

3 April 2009

The influenza immunisation programme 2009/10

Dear Colleague

This letter contains details of the annual influenza immunisation campaign, influenza immunisation for health and social care staff, and the poultry worker immunisation programme.

The implementation of last year's seasonal influenza vaccination programme was very successful. There were no delays in the production of influenza vaccine, and uptake of influenza vaccine in those aged 65 years and over reached 74.1%. This brings us close to the World Health Organization's (WHO) 2010 target of 75%. The NHS Constitution now identifies vaccination as a 'right', and we should use this as an impetus to increase uptake past the WHO target.

Flu vaccine uptake in clinical risk groups under 65 years increased from 45.3% in 2007/08 to 47.1% in 2008/09 in England (see Annex 4). This is still disappointingly low considering the benefit that the vaccine offers. The clinical risk groups remain the same in 2009/10, but we do want to see further increases in vaccine uptake in these groups.

Over 96% of general practices in England provided data on vaccine uptake this year. Increasingly, information on the number of patients vaccinated by GPs is collected by an automated IT process. This process reduces the burden on primary care staff. As well as providing the national picture, the data system will allow general practices, PCTs and SHAs to monitor uptake levels locally.

The levels of uptake achieved could only have been reached with the hard work and dedication of primary care teams and other colleagues in the NHS. For this, we thank you for the vital role that you played. But we also ask that you increase your efforts and strive to break through the WHO target and deliver the right to vaccination as detailed in the NHS constitution.



From the Chief Medical Officer, the Chief Nursing Officer and the Chief Pharmaceutical Officer

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PL/CMO/2009/1, PL/CNO/2009/1,
PL/CPHO/2009/1

For action

- Chief Pharmacists/Pharmaceutical advisers of PCTs
- Chief Executives of Strategic Health Authorities
- Chief Executives of NHS Trusts
- PCT Directors of Public Health
- Immunisation and Flu Co-ordinators
- Medical Directors of NHS Trusts
- Chairs of Primary Care Trusts
- General Practitioners
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- Lead Nurses at PCTs
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- For circulation to all Occupational Health Departments and Directors of Infection and prevention Control

For information

- Regional Directors of Public Health
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- Consultants in Communicable Disease Control
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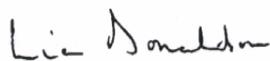
Information on the 2009/10 seasonal influenza immunisation programme is in Annex 1.

Information on the immunisation of health and social care staff is in Annex 2. There remains a significant challenge in increasing immunisation rates in the NHS and other staff as the uptake remains very low. The recently published 'Code of Practice for the prevention and control of healthcare associated infections' recognises the importance of immunisation in healthcare workers. The Code of Practice, which is available at

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_093762)

states that NHS organisations should have an immunisation policy in place and staff's immunisation status should be reviewed and updated. NHS chief executives are requested to support efforts in improving influenza vaccine uptake among their staff. We are also encouraging health professionals to protect themselves and their patients by having the influenza vaccine.

Information on the poultry workers' seasonal influenza immunisation programme is in Annex 3. It is important that this programme continues and that PCTs aim to improve uptake. This precautionary public health measure reduces the risk of new influenza viruses emerging.



Sir Liam Donaldson
Chief Medical Officer



Dame Christine Beasley
Chief Nursing Officer

The Influenza Immunisation 2009/10

Date 3 April 2009

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Address

Immunisation Branch
Department of Health
Wellington House
133-155 Waterloo Road
London SE1 8UG

For enquiries regarding the flu communication campaign, please contact flucampaign@dh.gsi.gov.uk

Further copies of resources including this letter can be ordered via:

Department of Health Publications:

dh@prolog.uk.com

www.orderline.dh.gov.uk

Telephone: 0300 123 1002

Or write to Department of Health

PO Box 777, London SE1 6XH

To doctors and practice nurses: for correction or changes of address, practice or name, please contact:

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PO Box 60, Loughborough

Leicestershire LE11 0WP

Tel: Freephone 0800 626387

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Registration Dept.

RPSGB

1 Lambeth High Street

London SE1 7JN

This letter is also available at:

<http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Professionalletters/Chiefmedicalofficerletters/index.htm>



Dr Keith Ridge
Chief Pharmaceutical Officer

Influenza immunisation campaign 2009/10

1. Target risk groups for seasonal influenza vaccine

Those groups recommended to receive influenza vaccine remain unchanged from the previous year.

The national policy is that influenza vaccine should be offered to the following groups:

- i) all those aged 65 years and over
- ii) all those aged 6 months or over in a clinical risk group (listed in Annex 5)
- iii) those living in long-stay residential care homes or other long-stay care facilities where rapid spread is likely to follow introduction of infection and cause high morbidity and mortality. This does not include prisons, young offender institutions, university halls of residence, etc.
- iv) those who are in receipt of a carer's allowance, or those who are the main carer of an elderly or disabled person whose welfare may be at risk if the carer falls ill. This should be given on an individual basis at the GP's discretion in the context of other clinical risk groups in their practice.

As well as offering influenza vaccine to people in the clinical risk groups set out in Annex 5, GPs should take into account the risk of influenza infection exacerbating any other underlying disease that a patient may have, as well as the risk of serious illness from influenza itself. GPs should consider on an individual basis the clinical needs of their patients including individuals with:

- multiple sclerosis and related conditions, or
- hereditary and degenerative diseases of the central nervous system.

Where these target groups are not covered by the Influenza and Pneumococcal Immunisation Directed Enhanced Service (DES), PCTs should consider the need for an appropriate Local Enhanced Service (LES) agreement (see paragraph 8).

2. Vaccine supply

The responsibility for ordering vaccines for the target population lies with general practices. Surgeries need to make their own arrangements with suppliers to ensure they have sufficient vaccine for their needs; and to agree the delivery schedule with their supplier(s).

Those who have not yet placed vaccine orders, or who want to change orders, should contact their supplier(s) as soon as possible. Once orders have been received, suppliers will contact their customers to confirm their delivery schedule(s). The Department of Health will not have a contingency stock of vaccine for this programme.

The following manufacturers have indicated they will be supplying the UK market during the coming season:

Supplier	Name of product	Vaccine Type	Contact details
GlaxoSmithKline	Fluarix	Split Influenza virus, inactivated	0800 783 0470
MASTA	Imuvac	Surface antigen, inactivated, sub-unit	0113 238 7500 (press 1)
Novartis Vaccines	Agrippal	Surface antigen	08457 451 500
	Begrivac	Split virion	
	Fluvirin*	Surface antigen	
	Inactivated influenza vaccine*	Surface antigen	
	Optaflu	Cell Culture	
Sanofi Pasteur MSD	Inactivated influenza vaccine	Split virion	0800 085 5511
	Viroflu	Virosomal	
Solvay Healthcare	Influvac	Surface antigen, inactivated, sub-unit	0800 358 7468
	Imuvac	Surface antigen, inactivated, sub-unit	
Wyeth Vaccines	Enzira	Split virion Inactivated	0800 089 4033
	Generic influenza vaccine	Split virion Inactivated	

None of the influenza vaccines for the 2009/10 season contain thiomersal as an added preservative.

* These vaccines state in their Summary of Product Characteristics (SPC) that they contain traces of thiomersal that are left over from the manufacturing process.

3. Influenza vaccine composition for 2009/10

The components recommended for the 2009/10 northern hemisphere influenza vaccine are as follows;

- A/Brisbane/59/2007 (H1N1)-like virus;
- A/Brisbane/10/2007 (H3N2)-like virus;
- B/Brisbane/60/2008-like virus.

Further details can be found on the WHO website:

http://www.who.int/csr/disease/influenza/recommendations2009_10north/en/index.html

4. Monitoring vaccine uptake (ROCR/OR/0113/003)

As in previous years, influenza vaccine uptake collections will be managed by the ImmForm website (formerly known as the Health Protection Informatics (HPI) website). The ImmForm website provides automated data upload options for general practices, as well as manual on-line returns for GPs and PCTs, relevant survey information and guidance.

The percentage of GP practices benefiting from automated returns has risen from 57% in 2006/07 to 61% in 2007/08 and 66% in 2008/09. We hope more GP practice IT suppliers will be able to provide these facilities for 2009/10, reducing the further burden of providing these data.

The Health Protection Agency (HPA) will coordinate the collection and reporting of national data via the ImmForm website on behalf of DH. It is expected that the HPA will issue guidance on the data collection requirements by the end of June 2009.

The email contact point for influenza vaccine uptake enquiries is influenza@hpa.org.uk.

Monthly data collection will start in October 2009 (i.e. collected in November), and finish at the end of January 2010 (i.e. collected in February).

During the data collection period, GP practices, PCTs and SHAs are able, through the ImmForm website, to:

- see their uptake rates by risk groups (PCTs can view data for all practices in their area);
- compare themselves with other anonymous general practices/PCTs/SHAs;
- validate the data on point of entry and correct any errors before data submission;
- view data in various formats: downloading data to Excel, or viewing data as geographical maps or as bar charts;
- make use of automated and semi-automated data upload methods (depending on the IT systems they use at their practice);
- access previous years' data to compare with the current programme.

These tools can be used to facilitate the effective management of the seasonal influenza programme at all levels.

In addition, we intend to collect weekly uptake data from a sentinel group of GP practices that have the fully automated extract and upload facilities provided by their IT suppliers. We have used this successfully for the previous two seasons and obtain good quality data from around half of the GP practices.

For a weekly update on current influenza activity and vaccine uptake, please visit:

<http://www.immunisation.nhs.uk/Vaccines/Flu/Resources>

5. Publicity and information materials

It is anticipated that the national publicity programme will be launched in October 2009.

Information materials including leaflets and posters will be available to support health professionals running local influenza immunisation campaigns within PCTs and SHAs who will be sent an order form for materials during the summer. Health professionals will also be able to order further campaign materials from DH Publications –

Department of Health Publications

dh@prolog.uk.com

www.orderline.dh.gov.uk

Telephone: 0300 123 1002.

The resources will also be available to view and download at www.immunisation.nhs.uk

Please note that a new influenza advertising theme has been commissioned for the 2009/10 season, so you will want to order new posters and leaflets rather than using your supplies from 2008/9.

For more details on the influenza immunisation programme, including information on the use of antiviral drugs during the influenza season and answers to commonly asked questions and immunisation in general, please visit: <http://www.immunisation.nhs.uk>

6. Immunisation against infectious disease 2006 (the ‘Green Book’)

A revised edition of *Immunisation against infectious disease* (the ‘Green Book’) was published and distributed in December 2006. An update to the influenza chapter was published online in July 2008.

A revised chapter on influenza for 2009 will be available online by the end of June 2009 at:

www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/GreenBook/fs/en

7. Consent

Health professionals must ensure that for each person who attends an immunisation session, appropriate information and advice about the influenza vaccine is given and that the person’s consent is obtained. Individuals coming forward for immunisation should be given a reasonable opportunity to discuss any concerns before being immunised.

For further information on consent, please see Chapter 2 of the 2006 edition of *Immunisation against infectious disease* (the ‘Green Book’):

www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/GreenBook/fs/en

8. Contractual arrangements, service reviews and funding

Under the Primary Medical Services (Directed Enhanced Service) Directions, each PCT must operate or establish an Influenza and Pneumococcal Immunisation Scheme. The underlying purpose of this scheme is to ensure that patients in its area who are at risk of influenza or pneumococcal infection are offered immunisation against these infections. The PCT may enter into arrangements with primary medical services contractors or any other local provider, for example community pharmacies, to provide an influenza immunisation service. For 2009/10, there will be no changes to the DES for immunisations.

The PCT can decide what services should be delivered by whom and to what standard using-

- existing primary medical services contractors;
- out of hours providers;
- district or community nursing;
- any other local provider.

When agreeing the standards of service, these must include those elements set out in the DES, and parties may wish to agree further provision according to the advice set out in this guidance. This guidance does not override each PCT's flexibility to make decisions appropriate to local circumstances where there is good reason to do so.

Immunisation Coordinators should note the requirements in the DES and use these to assess the service provided by GPs supplying the service.

The DES requires GP contracts to include requirements that GPs do the following-

- GP practices should develop and maintain a register of all patients aged 65 and over, at-risk patients and those living in long-stay residential or nursing homes or other long-stay health or social care facilities. (Section 9, Part A)
- GP practices should offer the influenza immunisation during the period of 1 August to 31 March, but should concentrate their influenza immunisation programme on the period of 1 September to 31 January. (Section 9, Part B)
- GP practices should implement an effective call and reminder system to contact eligible patients, to maximise uptake. (Section 9, Part C)
- GP practices should take all reasonable steps to ensure that the lifelong medical records of patients receiving the influenza immunisation are kept up to date. (Section 9, Part D)
- GP practices should ensure that any health care professional who is involved in administering a vaccine has the necessary experience, skills and training. (Section 9, Part E)
- GP practices should ensure that all vaccines are stored in accordance with the manufacturer's instructions. (Section 9, Part F)
- GP practices should supply information at the request of its PCT for the purposes of monitoring their performance. (Section 10, Part G)

For a full list of the requirements placed on GP practices please refer to section 9 of the DES, which can be downloaded from the following site.

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsLegislation/DH_4136869

PCTs will recognise the need to assess the effectiveness of influenza immunisation services, drive continuous improvements, ensuring they deliver effective outcomes, are responsive to patient needs, provide value for money and extend the reach of what works to those who need it most. Patients who fail to attend should be followed up and their needs reviewed. PCTs may want to consider building targets and performance measures into any Local Enhanced Service (LES) agreements that they set up.

PCTs should check if contractors are undertaking the annual review of uptake rates and identify possible reasons for change or work to raise existing achievement. PCTs should also remind contractors of the need to maintain accurate records, for example eliminating patients that have left the practice. Failure to do this will increase the denominator, giving artificially low uptake figures.

The budget needed to reimburse contractors is already part of the PCT's Unified Allowances.

Annex 2

Seasonal influenza immunisation programme for health and social care staff

1. Rationale and target groups

Influenza immunisation of health and social care staff may reduce the transmission of infection to vulnerable patients, some of whom may have impaired immunity and not respond well to their own immunisation. Also, the Code of Practice for the prevention and control of health care associated infections (HCAI) reminds NHS bodies of their responsibility to ensure, so far as is reasonably practicable, that healthcare workers are free of and are protected from exposure to communicable infections during the course of their work, and that all staff are suitably educated in the prevention and control of HCAs. This includes ensuring that occupational health policies and procedures in relation to the prevention and management of communicable diseases in healthcare workers, including immunisation, are in place:

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_093762

The influenza immunisation given to staff directly involved in patient care acts as an adjunct to good infection control procedures. As well as reducing the risk to the patient of infection, the reduction of influenza infection among staff and staff absenteeism have also been documented. The importance of immunising healthcare workers was highlighted by a recent outbreak at the Royal Liverpool University Hospital where influenza spread rapidly through several wards infecting both patients and staff. The HPA confirmed that the infection was mainly spread by healthcare workers.

Trusts/employers will wish to ensure, so far as is reasonably practicable, that health and social care staff directly involved in patient care are offered immunisation.

Examples of staff directly involved in patient care are-

- clinicians, midwives and nurses, paramedics and ambulance drivers;
- occupational therapists, physiotherapists and radiographers;
- primary care providers such as GPs, practice nurses, district nurses and health visitors;
- staff in nursing and care homes that look after older people;
- pharmacists, both those working in the community and in clinical settings.

Students and trainees in these disciplines and volunteers who are working with patients should also be included.

2. Collection of vaccine uptake (ROCR/OR/0113/003)

Occupational health services have a responsibility to keep records of staff that have been immunised. Vaccine uptake for healthcare workers in acute and foundation trusts will be collected through the ImmForm website. Participating acute trusts will enter data directly onto the site. The HPA will coordinate the national collection and publication of data. The email contact point for influenza vaccine uptake enquiries is influenza@hpa.org.uk

Only 53% of Acute Trusts provided data for 2008/09. This is down on the previous season's figures of 63%. The data collection is authorised by a ROCR licence as a mandatory collection, so all Trusts

should provide data. The uptake rate increased to 16.5%, from 13% the previous season. Whilst the increase in uptake is welcome, we are requesting NHS chief executives to support efforts in improving influenza vaccine uptake among their staff and also encouraging health professionals to protect themselves by taking the opportunity to get the influenza vaccine.

Monthly data collection will start in October 2009 (i.e. collected in November), and finish at the end of January 2010 (i.e. collected in February). Further details on this collection will be sent out to influenza coordinators or nominated persons by the end of June 2009.

Monthly data will be posted on the following website.

<http://www.immunisation.nhs.uk/Vaccines/Flu/Resources>

3. Information materials

Information materials including a leaflet and poster will be available to support occupational health departments running local immunisation programmes. An order form for influenza immunisation information materials will be supplied during the summer to SHA and PCTs. Health professionals will also be able to order further campaign materials from DH Publications-

Department of Health Publications

dh@prolog.uk.com

www.orderline.dh.gov.uk

Telephone: 0300 123 1002

Or go to www.immunisation.nhs.uk

Chapter 12 of *Immunisation against infectious disease* (the 'Green Book') provides advice on the 'Immunisation of health and laboratory staff'. A revised chapter on influenza will be available online by the end of June 2009 at:

www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/GreenBook/fs/en

4. Consent

PCTs must ensure that for each person offered the vaccine, appropriate information and advice about the influenza vaccine is given and that the person's consent is obtained. Individuals coming forward for immunisation should be given a reasonable opportunity to discuss any concerns before being immunised.

For further information on consent, please see chapter 2 of the 2006 edition of *Immunisation against infectious disease* (the 'Green Book').

www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/GreenBook/fs/en

5. Contractual arrangements

Responsibility for immunisation for occupational staff rests with employers and should be provided by occupational health services.

Health and social care staff should not routinely be referred to their GP for their immunisation unless they fall within one of the recommended clinical risk groups, or a local agreement is in place for this service.

Seasonal influenza immunisation programme for poultry workers

1. Rationale and target groups

The Department of Health is again offering free influenza immunisation this coming winter to all those who work in close contact with poultry. This is the fourth year we have run such a programme. This is being carried out as a precautionary public health measure to reduce the risk of poultry workers contracting both avian and human influenza simultaneously. Immunisation with seasonal influenza vaccine would reduce the theoretical risk for circulating human influenza virus to re-assort with avian influenza virus, thereby producing a new influenza virus. Such a new influenza virus could have pandemic potential.

Seasonal influenza vaccine protects against seasonal human influenza but does not protect against avian influenza.

The HPA definition of a 'poultry worker' is unchanged from last year. The definition forms the basis of selection and includes:

- i) workers employed at or regularly visiting registered poultry units who:
 - a) routinely access enclosed poultry rearing or egg production areas;
 - b) perform initial sorting of poultry eggs if the sorting area is an integral part of the production unit;
 - c) catch or cull poultry within enclosed poultry rearing or egg production areas, or;
 - d) perform final clean down of poultry sheds following depopulation of a poultry house.
- ii) workers who collect and remove poultry manure or litter from within enclosed poultry rearing or egg production areas of registered poultry units.
- iii) workers in poultry processing units that:
 - a) catch and handle live birds;
 - b) kill and eviscerate birds;
 - c) cleanse and disinfect areas and equipment contaminated by poultry faeces.

The following workers are not considered to be at higher than normal risk of exposure to avian influenza viruses:

- workers in poultry units that do not require statutory registration;
- workers in and around farms that have registered poultry units, but do not enter the enclosed poultry management areas or egg sorting facilities;
- workers delivering materials to poultry units;
- workers collecting or delivering eggs or poultry (live or dead) from poultry premises (unless also undertaking duties included in i(c) above);
- workers in poultry processing units handling poultry carcasses but not involved in killing or eviscerating poultry (unless also undertaking duties included in (iii) above).

2. Consent

PCTs must ensure that for each person offered the vaccine, appropriate information and advice about the influenza vaccine is given and that the person's consent is obtained. Individuals coming forward for immunisation should be given a reasonable opportunity to discuss any concerns before being immunised.

For further information on consent, please see chapter 2 of the 2006 edition of *Immunisation against infectious disease* (the 'Green Book').

www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/GreenBook/fs/en

3. Vaccine uptake data collection (ROCR/OR/0213)

As last year, the HPA will coordinate this data collection on behalf of the DH. This collection will be managed by the ImmForm website.

We plan for PCTs to provide vaccine uptake data to DH for the purposes of local and national monitoring. Data collection needs to be consistent across PCTs and referred to a single source for reporting purposes.

Data will have to be entered manually into the form by PCTs. Access will be restricted to PCTs, SHAs and DH/HPA only, with no access at GP level.

Any issues regarding access to or use of the ImmForm website or the poultry workers survey should be addressed to influenza@hpa.org.uk

The data collection for 2008/09 is still underway, with the final data for up to 31 March 2009 being collected in April 2009.

Monthly data collection will start in October 2009 (i.e. collected in November), and finish at the end of March 2010 (i.e. collected in April). Further details on this collection will be sent out to influenza coordinators or nominated persons by June 2009.

4. Vaccine supply and ordering

Vaccine for use in poultry workers is provided, free of charge, by the DH. Orders must be placed by local PCT influenza coordinators by emailing vaccine.supply@dh.gsi.gov.uk. Orders cannot be taken from individual GP practices.

Please note that this vaccine is reserved for the use of this programme.

5. Information materials

DH will support PCTs through the provision of resources including an information leaflet. The following items can be downloaded from www.immunisation.nhs.uk

- a sample letter to poultry keepers
- a sample letter to poultry workers

- the information leaflet for poultry workers*
- a question and answer sheet
- a data collection consent form*

*available in several languages

Further copies of the leaflet can be ordered from:

Department of Health Publications

dh@prolog.uk.com

www.orderline.gov.uk

Telephone: 0300 123 1002

Or go to www.immunisation.nhs.uk

7. Contractual arrangements

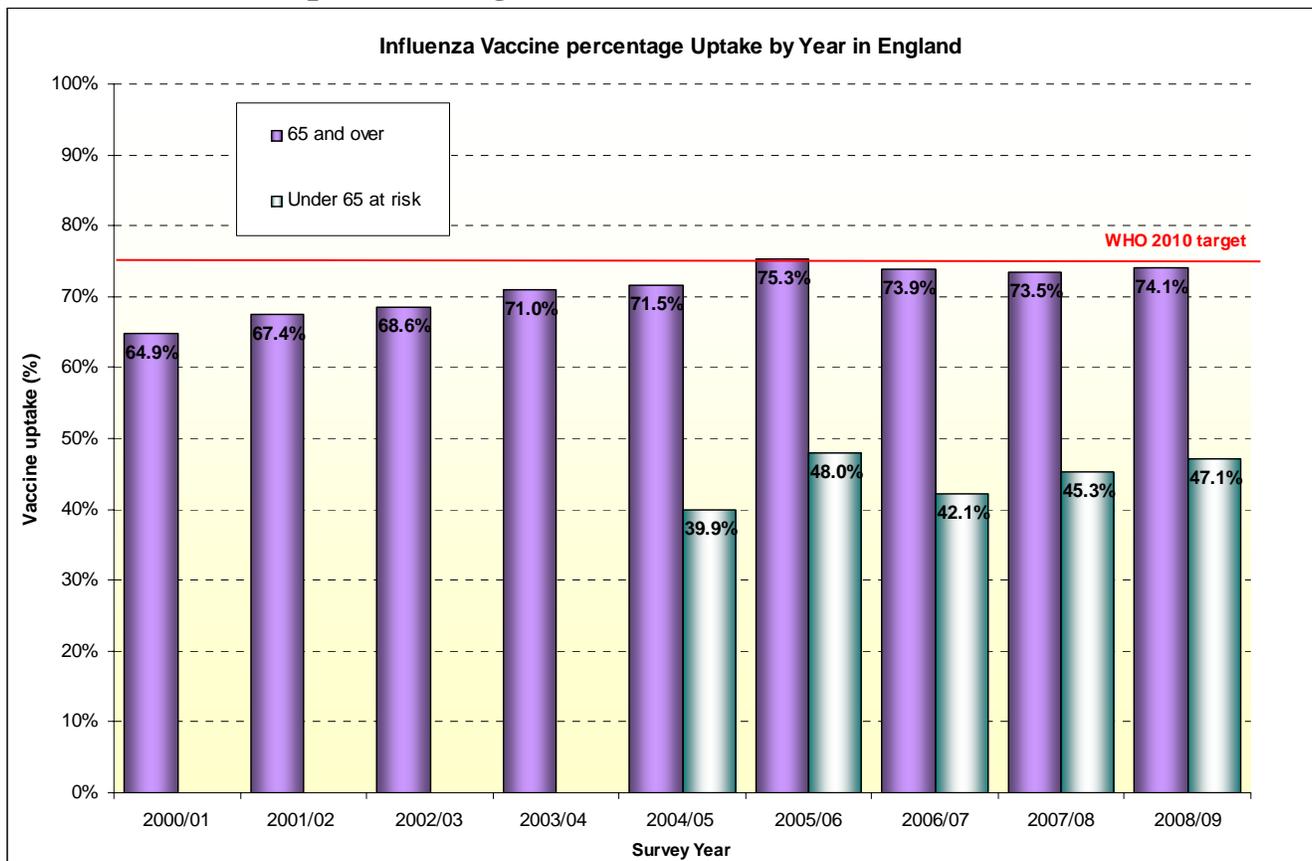
PCTs are asked to put in place a Locally Enhanced Service agreement (LES) for poultry workers for 2009/10 and may want to consider building in targets or performance management to encourage improvements to the programme, where achievable. A LES provides PCTs with maximum flexibility to determine how best to implement the poultry worker programme locally and to choose the most suitable contracting route with providers.

Each PCT will receive a list of all registered poultry premises within its boundaries including contact details, under the authority of the DH and Animal Health. If the PCT decides to contract out the service, the contractor will need to contact all registered local poultry premises and identify the numbers to be vaccinated, for ordering vaccine supplies.

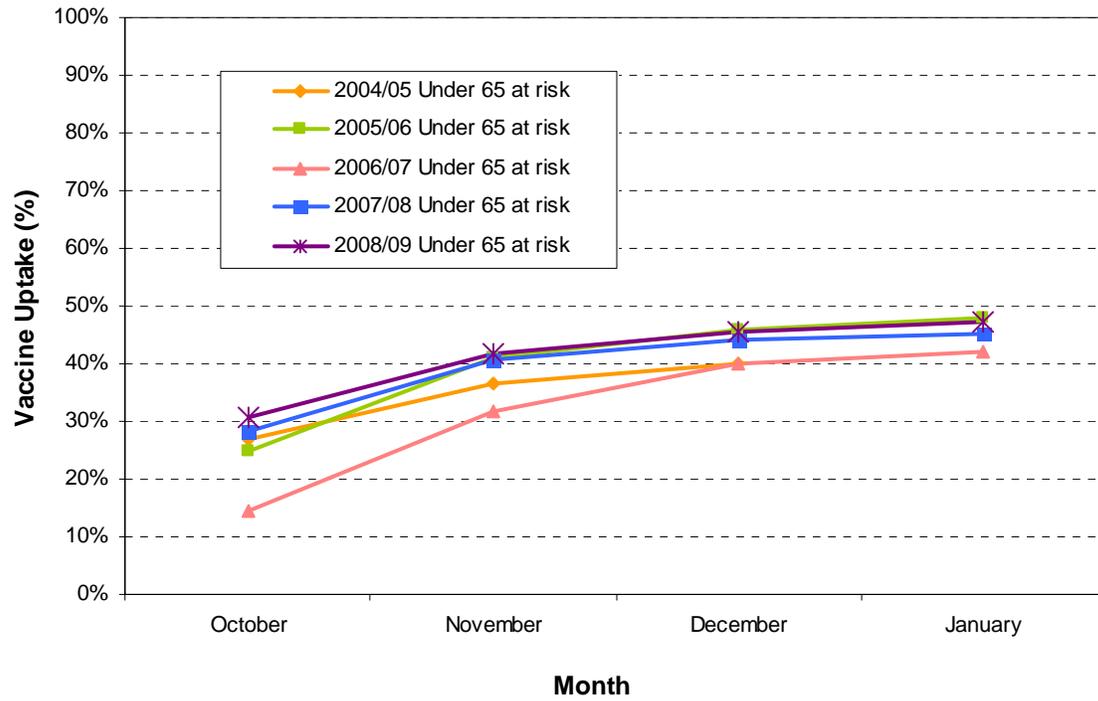
8. Funding

PCTs will have their funding limits increased by amounts based on the number of poultry workers within their boundary. The DH has estimated that the total cost of all PCTs making suitable arrangements will be £502, 000.

Influenza vaccine uptake in England



Vaccine Uptake (%) in those aged under 65 at risk, by month for recent survey years



Clinical risk groups 2009/10

As well as offering influenza vaccine to people in the clinical risk groups set out below, GPs should take into account the risk of influenza infection exacerbating any underlying disease that a patient may have, as well as the risk of serious illness from influenza itself.

Clinical risk groups	Examples (decision based on clinical judgement)
Chronic respiratory disease and asthma that requires continuous or repeated use of inhaled or systemic steroids or with previous exacerbations requiring hospital admission	<ul style="list-style-type: none"> • Chronic obstructive pulmonary disease (COPD) including chronic bronchitis and emphysema; bronchiectasis, cystic fibrosis, interstitial lung fibrosis, pneumoconiosis and bronchopulmonary dysplasia (BPD) • Children who have previously been admitted to hospital for lower respiratory tract disease
Chronic heart disease	<ul style="list-style-type: none"> • Congenital heart disease • Hypertension with cardiac complications • Chronic heart failure • Individuals requiring regular medication and/or follow-up for ischaemic heart disease
Chronic renal disease	<ul style="list-style-type: none"> • Chronic renal failure • Nephrotic syndrome • Renal transplantation
Chronic liver disease	<ul style="list-style-type: none"> • Cirrhosis • Biliary artesia • Chronic hepatitis
Chronic neurological disease*	<ul style="list-style-type: none"> • Stroke • Transient ischaemic attack (TIA)
Diabetes	<ul style="list-style-type: none"> • Type 1 diabetes • Type 2 diabetes requiring insulin or oral hypoglycaemic drugs • Diet controlled diabetes

Immunosuppression	<ul style="list-style-type: none">• Immunosuppression due to disease or treatment• Patients undergoing chemotherapy leading to immunosuppression• Asplenia or splenic dysfunction• HIV infection• Individuals treated with or likely to be treated with systemic steroids for more than a month at a dose equivalent to prednisolone at 20mg or more per day (any age) or for children under 20kg a dose of 1mg or more per kg per day.• some immunocompromised patients may have a suboptimal immunological response to the vaccine
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* GPs should consider on an individual basis the clinical needs of their patients including individuals with multiple sclerosis and related conditions, or hereditary and degenerative disease of the central nervous system.