NOT FOR PUBLICATION JCVI(01)59(a)

JOINT COMMITTEE ON VACCINATION AND IMMUNISATION

MINUTES OF THE MEETING HELD ON FRIDAY 4 MAY 2001

Report by Robert Freeman

Agenda Item Number 2

JOINT COMMITTEE ON VACCINATION AND IMMUNISATION
Minutes of the Meeting of Friday, 4 May 2001
Held in BMA House

Attending:

Members:
Professor Michael Langman (Chairman)
Dr Barbara Bannister
Dr David Goldblatt
Professor Paul Griffiths
Professor David Joynson
Professor Simon Kroll
Professor Neil McIntosh
Professor Lewis Ritchie
Dr Michael Roworth
Dr Richard Smithson
Professor Brent Taylor

Ex officio:
Dr Diana Walford
Professor George Griffin
Dr Angus Nicholl
Dr Geoffrey Schild

Observers:
Dr A. Croft (MoD)
Wg. CDR Andy Green (MoD)
Dr Darina O'Flanaghan (Republic of Ireland, NDSC)
Dr Angela Williams (MRC)
Dr Jan van Wijjngaarden (Ministry of Health, the Netherlands)
Ms Jo Yarwood (HPE)

Invited to attend:
Dr Natasha Crowcroft (CDSC)
Dr John Edmunds (CDSC)
Dr Elizabeth Miller (CDSC)
Dr Mary Ramsay (CDSC)

Department of Health
Dr David Salisbury (Medical Secretary)
Dr Jane Leese
Nick Adkin (Administrative Secretary)
Loraine Gershon
Debby Webb
Dr Arlene Reynolds
Derek Dudley
Robert Freeman (minutes)

John D'Arcy
Josie Senior-St Juste
Julia Falana

Medicines Control Agency
Dr Peter Arlett
Dr Mair Powell
Dr Phil Bryan
Dr Ragini Shivji
Dr Lincoln Tsang
Leigh Henderson
Ms Jennifer Bailey

Scottish Executive:
Dr Elizabeth Stewart

DHSS Northern Ireland:
Dr Lorraine Doherty

1. ANNOUNCEMENTS AND WELCOME

1.1 The Chairman welcomed members to the meeting. Attending their first meeting were Dr Lorraine Doherty, who had succeeded Dr Liz Mitchell at DHSS Northern Ireland, John D'Arcy and Julia Falana (Department of Health, Immunisation Team) and Mrs Leigh Henderson (MCA).

1.2 Apologies had been received from Drs Harling and Cohen and Jones from the Committee, Dr Simmons and Ms Legall (National Assembly for Wales) and Dr O'Mahony (Department of Health).

1.3 Among the tabled papers were revised Terms of Reference for the Committee. The revision took account of the new administrative arrangements following devolution. There has been no change to the work or status of JCVI following devolution.

1.4 The following papers were tabled:

	Revised Terms of Reference for JCVI
	Members' 'Declaration of Interests' questionnaire (agenda item 3.2)
JCVI(01)32	**Adverse reactions (agenda item 4.5)**
	Report by Dr Arlene Reynolds
JCVI(01)34	**MMR adverse reactions (agenda item 7.3)**
	Report by Dr Arlene Reynolds
JCVI(01)42b	**Meningococcal Disease associated with the Hajj (agenda item 8(b))**
	Report by Dr Mary Ramsay

Meningococcal Disease associated with the Hajj: issues for Department of Health (agenda item 8(b))
Report by Dr Jane Leese

JCVI(01)52 **Hepatitis B Immunoglobulin for infants – review of dosage (agenda item 13.2)**
Report by Dr Mary Ramsay

Influenza vaccine: Adverse reactions (agenda item 11.3)
Report by Dr Arlene Reynolds

2. MINUTES OF THE MEETING OF 19 JANUARY 2001 JCVI(01)25

The minutes were accepted as a true record of the meeting.

3. MATTERS ARISING

3.1 'Open Minutes' JCVI(01)26

The Committee felt that the draft open minutes for the last meeting were a little bland and that they had missed the opportunity to put the Committee's views on certain issues firmly into the public domain. The open minutes for the current meeting should ensure such relevant statements were included. Ministers would need to agree the format of the minutes and to them being made publicly available.

3.2 Declaration of Members' interests

Members were requested to fill in up to date Declaration of Members' interests forms and to return them to Nick Adkin at the Department of Health.

3.3 Thiomersal

The funding provided by the WHO for the PHLS studies looking at the relationship between thiomersal and neurological outcomes using the UK's GP record linkage data, only met the costs of purchasing the data. Money for the rest of the work involved in the studies would come from PHLS funds. Data from these studies would not be available until the end of the year. There was intense media interest in thiomersal in the USA, and the UK should be prepared for similar interest. The Committee recognised the importance of this issue and noted that the Committee for Proprietary Medicinal Products guidelines were coming into operation shortly. The Committee was reassured to learn that all efforts were being made to remove thiomersal from vaccines, even though the risk to health from thiomersal remained theoretical. ***The Committee agreed that though no actual hazard had been identified from thiomersal inclusion in vaccines, it was desirable on general grounds when possible to remove it.***

3.4 Ruminant and Human Materials used in Vaccine Manufacture — JCVI(01)27

3.4.1 This report was provided for information. The Committee asked by which date the vaccines already distributed would no longer include any whose production process may have involved the use of potentially BSE infected Category 1 or 2 material. The Committee was told that Category 1 material was only used at the master seed/working seed stage of the manufacture of a very few vaccines, not in routine vaccine production itself. Many vaccines are produced from master seeds which were manufactured many years ago. There is reluctance to establish new master seeds for vaccines which have a long history of use because such a change could possibly change the vaccine characteristics which may adversely impact safety and efficacy. Everything used in the manufacturing process after the master/working seed stage was free of Category 1 material. In any event, all Category 1 or 2 material in use at any stage of manufacture of UK marketed vaccines came from BSE free countries. Master seed material often antedated the BSE epidemic in the UK, and was diluted many fold to the extent that any exposure to infected material, if ever present, would be remote.

3.4.2 It was noted that the scrapie model used in these considerations, taken from the CPMP guideline, was a 'worse case' scenario and that BSE infection appeared to be less transmissable than scrapie. It was noted that the FDA website devoted to this issue was very helpful.

3.4.3 The Committee asked the MCA to consider whether it would be possible to put the information it had summarised on vaccine manufacturing and excipients in vaccines into the public domain; the MCA would consult their lawyers on this point.

3.5 'Immunisation against infectious disease' and 'Health information for overseas travel'

It was intended that new editions of these books would be published during 2001. They would be available on the web.

4. COVERAGE AND OTHER REPORTS

4.1 England — JCVI(01)28

There had been little change in levels of vaccine uptake since the last meeting. The Committee noted the worryingly low reported uptake of vaccines in London; this kept average uptake throughout England below 95% for every antigen. ***It was agreed to re-invite Dr David Elliman to the next meeting of the Committee for a further report on the data collection study being conducted by the London District Immunisation Co-ordinator's Group and to ask for the attendance of the RDPH for London at some future meeting.***

4.2 Northern Ireland **JCVI(01)29**

MMR uptake in Northern Ireland remained encouraging. Problems with recording the MenC vaccine uptake data had been resolved and uptake was now seen at 95%.

4.3 Wales **JCVI(01)30**

The situation in Wales remained unchanged.

4.4 Scotland **JCVI(01)31**

The situation in Scotland remained unchanged.

4.5 Adverse Reactions **JCVI(01)32**

4.5.1 The tabled graphs showed suspected adverse reactions categorised as serious to DTP/Hib, polio, BCG, hepatitis A and B vaccines over the last three years. The data was based on Yellow Card reports received by the MCA.

i. *DTP/Hib* – the overall pattern and type of suspected reactions in 2000 were similar to previous years, with the exception of an increase in the number of respiratory reactions. Most of the increase appeared to be due to an increase in number of SIDS (5) and apnoea type reactions (14) being reported.

ii. *Polio* – The types of suspected reactions reported in 2000 were on the whole similar to previous years. The only differences appeared to be an increase in the number of cardiovascular, eye and respiratory reactions reported.

iii. *BCG* – Overall the types of suspected reactions reported were similar with the exception of an increase in number of cardiovascular reactions in 1999 and musculo-skeletal reactions in 2000.

iv. *Hepatitis B* – The types of suspected reactions reported on the whole had been similar, with a notable decrease in the number of serious cardiovascular, eye, immune system, musculo-skeletal and neurological reactions being reported.

v. *Hepatitis A* – The types of suspected reactions being reported were on the whole fairly similar. However, there were three notable differences: a significant increase in the number of cardiovascular and muscolo-skeletal reactions reported in 2000, and a significant increase in the number of immune system disorder reactions reported in 1999. All these type of reactions were recognised side effects of this vaccine.

4.5.2 Overall, there were no new safety issues identified. The Committee was not persuaded given all the inherent uncertainties of spontaneous reporting that there were significant problems developing.

5. VACCINE SUPPLY

Apart from BCG vaccine *(see agenda item 10)*, the supply situation for the childhood programme was good. There was a problem with yellow fever vaccine where the 10 dose presentation only was available. The Committee noted that there was no longer a UK supply of single antigen pertussis vaccine. The Department of Health had produced an information sheet to try and help doctors deal with this situation. This gave advice on how to immunise children who had missed routine pertussis immunisation through using the available combined products which include it.

6. THE POTENTIAL COST-EFFECTIVENESS OF ACELLULAR PERTUSSIS BOOSTER VACCINATION IN ENGLAND AND WALES JCVI(01)33

6.1 No interests were declared. The presentation looked at the health and financial burdens of pertussis at present and at the options of introducing a booster dose at ages 4 or 15 years or 4 and 15 years. Acknowledging the wide range of uncertaintities and assumptions in the modelling, and ignoring societal costs in time off work, for example, the analysis suggested that one extra dose of pertussis vaccine would not result in cost savings on illness and death rates. Current decision making however is influenced by the cost per year of life saved. The Department of Health historically looked to a cost of £10,000 per life-year gained as a good investment in new health initiatives. However, this was not a definitive fail/pass level and it was noted that NICE used £25,000 and the US used £35,000. The analysis showed that the decision on cost effectiveness was finely balanced. A booster at four years was likely to be cost effective but a booster alone at 15 years was not likely to be cost effective. Immunisation at both 4 and 15 years was likely to be the most effective clinically but the most costly and so least cost effective. It was suggested that the number of deaths used in the analysis (9) was likely to be a considerable underestimate. Studies in the US and at St George's Hospital, London, had also showed that one half of 25 to 35 year olds with a persistent cough had pertussis. If this were true then cost effectiveness would be greater than allowed for.

6.2 The JCVI had previously decided upon a booster as the most appropriate way to deal with increases in pertussis but was undecided at what age. Looking at cost implications was necessary for ministerial decisions. It was clear that on epidemiological and health grounds it was beneficial to have a booster dose, that health benefits might be underestimated and this analysis completed the review of what was needed. ***The Committee agreed to recommend a booster as part of the pre-school booster immunisation. Such a recommendation was based on the booster being the acellular vaccine, since experience shows the whole-cell vaccine to be unacceptably reactogenic at that age, and the primary schedule being wholecell vaccine. The Committee would wish to revisit this issue if the primary schedule no longer used the whole-cell vaccine.***

7. (a) MMR

The Chairman had declared a non-personal non-specific interest in MSD (Pasteur Merieux) at the start of the meeting.

7.1 Update on activities since January

The Committee was brought up to date on MMR issues: Wakefield and Montgomery's paper "Through a glass darkly" (which had been considered by the Committee at the 19 January meeting) had generated significant media attention during January and February; the Department of Health was now committed to a new MMR communications strategy in England; Northern Ireland had recently launched new materials for patients and health professionals; and, there had been particular difficulties in Scotland which the Scottish Executive were responding to.

7.2 Update on developments in Scotland

7.2.1 The Health and Community Care Committee of the Scottish Parliament had considered the issue of MMR. There had been media speculation on whether the Committee would recommend single vaccines, but the Committee's recently published report concluded: "On the basis of currently available evidence, there is no proven scientific link between the MMR vaccine and autism or Crohn's disease. **The Committee does not recommend any change in the current immunisation programme at this time."**

7.2.2 The HCC Committee had made a large number of recommendations, many of which concerned autism, but the most important one was to call upon the Scottish Executive to establish an expert group to look further into the whole issue of MMR and single vaccines.

7.2.3 The Scottish Executive reported that they were to ask SCIEH and Strathclyde University to undertake modelling work to look at the potential impact on vaccine uptake and disease incidence that the introduction of single vaccines might have in Scotland. The JCVI felt that such modelling would have to be largely based on speculation or assumption, and questioned the usefulness of such work. Whilst there was much on the impact of MMR and measles, there was very little data on mumps or rubella and there was no obvious evidence base on which to base any modelling work.

7.2.4 It was felt that, should single vaccines be introduced, parents would inevitably pick and choose. This would result in reduced take-up of full required courses and delayed uptake. Previous experience with DTP was illustrative. Any modelling would need to take into account every possible scenario. It was also felt that calls for single vaccines were more vociferous in the press than amongst parents whilst the introduction of single vaccines may have an adverse effect on the policy to reduce inequalities in health care provision. The situation in Greece – where the private sector has used MMR vaccine and the public sector separate measles and rubella vaccine – was mentioned. The age at which rubella was contracted had

increased as the separate rubella vaccine was not taken up to the same level as the MMR. This evidence of the potential for separate rubella vaccines to be missed, and thereby increasing the risk of congenital rubella in the population, leaves important moral questions over single versus combined vaccines.

7.2.5 The Scottish expert group had provisionally been given six months in which to report. JCVI expressed its concerns that the expert group should not cut across JCVI's role in providing independent expert advice to UK health ministers on immunisation. The Scottish Executive recognised fully this concern and acknowledged that this would require special thought to be given to the Terms of Reference of the group. ***The Committee agreed that it was important to preserve the unity on immunisation policy throughout the UK, and unanimously agreed that combined vaccines were essential in immunisation of children.***

7.3 Adverse reactions — JCVI(01)34

Overall, the pattern and type of reactions reported did not appear to have changed over the last three years. No new safety issues had arisen. One notable difference was that there as a decrease in the number of neurological reactions reported in 2000 compared to 1998 and 1999. This appeared to be due to a decrease in the number of reports of autism and autistic behaviour. The total number of reports of autism and autistic behaviour had fallen from 13 in 1998 to 4 in 2000. The MCA commented that they were looking at data from Europe and the US on autism and IBD.

7.4 Latest Studies — JCVI(01)35

These studies were covered in the following agenda items.

7.5 Immunisation Safety Review on MMR — JCVI(01)36

7.5.1 Two review meetings on MMR held in the USA were reported on.

7.5.2 First, the American Academy of Pediatrics had held a review meeting in June 2000 to consider MMR and autism. Material produced by Dr Wakefield had been considered at the review. The outcome of the review had now been published in the May edition of 'Pediatrics'. The conclusion of the Academy was that they found no evidence of an association between MMR and autism and that they did not recommend the use of single vaccines but only saw the risk of harm from using single vaccines.

7.5.3 Second, CDC Atlanta had commissioned the Institute of Medicine to undertake nine vaccine safety reviews over three years the first of which was of MMR and autism (the Institute was next to look at thiomersal in vaccines). The Institute had convened a group, whose members had no links with Government, vaccines or industry, to look at this issue.

7.5.4 The IOM group had met in March 2001 over three days; the first of these days had been an open meeting. Dr Wakefield had been among those who had presented to the group. Normally the Institute used a standard categorisation in reporting such reviews which broadly concluded that the "evidence was sufficient to support an association" or that "the evidence was sufficient to reject an association" or took the middle ground. The group had reported on 23 April their conclusions that "the evidence favors rejection of the causal relationship at the population level between MMR vaccine and autistic spectrum disorders" but that "the committee nevertheless recommends that this issue receive continued attention. It does so in recognition that its conclusion does not exclude the possibility that MMR vaccine could contribute to autistic spectrum disorders in a small number of children..." The Chair of the IOM group had been reported as stating at a press conference that "MMR is as safe as a vaccine can get". There had been positive reporting in the US media about the IOM report.

7.5.5 The JCVI noted some important and helpful elements in the report, especially at pages 24 to 25, and agreed that the IOM report provided no new evidence which would indicate lack of safety of MMR.

7.6 Paper submitted to US Congress 25 April 2001 JCVI(01)37

7.6.1 This was a report of a further Hearing chaired by Senator Dan Burton. Four important papers presented to the Hearing were provided for the JCVI.

7.6.2 The Committee noted that the first paper, by Dr Andrew Wakefield, contained many "leaps of faith" (for example, making statements such as "it is now accepted"), was not persuasive and presented no new and cogent evidence. The second paper was by Dr Walter Spitzer who, like Dr Wakefield, is acting for the claimants in the UK MMR group action. The third paper by Dr Elizabeth Miller reviewed the relevant epidemiological evidence and concluded that this did not support a link between MMR and autism; this paper was considered to be very informative to the debate. The fourth paper, by Dr Michael Gershon, was particularly noted by the JCVI. This study had looked at the 'leaky bowel - opioid' theory of autism. Gershon had concluded that the preponderance of evidence and the nature of the function of the gut, liver and blood brain barrier combined to indicate that it was unlikely that Wakefield's hypothesis that MMR caused autism was correct. Gershon also reported on the work of Professor Oldstone who had sent blinded test samples containing coded amounts of measles virus RNA from cultured samples and transgenic mice to Professor O'Leary in Dublin to test; O'Leary's laboratory (one of Dr Wakefield's collaborators) had obtained inconsistent readings for some coded samples presented in pairs, and on other occasions readings which were at variance with the known virus content. The Institute of Medicine conclusions *(see 7.5 above)* had been critically received by Senator Burton. The Hearing in Congress would continue.

7.6.3 The JCVI agreed after review of these papers that they provided no new evidence to support a causal link between MMR and autism. Furthermore, there

was disturbing evidence of inconsistency in viral detection and a continuing lack of a likely pathogenic mechanism.

7.7 Review of the Jyonouchi MMR Paper JCVI(01)38

The meeting was told that this presentation of Jyonouchi's hypothesis that there was a high frequency of excessive innate immune responses in children with regressive autism was an abstract only, gave little methodological details and shed no new light on the subject as it stood.

7.8 No epidemic of autism and no epidemiological association between Measles, Mumps and Rubella Vaccine and bowel symptoms or developmental Regression in childhood autism JCVI(01)39

7.8.1 This report was a follow-up to the CSM funded paper published by the authors in the Lancet in 1999. Professor Taylor and colleagues had looked at what had happened to the incidence of autism since that paper which reported on the situation up until 1993. They concluded that regression and bowel disease were unrelated to the introduction of MMR. The incidence of these conditions had been flattening since 1993 and there was no evidence of a linked rise. They also showed that there had been no change in the proportion of autistic children with regression since the introduction of MMR. Regression or bowel symptoms were no more likely to occur in autistic children who had been immunised with MMR, compared with autistic children who had not had MMR. An analysis by Dr Eric Fombonne was also raised, which argued that the rise in autism cases was more to do with increased and changing diagnoses. There remained no consistent data to suggest that the underlying rate of autism in the UK had risen – although the recognition of autism had undeniably increased. Professor Taylor's report was to be submitted as a letter to The Lancet whilst the separate prevalence data was to be submitted to Paediatrics.

7.8.2 Having considered all this new information, the Committee concluded that it remained confident of its position with regard to the safety and efficacy of MMR.

7.9 MMR Information Campaign

The Campaign's aim was to produce high quality factual information for health professionals and parents.

7.10 Health Promotion England

7.10.1 In England an MMR information campaign had been announced. It would include the production of leaflets, posters and a video as well as an information pack with video for health professionals. A PR company had been engaged to put information into the professional and lay press. The materials were expected to be ready in June, but exact timing would be affected by the election.

7.10.2 Preliminary data from the March 2001 wave of research among 1,000 parents of under 3s showed that the percentage of mothers 'not intending to immunise' had risen from 9% (October 2000) to 11% in March 2001, whilst those who cited MMR as a concern had increased from 4% to 6%. These increases – bearing in mind that January and February had seen the most sustained negative media coverage of MMR – were considered to be reassuringly low.

7.10.3 Northern Ireland had held parent focus groups on immunisation in February 2001. The parents stated that they trusted GPs and health visitors to give honest and true advice but that they did not trust what they viewed as Government propaganda. Northern Ireland had therefore decided not to run any TV adverts for MMR but to concentrate on providing information for the use of health professionals. A new leaflet had been designed and was sent out with appointments for vaccination. There had been publicity in the local press and the health professionals' information pack had been distributed which included the North Wales "Mythbuster".

7.10.4 The Scottish Executive like Northern Ireland, had decided to channel information for parents through health professionals. New resources were being produced.

7. (b) RECENT EPIDEMIOLOGY OF MUMPS IN ENGLAND AND WALES — JCVI(01)39(b)

7(b).1 Mumps became a notifiable disease in 1988. Following the introduction of MMR vaccine in 1988, mumps cases had fallen from about 20,000 per annum in that year to 2,500 in 1994. Saliva testing was now used to confirm disease in 30 to 40% of all notifications. The data in the papers for the Committee showed mumps cases by year of birth together with the vaccination status of patients. The data confirmed that mumps cases were increasing and that most of those catching the disease had not been immunised with MMR vaccine. The epidemiological data was mirrored by the sero-prevalence data.

7(b).2 The Committee considered what action was necessary to prevent further increases in mumps and agreed that recommending MMR vaccine for unprotected individuals was the best option. The Committee also considered how to target the vaccine bearing in mind that many of those who had not been immunised with MMR may have already received one or more doses of measles and rubella vaccine. There was no evidence that receiving three or more doses of measles vaccine was potentially harmful.

7(b).3 The Committee agreed recommendations 1, 2 and 3 in Dr Ramsay's paper. MMR vaccine should be targeted at:

- ***children who had received no measles or rubella containing vaccines;***
- ***children who had received one dose of measles vaccine plus none or one dose of rubella vaccine; and,***
- ***children who had received two or more doses of measles containing vaccine and one dose of rubella vaccine.***

It was agreed that – as already recommended - two doses of MMR should ideally be given. However, the Committee recognised the difficulties inherent in this policy for the target groups in question and advised that a useful guide would be "two doses of MMR vaccine would be desirable, one was essential."

7(b).4 Officials would consider how this recommendation might be best implemented.

8. THE MENINGOCOCCAL GROUP C IMMUNISATION PROGRAMME

8.1 Update on the Meningitis C Campaign

All the vaccine required to complete the programme had been made available. The schools programme had been completed but some primary care catch-up was still required.

8.2 Update on Safety Profile of Meningococcal C Conjugate Vaccine — JCVI(01)40

Over the 18 months of the campaign there had been very active safety surveillance of the new MenC vaccine. Reports to the MCA showed one suspected ADR for every 1,436 doses of vaccine distributed. A sub-group had been set up by the CSM to monitor these ADRs and a few amendments had been made to the product information as a result of the reports received. Each report received with a fatal outcome had been carefully considered. There was no evidence to suggest that any of the deaths reported were associated with the vaccine. The sub-group agreed that causality of convulsions could not be determined by the available data. This issue should be reassessed following the completion of the PHLS study. ***The Committee agreed that the paper on sudden infant deaths and the vaccine was very good and gave excellent reassurance that vaccination was not linked to sudden infant death.*** The Committee also welcomed the paper by Fleming.

8.3 Meningococcal Infection in Adults — JCVI(01)41

8.3.1 The Committee had asked for information so that it could consider further the question of whether meningitis C immunisation should be extended to older age groups.

8.3.2 Death rates from meningococcal Group C disease in people over the age of 18 were highest in the age range up to 24 years. This was pertinent as many of the people in this age group would be in education. The rate of disease in people over age 24 was much lower at one case per 100,000 of the population. ***It was agreed as desirable that the conjugate meningococcal C vaccine should be available to people up to and including 24 years of age. This recommendation should include those who had had polysaccharide vaccine if this had been given more than three years previously.*** Implementation would be dependent on vaccine supply and would be subject to negotiations with GPs.

8.4 Impact of meningococcal C conjugate vaccine JCVI(01)42

8.4.1 A study of laboratory confirmed cases of meningococcal Group B and C disease had shown that, whilst Group C frequency had reduced in all age groups (and by between 80 and 90% in those immunised), the incidence of Group B disease continued to increase in all age groups. There was no evidence, however, that this represented the results of displacement (see also 8(b).3 below). ***The Committee recommended that, to ensure as complete uptake as possible, vaccination status should be checked at school entry, school leaving and whenever any opportunity might present itself.***

8.4.2 Data on the uptake of meningitis C vaccine was tabled. There was some backlog in data collection because of the size of the campaign, but data from England so far showed uptake as follows: children aged 4 to 12 months (two doses) 81.1% (although this was certainly an underestimate); children aged 12 to 24 months (one dose) 85%; children aged 2 to 4 years (one dose) 77%; and, all cohorts in schools, 85%, except in the higher school years where uptake was lower. Uptake for those under 18 not attending school or college stood at only 22%. Catch-up was, therefore, at a lower level than for the MR campaign, although there has been data collection problems and less urgency with implementation of the campaign.

8(b).1 Meningococcal Disease associated with the Hajj JCVI(01)42(b)

Meningococcal Disease associated with the Hajj: issues for Department of Health

8(b).1 At its meeting on 9 October 2000, the Committee had recommended the quadrivalent (ACWY) meningococcal vaccine for pilgrims for the 2001 Hajj. The paper described a further outbreak of W135 meningococcal disease associated with the 2001 Hajj with cases of the outbreak strain confirmed in nine pilgrims and in 22 contacts. It was noted that coverage with the quadrivalent vaccine, which had not become available until January 2001, had not been high (less than 50%). None of the cases in 2001 had received the vaccine, but it was felt that more cases would have occurred if those 50% had not been immunised.

8(b).2 This paper gave a chronological outline of the Department's actions to implement the Committee's recommendation and outlined further actions proposed for 2002 to improve vaccine uptake. It was understood that the Saudi Government was now recommending ACWY vaccine for future pilgrims and demand for the vaccine was likely to be high. ***The Committee agreed a recommendation that the Department should buy a strategic reserve of the ACWY vaccine.***

8(b).3 There had been some concerns that the introduction of meningitis C vaccine might create an 'eco-space' which would allow other strains of meningococcal disease to increase. It was noted that the US military had immunised recruits with the Group C polysaccharide vaccine for a period of five years and had seen no change in the rates of other strains in the recruits. From the data currently available no such changes have been seen in the UK, but this is being actively monitored.

9. HAEMOPHILUS INFLUENZAE B

The Impact of Conjugate Hib vaccine on the Epidemiology of Hib disease in England and Wales **JCVI(01)43**

Since 1999/2000 cases of Hib disease had shown a slight increase. Cases had doubled in children under age 5 although they were still numerically extremely low. The reason for this increase was not clear, although low carriage of the disease following immunisation may have eliminated natural boosting. This issue was being investigated and monitored. ***The Committee expressed a concern that there appeared to be a real increase in the disease frequency and agreed that there was a need to maintain intensive surveillance.***

10. BCG

10.1 Resumption of the Schools BCG Immunisation Programme JCVI(01)44

The UK schools' BCG immunisation programme had now restarted following an announcement in March 2001. Resumption of the programme was being phased, starting with those leaving school this summer. It was noted that the question of whether the vaccine was most effectively given at school age or at as early an age as possible had been discussed by the Committee some time ago. The whole programme was to be reviewed by the JCVI's BCG Panel in June. Committee members with a particular interest in this matter were invited to attend the BCG Panel meeting (due to be held on Tuesday, 19 June)*.

10.2 Preliminary information on an outbreak of Tuberculosis in a secondary school in Leicester JCVI(01)45

A large outbreak of tuberculosis had occurred in a Leicester secondary school. Most pupils affected were Asian and had been previously immunised with BCG. There therefore appeared to be a high attack rate despite the use of vaccine. A detailed investigation was underway including production of stratified attack rates. This information would be made available to the BCG Panel. It was noted that despite the incomplete, and variable, efficacy of BCG vaccine in trials across the world, no new candidate vaccines appeared better than the existing BCG in animal models. JCVI was content to await further evidence.

10.3 Availability of BCG vaccine and tuberculin PPD JCVI(01)46

The Committee was told that, from the end of July 2001 onwards, new supplies of BCG vaccine and tuberculin PPD would become available.

** post hoc; held over until August.*

11. INFLUENZA

11.1 JCVI Respiratory Panel (Influenza) meeting JCVI(01)47

The main reason for the meeting of the Respiratory Panel (Influenza) had been to review the implementation of last winter's immunisation programme; JCVI had already considered this issue. ***The Committee agreed that they should see all papers presented to Panels and also see the full minutes of Panel meetings.***

11.2 Influenza immunisation for Health and Social Care Workers JCVI(01)48

The policy of offering influenza vaccine to health care workers would continue next year. It had been agreed to commission research on the value of occupational immunisation of health and social care workers.

11.3 Adverse reactions

11.3.1 In 2000, there was a substantial increase in the total number of reports of suspected reactions received in comparison to the previous two years. This was compatible with the increased numbers of doses given and the profile of such reports had not changed significantly. The types of suspected serious reactions reported in 2000 were similar, on the whole, to 1999 and 1998. However, there was a substantial increase in the number of suspected neurological, haemopoietic, cartiovascular and respiratory reactions. In the case of neurological reactions, an increase in the number of Guillain Barre Syndrome (GBS) reports almost solely accounts for this increase. Similarly, the striking increases in suspected haemopoietic reactions was largely attributable to a number of thrombocytopenia (ITP) reports (7). Both GBS and ITP were recognised side effects of the flu vaccine. The increase in cardiovascular and respiratory reactions did not appear to follow any particular pattern.

11.3.2 Although the absolute number of reports of suspected adverse reactions in association with influenza vaccine had increased the overall pattern and type of reactions are consistent with previous years. The increase in the number of reports in 2000 was likely to have been influenced by the increased publicity. No new safety concerns had arisen.

12. LABORATORY CONTAINMENT OF POLIO VIRUSES JCVI(01)50

12.1 There had been a good response rate to the questionnaire.

12.2 There had been one case of poliomyelitis reported in Bulgaria (imported from the Indian subcontinent) and an outbreak in Haiti and the Dominican Republic, the first in the Western Hemisphere for 11 years. The outbreak had been caused by the Sabin vaccine strain recombinant with a non-polio entero-virus; it had been probably circulating for around two years. Polio vaccine coverage in Haiti and the

Dominican Republic stood at only 30 to 35%, unlike the rest of the Western Hemisphere, and illustrated how important it was not to let vaccine uptake fall. It also suggested that the world should step up the pace of immunisation to ensure that eradication was achieved sooner. It was noted that several laboratories would continue to need to work with polio virus once eradication had been achieved.

12.3 On the question of IPV and OPV, it was noted that there was one case of paralytic polio per year associated with the vaccine. But the risk to the UK population from polio remained, supporting the need for continued use of OPV. The eradication of smallpox set a good precedent. High traffic between the UK and those parts of the world with endemic smallpox had resulted in the UK continuing to have problems with smallpox right until the end of the period leading up to eradication. Countries such as India, Pakistan, Bangladesh and Nigeria continue to have polio cases. There was a lot of traffic between those countries and the UK. India was making good progress in eradicating the disease as was Bangladesh. However, Pakistan and Nigeria still had a long way to go and vaccine coverage in these countries was low. When there was no further risk of an importation from any other part of the world, there would be no argument to support the continuing use of OPV in primary care. There remained, however, difficulties with procuring IPV with other vaccines in the UK schedule. ***JCVI would continue to actively monitor the situation with a view to recommending a date for moving to IPV.***

13. HEPATITIS

13.1 Guidance on the Control of Hepatitis A Virus infection — JCVI(01)51

13.1.1 The Committee was asked to endorse the draft guidance; this would also provide a basis for the 'Green Book' chapter on Hepatitis A. The draft guidance confirmed the recommendations on hepatitis A vaccination and the role of HNIG. Although the Advisory Group on Hepatitis had seen this paper, the JCVI had the lead on recommending immunisation policy.

13.1.2 The main difficulty in the recommendations related to travel immunisation for children. The guidance recommended the vaccine for children aged 5 years and over whereas the health departments' 'Health information for overseas travel' recommended it for children aged 10 years and over. Members were asked to write in with their views on this point and publication of the new edition of 'Health information for overseas travel' would be deferred until the matter was resolved.

13.1.3 The Committee felt that further information was required to make a decision on recommendation 1.2. The suggestion to use "clinical judgement" in recommendation 1.3 was considered vague; more details had to be provided on the pros and cons of the protection of the individual as against the community. The figures provided did not support the statement that younger children had less disease and it was doubtful that the disease was trivial in small children. It may be that disease in these children was under-reported. Certainly, stopping children giving the

disease to their parents was important. Additionally, the vaccine should be recommended for all laboratory workers. The Committee felt that the papers had been received too late to give a proper opinion, and that the issues should be looked at by a small group which could make comments and recommendations for the Committee. The Department would take this further.

13.2 Hepatitis B Immunoglobulin for Infants - Review of Dosage **JCVI(01)52**

Recommendations on the use of HBIG had been changed by the PBL. The UK and the Netherlands had good data on the efficacy of HBIG in children who had received 200iu. This data showed a small failure rate at this dosage and there was therefore a concern regarding lowering the dosage. It was felt that small children may need to have the higher dosage and ***the Committee agreed to the UK continuing to use the higher dosage until there had been a proper investigation of this issue***. The MCA was content with this proposal.

13.3 Rapid Schedule for Immunisation against against Hepatitis B **JCVI(01)53**

The Committee had asked for further information on this issue which had been discussed at the last meeting. Hepatitis B vaccine would be licensed for the rapid schedule for people aged 18 years and over only.

13.4 Hepatitis B Vaccine and Multiple Sclerosis **JCVI(01)54**

This had gained much media attention in France. However, two recently published studies found that there was no association between hepatitis B immunisation and multiple sclerosis, and that immunisation did not appear to increase the short-term risk of relapse in multiple sclerosis.

15. OPTIONS FOR THE USE OF PNEUMOCOCCAL CONJUGATE VACCINES IN THE UK **JCVI(01)55**

15.1 No interests were declared.

15.2 The Committee was advised that the data presented – based on data from Finland and the US - was the best available. The data applied to any type of pneumococcal vaccine and all the vaccines were highly effective against the sero-types included in the vaccine. Studies looking at the schedules and need for boosters etc were being undertaken by PHLS. However, recruitment for the studies was difficult because the study required children having three injections at one visit.

15.3 The options before the Committee were to use the 23 valent polysaccharide vaccine, which had previously been recommended in high risk groups, or the 7 valent conjugate vaccine. The Prevanar vaccine (7 valent) was licensed for use in children under 2; the polysaccharide 23-valent vaccine was not. The Prevanar

vaccine might be best used in children under 2 years, although the effectiveness data was scanty. The vaccine would not take the place of prophylactic antibiotics, and penicillin remained an essential. It was noted that the conjugate vaccine did not cover as many strains as the polysaccharide vaccine, some of which were penicillin resistant. Children with sickle cell disease or functional splenectomy were at high risk and should be immunised. There were other risk groups in children but these were felt to be less well defined. ***The Committee recommended that children under two who, if they were over two would have been recommended the polysaccharide vaccine, should be recommended to have the conjugate vaccine.***

15.4 Further consideration needed to be given to children with HIV. Studies in the Gambia had shown an increased risk of pneumonia and death following the use of polysaccharide vaccine in HIV+ adults. The special circumstances of Uganda were noted but the concern remained that, although there was a small risk of HIV disease in children aged under two in the UK, the vaccine may cause seeding of the HIV throughout the body. The Committee felt that there was not enough data to make a recommendation on the issue of HIV+ children.

15.5 There was some limited data to support recommendation 2, but the Committee was concerned that the two-dose schedule mixing polysaccharide and conjugate vaccines could reduce vaccine efficacy. The Committee felt that the US had acted hastily, and without sufficient evidence, in making their recommendation and that studies planned in elderly adults should be awaited. It would take about 2 years before this data would become available. It was felt that there was no compelling body of evidence to use the conjugate vaccine in those aged over two (in whom the product is not currently licensed) and it was agreed that, by not making a positive recommendation, the Committee was not disadvantaging those people if the current recommendations were followed.

15.6 ***The Committee agreed that there should be more funding to support suitable studies looking at the different conjugate vaccines. The Committee agreed recommendation 1 (that high risk children under age 2 for whom the 23 valent vaccine is ineffective should receive the new vaccine) but not recommendation 2 (that all unvaccinated high risk individuals should be immunised both with the new vaccine and with the 23 valent vaccine to ensure all serotypes were protected against). The Committee agreed further information, including cost effectiveness data, was required before decisions could be taken on recommendations 2 to 6.***

16. REPORTS FOR CONSIDERATION

16.1 Code of Practice for Scientific Advisory Committees — JCVI(01)56

Comments from Committee members on this report by the Office of Science and Technology were invited and should be sent to Nick Adkin by mid-June. In general terms, Committee members agreed that JCVI had now adopted or was in the course of adopting the recommendations. The one area not covered was the reporting by

the Chair of Committee recommendation. JCVI was in favour of this happening. It did not stand in the way of the normal practice of Department of Health staff taking forward advice. However, it would demonstrate the evident independence of the Committee.

16.2 Seeking consent : working with children **JCVI(01)57**

The Committee considered this to be a good document. Although not specifically about immunisation, the advice was in line with the Green Book guidance. The Committee wished to express a concern to the JCC about identifying individuals in studies; Professor Taylor undertook to prepare a letter for the Chairman on this point. There was also a concern about whether checking antibody levels was of therapeutic benefit to a child (page 14 of the report). It was noted that the RCPCH had also raised concerns about this point as well. Nick Adkin would raise this with the relevant policy team in the Department of Health.

17. EMERGING STRATEGIC ISSUES

17.1 OPV and IPV

(This had been discussed at agenda item 12)

18. ARTICLES FOR INFORMATION JCVI(01)58

19. ANY OTHER BUSINESS

19.1 Green Book

The Committee was assured that this would be taken forward as soon as opportunities arose.

19.2 Varicella Zoster Vaccine: the Committee requested a report on the use of this vaccine for a future meeting.

20. DATES OF FUTURE JCVI MEETINGS

Friday 2 November 2001 *and ..... January 2002.*
Friday 3 May 2002
Friday 1 November 2002