is predicted to be 1-2, with a confidence bound of 0-9.

2) These results are updated on a regular basis, and will be again this month with additional information on BSE cases, off spring culling data and the demography of the UK herd. We do not expect much change in the quantitative detail of the projection.

3) We did not issue a caveat - that seemed to originate within MAFF. I have always made the point that our analyses are continually updated and the findings this month are unlikely to differ from those given to Professor Donaldson (CMO of England) this summer.

4) The statement that I personally see no reason why the beef on the bone ban should not be lifted immediately is correct.

I do hope this clarifies the issues you raise. If not please get back to me.

Kind regards.

Yours sincerely,

Annex 9

Drafft **Draft**

Cynulliad Cenedlaethol Cymru

Pwyllgor Amaethyddiaeth a Datblygu Gwledig

The National Assembly for Wales

Agriculture and Rural Development

Committee

Dydd Mercher 1 Rhagfyr 1999

Wednesday 1 December 1999

Presennol: Ieuan Wyn Jones (Cadeirydd), Mick Bates, Glyn Davies, Janet Davies, Richard Edwards, Christine Gwyther (Ysgrifennydd Amaethyddiaeth a Datblygu Gwledig), Karen Sinclair, Peter Rogers, Rhodri Glyn Thomas, Kirsty Williams (Cadeirydd y Pwyllgor Iechyd a Gwasanaethau Cymdeithasol) a'r swyddogion canlynol: Richard Hughes, Pennaeth Adran Iechyd y Cyhoedd a Gwyn Jones, Adran Amaethyddiaeth.
Present: Ieuan Wyn Jones (Chair), Mick Bates, Glyn Davies, Janet Davies, Richard Edwards, Christine Gwyther (Assembly Secretary for Agriculture and Rural Development), Karen Sinclair, Peter Rogers, Rhodri Glyn Thomas, Kirsty Williams (Chair of the Health and Social Services Committee) and the following officials: Richard Hughes, Head of Public Health Division and Gwyn Jones, Agriculture Division.

Dechreuodd y sesiwn cymryd tystiolaeth am 9.05 a.m. gyda Ieuan Wyn Jones yn cadeirio. Yn rhoi tystiolaeth yr oedd Dr Ruth Hall, Prif Swyddog Meddygol Cymru.
The evidence-taking session began at 9.05 a.m. with Ieuan Wyn Jones chairing. Giving evidence was Dr Ruth Hall, Chief Medical Officer for Wales.

Ieuan Wyn Jones: Bore da. Croeso i gyfarfod y Pwyllgor Amaethyddiaeth a Datblygu Gwledig. Mae sawl eitem bwysig ar ein hagenda y bore yma. Mae'r eitem gyntaf yn un yr ydym wedi ei gohirio o ddydd Iau, 25 Tachwedd, sef trafodaeth ar y gwahardiad ar gig eidion ar yr asgwrn. Ar gais y Llywodraeth yn y Cynulliad a Dr Hall, fe gytunasom i ohirio trafodaeth ar y mater tan heddiw.

Ieuan Wyn Jones: Good morning. Welcome to the Agriculture and Rural Development Committee meeting. We have a number of important items on our agenda this morning. The first item is one we have postponed from last Thursday, 25 November, that is, discussion of the beef on the bone ban. At the request of the Assembly Government and Dr Hall, we agreed to postpone discussion on the matter until today.

Byddwn yn nes ymlaen yn trafod diwygiadau'r polisi amaethyddol cyffredin, yn arbennig taliadau Lwfans Iawndal Da Byw Tir Uchel. Byddwn hefyd yn edrych ar yr ymatebion sydd wedi dod i'r papur ymgynghorol ar y cynllun datblygu gwledig. Felly, mae gennym lawer o waith o'n blaenau y bore yma.

We will discuss later the common agricultural policy reforms, especially the Hill Livestock Compensatory Allowance payments. We also will look at the responses to the consultation paper on the rural development plan. Therefore, we have a busy morning in front of us.

Rhodri Glyn Thomas: Ynglyn â'r pwynt o ohirio cyfarfod dydd Iau diwethaf tan heddiw, onid oedd y dealltwriaeth ein bod yn gohirio y cyfarfod hwnnw er mwyn inni gael datganiad ar gig eidion ar yr asgwrn yn y cyfarfod heddiw? Ond mae'r datganiad eisoes wedi ei wneud.

Rhodri Glyn Thomas: On the point of the postponement of last Thursday's meeting until today, was not the understanding that we postponed that meeting so that we could have a statement on beef on the bone in this meeting today? But that statement has already been made.

Ieuan Wyn Jones: Ydyw. Yr wyf yn meddwl mai dyna un o'r cwestiynau y byddwn eisiau ei ofyn yn ystod rhan gyntaf y cyfarfod. A gaf i symud ymlaen i'r eitem gyntaf?

Ieuan Wyn Jones: Yes. I think that is one of the questions that we will want to ask during this first part of the meeting. May I move on to the first item?

Glyn Davies: I want to declare an interest. We are dealing with common agricultural policy reform later in the meeting. I have decided that my interest is sufficiently direct for me not to want to participate in that discussion or to vote on it, so I shall not be present for the debate. I am not sure if that is technically required. I think that is a separate issue. However, I would like to say that the new paper is very well written. Indeed, I could have written it myself.

Christine Gwyther: But you did not. I think that is important to note.

Ieuan Wyn Jones: We shall note that Glyn Davies has declared an interest on the issue of HLCAs.

Peter Rogers: I would like to make it clear that I am a farmer as well, but I do not receive any HLCA payments, so I do not have the same problem as Glyn.

Ieuan Wyn Jones: Fe symudwn ymlaen felly at yr eitem gyntaf ar yr agenda, sef y gwaharddiad ar gig eidion ar yr asgwrn. Fel y gwyddoch, mae'r Pwyllgor Amaethyddiaeth a Datblygu Gwledig wedi bod yn ystyried y mater hwn ers rhai misoedd. Yn wir, cytunodd y Cynulliad ar yr ymchwiliad cyntaf yn dilyn penderfyniad a wnaethpwyd yn y Sesiwn Llawn ym mis Mehefin. Cytunwyd ein bod yn cynnal ymchwiliad. Paratôdd yr ymchwiliad hwnnw adroddiad dros dro a gyhoeddwyd cyn inni dorri am yr haf. Bu cyfarfod arall ym mis Hydref pan gawsom dystiolaeth bellach gan Dr Ruth Hall. Mae datblygiadau pellach wedi bod ers hynny. Wrth gwrs, y rheswm y gwnaethom benderfynu cael cyfarfod yn mis Hydref oedd ei bod hi'n amlwg fod yna, bryd hynny beth bynnag, wahaniaeth barn rhwng Prif Swyddog Meddygol Lloegr a'r Prif Swyddogion Meddygol yng Nghymru, yr Alban a Gogledd Iwerddon. Cawsom dystiolaeth lafar ac ysgrifenedig gan Dr Ruth Hall yn y cyfarfod hwnnw. Yn dilyn y cyfarfod hwnnw, cawsom lythyr gan Roy Anderson o Rydychen. Yn dilyn hynny, y bwriad oedd cael cyfarfod ddydd Iau ddiwethaf. Yn sgîl cais a gafwyd i ohirio'r cyfarfod, cytunwyd i hynny. Cawsom lythyr gan yr Ysgrifennydd Iechyd a Gwasanaethau Cymdeithasol yn dweud y byddai Dr Hall mewn sefyllfa i wneud datganiad inni yn y cyfarfod heddiw.

Ieuan Wyn Jones: We shall therefore move on to the first item on the agenda, the beef on the bone ban. As you know, the Agriculture and Rural Development Committee has been considering this matter for several months. In fact, the Assembly agreed to the first inquiry following a decision made in Plenary in June. It was agreed that we would hold an inquiry. That inquiry prepared an interim report, which was published before the summer recess. Another meeting was held in October when we received further evidence from Dr Ruth Hall. There have been further developments since then. Of course, the reason we decided to hold another meeting in October was that it was evident that there was, at that time at least, a difference of opinion between the Chief Medical Officer in England and the CMOs in Wales, Scotland and Northern Ireland. We had oral and written evidence from Dr Ruth Hall in that meeting. Following that meeting, we received a letter from Roy Anderson from Oxford. Following that, the intention was to have a meeting last Thursday. There was a request to postpone the meeting, which we agreed to do. We received a letter from the Secretary for Health and Social Services stating that Dr Hall would be in a position to make a statement to us in today's meeting.

Estynnaf groeso'r Pwyllgor i Dr Ruth Hall, Richard Hughes a Gwyn Jones. Diolch am gytuno i ddod yma i drafod y mater ymhellach gyda ni. Cyn gofyn i Dr Hall i gyflwyno ei datganiad, sydd yn un ar y cyd â'r tri Prif Swyddog Meddygol arall, hoffwn ddweud mai ein bwriad heddiw, yn ddarostyngedig i'r hyn fydd gan Dr Hall i'w ddweud a'r drafodaeth yn y Pwyllgor, fydd cynnig i'r Pwyllgor ein bod yn cwblhau ein hymchwiliad i'r mater heddiw, a'n bod yn cytuno ar gynnwys yr adroddiad ac ar yr argymhelliad terfynol y byddwn yn ei gyflwyno i'r Cynulliad. Yn gyntaf, gofynnaf i Dr Hall gyflwyno'r datganiad a gwneud unrhyw sylwadau atodol i hynny.

I extend the Committee's welcome to Dr Ruth Hall, Richard Hughes and Gwyn Jones. Thank you for agreeing to come here today to discuss the matter further with us. Before asking Dr Hall to present her statement, which is made jointly with the other three CMOs, I would like to say that our intention today, subject to what Dr Hall has to say and the discussion in the Committee, is to propose to the Committee that we complete the inquiry into the matter today, and that we agree on the contents of the report and on our final recommendation to the Assembly. First, I ask Dr Hall to present her statement and to make any supplementary observations.

Dr Hall: Thank you very much, Chairman. The Committee will be aware from my previous evidence of the background to this. I do not intend to go over that. You know that I have been waiting for further research from Oxford as well as watching trends in both BSE and variant CJD in order to form an opinion on the beef on the bone ban. The Wellcome Trust at Oxford provided their latest research findings, prepublication, to the Chief Medical Officers on Friday, with their most recent predictions. Since then, I have had extensive discussions with my Chief Medical Officer colleagues representing Scotland, Northern Ireland and England. The outcome of these deliberations is a joint statement that we agreed unanimously yesterday morning and with which I believe Committee members have been provided copies.

Ieuan Wyn Jones: Do all Committee Members now have a copy of the joint statement? I see that they do.

Dr Hall: The Committee may also wish to know that I visited Professor Anderson's department last week in order to talk to him and the group about their work. Over the last few days, my discussions with my colleagues have focused on the trends in variant CJD incidence based on the very latest information from the Epidemiological Surveillance Unit. We noted that the peak in incidence that occurred in the last quarter of 1998, has not been reflected in subsequent quarters this year. We shall obviously be keeping the ongoing trends under review. In addition, we took particular note of the continuing decline of the BSE epidemic and the Oxford group's assessment of the likelihood of infective cattle reaching the food chain. Their latest prediction for the year 2000, based on the information that they provided to us on Friday, is that it is possible that 1.2 cattle across Great Britain, within a range of zero to four, may reach the food chain. So, while we have clearly not completely eradicated risk, this has led us to conclude that these circumstances would allow the beef on the bone ban to be lifted for retail sales, allowing consumers to make their own choice.

However, we were all agreed that it would be prudent, and in line with the precautionary principle, to retain the ban on the use of bones for manufactured and processed products, including the manufacture of infant foods. The absence of consumer choice in the consumption of processed products leads me to believe that, even given the remote possibility that infective food could enter the food chain, we should not permit the unknowing consumption of beef-bone products, particularly by the very young. Keeping this control will protect consumers in circumstances where they are not able to make a fully informed choice.

I would like to take this occasion to re-emphasise the importance of full compliance with the controls which are set out for handling the BSE epidemic and which have proved so effective so far. As United Kingdom Chief Medical Officers, in giving this advice we have stressed the importance of maintaining our guard. This includes the need for the continuation of control measures, for continued research and for careful surveillance. As a group, we are determined to do all that is appropriate to protect human health from the consequences of BSE in cattle.

That is all I intend to say directly. The joint statement is available and I am very happy to go through that if you wish. I believe that what I have said reflects the contents of that statement.

Ieuan Wyn Jones: I am sure that Committee members will want to question you further, Dr Hall. However, I would like to ask you a few questions about the events of the last few days, to clarify a number of issues. First, I would like to clarify one issue, which has been indicated. I think that it is important to place the position on record. Some of us have heard indications that there was, really, nothing new in the research information provided by the Oxford group—which I think you saw at the weekend or on Monday—to the information that was available in July. Is that your assessment of the position?

Dr Hall: My assessment is that the new information that we have is extremely helpful in two particular aspects. First of all, it includes findings based on very up-to-date data, including the most recent weeks. There was uncertainty earlier in the year about the direction of the BSE epidemic in cattle and you will recall that I explained that it did appear not to be tailing off as fast as was previously thought. We have had that extra period of time to make a judgment.

The second thing that is clear from the new research findings, is that there is much firmer confidence around the statements made. In technical terms, there was a much wider confidence interval around the statements being made earlier in the year. We are now clear that the new statements are much firmer.

Ieuan Wyn Jones: The second question that I would like to ask, which is related in a sense, is that it was fairly clear to us when we met on 13 October that Liam Donaldson's judgment, based on what he had seen from the provisional report provided by the Oxford Group, led him to believe that it was possible to lift the ban on retail sales some months ago. The obvious question, then, is was there any real difference in the final results compared to the provisional results?

Dr Hall: Perhaps I could point out that, in addition to the advice which you received from Oxford, we were also expressing concern about the trends in variant CJD incidence and the implications which that might have for issues around, for example, infectivity and that, certainly in my judgment, we needed to wait a little longer in order to see what was happening with that peak in incidence, which was very marked in the last quarter of 1998. We have, in effect, had two quarters of firm evidence, three quarters if you include the provisional figures for the third quarter of this year. I believe that we needed that time in order to see what was happening in the human situation.

However, as I explained, there are new factors arising from the Oxford data which make us much more confident, and make me much more confident in coming to a conclusion on behalf of Wales.

Ieuan Wyn Jones: Can I just clarify? Those new factors were not available to you until the

last few days?

Dr Hall: They were not available until Friday and they are those that I just mentioned earlier, particularly the confidence around the research statements that are now being made.

Peter Rogers: Dr Hall, I listened to you speak on this subject in the Health and Social Services Committee meeting about three weeks ago. It was quite obvious in that meeting that you were very much against the lifting of the ban. In the worst scenario, you were still talking about a lot of people being affected. Listening to it almost put the fear of God into one.

What has happened now is that you have finally seen the report from Professor Anderson. However, his feelings were made public three or four weeks ago, which is a very critical time because, if you remember, the great problem with the French and Germans has been going on for that long. It was a very critical time. They have been saying all along that, as long as the beef on the bone ban was in place, they were very loath to take our meat. Already, as you will have seen last night, the Germans have said that they are going to take our meat and I would, without any doubt, expect the French to follow suit. What worries me is that we have been bounced into this by Westminster. We made an agreement. The leaders of the political parties, the spokesmen for Agriculture, met the Chair last Wednesday to call off our proposed meeting last Thursday when we were going to have a full debate on this.

Peter Rogers: You have now made this decision when we were in fact expecting— Last week we were going to have a full debate on this. Now this ban is being removed. We have just listened to you saying that you are going to lift this ban. The lifting of has been very unfortunate in the way it has been done because it was really a race between us and London.

What I am saying is, do you not think that we could have moved much quicker four weeks ago and set up an emergency meeting with the other Chief Medical Officers throughout the country and got a decision much quicker?

Christine Gwyther: Would you like me to answer that?

Ieuan Wyn Jones: I think that Dr Hall can answer some parts of it and then I am perfectly content for Christine to then answer a question, but this is essentially a question and answer session for Dr Hall.

Dr Hall: Chairman, I am happy to respond to some of those points. First, I remember explaining on a number of occasions the predictions for the human variant CJD epidemic and saying that we still do not know the size that this is going to reach, and that the predictions are on a very wide range. Indeed, there is some intensive work going on now to try to model what we can expect. I can tell you that it still ranges from cases in the hundreds to cases in the hundreds of thousands. We do not know where the figures are going to be. However, the period when the human population was most exposed was at the time when the BSE epidemic itself was very significantly higher than it is now. We are seeing the product of transfer infection principally at that time. So, in relation to the removal of the beef on the bone ban, we have taken a judgment in a situation where that risk is very significantly less than it was some time back.

You asked whether I could have come to a view earlier. I have to tell you—referring to the fact that I visited Oxford early last week—that I was not in a position then to be given the

final report, and that in fact, at the beginning of last week, data was still being processed and included in the workings that led to the final report on Friday. The report with which we were provided on Friday was in a final form but was pre-publication. It was the very earliest moment in time that we were able to have access to that report, mindful of the fact that this Committee and others were very keen to have further advice at the earliest opportunity. Whereas I have always said that we want to get on with this, it really was not possible to have full and final advice until Friday afternoon.

Ieuan Wyn Jones: OK. Christine, did you want to follow up on that?

Christine Gwyther: Yes, I will just come in on the political side if you do not mind, Chair. You said—

Peter Rogers: I do not think it is on the political side. It was an arrangement that we had within—

Ieuan Wyn Jones: Can we just ask you specifically, Dr Hall. I am quite content for this to follow the form of a question and answer session, and I am happy for questions to be directed that way. I think that it would be difficult if people were to make statements during the debate, but I am quite happy for statements to be made at the end if anything needs to be clarified.

Christine Gwyther: Yes, if I can just clarify why I asked for that. Peter asked a couple of questions that Dr Hall would not be in a position to answer, and I was hoping to provide clarification.

Ieuan Wyn Jones: Perhaps we can do that at the end of the session. However, there is one outstanding question that I think we just need to clarify. It was that the announcement that the Committee would postpone its meeting was made on the understanding that your statement would be made today. The question that Peter is asking, I think, is why your statement was made yesterday.

Dr Hall: The answer to that is very simple, Chairman. The advice from the Chief Medical Officers yesterday was on a United Kingdom basis, and I was not therefore in a position to influence the way that my colleagues wished the advice to go, independently. I have come, as agreed, to make a statement on behalf of Wales to this Committee, but the advice is a joint statement from the United Kingdom Chief Medical Officers.

Peter Rogers: That proves exactly the statement that I made, that we have been bounced into this.

Ieuan Wyn Jones: Glyn, do you want to ask a question?

Glyn Davies: All I want to do, Chairman, is to give a reassurance to Dr Hall this morning. I am speaking as one of nine Conservatives—and there has been one Liberal Democrat—who have not agreed with your advice since the beginning. We thought that there should not have been a ban. We thought that it should have been lifted last July, and we thought that it should have been lifted a few weeks ago. I speak as one of the 10 whom I know of, who took that view.

I know that there have been references—perhaps implications—that some of us have been critical of your advice. I want to say absolutely on the record that I have nothing but the

greatest admiration for the clarity of your advice and, indeed, for the integrity of your advice. However, at the end of the day it is advice and there are a number of issues we as Assembly Members have to consider. That is what has made the issue difficult—certainly for me—over the last few months, because I have been totally convinced that as a nation and indeed as an Assembly, we have been far too cautious about lifting the beef on the bone ban. That is my personal view. The reason that it has been difficult is because that I have always accorded great importance to the advice you have given us, and the way in which you have given that advice has actually made it even more difficult. That is all.

Ieuan Wyn Jones: Do you want to respond to that, Dr Hall?

Dr Hall: Perhaps, Chairman, I could just say that this is a very complex set of circumstances scientifically and certainly my role here is just to try to convey to you what we know in that context.

Carwyn Jones: Looking at the suggestion that you made to this Committee, Dr Hall, you say that the ban should be lifted for retail sales but as far as the use of bones in manufactured and processed products is concerned, a ban should be retained. I remember asking Spongiform Encephalopathy Advisory Committee about this back in the summer and the impression that I was given is that it was not possible to do that. I am extremely concerned. I do not criticise the advice, I agree with it, but my concern is that the impression was given to us that such an option was not possible, and it may have been that if we had known that such an option was possible, that the inquiry might have been foreshortened. Certainly that argument, that if the ban was lifted then there could be no control over bone going into manufactured and processed foods, was an argument that certainly played very highly in my mind.

You spoke to the Health and Social Services Committee last week, I believe, and said that it would be difficult to know whether beef bones were being used in processed foods, if the ban was lifted. The question that I have is, quite simply, this: is it possible—clearly it is or you would not have recommended it—to make the distinction between beef on the bone in retail sales on the one hand, and bone being used in manufacturing and processed products on the other? Has your state of mind, your opinion, changed since last week? Why is it, effectively, that the option that we have before us now and which you have recommended—you may not be able to comment on this, but please feel free if you can—is something that back in the summer we were being told was not possible? You may not be able to comment on that and if you cannot, then I understand.

Dr Hall: There are two comments that I would like to make. First, the regulations are a matter, not for myself and my department, but for my agriculture colleagues. Therefore the feasibility of what it is possible to do is with them and they may wish to respond on that. Certainly, when we started to explore this issue back in the summer it did appear that it was going to be difficult and they may wish to tell you whether it is possible or what is possible around this.

My other comment is that whatever the possibilities earlier in the year were, it is only since Friday that I have been in a position—from my point of view—to give you the advice about the level of risk in quantitative terms that we are anticipating here and to have confidence that that is something that can be used in the context of consumer choice.

Gwyn Jones: I am not sure if I can comment on what the Spongiform Encephalopathy Advisory Committee advised during the summer about the possibility of tracing exactly how

these substances are going to be used. However, in our discussions with colleagues in the Ministry of Agriculture, Fisheries and Food now, we are convinced that it can be regulated. There is a distinct difference between using beef-bone products for retail sales and allowing them to be used in manufactured foods.

Ieuan Wyn Jones: I think that it is true to say that the advice that we were given in the early stage of the inquiry was that that was not possible. Your saying now that it is possible is a great reassurance, but that is certainly different to what we were told originally. There is no doubt about that.

Carwyn Jones: I must register my grave concern that this was a matter that it appears was not thought— My concern is that this option that Dr Hall has placed before us today is a sensible option. If this option had been before us back in the summer, we would have been able to act quicker. I am surprised that it has taken this long for this to be looked at. I simply wish to register that concern.

Karen Sinclair: I think that the way that it has actually progressed has been right and proper. The peak in 1998 was very significant in terms of public health, and for us or Ruth Hall to have actually said anything other than what she said until she had this latest advice would have been wrong, in my opinion. I am convinced that waiting was the right thing to do. We are now able to move forward with confidence. The actual rights and wrongs of when it was announced could be debated forever. However, we were where we were, and we were waiting for the report to actually come out and that is what has happened and this is the way that it has moved forward.

Richard Edwards: I would like to commend Glyn for the personal tribute he made to you with regard to the clarity of your advice and certainly your integrity. I would certainly endorse those comments. Moving the debate on, what particular circumstances, in your opinion, would need to change before there could be a complete lift of the ban on the use of bones in manufactured goods and processed foods?

Dr Hall: The particular concern in relation to the bones is the potential infectivity of bone marrow. There are a number of research projects in hand at the moment which are looking at that issue. I think that we need to have the outcome of further research in order to make a judgment about that, particularly as we are not talking about a situation where there is consumer choice. We are talking about the use, for example, of bone-related products in infant foods and so on.

Richard Edwards: I do not suppose that you would like to suggest a timescale for that?

Dr Hall: I could not do that at the moment.

Ieuan Wyn Jones: Dr Hall, can I ask you to comment very briefly, following on from Richard's question? When Liam Donaldson gave his written advice in July, he said, when talking then about the way that he would like to word the thing,

'the retention of the ban on the use of bones for manufacturing food products (including infant foods)'.

Is that the sort of form of words that you would recommend the Committee use in relation to our lifting of the ban? If the Committee were to say today that it would recommend the lifting

of the ban, following your advice, other than for manufactured food products, including infant foods, would you be content with that sort of wording?

Dr Hall: I would again have to ask my agriculture colleagues, but my understanding is that the current ban is expressed in a number of different ways. The particular issue that I have been focusing on is the removal of the ban on the sale of retail beef on the bone. I believe that those regulations, which have applied to the use of bone-related products in manufacturing processed food, should still stay in place. That would include the importance, in my view, of precaution in relation to infant foods.

Mick Bates: I also would like to compliment Dr Hall on the way in which this inquiry has proceeded and the evidence given. Particularly now—despite all the political wranglings—that we are at long last in a position to present something to the industry, which says that we are moving forward in the context of selling beef.

My questions previously have asked about the risk in this. I believe that this has been an unnecessarily long process. However, in terms of risk, and particularly in terms of the decision that we may make about the use of bones and gelatine and possibly even tallow, how are we to keep control if we recommend that we do not allow marrow from, say, under 30 month cattle into the food chain? How are we to keep controls on that and, particularly, on imported materials, which may in fact have a higher level of infectivity than ours?

Dr Hall: Chairman, I believe that that is a question for my agriculture colleagues. However, I would like to say again that—and I mentioned this in my statement—I do believe that we need to ensure full compliance with the controls that are in existence. I think that that is fundamentally important. However, the question of the monitoring of controls is for my agriculture colleague.

Gwyn Jones: I might have to express the whole range of controls in writing. However, there are controls already, of course, on many of these things, and it will be the Order that is being drafted at the moment that will lift part of the Beef Bones Regulations 1997. Therefore, it is not matter of imposing new controls, but of lifting part of the existing control.

Ieuan Wyn Jones: I think that the question goes wider than that, does it not, Mr Jones? Mick is saying that currently both beef on the bone in relation to retail sales and manufactured products are banned. The question, I think, is that if we lift the ban on retail sales, and therefore beef on the bone can be sold and consumed, how do you prevent the bone from being used in the way that he describes, given that you have partially lifted the ban?

Gwyn Jones: The Order, as I say, is being drafted now, and that will cover that point to ensure that that does not happen.

Ieuan Wyn Jones: It may cover the point, but we need to be satisfied that it is workable.

Gwyn Jones: Yes, fair enough.

Ieuan Wyn Jones: Do you believe that it would be workable?

Gwyn Jones: Yes, indeed. That is the whole point driving it.

Mick Bates: I have a second point for Dr Hall. You used the word ‘epidemic’ in the context

of new variant CJD. In view of the fact that there is a full inquiry into BSE being undertaken, is there any relevant information from that inquiry that does in fact move forward the understanding of the whole epidemic, as you call it?

Dr Hall: Indeed there is an inquiry in process at the moment. I understand that the findings of that inquiry will be published during the first half of the year 2000. I do not know of any preliminary conclusions from that particular inquiry. The shape and nature of variant CJD cases in the human population is something that a number of researchers are currently working on. I think that we should recall that we have known about this disease since the middle of 1996, and we are talking about a disease which has a long incubation period. It may have an incubation period of 15 years, if it follows the pattern of other spongiform encephalopathies, in fact it may have a considerably longer incubation period. We need more time to understand how this disease is going to play out in the human population. As I said, there is work going on. Indeed, I had an indication from my discussions at Oxford that they are interested in this issue. They expect, within the next two to three years, to have a much clearer picture of the long-term burden of disease that we may except in the human population.

To come back to the earlier point relating to the issue of controls, I reiterate that the controls that have been put in place have, in the main, been extremely successful. I think we should acknowledge that. The evidence for that is very clear. There have been audit processes around that. I would hope that that can be the same for any new control processes that are put in place. We would be very keen to make sure that there were methods of demonstrating compliance.

Rhodri Glyn Thomas: I support Carwyn Jones's comments. I am also very concerned about the fact that an option that we were told in July was not available suddenly becomes available now. I do not see that there is any difference between our situation now and our situation in July. I am concerned that SEAC told us clearly in July that that was not an option.

I am concerned about the fact that data was still being processed hastily last week in order to get the final report ready for Friday. I am also concerned about the public statements made by Liam Donaldson, Nick Brown and Roy Anderson on this matter, which I found to be very unhelpful in this process.

Our view as a group was that it was important to come to a situation of unanimous support for lifting the ban. We hoped that the Chief Medical Officer would find herself in a position where she could also support the lifting of the ban. We felt that that was the only credible decision that would have a real effect on the sale of beef on the bone and on consumer confidence on this matter. During the process, I have found Dr Hall's evidence to be always very helpful and very clear. I greatly appreciate that.

However, I am concerned about the external factors that have had an effect on the way in which the decision was taken. I welcome the decision. It is an important one, and hopefully we can now move forward. It is good news for the industry. However, I am concerned about the way in which the decision was taken yesterday. It was a callous disregard of devolution for that decision to be made without the Assembly and the Scottish Parliament having the opportunity to come to their own decisions first.

Ieuan Wyn Jones: I am sure that Dr Hall might wish to respond to some of those comments, but perhaps not all?

Dr Hall: I would particularly just like to respond to the comments about data being used in Oxford as recently as the beginning of last week. I do not think that you should infer any criticism whatsoever of their process. It was a genuine attempt to bring a complicated computer-based model as up-to-date as possible on an understanding that we need the longest timespan during the course of this year in order to take a judgment right up to date and that it was possible and feasible to do that within the technical capabilities available to the research group. I know that they tried extremely hard to bring their database right up to date and to provide their research findings as promptly as they possibly could, in order that we could take a view.

Janet Davies: I thank Dr Hall for the way she has conducted her advice throughout this rather trying time in the last few months because, while it is possible to disagree on scientific evidence, it is also good to know that if Dr Hall believes that what she is saying is right, she sticks to it regardless of what pressures may arise.

My problem is with the manufactured and processed products. On Monday, I skimmed through the evidence that was presented to us last summer and came across a couple of sentences saying that it was not possible to control the use of beef bones after they had been used in restaurants. We need a written explanation from the appropriate advisers—perhaps for the next meeting—of how it is now possible to control that use.

Gwyn Jones: Certainly, we will provide that written explanation. Just one other point to make is that there will, of course, be a consultation period on the order that lifts the ban on retail sales. There will be an opportunity during that period for comments to be made on the workability of this particular aspect.

Ieuan Wyn Jones: When does the consultation period start?

Gwyn Jones: Today, we hope.

Ieuan Wyn Jones: Today?

Gwyn Jones: Today, or if not, tomorrow.

Janet Davies: That is fine. I think the Committee needs a written explanation of this change in advice.

Carwyn Jones: Rhodri mentioned the other question that I asked already, and he made it clear that as far as this advice is concerned, I welcome it. I am not suggesting that we should disregard Dr Hall's advice and I echo the comments made that this advice is sensible. I am glad that we can now move forward. However, the impression given by Mr Jones was that we can follow Dr Hall's advice and then see if it is workable. Is that what Mr Jones is saying?

Gwyn Jones: I am saying that, before the Assembly comes to a final conclusion on this, there will be a consultation period. That will provide an opportunity for comments to be made and consideration to be taken on workability as an issue.

Ieuan Wyn Jones: But the decision has been made to lift the ban.

Gwyn Jones: The Assembly will take the decision to lift the ban.

Ieuan Wyn Jones: No. The announcement was made yesterday that the ban would be lifted in the UK. There is no question about that.

Christine Gwyther: I had better come in on this. I want to make this clear. I am glad of this opportunity to speak, at last, in this debate. Nick Brown said that the ban can be lifted in England and Wales by 17 December. He was able to make that statement because Nick Brown and I, and the other two territorial ministers of the UK, have had several lengthy discussions on this matter since this beef on the bone inquiry in Wales was instigated. Nick Brown is not in a position to lift the ban in Wales. The only person that can do that is myself, by signing the Order that makes that happen.

Before then, I want to have the views of this Committee, because that is very important. There would have been no point in having this inquiry if I were not to take the views of this Committee on board. Those views will go forward to the Assembly. We are trying to truncate that whole process so that we have the ban lifted before Christmas. It is important to the industry and to consumers throughout Wales that we are able to move at least as quickly as England. We do not want to be behind England or to be seen to be behind England. We will therefore make this period of consultation, referred to by Gwyn, as short as is legally possible. The letter has been prepared and I have signed it. It is ready to go out today if that is the wish of this Committee.

Ieuan Wyn Jones: I must remind all Members that this is a question and answer session with Dr Ruth Hall. As soon as the evidence session is finished, we can have our Committee debate. However, we must allow this session to be concluded before making further statements on the issue. I am afraid that we must work in that order in the Committee.

Kirsty Williams: So that my comments cannot be misconstrued at a later date, I would like to put on record my own and, indeed, my party's belief that this ban was totally unnecessary from the start. My party has always sought, by its actions, to lift it as quickly as possible. My attendance at these meetings has been by your very kind invitation to me, as Chair of my Committee, and when I have spoken at these meetings, it has been an attempt to convey the feelings of the Health and Social Services Committee. When we met in July, there was not a majority in the Health and Social Services Committee in favour of lifting the ban at that time without further advice from Dr Ruth Hall. Subsequently, Dr Ruth Hall came again to the Health and Social Services Committee last week. Following that meeting, a number of concerns were raised by certain members of the Health and Social Services Committee. Given the fact that Dr Hall made her statement with her colleagues yesterday, can I ask her, therefore—and I assume it to be the case—to confirm that the concerns raised by members of the Health and Social Services Committee last week have now been resolved to her satisfaction and that the issues that they were concerned about are no longer, in her view, to be seen as a particular problem in relation to the lifting of this ban? Am I correct to assume that?

Dr Hall: It would be helpful to know what, particularly, the concerns are. I recall a number of them but I am unsure which of them are being referred to here.

Kirsty Williams: In particular, there were concerns about the size of the epidemic and of the number of cases of BSE entering the food chain. They were perhaps the two most pressing concerns that the Health and Social Services Committee expressed last week.

Dr Hall: I would like to preface my response by saying that, while I have been a signatory to the joint statement on behalf of the UK Chief Medical Officers, I have come to my conclusions on behalf of, and in the context of, Wales and Wales's interests. I have tried to take into account all of the concerns that have been raised in the various meetings and hearings that I have attended. In respect of the size of the variant CJD epidemic in humans, I think that I mentioned earlier that we still do not know what it is going to look like or what the time frame for that is going to be. It is clearly a considerable concern. However, we do now, for the first time, have a position where we can put a statement around the actual risk of BSE infective products potentially entering the food chain, on the basis of Friday's advice from Oxford which has a much greater level of confidence than any previous statement that we have had. Therefore, in terms of making a risk assessment about the risk to humans of removing the ban, I think that we are in a much better position than we have been previously, and that risk is very small indeed. We are talking about a prediction that states that, during the year 2000, there will be of the order of 1.2 cattle within a range of zero to four, as I said. We can now state that on the basis of the very best scientific advice available to us. I believe that I have in those contexts, satisfied myself on behalf of Wales about the particular issues raised in the Committee when I attended last week.

Kirsty Williams: Can I therefore, on behalf of the Health and Social Services Committee, say, that I believe that at the end of last week's meeting, that I would not have been able to report that there was a consensus view among members of the Health and Social Services Committee. I believe now, following Dr Ruth Hall's statement, that there would be a consensus view from the Health and Social Services Committee on accepting her advice and looking towards a lifting of the beef on the bone ban. I state, however, that at last week's meeting, in an attempt not to pre-empt the work of the Agriculture and Rural Development Committee, which the Assembly as a whole decided should discuss this issue—and perhaps, with hindsight, maybe we should have followed the Scottish example and discussed the issue in Health and Social Services Committee, but that is another issue—we did not wish to pre-empt the meeting of the Agriculture and Rural Development Committee and so did not hold a vote for that very reason. We did not want to undermine the work that this Committee had undertaken. I wish that others in another place had taken the same attitude as my Committee.

Ieuan Wyn Jones: Thank you very much. It is, I think, very helpful that you have indicated that your Committee would now have a consensus view that we could move forward.

Kirsty Williams: I have not talked to all of the members but I believe that there would now be a consensus from those members who expressed reservations. Given Dr Ruth Hall's advice, I believe that there would now be a consensus across the whole of the Health and Social Services Committee.

Christine Gwyther: I would like to join all the other members of this Committee, Ruth, in thanking you for your clear and concise evidence and, also, for your total integrity. I am sure that that has never ever been in question, nor the integrity of any of the three other CMOs. It is very important, I think, that we put that on record. Off the cuff remarks, such as external factors possibly influencing either scientists or Chief Medical Officers, are not helpful and maybe send out the wrong signals to the industry and to the consumer. I would like to make that very clear.

As far as my own position is concerned, your very clear statement here today has helped me have the confidence that I needed to actually make the Order that we need to remove the ban on retail sale of beef on the bone. I would, of course, want the blessing of this committee to actually take that forward, and the blessing of the whole Assembly. So I do hope that that will be in order, and that that will come. We obviously need to move as quickly as possible and because of this, Gwyn Jones has prepared a consultation letter, which I have agreed. We are legally required to consult with a whole host of organisations. We will do that as quickly as we possible can to ensure that we are not lagging behind any other part of the UK. I would also like to place on record my personal tribute to Nick Brown. I think that we have to accept that Nick Brown had the opportunity to lift the ban on beef on the bone sales in England unilaterally. It was because of the work of this Committee, and because of my constant pressure on Nick Brown, that he did not do that. He decided to wait until it could be done on a UK basis. I think that showed a maturity that this Committee should recognise. I will not ask Ruth any more questions, because her evidence has been clear enough for me to take this forward and it has certainly been clear enough for me to release an Order to lift the ban on retail sales. I am very grateful, Ruth, thank you very much.

Ieuan Wyn Jones: Dr Hall, Do you have anything to say in response?

Dr Hall: No, thank you.

Carwyn Jones: Our thanks have already gone out to Dr Hall but I have heard comments—not from people within this Assembly—that, when it was suggested that the Chief Medical Officer for England had given advice a certain way, that we should in fact listen to that advice and not to our own Chief Medical Officer. I think that is an insult both to the Assembly and, more importantly, to the professional ability and standing of Dr Hall. I think we should put on record that we reject any such comments utterly and, once again, we reaffirm our faith in the abilities of our own Chief Medical Officer.

Ieuan Wyn Jones: That concludes the formal evidence session with Dr Hall. On behalf of the Committee, I thank you.

Daeth y sesiwn cymryd tystiolaeth i ben am 10 a.m.
The evidence-taking session ended at 10 a.m.

Joint statement by the United Kingdom Chief Medical Officers of 30 November 1999

The Chief Medical Officers of each of the four United Kingdom countries have received the latest predictions on the bovine spongiform encephalopathy (BSE) epidemic in cattle produced by the Wellcome Trust Centre for the Epidemiology of Infectious Disease at the University of Oxford.

Over the past six months they have reviewed the position of the bone in beef ban in the light of surveillance of the variant Creutzfeldt Jakob (vCJD) incidence in the human population, trends in the BSE epidemic in cattle (including the latest estimates from the Oxford group), and audits of the control measures which are in place to exclude potentially infected BSE material entering the human food chain.

They are reassured by the continuing decline of the BSE epidemic in cattle. In particular the latest Oxford estimate that the number of BSE infected cattle under 30 months which could enter the human food chain within 12 months of clinical infection is now estimated as only 1.2 cattle across Great Britain as a whole in the year 2000 (with a margin of error on this estimate of 0 to 4 cattle).

On the basis of their discussions and this analysis they have concluded that:

- These circumstances would allow the beef on the bone ban to be lifted for retail sales, whilst allowing consumer choice.
- In the light of continuing uncertainty about the infectivity of bone marrow (where further experiments are ongoing), the retention of the ban on the use of bones for manufactured and processed products would be prudent.
- It is important to retain and rigorously enforce other control measures for protecting the human food chain from cattle over 30 months infected with BSE.
- The human vCJD epidemic should continue to be monitored very closely.
- New research evidence in relation to any aspect of animal or human transmissible spongiform encephalopathies (TSEs) should be reviewed as soon as it is available.

Sir David Carter, Chief Medical Officer Scotland
Dr Ruth Hall, Chief Medical Officer Wales
Dr Henrietta Campbell, Chief Medical Officer Northern Ireland
Professor Liam Donaldson, Chief Medical Officer England
30 November 1999

Annex 11

Agriculture & Rural Development Committee ARD 17-99(evd.2)

Date: 1 December 1999
Time: 9.00am - 12.30pm
Venue: Committee Room 2, National Assembly Building

Beef on the Bone: Statement By Chief Medical Officer to the Health and Social Services Committee on Thursday 18 November

Thank you Chair for allowing me to make some introductory remarks. I am grateful for this opportunity to talk to this Committee about the way I have approached and continue to approach the task of advising on the human health implications of BSE in cattle and, in particular, the ban on the sale of beef bones.

This is an issue of major public concern and I know there is a lot at stake. I am acutely aware of the responsibilities I carry as an advisor. Of course, I am very anxious to see the removal of any unnecessary restrictions. Especially at a time when our rural communities face difficulties. I am very aware too of the considerable progress that has been made in tackling BSE in our cattle and the understandable frustration some might feel that I have said - in relation to bones - that we were not quite there in eliminating or, indeed, confidently measuring the potential risk to consumers.

As Chief Medical Officer I can approach my task of advising only through my professional training as a public health doctor and with scrupulous regard for the duty I have - to do my best for the health of the people of Wales. The advice I have given reflects this approach.

The person in the street could be forgiven for thinking that the controls on beef bones are about T-bone steak or a rib joint and it is true that they are part of what is banned. But in public health terms the problem would be much easier if that was all we had to address. A consumer can see the T-bone steak and can take note - or not - of a warning from me that of possible risk from the bones.

After consumption of the meat (by private individuals), the bones will be thrown away or, maybe, used for stock. The purchaser would know of the possible risk, though with stock a dinner guest probably would not.

In catering that issue becomes more difficult and in food processing the problems are harder still to deal with. Beef or its by-products are used in products one might not think have beef in them. The consumer's choice, which many argue for, is not always easily made. The current ban requires that it is not left to the consumer to be on their guard.

The public health doctor will be well aware of the importance of the "precautionary principle" in guarding consumer health. If you can tell people about a risk and how to avoid it, the "precautionary principle" would allow its sale.

Sale of nuts and products containing nuts is one example. If you cannot warn people, or guide them, about the possible risk, the “precautionary principle” requires that you should not permit the sale of the product concerned. This is where we are with beef on the bone. But against the backdrop of a declining incidence of BSE in cattle and a reducing possibility that infected material would reach the food chain if the ban were to be removed. The position is evolving.

We have now had 48 deaths from vCJD. Many of these involved young people. I need to do all I can to satisfy myself so far as that is humanly possible - and then I expect to satisfy you also - that if my advice leads to the lifting of the ban that it will not be inviting the possibility of infected material leading to further deaths - that is what vCJD brings - in the years to come.

I say “I”, but of course I am working extremely closely with my CMO colleagues including Liam Donaldson. I and two of my colleagues did not agree that it was possible in July to be sure that the value of the ban was as marginal as Professor Donaldson suggested in his advice, but that matter of interpretation was the extent of our difference. In this connection, it is worth paying particular attention to Professor Donaldson’s July advice about the use of bones in processing. His advice said that “the retention of the ban on the use of bones for manufacturing food products (including infant foods) would be a sensible and very precautionary approach”. I agree with that and it reflects the extent of our coordinated, professional view across the UK.

I have spoken to Professor Roy Anderson who leads the Oxford research group which is preparing its latest results into the modelled incidence of BSE in the cattle population. This work is of key importance in enabling us to gauge the likelihood of infected material reaching the food chain if there were no ban. I expect to see something on this before the end of the month and I shall look at the latest evidence with my CMO colleagues and, importantly, alongside other information that needs to be taken account of. This includes the latest figures and thinking about vCJD as well as MAFF’s latest reports - and the veterinary thinking - about BSE.

I am aware that the recent exchange of correspondence between Mr Ieuan Wyn Jones and Professor Anderson has generated much interest. Professor Anderson’s letter about the model did not add to the information on which I have based my advice. Professor Anderson is a considerable expert and his expectation is that the updating of the mathematical model should not give him any surprises. I hope that you will understand that in my position as a statutory advisor, rather than independent researcher, I must have the results that confirm the position before I offer substantive advice.

Health & Social Services Committee Meeting (18.11.99) HSS-11-99(min) Minutes

Item 5: Beef on the Bone
Paper: ARD-13-99(rop)

Introduction

5.1 Kirsty Williams and Jane Hutt were due to attend the next discussion on the ban on the sale of beef bones by the Agriculture & Rural Development committee. The Health & Social Services Committee were asked to consider the health risks associated with lifting the ban, so that the Committee's views could be fed into the discussion.

Main Points of Discussion

5.2 Dr Ruth Hall, the Chief Medical Officer made a short statement. The full text is appended to these minutes. The following is a summary:

i. Dr Hall re-asserted her responsibilities as advisor to the National Assembly and her duty to safeguard the health of the people of Wales.

ii. It was difficult to know whether beef bones have been used in processed foods, which means that the "precautionary principle" should be upheld.

iii. Although the incidence of BSE in cattle was declining, the United Kingdom Chief Medical Officers (CMOs) had to be satisfied that infected material would not cause further deaths from new variant CJD, before the ban could be lifted.

iv. The latest evidence would be available before the end of the month and would be examined immediately by the four CMOs.

5.3 In response to questions and in discussion with Committee members, Dr Hall made the following points:

i. The statement made by Professor Anderson in his letter to Ieuan Wyn Jones, Chair of the Agriculture & Rural Development Committee that the beef-on-the-bone ban should be lifted, was a personal view.

ii. Professor Anderson had been commissioned by the Ministry of Agriculture, Fisheries and Food to undertake research through the mathematical modelling of the incidence of BSE in cattle.

iii. Professor Anderson's June report had been delayed and had not yet been formally presented. The CMOs should not reach any conclusions before examining its findings in full.

iv. There were a number of alternative theories on the origins and causality of new variant CJD, but there was a major body of evidence connecting BSE and CJD, which other theories lacked.

v. It was important for action to be consistent across the UK. The different advice of Professor Donaldson resulted from differing interpretation of the

evidence. Dr Hall could not offer advice that she believed would compromise the safety of people in Wales

vi. There were a number of research projects looking at how BSE infection in cattle could be identified before slaughter.

vii. New variant CJD had only been recognised for three years, but the incubation time could as long as 25 years. This made it very difficult to predict the extent of the epidemic, despite the decreasing incidence of BSE in cattle, but the predictions had not changed .

viii. A small number of BSE infected cattle entering the food chain could cause widespread infection of new variant CJD. Indications were that as small a dose as one gram of infected produce could cause new variant CJD. More understanding of the behaviour of the disease was required before clearer predictions could be made.

ix. It would be very difficult to label the use of beef bones in food products and impossible to trace the source of any subsequent infection.

Action

5.4 Dr Hall will provide information to the Committee on the incidence of new variant CJD in France, and whether advice was issued on the withdrawal of food products containing beef bones from sale, when the ban was implemented in December 1997.

5.5 Kirsty Williams will attend the meeting of the Agriculture and Rural Development Committee to feed in the points discussed.

Annex 13

Agriculture & Rural Development Committee ARD 17-99(evd.3)

Agenda

Date: 1 December 1999
Time: 9.00am - 12.30pm
Venue: Committee Room 2, National Assembly Building

LATEST STATISTICS ON INCIDENCE OF vCJD AND BSE

The attached tables provide the latest published figures on:

- cases of vCJD, provided by the Department of Health, and
- incidence of BSE, provided by the Ministry of Agriculture Fisheries and Food.

Secretariat November 1999

DEPARTMENT OF HEALTH
1999/0646 Monday 1st November 1999

MONTHLY CREUTZFELDT-JAKOB DISEASE STATISTICS

The Department of Health is today issuing the latest monthly table, giving the number of deaths of definite and probable cases of CREUTZFELDT-JAKOB DISEASE in the UK.

Year	Referrals	Deaths of definite and probable cases in the UK					
		Sporadic	Iatrogenic	familial	GSS	nvCJD	Total
1985	-	26	1	1	0	-	28
1986	-	26	0	0	0	-	26
1987	-	23	0	0	1	-	24
1988	-	22	1	1	0	-	24
1989	-	28	2	2	0	-	32
1990	53	28	5	0	0	-	33
1991	75	32	1	3	0	-	36
1992	96	43	2	5	1	-	51
1993	78	38	4	2	2	-	46
1994	116	51	1	4	3	-	59
1995	87	35	4	2	3	3	47
1996	134	40	4	2	4	10	60
1997	161	59	6	4	1	10	80
1998	150	58	3	3	0	17	81
1999*	128	32	2	0	0	7	41

* To 30 September 1999. Total number of definite and probable cases of vCJD = 47

1. The next table will be published on Monday 6 December 1999.
2. At its meeting on 18 March 1999 the Spongiform Encephalopathy Advisory Committee (SEAC) agreed that variant cjd (vCJD) should now be used in preference to nvCJD in line with current practice in many scientific journals.

Referrals: This is a simple count of all the cases which have been referred to the National CJD Surveillance Unit for further investigation in the year in question. CJD may be no more than suspected; about half the cases referred in the past have turned out not to be CJD. Cases are notified to the Unit from a variety of sources including neurologists, neuropathologists, neurophysiologists, general physicians, psychiatrists, electroencephalogram (EEG) departments etc. As a safety net, death certificates coded under the specific rubrics 046.1 and 331.9 in the 9th ICD Revisions are obtained from the Office for National Statistics in England and Wales, the General Register Office for Scotland and the General Register Office for Northern Ireland.

Deaths: These columns show the number of deaths which have occurred in definite and probable cases of all types of CJD and GSS in the year shown. The figure includes both cases referred to the Unit for investigation while the patient was still alive and those where CJD was only discovered post mortem (including a few cases picked up by the Unit from death certificates). There is therefore no read across from these columns to the referrals column. The figures will be subject to retrospective adjustment as diagnoses are confirmed.

Definite and Probable: This refers to the diagnostic status of cases. In definite cases the diagnosis will have been pathologically confirmed, in most cases by post mortem examination of brain tissue (rarely it may be possible to establish a definite diagnosis by brain biopsy while the patient is still alive). Probable cases have not been confirmed pathologically; some cases are never confirmed pathologically because a post mortem examination does not take place (for instance where the relatives of the patient refuse consent) and these cases remain permanently in the probable category.

Sporadic: Classic CJD cases with typical EEG and brain pathology. Sporadic cases appear to occur spontaneously with no identifiable cause and account for 85% of all cases.

Probable sporadic: Cases with a history of rapidly progressive dementia, typical EEG and at least two of the following clinical features; myoclonus, visual or cerebellar signs, pyramidal/extrapyramidal signs or akinetic mutism.

Iatrogenic: Where infection with CJD appears to have occurred accidentally as the result of a medical procedure. Most of the cases shown resulted from treatment with human growth hormone but others have occurred through contaminated neurosurgical instruments, dural grafts etc.

Familial: Cases occurring in families associated with mutations in the PrP gene (10 - 15% of cases).

GSS: Gertsmann-Straussler-Scheinker syndrome - an exceedingly rare inherited autosomal dominant disease, typified by chronic progressive ataxia and terminal dementia. The clinical duration is from 2 to 10 years, much longer than for CJD.

vCJD: Variant CJD, the hitherto unrecognised variant of CJD discovered by the National CJD Surveillance Unit and reported in The Lancet on 6 April 1996. This is characterised clinically by a progressive neuropsychiatric disorder leading to ataxia, dementia and myoclonus (or chorea) without the typical EEG appearance of CJD. Neuropathology shows marked spongiform change and extensive florid plaques throughout the brain.

Definite vCJD cases still alive: These will be cases where the diagnosis has been pathologically confirmed (by brain biopsy).

Probable vCJD: Cases in which post-mortem (or brain biopsy) has not been carried out and which fulfil preliminary criteria for the clinical diagnosis of vCJD. These criteria cannot yet be fully validated because of the limited experience of vCJD.

[ENDS]

MAFF BSE information: Incidence of BSE - Monthly Statistics

GENERAL STATISTICS - AS AT 01/11/99

		PERCENT
TOTAL FARMS	34926	n/a
TOTAL CASES	175838	n/a
		% OF TOTAL
DAIRY FARMS	22057	63.15
SUCKLER FARMS	9455	27.07
MIXED FARMS	2088	5.98
NOT RECORDED	1326	3.80
DAIRY CASES	142510	81.05
SUCKLER CASES	20690	11.77
MIXED CASES	10402	5.92
NOT RECORDED	2236	1.27
PURCHASED CASES	56846	32.33
HOMEBRED CASES	117602	66.88
NOT RECORDED	1390	0.79

(a) - *In the table above*, 'NOT RECORDED' = *data not yet entered in appropriate part of BSE database.*

CONFIRMED DAIRY HERD INCIDENCE	61.1%
CONFIRMED SUCKLER HERD INCIDENCE	16.4%
CONFIRMED TOTAL HERD INCIDENCE	37.3%
YOUNGEST CONFIRMED CASE	20 months
OLDEST CONFIRMED CASE	18 years 10 months

YOUNGEST AND OLDEST CASES BY YEAR OF ONSET AS AT 01/11/99

YR OF ONSET	AGE YOUNGEST CASE (mths)	AGE 2nd YOUNGEST CASE (mths)	AGE 2nd OLDEST (yrs.mths)	OLDEST CASE (yrs.mths)
1986	30	33	5.03	5.07
1987	30	31	9.09	10.00
1988	24	27	10.06	11.01(2)
1989	21	24(4)	12.00(2)	15.04
1990	24(2)	26	13.03	14.00
1991	24	26(3)	14.02	17.05
1992	20	26	15.02	16.02
1993	29	30(3)	14.10	18.10
1994	30(2)	31(2)	14 .05	16.07
1995	25	32	14.09	15.05
1996	29	30	15.07	17.02
1997	37(7)	38(3)	14.09	15.01
1998	34	36	14.07	15.05
1999	39(2)	41	13.05	13.07

CONFIRMATIONS IN BULLS - AS AT 01/11/99

The following table lists the number of bulls in which BSE has been confirmed, by breed, and with crosses included under main breed type.

Aberdeen Angus	5	Jersey	5
Ayrshire	5	Limousin	71
Belgian Blue	17	Lincoln Red	1
Blonde D'Aquitaine	13	Marchigiana	1
Brown Swiss	1	Murray Grey	2
Charolais	72	Red Poll	3
Devon	3	Saler	2
Friesian	114	Simmental	80
Gelbvieh	4	South Devon	7
Hereford	72	Sussex	4
Highland	4	Not recorded	9
Holstein	8		

Total	**503**

NUMBER OF CATTLE BORN AFTER FEED BAN (BAB) AS A PERCENTAGE OF BSE CASES BEING REPORTED - AS AT 01/10/99

(*Note that these are suspects placed under restriction, NOT confirmed cases*)

Month of Report		Total Reported	Number Non-BAB	Number BAB	Percent BAB
1	1993	4165	3657	508	12.20
2	1993	3933	3407	526	13.37
3	1993	4384	3746	638	14.55
4	1993	3639	3030	609	16.74
5	1993	3215	2619	596	18.54
6	1993	3104	2523	581	18.72
7	1993	3375	2685	690	20.44
8	1993	3299	2550	749	22.70
9	1993	3617	2730	887	24.52
10	1993	3360	2585	775	23.07
11	1993	3599	2666	933	25.92
12	1993	3241	2340	901	27.80
Month of Report		**Total Reported**	**Number Non-BAB**	**Number BAB**	**Percent BAB**
1	1994	3511	2397	1114	31.73
2	1994	3096	2136	960	31.01
3	1994	3442	2249	1193	34.66
4	1994	2729	1789	940	34.44
5	1994	2484	1572	912	36.72
6	1994	2313	1411	902	39.00
7	1994	2044	1205	839	41.05
8	1994	2249	1247	1002	44.55
9	1994	2203	1256	947	42.99
10	1994	2082	1205	877	42.12
11	1994	2155	1160	995	46.17
12	1994	1951	1063	888	45.52

Month of Report		Total Reported	Number Non-BAB	Number BAB	Percent BAB
1	1995	2017	985	1032	51.17
2	1995	1572	750	822	52.29
3	1995	1839	870	969	52.69
4	1995	1482	686	796	53.71
5	1995	1517	633	884	58.27
6	1995	1334	534	800	59.97
7	1995	1259	511	748	59.41
8	1995	1468	578	890	60.63
9	1995	1314	482	832	63.32
10	1995	1220	478	742	60.82
11	1995	1603	605	998	62.26
12	1995	1320	464	856	64.85
Month of Report		**Total Reported**	**Number Non-BAB**	**Number BAB**	**Percent BAB**
1	1996	1405	437	968	68.90
2	1996	1251	377	874	69.86
3	1996	1343	436	907	67.54
4	1996	945	277	668	70.69
5	1996	968	291	677	69.94
6	1996	690	180	510	73.91
7	1996	775	194	581	74.97
8	1996	755	162	593	78.54
9	1996	723	187	536	74.14
10	1996	762	177	585	76.77
11	1996	585	109	476	81.37
12	1996	495	76	419	84.65
Month of Report		**Total Reported**	**Number Non-BAB**	**Number BAB**	**Percent BAB**
1	1997	536	90	446	83.21
2	1997	501	94	407	81.24
3	1997	521	83	438	84.07
4	1997	523	77	446	85.28
5	1997	447	58	389	87.02
6	1997	432	50	382	88.43
7	1997	450	65	385	85.56
8	1997	454	52	402	88.55
9	1997	412	50	362	87.86
10	1997	460	59	401	87.17
11	1997	427	47	380	88.99
12	1997	441	55	386	87.53

Month of Report		Total Reported	Number Non-BAB	Number BAB	Percent BAB
1	1998	459	39	420	91.50
2	1998	403	38	365	90.57
3	1998	436	43	393	90.14
4	1998	384	48	336	87.50
5	1998	325	29	296	91.08
6	1998	334	23	311	93.11
7	1998	343	29	314	91.55
8	1998	307	24	283	92.18
9	1998	324	32	292	90.12
10	1998	371	39	332	89.49
11	1998	315	29	286	90.79
12	1998	290	15	275	94.83
Month of Report		**Total Reported**	**Number Non-BAB**	**Number BAB**	**Percent BAB**
1	1999	316	25	291	92.09
2	1999	307	23	284	92.51
3	1999	353	17	336	95.18
4	1999	256	17	239	93.36
5	1999	279	12	267	95.70
6	1999	259	15	244	94.21
7	1999	224	9	215	95.98
8	1999	206	5	201	97.57
9	1999	210	8	202	96.9
10	1999	180	7	173	96.11