



Health Protection Agency survey of Primary Care Trust teenage vaccination programmes

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Health Protection Agency survey of Primary Care Trust teenage vaccination programmes

Key points

The key points listed here are derived from the results of a survey that was sent to immunisation leads in Health Protection Units in August 2007. The aim was to gain a better understanding of the way in which the school leaver vaccination programmes are currently run, and also to assess the potential for measuring uptake of the proposed new human papilloma virus (HPV) vaccination programme. The points listed below are the combined responses from the 73 surveys that were returned to the HPA, representing approximately 66 Primary Care Trusts (PCTs). The responses were also analysed by Child Health Information System (CHIS) but in general the responses given in the questionnaires appeared to be independent of the CHIS in use.

The current teenage vaccination programme

- School leaving boosters are currently delivered by General Practitioners (GPs) (34%), school nurses (36%) or a combination of GPs and schools (30%). However, 14 of the respondents that specified current delivery by GP also stated that there is no school leaving immunisation programme in their area, and a further two respondents do not have a programme that covers the whole PCT area.
- Most parents (59%) are informed of the school leaving booster through schools, sometimes in combination with GP or CHIS-generated invitations.
- Eighty per cent of respondents currently measure the number of doses given for the annual school leaving booster (Department of Health KC50 returns) using their CHIS. This finding is unexpected, and may reflect survey bias amongst respondents.
- Children eligible for school leaving boosters are children attending secondary schools within the respondents' PCT (87%); 9% of respondents exclude those attending private schools.
- There is much within and between system variability concerning the age to which information about children is maintained on the CHIS of each PCT. Ten per cent of respondents currently only record information for children up to five years of age on their CHIS.

Delivery of the HPV vaccine

- The preferred place to deliver the routine HPV vaccine, as well as a one-off catch-up is through schools (76% and 72% preferences respectively).
- Extra funding and staffing would be required in order to deliver this programme, and there may be difficulties fitting the programme into school schedules.
- The best way to measure coverage of routine and catch-up HPV vaccine programmes would be through the CHIS (72%); most respondents (89%) believe vaccines given to teenagers should be included in their CHIS.
- Eighty-four per cent of respondents believe that administration of each of three doses of HPV vaccine could be recorded accurately in their area but some CHIS will need to be adapted to capture older children.
- Fifty-six per cent of respondents think that teenage vaccination coverage should be reported to the Department of Health via the COVER (Cover Of Vaccination Evaluated Rapidly) programme, 35% via the KC50 return, and 8% via the HPI website.

Health Protection Agency survey of Primary Care Trust teenage vaccination programmes

Introduction

On 20 June 2007 the Department of Health announced that it has agreed in principle to introducing a vaccine against human papilloma virus (HPV). This is subject to independent peer review of the cost-benefit analysis, and follows advice received from the Joint Committee on Vaccination and Immunisation (JCVI), the independent expert body that provides advice on vaccines. Implementing an HPV vaccination for girls around 12 years of age will be complex as three doses of the vaccine are required to provide protection.

<http://www.info.doh.gov.uk/doh/embroadcast.nsf/vwDiscussionAll/2F122A9968698C168025730000592AC5>

Aim

The aim of this survey was to gain a better understanding of the way in which the school leaver vaccination programmes are currently run, and also to assess the potential for measuring uptake of the proposed new HPV vaccination programme.

Methods

A two-page questionnaire was emailed to Health Protection Unit (HPU) immunisation leads on 2 August 2007, all questionnaires received up until 20 September 2007 were included in the analysis. In general one questionnaire was completed per PCT, or in some cases PCT sub-region, though depending on Child Health Information System (CHIS) arrangements in some cases it was necessary to complete one per CHIS. The questionnaire is included in Annex 1.

Results

Seventy-three questionnaires were returned, representing 66 Primary Care Trusts (PCTs). Questionnaires were returned from all Strategic Health Authority (SHA) areas, the best response being from the East Midlands region (table 1). The questionnaires were analysed as aggregate responses, and also by CHIS. There was very little variation in response by child health system so for most questions the overall total is representative of individual system responses.

Table 1. Regional summary of returned questionnaires.

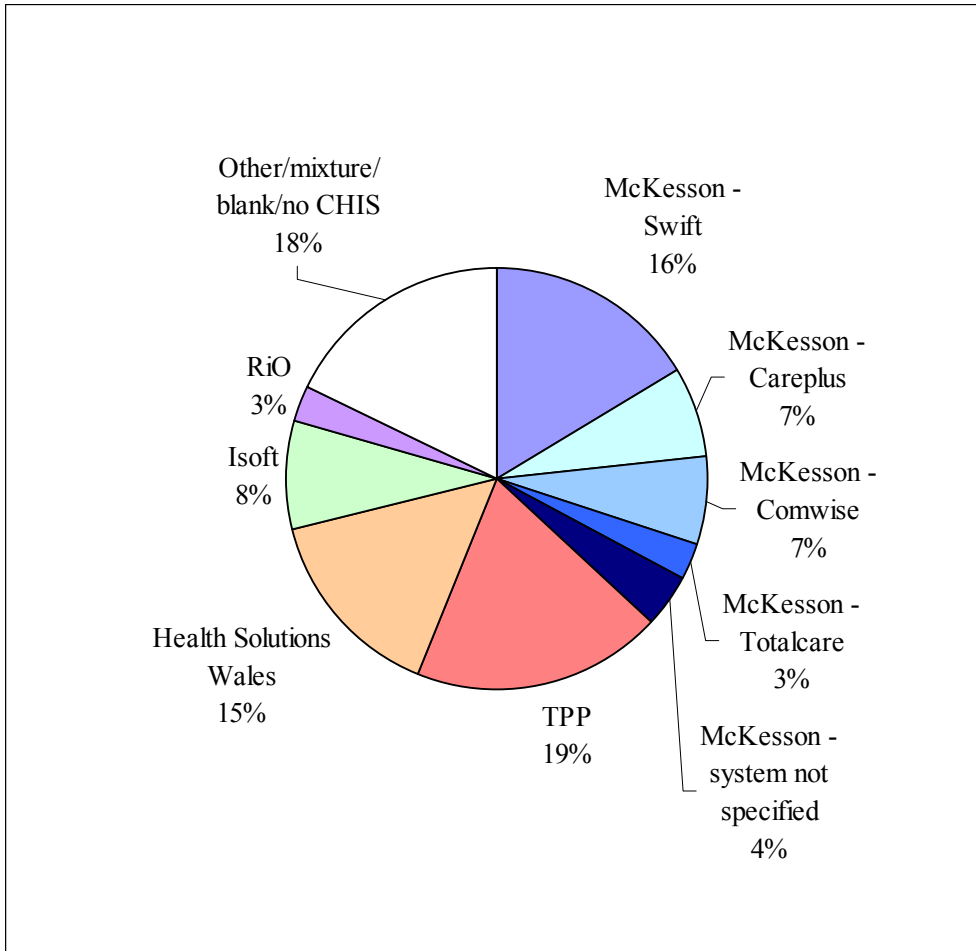
SHA Name	Number of PCTs responding	Number of PCTs in SHA	Percentage of PCTs represented
North East	4	11	36%
North West	11	22	50%
Yorkshire & the Humber	4	14	29%
East Midlands	9	9	100%
West Midlands	7	17	41%
East of England	9	14	64%
London	9	26	35%
South Central	5	8	63%
South East Coast	5	8	63%
South West	3	14	21%
England	66	143	46%

Footnote [20.12.2007]: Nine surveys from the North East which were not returned in time for the main analysis support the main findings of the report.

1. Which CHIS does your PCT use?

The responses to this question are displayed in figure 1 – this pie chart represents the current situation only, since some PCTs will be changing systems in the near future. Thirty-seven per cent of respondents use a McKesson system in their PCT; these are sub-divided into specific systems.

Figure 1. Child health systems currently in use in respondents' PCTs.



2. Does your PCT have a school leaving (year 10 Td-IPV) immunisation programme?

Most PCTs (77%) have a school leaving immunisation programme (table 1). Three respondents ticked both the 'yes' and 'no' responses to this question; two of these PCTs have programmes that do not cover their entire PCT area, and the other PCT did not have a consistent programme across the PCT (although this has now changed).

Table 1. PCTs with a school leaving immunisation programme.

Response	Number	Percentage
Yes	56	77%
Yes and No	3	4%
No	14	19%
Total	73	

3. If yes (or 'Yes and No'), is status for other vaccines checked at the same time?

Sixty-nine per cent of respondents who have a school leaving programme do check status for other vaccines at the same time (Table 2). There is very little variation across the Child Health Systems, although 100% of HSW respondents stated that they checked status for other vaccines at the same time.

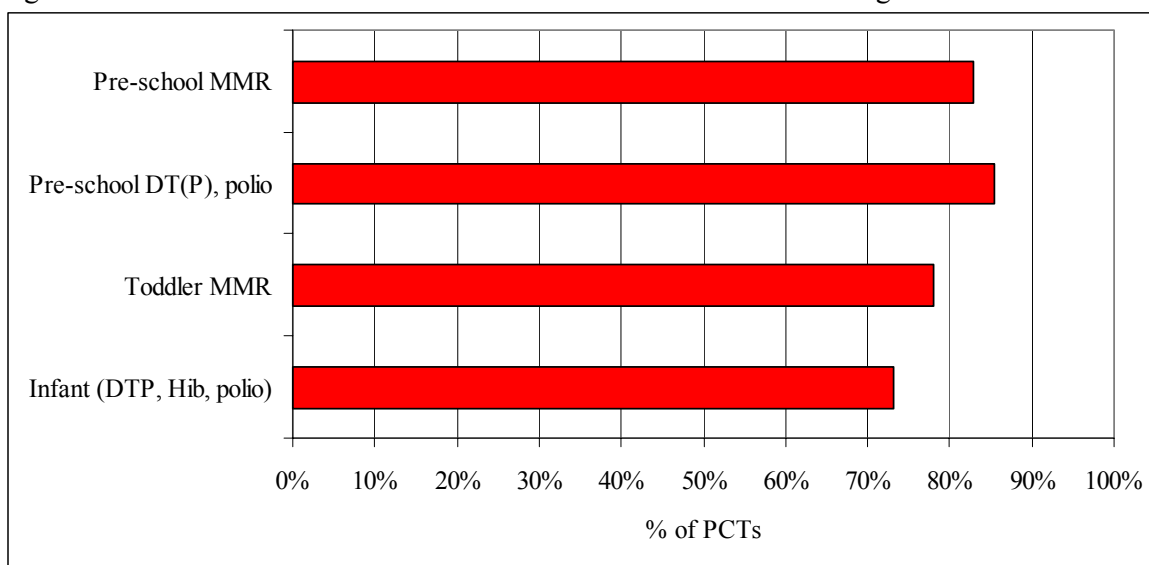
Table 2. PCTs where vaccination status for other vaccines is checked at the time of giving the school leaving immunisation.

Response	Number	Percentage
Yes	41	69%
No	18	18%
Total	59	

3a. If yes, which vaccines are checked?

Similar numbers of PCTs check immunisation status for the pre-school MMR, pre-school DT(P), polio, toddler MMR and infant immunisations at the time of administering the school leaving booster (figure 2).

Figure 2. Immunisations that are checked at the time of the school leaving immunisation.



3b. What action is taken for missing vaccinations?

In most cases the child is referred to their General Practitioners (GP) if they are found to have missed vaccinations (table 3).

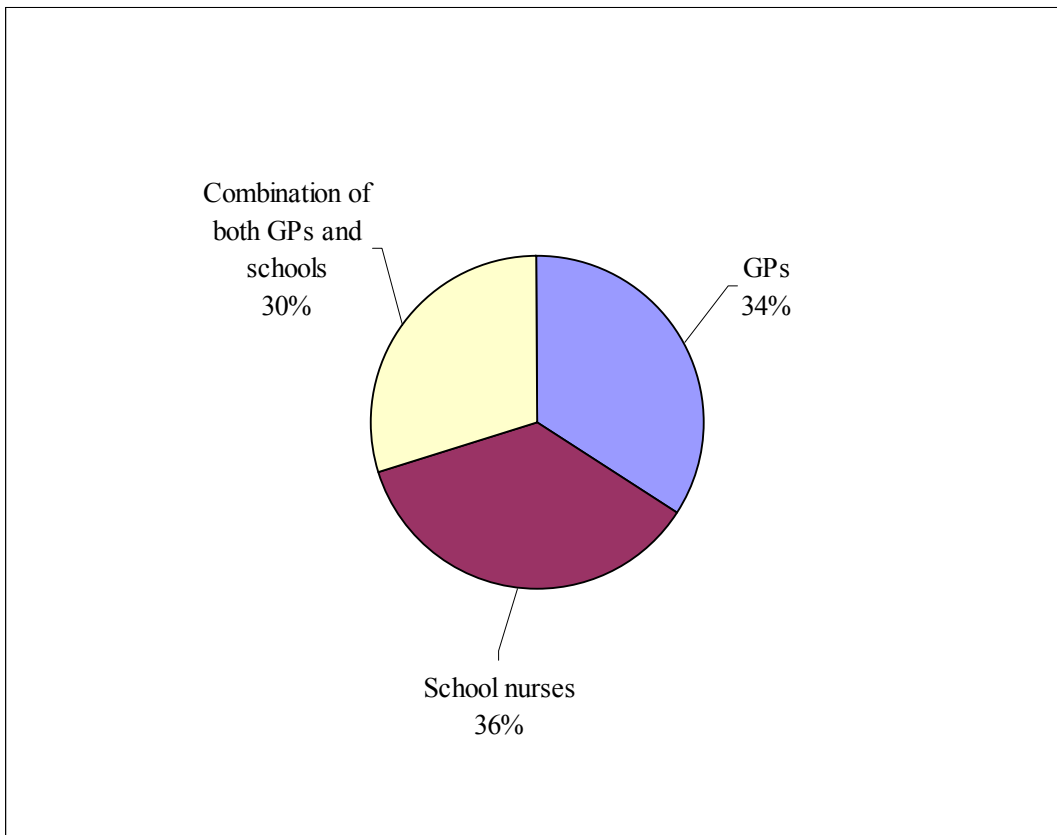
Table 3. Action taken for missing vaccinations.

Response	Number	Percentage
Missing doses are given in school	6	16%
Child is referred to GP	25	66%
Both	7	18%
Total	38	

4. Who delivers the school leaving booster in this PCT?

School leaving boosters are delivered equally by GPs, schools, or a combination of both (figure 3).

Figure 3. Delivery of the school leaving booster.



Fourteen of the respondents that specified current delivery by GP also stated that there is no school leaving immunisation programme in their area. Four PCTs responded 'Other' (in addition to the above responses), stating immunisation teams or other health visitors.

School leaving booster data from the NHS Immunisation Statistics publication, and Office of National Statistics population data were used to produce a measure of coverage for the year 10 Td-IPV vaccination. The average coverage for PCTs that have school-run programmes was then compared to the average coverage for PCTs with GP-run programmes. Little difference was found between the figures, both averaging at approximately fifty per cent. These figures were only approximate calculations; percentage coverage data are not available for this programme.

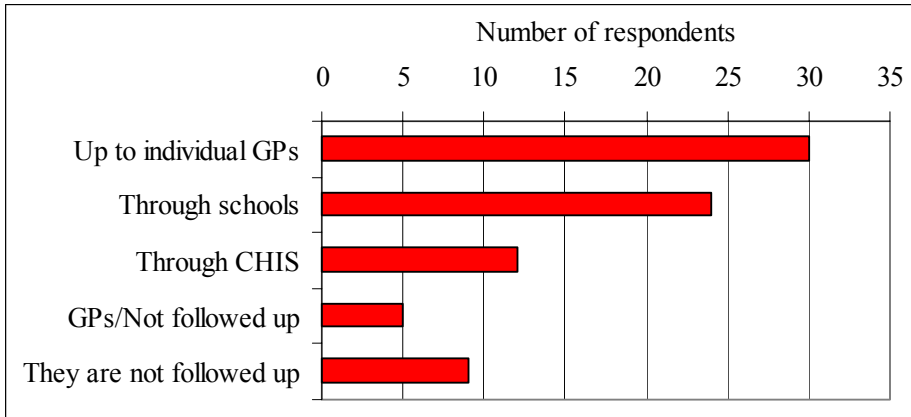
5. How are parents informed of the school leaving booster?

Most parents (59%) are informed of the school leaving booster through schools, 28% are informed through GPs, 23% through CHIS generated invitation, and 8% through the PCT (some parents are informed by more than one method).

6. How are defaulters (children who miss appointments) followed up?

It is most commonly up to individual GPs to follow-up children who have missed vaccination appointments, though this may mean that these children are not routinely followed-up. In some PCTs schools follow-up defaulters, and less frequently these children are followed-up through a child health system (figure 4).

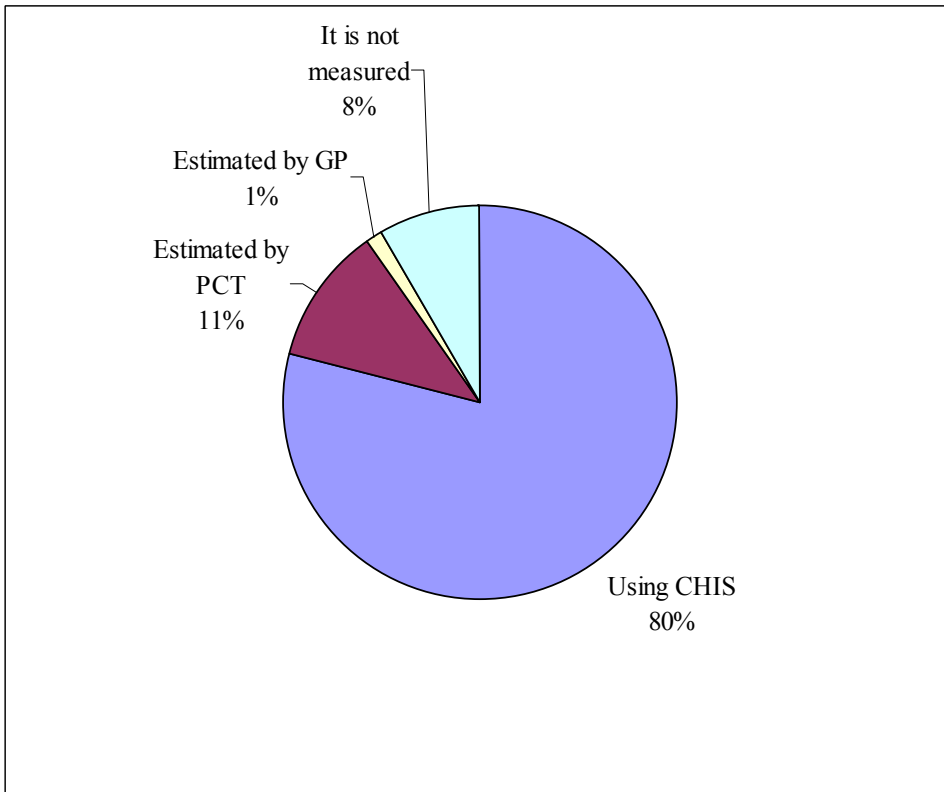
Figure 4. Methods of following up defaulters.



7. How is the number of doses given for the annual school leaving booster (Department of Health KC50 returns) measured?

Most KC50 returns (80%) are measured using the CHIS (Figure 5).

Figure 5. Current methods for measuring the number of doses given for the annual school leaving booster.



8. For children vaccinated in schools, which children are eligible?

Children eligible for school leaving boosters are children attending secondary schools within the respondents' PCT (87%); 9% of respondents exclude those attending private schools (table 4).

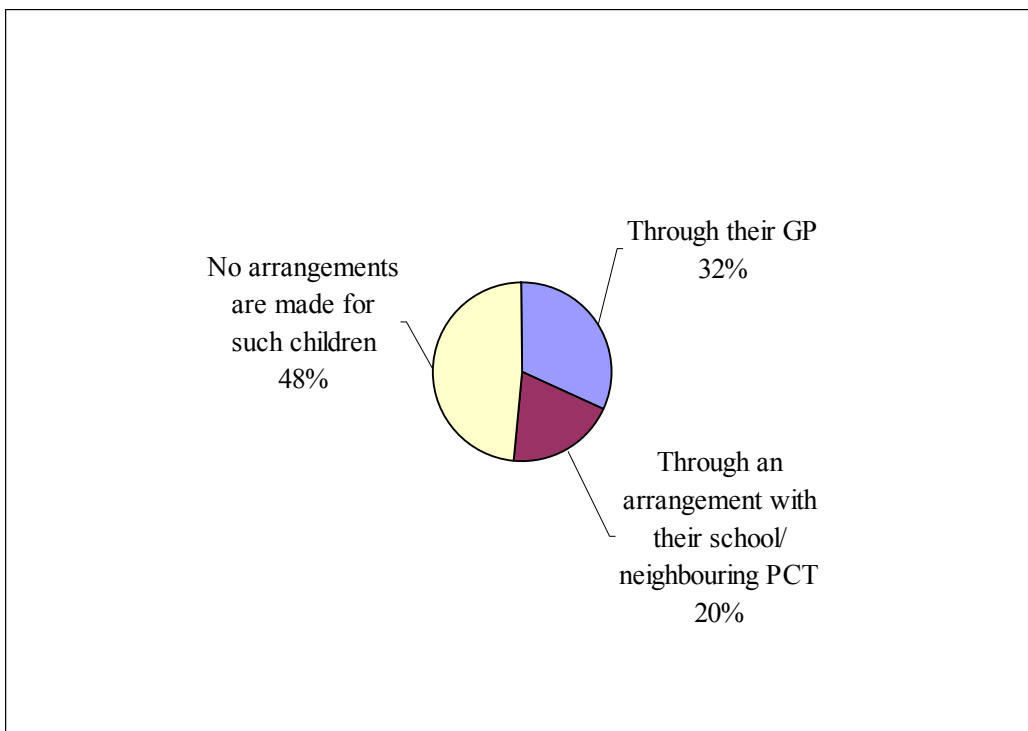
Table 4. Children eligible for school leaving boosters in each PCT.

Response	Number	Percentage
All children attending the secondary schools within your PCT	41	87%
Only children attending your secondary schools who are also resident in your PCT	1	2%
All children apart from those attending private schools	4	9%
Other	1	2%
Total	47	

9. How do you ensure vaccination is offered to secondary school children who are resident in your PCT but who attend school outside your PCT?

As expected from the responses to question eight, children who are resident in one PCT but attend school in another are either expected to be vaccinated in the school they attend, or else no arrangements are made for such children (figure 6). However, in some areas these children would be expected to be offered vaccination through their GP.

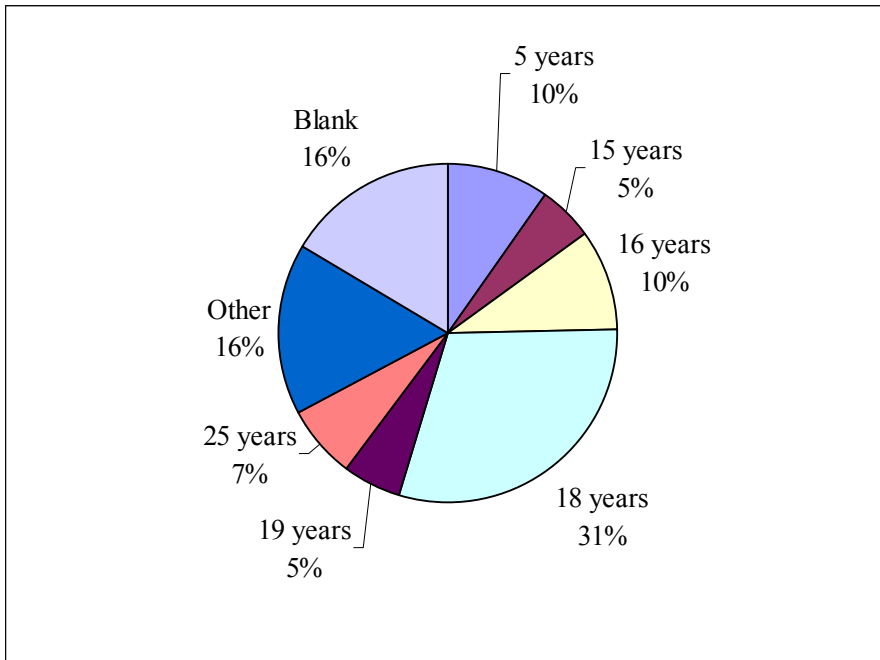
Figure 6. Methods for offering vaccination to children who attend school outside the PCT.



10. Information about children is maintained on your CHIS to which age?

There was much variation in the age that systems record information to; responses to this question do not seem to be dependent on the system used, possibly due to the selection of different modules in different PCTs. Ten per cent of respondents currently only record information for children up to age five on their CHIS (figure 7). Thirty-two per cent of respondents did not specify an age so it is not known how many systems in these PCTs may need to be modified to record information concerning older children.

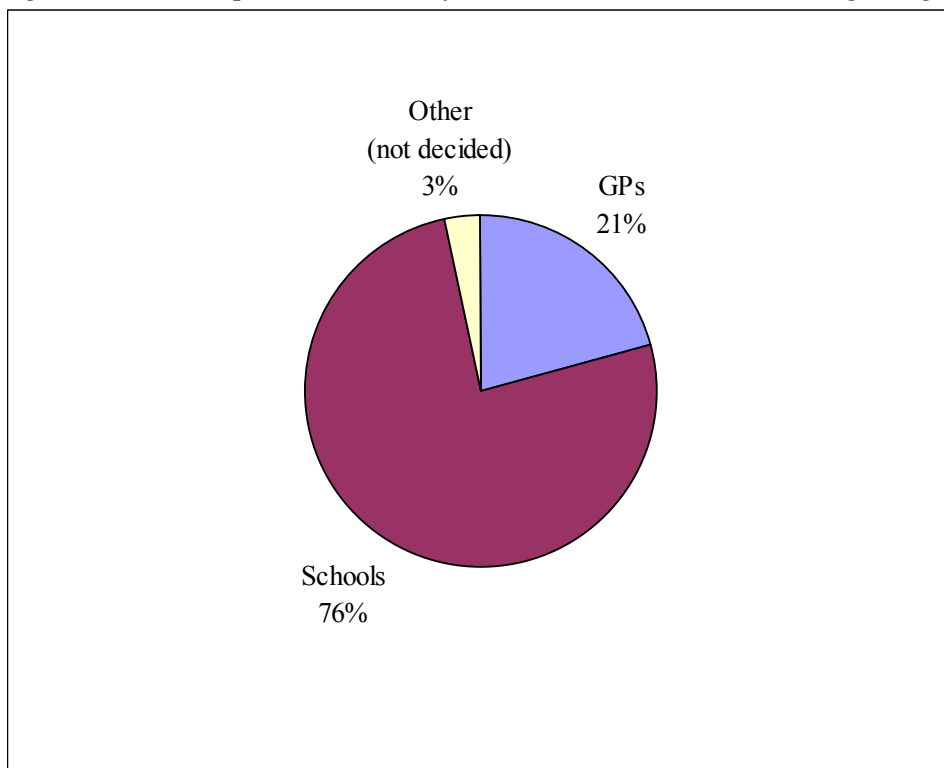
Figure 7. Age to which information about children is maintained on the respondents' CHIS.



11. In this PCT, what would be the preferred place to deliver the routine HPV vaccine for girls aged 12-13 years?

Most respondents (76%) felt the preferred place to deliver the routine HPV vaccine for girls aged 12-13 would be schools (figure 8).

Figure 8. Preferred places for delivery of the routine HPV vaccine for girls aged 12-13 years.



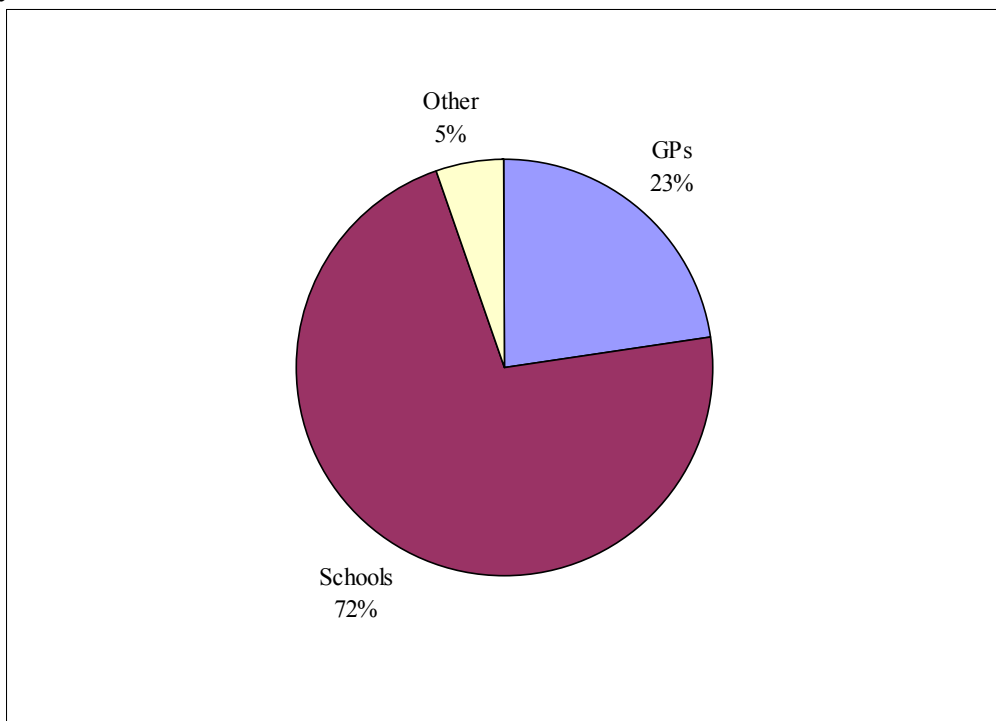
11a. If not through schools, why not?

Five respondents stated that they had not decided but would probably prefer schools; three others had also not decided but did not state a preference. Concerns were expressed regarding resource issues and also that schools would not welcome the disruption and extra work. Some schools may also not have the space available. School nurses may need retraining, and there may be difficulty getting uptake as the consent process is time-consuming.

12. In this PCT, what would be the preferred way of delivering a one-off catch-up of HPV vaccine for girls aged 13-16 years?

The preferred way of delivering a one-off catch-up of HPV vaccine for girls aged 13-16 years was through schools (72%).

Figure 9. Preferred ways of delivering a one-off catch-up of HPV vaccine for girls aged 13-16 years.



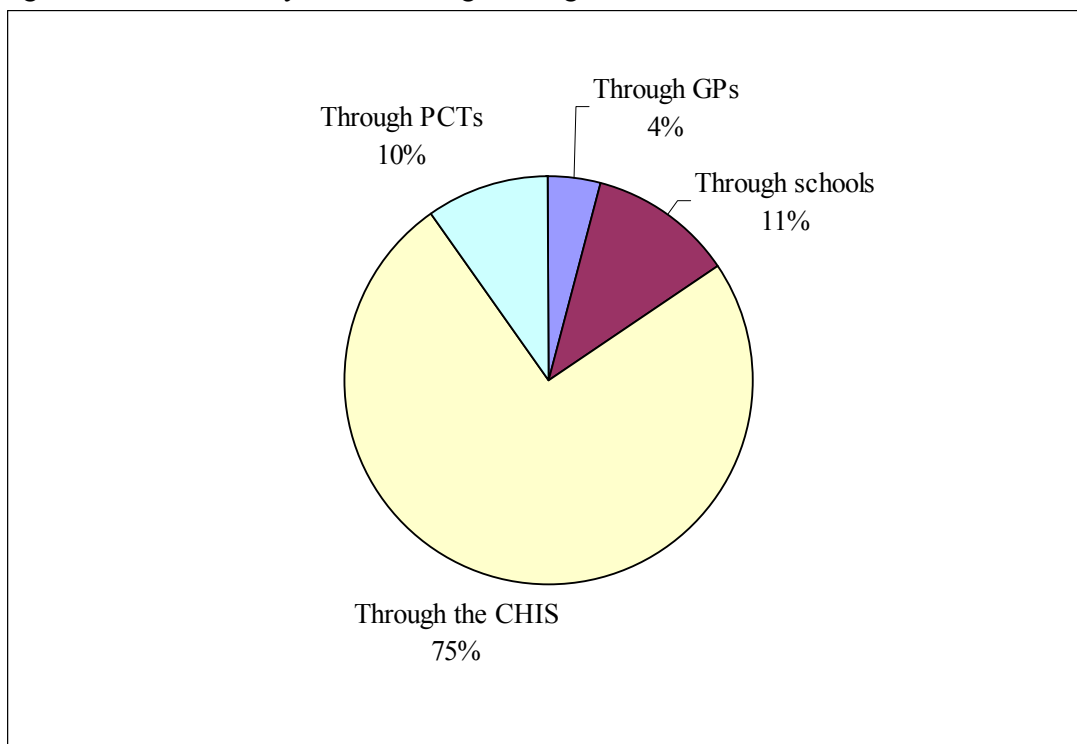
12a. If not through schools, why not?

Responses to this question were similar to those for question 11a, but there was also the suggestion of using dedicated catch-up clinics.

13. In this PCT, what would be the best way to measure coverage of HPV vaccine routine and catch-up programmes?

Most respondents (75%) thought that the best way to measure coverage of HPV vaccine, for both routine and catch-up programmes would be through their CHIS.

Figure 10. Preferred ways of measuring coverage of HPV vaccine.



14. In your opinion, could administration of each of 3 doses of HPV vaccine be recorded accurately in your area?

Most respondents (84%) did think that administration of each of 3 doses of HPV vaccine be recorded accurately in their area.

Table 5. Responses regarding whether or not administration of each of 3 doses of HPV vaccine could be recorded accurately.

Response	Number	Percentage
Yes	61	84%
No	12	16%
Total	73	

14a. If not, why not?

Comments mentioned (low) staff levels, and lack of resources, as well as the data capture problems common to recording coverage for other vaccines.

15a. Do you think vaccines given to teenagers (Td-IPV and HPV) should be included in your CHIS?

The majority of respondents thought that vaccines given to teenagers should be included in their CHIS.

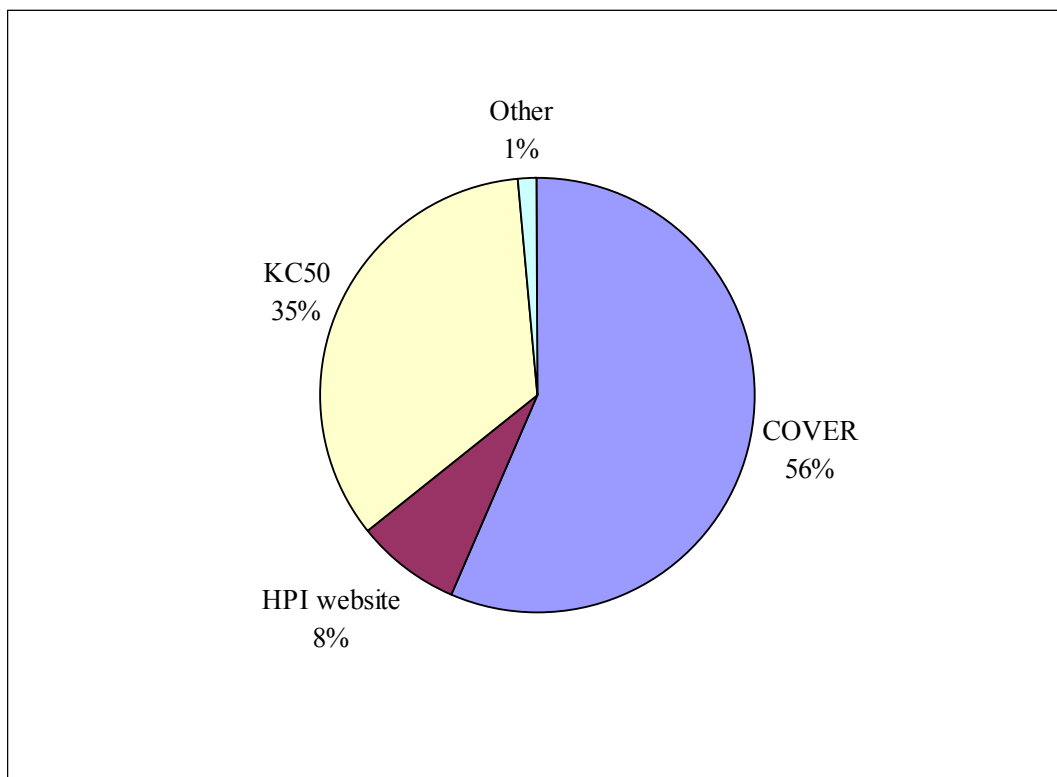
Table 6. Responses regarding whether or not teenage vaccines should be included in Child Health Systems.

Response	Number	Percentage
Yes	65	89%
No	8	11%
Total	73	

15b. How do you think teenage vaccination coverage should be reported to the Department of Health?

More than half (56%) of respondents thought that teenage coverage should be reported via COVER (Cover Of Vaccination Evaluated Rapidly), the system co-ordinated by the Health Protection Agency for collection of childhood immunisation data. However, 35% of PCTs would prefer to use the current KC50 returns and a small percentage (8%) would use the HPI website, as used for seasonal flu and pneumococcal vaccine uptake surveys.

Figure 11. Preferred methods for reporting teenage vaccination coverage to the Department of Health.



Comments and additional feedback

Funding and staffing worries

Several comments are based around the issue of resources and the extra funding required for delivery of an HPV vaccination programme. Many respondents point out that delivery of this vaccine could not be done with existing staffing levels. Clinical and support staff would also be required to identify all educational establishments/locations e.g. private schools, boarding schools, home tuition and special educational units.

Difficulties with a school delivery programme

The worry was expressed that schools may find three visits difficult to manage with their curriculum pressures. Although schools are the best option for delivery of immunisation to school age children, school nurses only work part time and only during term time.

Some respondents suggest that schools may not welcome the disruption and suggest seeking feedback from schools themselves. Some schools may fail to cooperate, and some PCTs are worried about the considerable task of preparing and delivering explanations to staff, parents, governors and others. In some areas, faith schools have declined parenting and sexual health sessions.

It was also noted that some girls are likely to be absent for one or more vaccination sessions and a detailed tracking system will be required, with follow-up vaccination, for girls who miss a routine visit.

Alternatives to a school delivery programme

The comment was made that the GP surgery is the appropriate environment to administer this socially sensitive vaccine, a school based programme leaves the responsibility for ensuring a full course with the community health services to follow up and becomes organisationally complex. Some PCTs suggested a different venue could be used for delivery of the HPV vaccine e.g. a health centre, or immunisation clinic.

Data collection systems

The turnaround for data would need to be fast in order to give the next dose at two months.

Some Child Health Systems (e.g. PiMs – a RiO system) will need to be adapted to capture older children.

General comments

One PCT suggested offering translated versions of immunisation information via the www.immunisation.nhs.uk website.

Conclusions

PCTs from all regions returned questionnaires as part of this survey however, since responses were only received from 46% of all PCTs in England, there may be some reporting bias.

Methods for current delivery of school leaving boosters vary across PCTs with fairly even numbers of PCTs each delivering the vaccines via GPs, via school nurses, or a combination of both. It should also be noted that 19% of respondents do not have a school leaving immunisation programme in their PCT. Despite this variability, the best option for delivery of both routine and catch-up HPV immunisation for girls aged 13-16 was widely believed to be through schools. This method would be the most effective way of reaching this age group, however, concerns have been expressed regarding the difficulty in incorporating the three-dose schedule into school term times. Several PCTs made the point that increased resources and staffing would be required for the delivery of this programme. There is also the need to adapt some child health systems to capture information about this age group. However, in general child health systems were believed to be the best way of recording and reporting data concerning the administration of the HPV vaccine. It was also thought that this information could be accurately recorded, and the COVER programme was the preferred option for reporting this information to the Department of Health, followed by the KC50 system for returns.

Next steps/recommendations

- Present study findings at the DH National Immunisation Co-ordinators and Leads meeting on HPV vaccination (11th October 2007)
- Identify PCTs from survey with successful school leaver programmes delivered through schools, to help develop model for 'best practice'

Annex 1: HPA Survey of PCT Teenage vaccination programmes - Questionnaire

Note: if different Child Health Information Systems (CHISs) are in operation within your PCT then one form should be completed for each system.

Your name:	HPU:	
PCT name:		
Email address:		
1. Which CHIS does your PCT use?	Supplier name:	
	System name:	
2. Does your PCT have a school-leaving (year 10 Td-IPV) immunisation programme?	Y <input type="checkbox"/> N <input type="checkbox"/>	
3. If yes, is status for other vaccines checked at the same time?	Y <input type="checkbox"/> N <input type="checkbox"/>	
3a. If yes, which vaccines are checked?	Infant (DTP, Hib, polio)	Y <input type="checkbox"/> N <input type="checkbox"/>
	Toddler MMR	Y <input type="checkbox"/> N <input type="checkbox"/>
	Pre-school DT(P), polio	Y <input type="checkbox"/> N <input type="checkbox"/>
	Pre-school MMR	Y <input type="checkbox"/> N <input type="checkbox"/>
3b. What action is taken for missing vaccinations?	Missing doses are given in school	Y <input type="checkbox"/> N <input type="checkbox"/>
	Child is referred to GP	Y <input type="checkbox"/> N <input type="checkbox"/>
4. Who delivers the school leaving booster in this PCT? <i>(you can tick more than one if this applies)</i>	<input type="checkbox"/> GPs <input type="checkbox"/> School nurses <input type="checkbox"/> Combination of both GPs and schools <input type="checkbox"/> No one (up to parents to know) <input type="checkbox"/> Other	
5. How are parents informed of the school leaving booster?	<input type="checkbox"/> Through schools <input type="checkbox"/> Through CHIS generated invitations <input type="checkbox"/> Up to individual GPs <input type="checkbox"/> Through schools and GPs <input type="checkbox"/> Through the PCT <input type="checkbox"/> They are not informed	
6. How are defaulters (children who miss appointments) followed up?	<input type="checkbox"/> Through schools <input type="checkbox"/> Through CHIS <input type="checkbox"/> Up to individual GPs <input type="checkbox"/> They are not followed up	
7. How is the number of doses given for the annual school leaving booster (Department of Health KC50 returns) measured?	<input type="checkbox"/> Using CHIS <input type="checkbox"/> Estimated by PCT <input type="checkbox"/> Estimated by GPs <input type="checkbox"/> It is not measured	
8. For children vaccinated in schools, which children are eligible?	<input type="checkbox"/> All children attending the secondary schools within your PCT <input type="checkbox"/> Only children attending your secondary schools who are also resident in your PCT <input type="checkbox"/> All children apart from those attending private schools	

Other

9. How do you ensure vaccination is offered to secondary school children who are resident in your PCT but who attend school outside your PCT?	<input type="checkbox"/> Through their GP <input type="checkbox"/> Through an arrangement with their school/neighbouring PCT <input type="checkbox"/> No arrangements are made for such children
10. Information about children is maintained on your CHIS to which age?	<input type="checkbox"/> 5 years <input type="checkbox"/> 10 years <input type="checkbox"/> 15 years <input type="checkbox"/> 18 years <input type="checkbox"/> Other
<i>A new teenage HPV vaccination programme is proposed to start in 2008 for teenage girls, with a catch-up campaign to follow. This requires 3 doses of vaccine given at a minimum of 0, 2, 6 months, so records of consent and previous doses would need to be kept so that they could be checked at each visit, and vaccination coverage would need to be measured accurately.</i>	
11. In this PCT, what would be the preferred place to deliver the routine HPV vaccine for girls aged 12-13 years?	<input type="checkbox"/> GPs <input type="checkbox"/> Schools <input type="checkbox"/> Other
11a. If not through schools, why not?	
12. In this PCT, what would be the preferred way of delivering a one-off catch-up of HPV vaccine for girls aged 13-16 years?	<input type="checkbox"/> GPs <input type="checkbox"/> Schools <input type="checkbox"/> Other
12a. If not through schools, why not?	
13. In this PCT, what would be the best way to measure coverage of HPV vaccine routine and catch-up programmes?	<input type="checkbox"/> Through GPs <input type="checkbox"/> Through schools <input type="checkbox"/> Through the CHIS? <input type="checkbox"/> Through PCTs
14. In your opinion, could administration of each of 3 doses of HPV vaccine be recorded accurately in your area?	Y <input type="checkbox"/> N <input type="checkbox"/>
14a. If not, why not?	
15a. Do you think vaccines given to teenagers (Td-IPV and HPV) should be included in your CHIS?	Y <input type="checkbox"/> N <input type="checkbox"/>
15b. How do you think teenage vaccination coverage should be reported to the Department of Health?	<input type="checkbox"/> COVER (as for pre-school vaccines) <input type="checkbox"/> HPI website (as used for seasonal flu and pneumococcal vaccine uptake surveys) <input type="checkbox"/> KC50 (same system as currently - i.e. number of doses given) <input type="checkbox"/> Other

Comments:

Thank you so much for completing this questionnaire.