



**National seasonal influenza vaccination survey
for 2012-13 influenza season in EU/EEA
(provisional data)**

VENICE III Consortium
November 2013- June 2014
WP2

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Abbreviations

ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EU	European Union
GPs	General Practitioners
HCWs	Health Care Workers
NAP	National Action Plan
MoH	Ministry of Health
MSs	Member States
VENICE	Vaccine European New Integrated Collaboration Effort
CINECA	Consortium of University, Bologna, Italy
VC	Vaccination Coverage
WHO	World Health Organization

Acknowledgments

The VENICE Project would like to take this opportunity to thank all the gatekeepers, contact points, members of VENICE consortium and ECDC colleagues for their contribution to this study and report. The time generously provided by each person in answering the questionnaire and subsequent follow-up queries is greatly appreciated.

ISO 3166-1 Country Codes

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
HR	Croatia
DK	Denmark
EE	Estonia
FI	Finland
FR	France
DE	Germany
GR	Greece
HU	Hungary
IS	Iceland
IE	Ireland
IT	Italy
LV	Latvia
LI	Liechtenstein
LT	Lithuania
LU	Luxembourg
MT	Malta
NL	The Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SK	Slovakia
SI	Slovenia
ES	Spain
SE	Sweden
UK	United Kingdom
ENG	England
WL	Wales
NI	Northern Ireland
SC	Scotland

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Summary

In Europe, influenza occurs in regular annual epidemics in the winter season. Annual influenza epidemics are associated with high morbidity and mortality. Severe illness and complications are more common in certain risk groups; these include those with other chronic medical conditions like diabetes mellitus, immunosuppression, or cardiovascular and respiratory diseases, older individuals (often classified as 65 years of age and older). The main public health intervention to prevent influenza is influenza vaccination.

The aim of this survey was to update the data on seasonal influenza immunisation policy changes and to obtain vaccination coverage data in the European Union (EU) member states (MSs) and European Economic Area (EEA) countries (Norway, Iceland, and Liechtenstein) for the 2012-13 influenza season.

A standardised questionnaire was developed and an electronic-based survey was designed. The survey was rolled out in March 2014. Gatekeepers in each MS entered data directly online.

Of 34 countries (represents 28 EU MSs, with the UK countries providing country specific data) invited to participate in the survey 33 responded (AT did not respond).

Of 33 responding countries 25 countries had influenza vaccine recommendations for those aged 65 years and older. DE,GR, IS and NL recommended vaccination for those aged 60 years and older, MT and PL recommended vaccination for those aged 55 years and older; in IE for those aged 50 years and older; in SK vaccine was recommended for those aged 59 years and older. Seven countries recommended vaccine for different ages of children/adolescents <18 years of age: two of them (EE,PL) for children of all ages; LV and SI for children aged ≥ 6 months- 2years; FI ≥ 6 months- 3 years; MT ≥ 6 months-5 years and SK for children aged ≥ 6 months – 12 years.

Of 33 responding countries 32 recommended influenza vaccine for HCWs; 25 of these had recommendations to vaccinate all HCWs; seven recommended vaccination for only some HCWs. Approximately one-third of MSs recommended vaccination for those working in essential (n=7), military (n=11) and veterinary (n=7) services, or for people working in the poultry (n=11) or swine (n=7) industry workers.

In all 33 countries people with chronic pulmonary, cardiovascular and renal diseases were recommended influenza vaccine; vaccine was recommended for those with haematological disorders in 30 countries; metabolic disorders and immunosuppression due to disease or treatment in 32 countries; in 30 countries vaccine was recommended for individuals suffering from hepatic diseases; 17 countries recommended vaccine for those on long-term aspirin use (children <18 years old). In twenty-eight countries individuals with HIV/AIDS were also recommended vaccine. Fifteen countries had recommendations to vaccinate those with morbid obesity.

Of 33 responding countries, 30 recommended vaccination of pregnant women. Twenty-eight countries recommended vaccination of all pregnant women; three countries recommended vaccine only for those pregnant women with additional clinical risk. Twenty-

two of 31 countries recommended influenza vaccination for pregnant women in any trimester of pregnancy.

Vaccination coverage measured by administrative or estimated by survey methods for the season 2012-13 was known in 26 countries for older populations (those aged 55, 60 and 65 years and older) and ranged from 1.0% (EE) to 77.4% (SC); median 45%. The coverage among health care workers was known in 13 countries, ranging from 9.5% (PL) to 45.6% (UK-ENG); median 28%. The coverage for clinical risk groups was known in nine countries ranging from 28% (PT) to 80.2% (UK-NI); median 50%. The coverage for pregnant women was known in ten countries: ranging from 0.2% (LT) to 64.6% for all pregnant women in UK-NI; median 16%. The coverage for residents of long-stay care facilities was available in three countries: 71.1% in SK, 73% in IE and 89% in PT.

In conclusion, results of the survey indicate that recommendations for influenza vaccination exist in most of the countries for the main clinical risk groups, pregnant women and HCWs in addition to the older population groups. There is discrepancy between having recommendations and the ability to report on vaccination coverage for clinical risk groups, pregnant women and HCWs. Although there is widespread consensus that the older population groups should be vaccinated, vaccination coverage for the elderly is lagging in most of the countries and it is unlikely that EU target (75% uptake) will be met in 2014/15. Countries should strive to strengthen influenza vaccination coverage monitoring systems for all of those population groups that are targeted for seasonal influenza vaccine. Those countries that do not monitor vaccination coverage among older population groups are encouraged to do so.

Background

Influenza is a contagious viral respiratory infection, which typically occurs as epidemics during the winter months in temperate zones. Although the illness caused by influenza is usually self-limiting, even in those outside recognised risk groups, it can cause considerable impact on an individual's daily life. At a population level, large numbers of cases with mild to moderate illness increase demands on health services and decrease productivity in the workforce, with associated economic cost and social disruption [1-3]. The number of people affected varies from year to year among countries, making it hard to predict the annual number of deaths or economic impact.

Annual influenza epidemics are associated with high morbidity and mortality. The European Centre for Disease Prevention and Control (ECDC) estimates that on average nearly 40,000 people die prematurely each year from influenza in countries of the European Union (EU)/European Economic Area (EEA) covered by Vaccine European New Integrated Collaboration Efforts (VENICE). VENICE covers all EU/EEA countries except Liechtenstein [4]. Death has been reported in 0.5–1 per 1,000 cases of influenza, with the highest hospitalisation rates occurring among children less than two years of age and individuals ≥ 65 years in United States [5]. The most effective single public health intervention to mitigate and prevent seasonal influenza is vaccination [6]. Unlike the situation for most childhood vaccines, the European policy for influenza is protection of those at higher risk,

either directly by vaccinating them, or indirectly by vaccinating those who are likely to infect them (healthcare workers (HCWs) and pregnant women). Vaccination of pregnant women protects women during, and immediately after, pregnancy and also decreases the risk to their infant [7].

The primary indicators of success in implementation of vaccination programmes are high uptakes reported among the specific groups, i.e. the proportion of specific target populations who have been vaccinated. In December 2009, the European Council unanimously recommended that EU countries adopt and implement national action plans to achieve 75% influenza vaccination coverage in all at-risk groups by the influenza season of 2014/15 [8]. The selection of risk groups followed guidance from ECDC and recommendations of the World Health Organization (WHO): 'older' individuals (often defined as aged ≥ 65 years) and people of all ages above six months with underlying medical conditions [9-11], referred to in this report as clinical risk groups. This EU recommendation encouraged countries to adopt and implement national, regional or local action plans or policies to improve seasonal influenza vaccination including among HCWs and to measure coverage in all risk groups. Countries were also encouraged to report on a voluntary basis to the European Commission on the implementation of the recommendation. ECDC-supported VENICE surveys have been identified as being the most effective way of doing this without placing additional reporting burdens on countries [12,13].

Objectives

Aim of the study

The aim of this survey was to update the data on seasonal influenza immunisation policy provided in a previously conducted survey and to obtain vaccination coverage data in the European Union (EU) member states (MSs) and European Economic Area (EEA) for 2012-13 influenza season.

Specific objectives

- To assess seasonal influenza immunisation programmes for the 2012-13 season;
- To identify country specific recommendations for different risk groups for the 2012-13 season;
- To obtain the vaccination coverage data for 2012-13 influenza season for age, risk, targeted groups and total population;
- To obtain information in relation to payment for seasonal influenza vaccine during the 2012-13 season.

Methodology

Study Design

The electronic survey was developed on a web-based platform with protected access for nominated gatekeepers from each MS. This survey was a collaborative study between the European Centre for Disease Prevention and Control (ECDC), VENICE Project and European Union (EU) and European Economic Area (EEA) Member States (MS). Currently in the VENICE project there are 28 EU and three EEA (LI, NO and IS) participating countries. This is the first year in which Croatia (HR) has participated as it joined the EU in July 2013. Survey for United Kingdom was completed for each part of the country: Scotland (SC), Northern

Ireland (NI), Wales (WL) and England (ENG). Liechtenstein (LI) also was invited to participate in this survey.

Data collection

A standardised questionnaire was developed using predominantly close-ended questions. Information was sought on population groups recommended influenza vaccination (age, occupation, medical risk or other social situation), whether countries had mechanisms in place to monitor influenza vaccine uptake, the method used to monitor uptake, recent vaccination coverage results (by population group, season), payment and administration costs for vaccine, health care, or other, setting where vaccine was typically administered, methodology used to promote influenza vaccines and how this activity is supported and finally, information was sought on planned policy or operational changes over the next couple of years (Appendix 1).

For the first time in this seasonal influenza vaccination survey information was also sought on antiviral agents recommended and used in MSs.

Data handling

The electronic questionnaire was developed and placed on VENICE website in February 2014 by CINECA, which was available for all participating countries (<http://venice.cineca.org>). The electronic questionnaire was filled in March by gatekeepers in each country and saved. Non-responders were followed up. The data were analysed in April 2014.

Data processing

Gatekeepers in each MS entered data directly on-line.

Pilot study

The questionnaire was pilot tested by four VENICE project-leading partners: Italian Istituto Superiore di Sanità (ISS), the French Institut de la Veille Sanitaire (INVS), CINECA Consortium of University, Bologna, Italy, Polish National Institute of Public Health, German Robert Koch Institute (RKI), Danish Statens Serum Institute (SSI) and the Irish Health Protection Surveillance Centre (HPSC). The piloting of the study was undertaken in late January 2014. After the pilot study, the questionnaire was reviewed and amended as necessary.

Study time

MSs were asked to complete the electronic questionnaire between 3rd and 17th of March 2014. The accompanying letter to MSs explained the objectives and rationale of the study. For those countries who did not respond survey completion was extended by 24th of March. Countries which not responded to the data collection extension deadline were contacted individually.

Data analysis

The data were analysed using MS-Excel and STATA.

The main indicators analysed included:

1. Description of population groups recommended influenza vaccination (age, occupation, medical or social condition risk);
2. Monitoring of influenza vaccine uptake (by country and methodology);

3. Vaccination coverage results by population group, season and method used to measure;
4. Costs associated with programme and who pays (state or individual) and how this impacts on uptake;
5. Usual venues for influenza vaccination;
6. Methodologies used to promote influenza vaccines and how and who supports this activity.

Expected deliverables

The expected output of this survey is development of a technical report to inform policy makers at European, EU and national level as well as those working in the field of influenza vaccination programmes in the member states.

Results

Response rate

Of 34 countries 33 responded to the survey. AT did not provide data. Data were validated by 26 countries (BE,BG,CY,CZ,HR,DK,EE,FR,DE,GR,HU,IE,IT,LV,LI,LT,NO, PL,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC). Data for Netherlands were validated only for the last section of this report (section VI: use of antiviral agents for influenza). The remaining five countries (FI, LU, MT, IS, PT, UK-WL) did not validate their data.

Section I: GROUPS RECOMMENDED SEASONAL INFLUENZA VACCINATION (2012-13 influenza season) BY NATIONAL/REGIONAL AUTHORITY

Influenza immunisation policy

All 33 responding countries (CY,BE,BG,CZ,DE,DK,EE,FI,FR,GR,HR,HU,IE,IS,IT,LT,LU,LV,MT,NL, NO,PL,RO,SE,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL,LI,SK,PT) indicated that there are national seasonal influenza vaccination recommendations (e.g. age and target group recommendations and guidelines) available in their countries.

Four countries indicated that a National Action Plan to improve vaccination coverage for seasonal influenza vaccination as recommended by EC 22/12/2009 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:348:0071:0072:EN:PDF> was adopted and three countries reported that they had a plan that was developed previously and updated according to EC recommendation; in addition, 15 countries reported that although such plan was not formally developed they did have a policy in place (table 1). Eight countries, which indicated that a national Action plan was developed, provided the link to the published document on a national website (table 1a).

Table 1. Availability of national action plan to improve vaccination coverage for seasonal influenza in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

	Countries	Total
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Yes, plan was adopted	CZ,NL,UK-WL,IE	4
Yes, plan was developed previously and updated according EC recommendation	IS,PL,UK-ENG	3
A plan was not developed, but a respective policy is in place	BE,DE,DK,FI,FR,HR,HU,LV,MT,NO,UK-NI,LI,PT,UK-SC,ES	15
Plan is under development	BG,CY	2
No need to adopt as vaccination coverage meet EC/WHO targets	-	0
Plan not adopted	EE,GR,IT,LT,LU,RO,SE,SI,SK	9

Table 1a. Link to the National action plan on website. National seasonal influenza vaccination survey, March 2014 (n=8)

Country	Link to the website
CZ	http://www.mzcr.cz/Verejne/dokumenty/narodni-akcni-plan_5329_1092_5.html
IS	https://venice.cineca.org/uxmr/INF/download.php?nome_real_file=Q3_2_QUID_113_PROGR_1_VISITNUM_4_ESAM_3_VPROGR_0.pdf
IE	http://www.immunisation.ie/en/HotTopics/Text_17237_en.html
NL	www.rivm.nl
PL	http://www2.mz.gov.pl/wwwmz/index?mr=m10&ms=688&ml=pl&mi=688&mx=0&ma=13290
UK – ENG	http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_133964.pdf
UK-WL	https://venice.cineca.org/uxmr/INF/download.php?nome_real_file=Q3_2_QUID_133_PROGR_1_VISITNUM_4_ESAM_3_VPROGR_0.pdf
UK-SC	http://www.sehd.scot.nhs.uk/cmo/CMO(2012)06.pdf

Documents used elaborating/updating policy

The following documents, presented in the table 2 by country, were used when elaborating and updating recommendations for seasonal influenza vaccination.

Table 2. The documents used elaborating /updating vaccination policy for seasonal influenza in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

	Document was used	Document was not used
Council recommendation on seasonal influenza vaccination 22/12/2009 http://eur-lex.europa.eu/LexUriServ/LexUriSrv.do?uri=OJ:L:2009:348:0071:0	BE,BG,HR,CZ,DK,EE,DE,GR,HU,IS,IE,IT,LV,LT,LU,NO,PL,SI,ES,SE,UK-ENG,UK-NI,UK-SC,CY,LI,SK,PT	FR,MT,NL,RO,UK-WL,FI

072:EN:PDF		
ECDC GUIDANCE Priority risk groups for influenza vaccination, 2008 (http://www.ecdc.europa.eu/en/publications/Publications/0808_GUI_Priority_Risk_Groups_for_Influenza_Vaccination.pdf)	BE,BG,HR, HU,CZ,DK,EE, GR,IS,IE,IT,LV,LT,LU,MT,NL, NO,PL,SI,ES,SE,UK-NI, UK-SC,FI,CY,LI,SK,PT	FR,DE, RO,UK-ENG, UK-WL
ECDC scientific advice on seasonal influenza vaccination of children and pregnant women 2012 (http://www.ecdc.europa.eu/en/publications/publications/seasonal%20influenza%20vaccination%20of%20children%20and%20pregnant%20women.pdf)	BE,HR,HU,DK,EE,GR,IS, IE,IT,LV,LU,MT,NO,PL,SI,ES, SE,UK-NI,UK-SC,LI,SK,PT	BG,CZ,FR,DE, LT,NL,RO,UK-ENG, UK-WL,FI,CY
European Medicine Agency (Summary of product characteristics): e.g. http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Product_Information/human/001101/WC500103709.pdf	BE,BG,HR,DK,EE,DE,GR,IS,IE, IT,LV,LU,NO,ES,SE, UK-ENG,UK-NI,UK-SC, UK-WL,FI,LI,SK,PT	CZ,FR,HU,LT,MT,NL,PL, RO,SI,CY
Vaccines against influenza WHO position paper – November 2012 http://www.who.int/wer/2012/wer8747.pdf	BE,BG,HR,DK,EE,DE,GR,IS,IE, IT,LV,LT,LU,MT,NO,PL,RO,SI, ES,SE,UK-ENG,UK-NI,UK-SC,LI,SK,PT	CZ,FR,HU,NL, UK-WL,FI,CY
Others, please specify ^a	HR,FR,IE,ES,SE,UK-WL,CY,LI,PT	BE,BG,CZ,DK,EE,DE,GR, HU,IS,IT,LV,LT,LU,MT,NL,NO,PL,RO,SI,UK-ENG,UK-NI,UK-SC,FI,SK

^aCY- CDC.

^aHR, FR, SE -Scientific literature and meta-analyses.

^aIE-National Immunisation Advisory Committee Guidance.

^aES-Previous recommendations and specific recommendations at regional level.

^aUK-WL- UK DH Immunisation Against Infectious Disease

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/239268/Green_Book_Chapter_19_v5_2_final.pdf

Recommendation for entire population

The national policy document (guidelines and recommendations) recommends seasonal influenza vaccine to all individuals ≥ 6 months of age (entire population) in three countries (EE,PL,SI); in 30 countries (BE,BG,HR,CY,CZ,DK,FI,FR,DE,GR,HU,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,PT,RO,SK,ES,SE, UK-ENG,UK-NI,UK-SC,UK-WL) there is no such recommendation.

Age groups recommended influenza vaccine

Of 33 responding countries, seven recommended seasonal influenza vaccine to healthy children or adolescents (LV,SI,FI,MT,PL,EE,SK); all countries also had recommendation to vaccinate older age groups. However the exact age at which children and older individuals were recommended vaccine differed between countries both: for adults (from ≥ 50 to ≥ 65 years) and children and adolescents (table 3).

Table 3. Age groups recommended seasonal influenza vaccine in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

	Countries	Total
Children and adolescents		
No recommendation for healthy children or adolescents of any age	BG,BE,HR,CZ,DK,FR,DE,GR,HU,IS,IE,IT,LT,LU,NL,NO,RO,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,PT	26
Recommended for all children or adolescents:	LV,SI,FI,MT,PL,EE,SK	7
≥ 6 months - 24 months of age	LV, SI	2
≥ 6 months - 36 months of age	FI	1
≥ 6 months - 59 months of age	MT	1
≥ 6 months – 12 years of age	SK	1
≥ 6 months - 18 years of age	PL, EE ^d	2
Adults		
Recommended for all adults ≥ 18 years	EE ^d	1
Recommended for some age groups for all adults:		
≥ 50 years	BE ^a , IE ^b	2
≥ 55 years	MT,PL	2
≥ 59 years	SK	1
≥ 60 years	DE,GR,IS,NL	4
≥ 65 years	RO, BE ^a ,BG,EE,HR,CZ,DK,FI,FR,HU, IE ^b ,IT,LV,LT,LU,NO,SI,ES ^c ,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,PT	27

^a The guidelines recommend vaccine for those ≥ 65 years of age and they belong to the first priority group for receiving the influenza vaccine; the guidelines also mention explicitly that the vaccine is also useful for healthy persons aged 50 and older.

^b NITAG recommends vaccine for those ≥ 50 years but the national influenza programme specifies ≥ 65 years, nationally.

^c The recommendation at national level is for those ≥ 65 years of age; however 10 out of 19 regions recommend vaccine for those ≥ 60 years of age.

^d Vaccination against seasonal influenza is recommended for all population of EE aged ≥ 6 months.

For the 2012-13 season only FI introduced changes in relation to seasonal influenza vaccination recommendations in comparison to recommendations for influenza season 2011-12: “if a person belongs to the close vicinity of someone to whom falling ill with influenza would be detrimental, such persons are offered vaccination”. There were no changes in recommendations with regard to age groups in any other of the other 32 countries (BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,SK,PT).

Payment scheme and funding mechanism for age groups

Data on payment scheme and funding mechanism for seasonal influenza vaccine with regard to recommended age groups (children and adolescents and adults) by country are presented in tables 4 and 4a.

Table 4. Payment scheme and funding mechanism for seasonal influenza vaccine with regard to recommended age groups in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014

Payment scheme	For vaccine itself	For vaccine administration
Children and adolescents (n=7)		
National health service	MT,FI	LV,MT
Regional health service	-	FI
National health service; Out of pocket ^a ; Parent/guardian employer	LV	-
Out of pocket	SI	SI
Out of pocket; Parent/guardian employer;	EE	EE
Private insurance; Out of pocket	PL	-
National insurance scheme; Private insurance	-	PL
National insurance scheme	SK	SK
Adults (n=33)		
National health service	FI,HR,DK,IS,LT,MT,NL,UK-ENG,UK-NI,RO,UK-SC,UK-WL,IT	DK,LT,MT,NL,UK-ENG,UK-NI,UK-SC,UK-WL,RO,IT
National insurance scheme	CZ,FR,GR,SI,SK	HR,CZ,GR,LU,SK
National health service; Out of pocket	LV	-
National insurance scheme;	LU	-

National health service;		
National health service; Out of pocket; Employer; For those aged 50-64 years without health risk or employment recommendation than the individual must pay for vaccine	IE	IE
National insurance scheme; Out of pocket	BE	BE
National insurance scheme; Private insurance; Employer	DE	DE
Government (Public Health Service)	HU	-
No extra pay of administration of flu vaccine	-	HU
Out of pocket	BG,NO	BG,IS,LV,NO,SI
Private insurance; Out of pocket; Employer	PL	-
National insurance scheme; Private insurance	-	PL,FR
Regional health service	ES	ES,FI
Regional health service; Out of pocket; Varies with regions: in some regions, the vaccinee is charged a symbolic amount (approximately 10€) for vaccine & vaccination	SE	SE
National health service; Out of pocket	CY	
National health service; Out of pocket; Private insurance	-	CY
Private insurance;	LI	LI
37% reimbursement; vaccine free for ≥65 years and other risk groups	PT	
National health service; paid if administered in pharmacies		PT
Out of pocket	EE	EE

^a Out of pocket means not reimbursed, paid by vaccinee.

Table 4a. Co-payment for vaccine and its administration (vaccination) mechanism for influenza vaccine with regard to recommendation to age groups in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014

Country	
Children and adolescents (n=7)	
Co-payment for vaccine	
There is no co-payment	EE,MT,PL,SI,FI,SK
Co-payment exist ^a	LV ^a
Co-payment for administration	
There is no co-payment	EE,LV,MT,PL,SI,FI,SK
Co-payment exist	-
Adults (n=31)	
Co-payment for vaccine	
There is no co-payment	EE,FI,BG,HR,DK,FR,DE,GR,HU,IS,IE,LT,LU,MT,NL,NO,PL,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL,SK
Co-payment exist ^b	BE, CZ,LV,SE,CY,LI,PT
Co-payment for administration	
There is no co-payment	EE,FI,BG,HR,CZ,DK, DE,GR,HU,IS,IE,LV,LT,MT,NL,NO,PL,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL,SK,PT
Co-payment exist ^c	BE,LU,SE,CY,LI, FR

IT- No data for adults.

^{a, b} LV-50%.

^{b, c} BE- Partly refunded.

^{b, c} CY- There is a co-payment in cases they are eligible to "free" health care by the public. The others pay out of pocket or by private insurances.

^b CZ- Only cheapest vaccine is covered from insurance for people ≥65 of age. For other vaccine/s, there is need to pay the difference.

^{b, c} LI-10% of the cost.

^b PT- 37%reimbursement NHS.

^{b, c} SE- In some regions, the vaccinee is charged a symbolic amount (approximately 10€) for vaccine & vaccination.

^c LU- 10% of the doctor's visit price.

^c FR: 35% of the vaccine administration cost is paid by the patient which are refunded if the patient has a private insurance (most of the time).

Comment/s indicated on issues with reimbursement of cost of vaccine, or its administration, that may influence vaccination coverage with regard to age groups:

PL- Local government reimbursement of cost of vaccine for children and adolescents and for those ≥65 years of age.

SK- It is the decision of insurance companies whether they offer the vaccination free of charge for all their clients or only to groups recommended in the legislation.

DE- New tender systems in some of the federal states, which are new to the physicians and not yet fully accepted. Some used vaccines on the market but not in the tender; then no reimbursement.

IE-For some adults they may have to pay if they are not covered by national health service (usually income dependent).

Clinical risk groups

All 33 survey participating countries reported that seasonal influenza vaccine was recommended for patients with chronic pulmonary, cardiovascular and renal diseases. Thirty countries recommended vaccination of individuals with hepatic disease and haematological disorders; and in 32 countries individuals with metabolic disorders and immunosuppression due to diseases or treatment also had such recommendation. Twenty-

eight countries recommended vaccination of individuals with HIV/AIDS. Vaccine for those with morbid obesity was recommended in fifteen countries (table 5).

Table 5. Clinical risk groups recommended influenza vaccine in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Medical condition/risk	Recommended^a	No recommendation^b
Chronic pulmonary (such as chronic obstructive pulmonary disease, cystic fibrosis, asthma) disease	FI,BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,SK,PT	
Cardiovascular (such as congenital heart disease, congestive heart failure and coronary artery disease, except hypertension) disease	FI,BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,SK,PT	
Renal disease	FI,BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,SK,PT	
Hepatic disease	FI,BE,BG,HR,CZ,DK,EE,FR,DE,HU,IS,IE,IT,LV,LU,MT,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,SK,PT	GR,LT, NL
Hematological disorders (such as sickle cell disease)	FI,BE,BG,HR,DK,EE,FR,DE,GR,HU,IS,IE,IT,LT,LU,MT,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,SK,PT	CZ,LV,NL
Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders, including diabetes mellitus)	FI,BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LV,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,SK,PT	LT
Immunosuppression due to disease or treatment (including asplenia/ splenic dysfunction, organ transplantation, cancer, but other than HIV/AIDS)	FI,BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LT,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,SK,PT	LV
HIV/AIDS	FI,BE,BG,HR,CZ,DK,EE,FR,DE,GR,IS,IE,IT,LU,MT,NL,NO,PL,RO,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,PT	HU,LV,LT,SE,SK

Chronic neurologic diseases or neuromuscular conditions (e.g. including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy (seizure disorders), stroke, intellectual disability (mental retardation), moderate to severe developmental delay, muscular dystrophy, or spinal cord injury).	FI,BE,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LU,MT,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,PT	BG,LV,LT,NL,SK
Long-term aspirin use (in children up to 18 years old)	FI,BE,HR,EE,GR,HU,IS,IE,IT, LV,LU,PL,SI,ES,CY,PT,NL	BG,CZ,DK,FR,DE,LT,MT,NO,RO,SE,UK-ENG,UK-NI,UK-SC,UK-WL,LI,SK
Any condition that can compromise respiratory function	BE,HR,CZ,DK,EE,FR,DE,GR, HU,IS,IE,IT,LT,LU,NL,PL,SE, UK-SC,CY,FI,SK,PT	BG, ES,LV,MT,NO,RO,SI,UK-ENG,UK-NI,UK-WL,LI
Morbid obesity (Body Mass Index (BMI) ≥ 40)	FI,HR,DK,EE,FR,HU,IS,IE,IT, NO,PL,ES,SE,CY, PT ^c	BE,BG,CZ,DE,GR,LV,LT,LU,MT,NL,RO,SI,UK-ENG,UK-NI,UK-SC, UK-WL,LI,SK,

^a "Recommended" is defined here, and in the following questions, as the existence of a specific written recommendation in an official policy document that this population group should receive seasonal influenza vaccine.

^b "No recommendation" defined here, and in the following questions, as no specific written recommendation is made in the official policy document regarding whether this population group should be vaccinated or not.

^b Recommended for those BMI ≥ 30 .

Other chronic diseases or conditions recommended influenza vaccine:

DK- recommended for any other condition where a doctor considers there is an increased risk of severe outcomes of influenza.

SE- children with certain other conditions: include multiple handicaps, metabolic disorders, Down's syndrome and severe asthma (4th degree).The recommendation does not cover all metabolic disorders - only diabetes. Persons with HIV who are immunosuppressed are thereby included in the risk Group "Immunosuppression".

NL- persons with a mental handicap living in residential homes.

FI- Any condition the physician or public health nurse thinks poses a risk for serious influenza. We no longer provide an exhaustive list of diagnostic entities which qualify for vaccination; instead the decision to vaccinate lies with the clinician and bases more on individual risk assessment.

In the 2012-13 season FI, FR and PL introduced changes in relation to seasonal influenza vaccination recommendations for clinical risk groups in comparison to influenza season 2011-12. In FI it was decided not to have exhaustive lists of conditions but rather more decision making responsibility was given to the treating physician/ public health nurse. In FR hepatic diseases were added to the list of chronic diseases and conditions for which influenza vaccine was recommended. In PL there was a refinement of clinical indications, individual and epidemiological.

There were no changes in recommendations with regard to clinical risk groups in any of the other 30 countries (BE,BG,HR,CZ,DK,EE,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,RO,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL,CY,LI,SK,PT,SE).

Payment scheme and funding mechanism for clinical risk groups

Data relating to payment scheme and funding mechanisms for seasonal influenza vaccine, with regard to recommended clinical risk groups by country, are presented in tables 6 and 6a.

Table 6. Payment scheme and funding mechanism for influenza vaccine and vaccine administration for clinical risk groups in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Payment scheme	For vaccine itself	For vaccine administration
National health service	FI,HR,DK,IS,IE,IT,LT,MT,NL,UK-ENG,UK-NI,UK-SC,UK-WL	DK,IT,LT,MT,NL,UK-ENG,UK-NI,UK-SC,UK-WL
National insurance scheme	FR,GR,SI,SK	HR,CZ,GR,LU,SK,FR
Out of pocket ^a	BG,NO	BG,IS,LV ^b ,NO,SI
Regional health service	ES	ES,FI
National insurance scheme; Private insurance	DE	DE,PL
Private insurance; Out of pocket; Employer	PL	-
National health service; Out of pocket; Employer	-	IE
National health service; Out of pocket	LV ^b	
National insurance scheme; National health service	LU	-
National insurance scheme; The list of chronic diseases to be reimbursed from insurance is shorter than the list of chronic diseases from national vaccine recommendation	CZ	-
National insurance scheme; Out of pocket	BE	BE
Out of pocket	EE	EE
Government (Public Health Service)	HU	HU
Ministry of Health, Public Sector	RO	RO
Regional health service; Out of pocket; Varies with regions: In some regions, a vaccinee belonging to a clinical risk group was charged a symbolic amount (approximately 10€) for vaccine & vaccination	SE	SE
National health service; Out of pocket; Private insurance	CY	CY

Private insurance	LI	LI
37% reimbursement; vaccine free for ≥65 years and other risk groups	PT	-
National health service; paid if administered in pharmacies	-	PT

^a Out of pocket means not reimbursed, paid by vaccinee.

^b All persons with any kind of immunodeficiency (including HIV/AIDS) can get 50% reimbursement of the cost of the vaccine.

Table 6a. Co-payment for vaccine and administration of influenza vaccine (vaccination) for clinical risk groups in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country
Co-payment for vaccine	
There is no co-payment	EE,BG,HR,DK,FI,FR,DE,GR,HU,IS,IE,IT,LT,LU,MT,NL,NO,PL,RO,SK,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL
Co-payment exist ^a	BE,CY,CZ,LV,LI,PT,SE
Co-payment for administration	
There is no co-payment	EE,BG,HR,CZ,DK,FI,FR,DE,GR,HU,IS,IE,IT,LV,LT,MT,NL,NO,PL,PT,RO,SK,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL
Co-payment exist ^b	BE,CY,LI,LU,SE

^{a,b}BE- Yes, partly refunded.

^{a,b}CY- Yes, there is a co-payment in cases they are eligible to "free" health care by the public. The others pay out of pocket or by private insurances.

^aCZ- Yes, only cheapest vaccine is covered from insurance for people with chronic conditions. For other vaccine, you have to pay the difference.

^aLV- Yes 50%.

^{a,b}LI- Yes, 10% of the cost.

^aPT- Yes, 37% reimbursement NHS.

^{a,b}SE- Yes, In some regions, a vaccinee belonging to a clinical risk group was charged a symbolic amount (approximately 10€) for vaccine & vaccination.

^bLU- Yes, 10% of the doctor's visit price.

Pregnancy related vaccination

Of 33 responding countries 30 indicated that influenza vaccine was recommended for pregnant women. Twenty eight countries recommended vaccination of all pregnant women and two countries (HR,NL) recommended it for those pregnant women with an additional clinical indication only. Twenty-two countries recommended vaccine at any stage of pregnancy and nine countries recommended vaccine in either the 2nd or 3rd trimester (table 7).

Table 7. Pregnancy related influenza vaccine recommendation EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Pregnancy related vaccination	Countries	Total
No recommendation ^a	BG,SK, MT ^c	3
Recommended ^b for all	FI,BE,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,NO,PL,RO,SI,ES,SE ^d ,UK-ENG,UK-NI,	28

	UK-SC,UK-WL,CY,LI,PT	
Recommended only for those with other clinical risk indication	HR,NL	2
Stages of pregnancy (n=31)		
Any trimester	FI,HR,CZ,DK ^e ,EE,FR,GR,HU,IS,IE,LV,LT,MT,NL,PL,RO,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL	22
Either 2nd or 3rd trimester	BE,DE ^e ,IT,LU,NO,SE,CY,LI,PT	9
Postpartum women if not vaccinated during pregnancy^f (n=31)		
No recommendation	BE,CZ,DK,DE,GR,HU,IS,IT,LV,LT,LU,NO,PL ^g ,RO,SI,ES,SE,UK-ENG,UK-NI,UK-WL,CY,PT, MT ^c	23
Recommended for all	EE,LI	2
Recommended only for those with other clinical risk indication	HR,FR,IE,NL,UK-SC,FI	6

^a "No recommendation" defined here and in the following questions that there is no specific written recommendation in the official policy document on whether this population group should be vaccinated or not.

^b "Recommended" defined here and in the following questions as the existence of a specific written recommendation in the official policy document that this population group should receive seasonal influenza vaccine.

^c There is no official recommendation for influenza vaccination to pregnant women; however those pregnant women who are interested in taking the vaccine are encouraged to do so; vaccine is not provided free of charge.

^d SE- Recommended for all women, pregnant or not, belonging to the above mentioned clinical risk groups AND those otherwise healthy pregnant women who were not vaccinated with Pandemrix 2009-2010.

^e Vaccination is recommended to all pregnant women in the 2nd and 3rd trimester; to women with other clinical risk indication also in the 1st trimester.

^f Within 6 weeks after delivery.

^g In national schedule recommendation contains pregnant women and women if they plan to be pregnant, however experts' recommendation include also women in the postpartum period.

Of 30 countries (one country did not respond), where influenza vaccine is recommended to pregnant women, 15 indicated that the most common venue for vaccination are general practitioners; five countries in addition to general practitioners specified also maternity out-patient and antenatal clinics (table 8).

Table 8. The main venue/s where influenza vaccination is performed for pregnant women. National seasonal influenza vaccination survey, March 2014 (n=30)

	Countries	Total
General practitioners/Family doctors	BE,HR,DK,EE,HU,IE,LV,LT,MT,NL,PL,RO,SE,UK-NI,UK-SC	15
Maternity out-patient clinic; General practitioners/Family doctors; Antenatal clinic	DE,IS,UK-ENG,UK-WL,ES	5
General practitioners/Family doctors; Public health centers	NO	1
General practitioners/Family doctors; Regional Units of NIPH	SI	1
General practitioners/Family doctors;	IT	1

Vaccine services in Local Health Units		
Maternity out-patient clinic; General practitioners/Family doctors	GR	1
Maternity out-patient clinic; General practitioners/Family doctors; Obstetricians private practices	LU	1
Maternity out-patient clinic; Well-baby clinic; General practitioners/Family doctors; Antenatal clinic; At the time of delivery (hospital, home or other clinic setting); Midwives	FR	1
Well-baby clinic; Antenatal clinic; Post-natal clinic	FI	1
Maternity out-patient clinic; General practitioners/Family doctors;	CY	1
Maternity out-patient clinic; General practitioners/Family doctors; Well-baby clinic; Antenatal clinic; Post-natal clinic	LI	1
Health centres (NHS), pharmacies, private clinics	PT	1

CZ- No data for venue/s where vaccination for pregnant women is performed.

In the 2012-13 season three countries (GR,LV,SE) introduced changes in relation to recommendations for pregnant women in comparison to influenza season 2011-12. In GR vaccine was recommended to all pregnant women in the 1st trimester in 2012-13; in previous season it was recommended only for those in the either 2nd or 3rd trimester. In LV pregnancy was added to the list of medical conditions that are recommended influenza vaccination. SE- Otherwise healthy pregnant women that were not vaccinated with Pandemrix 2009-2010 were recommended influenza vaccination to gain protection against H1N1pdm09.

There were no changes in recommendations with regard to clinical risk groups in any other of 30 countries (BE,BG,HR,CZ,DK,EE, DE,HU,IS,IE,IT,LT,LU,MT,NL,NO,PL,RO,ES,UK-ENG,UK-NI, UK-SC,UK-WL,FI,CY,LI,SK,PT,SI,FR).

Payment scheme and funding mechanism for pregnancy related vaccination

Payment scheme and funding mechanism for seasonal influenza vaccine with regard to recommendation to pregnant women by country presented in tables 9 and 9a.

Table 9. Payment scheme and funding mechanism for pregnant women for influenza vaccination in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=30)

Payment scheme	For vaccine itself	For vaccine administration
National health service	FI,HR,DK,IS,IE,IT,LT,MT,NL,UK-ENG,UK-NI,UK-SC,UK-WL	DK,IT,LT,MT,NL,UK-ENG,UK-NI,UK-SC,UK-WL
National insurance scheme	FR,GR,SI	HR,FR,GR,LU
Out of pocket ^a	EE,LU,NO	EE,IS,LV,NO,SI
Regional health service	ES	ES,FI
National health service; Out of pocket	LV	-
National insurance scheme; Out of pocket	BE	BE
National insurance scheme; Private insurance	DE	DE,PL
Government (Public Health Service)	HU	-
No extra pay of administration of flu vaccine	-	HU
Ministry of Health, Public Sector	RO	RO
Private insurance; Out of pocket; Employer	PL	-
Regional health service; Out of pocket; Varies with regions: In some regions, the vaccinee was charged a symbolic amount (approximately 10€) for vaccine & vaccination.	SE	SE
National health service; Out of pocket; Employer	-	IE
National health service; Out of pocket; Private insurance;	CY	CY
Private insurance	LI	LI
37% reimbursement; Vaccine free for ≥65 years and other risk groups	PT	-
National health service; Paid if administered in pharmacies	-	PT

^a Out of pocket means not reimbursed, paid by vaccinee.

BG,SK- Not applicable.

CZ - No data available.

Table 9a. Co-payment for vaccine and administration of influenza vaccine (vaccination) for pregnant women in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=30)

	Countries
Co-payment for vaccine	
There is no co-payment	HR,DK,EE,FR,DE,GR,HU,IS,IE,IT,LT,LU,MT,NL,NO,PL,RO,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL,FI
Co-payment exist ^a	BE,LV,SE,CY,LI,PT
Co-payment for administration	
There is no co-payment	HR,DK,EE,FR,DE,GR,HU,IS,IE,IT,LU,LT,MT,NL,NO,PL,RO,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL,FI,PT
Co-payment exist ^b	BE,LU,SE,CY,LI

^{a, b} BE-Partly refunded.

^a LV-Yes 50%.

^{a, b} SE-In some regions, the vaccinee was charged a symbolic amount (approximately 10€) for vaccine & vaccination.

^a PT-37% reimbursement.

^{a, b} CY- there is a copayment in cases they are eligible to "free" health care by the public. The others pay out of pocket or by private insurances.

^{a, b} LI- 10% of the cost.

^b LU-Yes 10% of the doctor's visit price.

BG,SK- Not applicable.

CZ - No data available.

Comment for issues with reimbursement of cost of vaccine, or its administration, that may influence vaccination coverage:

EE-Full cost of vaccine and vaccination paid by vaccinee.

IE-For some pregnant women they may have to pay if they are not covered by national health service (usually income dependent).

Health care workers

Of 33 responding countries, 26 reported that influenza immunisation was recommended for all HCWs; six countries recommended vaccination of some HCWs (e.g. outpatient/inpatient/long term care); in DK vaccine was not recommended to HCWs nationally; however most regions and municipalities in DK offer HCW influenza vaccination free of charge. Details presented in a table 10.

Table 10. Influenza vaccine recommendations for HCWs in 2012-13influenzaseason. National seasonal influenza vaccination survey, March 2014 (n=33)

Recommendation to HCWs	Countries	Total
No recommendation to HCWs	DK ^a	1
Recommended to all HCWs	BE,BG,HR,CZ,EE,FR,DE,GR,HU,IS,IE,IT,LU,LT,LU,MT,NL,PL,RO,SI,ES,UK-NI ^b ,UK-SC,FI,CY,LI,	26
Recommended to some HCWs (e.g. outpatient/inpatient/long term care)	NO,SE ^c ,UK-ENG,UK-WL ^d ,SK ^e ,PT	6
Status of vaccination recommendation		
Voluntary ^f	BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LU,LT,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,FI,CY,LI,SK,PT	33
Mandatory ^g	-	0

^a No national recommendations, but most regions and municipalities offer HCW influenza vaccination free of charge.

^b Available to all HCWs but encouraged for frontline staff.

^c Only staff caring for persons who are severely immunocompromised are recommended vaccination.

^d Seasonal influenza vaccination is recommended for front-line health and social care workers (i.e. those who have direct contact with patients).

^e The HCWs having close contact with patients or foci of infection.

^f "Voluntary" defined here as individual free will (choice) when deciding on seasonal influenza vaccination and there is no penalty for not getting the vaccine.

^g "Mandatory" (compulsory, obligatory, authoritatively ordered) defined here as vaccination for which there is a "penalty" for those who refuse seasonal influenza vaccination.

In the 2012-13 season there were no changes in recommendations with regard to clinical HCWs in any of the 33 countries (BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,FI,CY,LI,SK,PT) in comparison to influenza season 2011-12.

Payment scheme and funding mechanism for HCWs

Data related to payment schemes and funding mechanisms for seasonal influenza vaccine with regard to recommendations to HCWs, by country, are presented in tables 11 and 11a.

Table 11. Payment scheme and funding mechanism for HCWs in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Payment scheme	For vaccine itself	For vaccine administration
Employer	NL,NO,SI,SE,LI,SK,PT, DK ^a	IS,NL,NO,SI,SE,LI,SK,PT, DK ^a
National health service	HR,IS,IE,IT,LT,MT, UK-ENG,UK-SC,FI	IT,LT,MT,UK-ENG, UK-NI,UK-SC
Out of pocket ^b ; Employer	BG,EE,LV,LU,CZ ^c	BG,EE,LV,CZ ^c
National health service; Employer	UK-NI,UK-WL ^d	IE, UK-WL ^d
Regional health service	ES	ES,FI
National insurance scheme; Employer	FR	FR,LU
National insurance scheme; National health service	GR	-
National insurance scheme; National health service; Regional health service	-	GR
National insurance scheme; Out of pocket; Employer;	BE	BE
Employer; National insurance scheme; Private insurance	DE	DE

Government (Public Health Service)	HU	-
No extra pay of administration of flu vaccine	-	HU
Ministry of Health, Public Sector	RO	RO
Private insurance; Out of pocket; Employer	PL	-
National insurance scheme; Private insurance	-	PL
National insurance scheme;	-	HR
National health service; Private insurance; Out of pocket	CY	CY

^aThe Employer pay for the vaccine and the administration even if the recommendation is not national.

^b Out of pocket means not reimbursed, paid by vaccinee.

^c 100% paid by vaccinee or employer.

^d The main employer is National Health Service.

Table 11a. Co-payment for influenza vaccine and administration of vaccine (vaccination) for HCWs in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=32)

	Countries
Co-payment for vaccine	
There is no co-payment	DE,BG,HR,EE,FR,GR,HU,IS,IE,IT,LV,LT,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,FI,LI,SK,PT,CZ
Co-payment exist ^a	BE,LU,CY
Co-payment for administration	
There is no co-payment	DE,BG,HR,EE,FR,GR,HU,IS,IE,IT,LV,LT,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,FI,LI,SK,PT,CZ
Co-payment exist ^b	BE,LU,CY

^a BE- Partly refunded / sometimes fully covered by employer.

^a LU- For those who don't get the vaccine by the employer.

^{a, b} CY- There is a co-payment in cases they are eligible to "free" health care by the public. The others pay out of pocket or by private insurances.

^b BE-Partly refunded.

^b LU- 10% of the doctor's visit price for the HCWs vaccinated outside of the occupational health services.

Comment for issues with reimbursement of cost of vaccine, or its administration, that may influence vaccination coverage:

EE-Full cost of vaccine and vaccination paid by vaccinee. For some HCW vaccines and vaccinations are being paid by employer.

IE- Health care worker should not have to pay for administration but some reports indicate the possibility that sometimes they do. We are not sure of the circumstances or if this is a personal choice (different provider).

LU- Universal employer payment for the vaccination of HCWs from the hospital sector, variable payment coverage from employers for other HCWs.

LI- Low uptake, of only 20%.

Other occupational groups

Among the 33 responding countries, influenza vaccination is recommended for essential (police and firemen) and military services in seven and 11 countries respectively; for poultry industry workers in 11 countries and for veterinary service workers in seven countries. Three countries recommended vaccination of educational staff (table 12).

Table 12. Other occupations recommended seasonal influenza vaccine in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Profession	Recommended ^a	No recommendation ^b
Police & Firemen	BG,EE, IS,IT,MT,PL,ES	DE,BE,HR,FR,GR, HU,IE,NL,NO,SI, UK-ENG, UK-WL, FI,CY,LI,SK
Military	BG,EE,FI,DE,GR,IT, MT,PL,SK,SI,ES	BE,HR,CY,FR,HU,IS,IE,LI, NL,NO,UK-ENG, UK-WL
Border/Immigration control/ customs	EE,IS,IT,MT,PL	BE,BG,HR,FR,DE,GR,HU,IE ,NL,NO,SI,ES,UK-ENG, UK-WL,FI,CY,LI,SK
Veterinary	EE,IE, IS,IT,MT,SI,CY	BE,BG,HR,FR,DE,GR,HU, NL,NO,PL,ES,UK-ENG, UK-WL,FI,LI,SK
Public transport (e.g. ground, rail, air, marine) (if specific recommendations for particular transport workers, please specify)	EE,PL,BG ^c ,FR ^d	BE,HR,DE,GR,HU,IS,IE,IT, MT,NL,NO,SI,ES, UK-ENG,UK-WL, FI,CY,LI,SK
Educational staff - e.g. primary/secondary schools, preschool centres, kindergartens, crèches - please specify if for all or for some educational staff.)	EE,PL ^e ,LI ^f	BE,BG,HR,FR,DE,GR,HU,IS ,IE,IT,MT,NL,NO,SI,ES, UK-ENG,UK-WL,FI,CY,SK
Community services (energy, electricity, water)	EE,PL	BE,BG,HR,FR,DE,GR,HU,IS ,IE,IT,MT,NL,NO,SI,ES, UK-ENG,UK-WL, FI,CY,LI,SK
Postal service	EE,PL	BE,BG,HR,FR,DE,GR,HU,IS ,IE,IT,MT,NL,NO,SI,ES, UK-ENG, UK- WL,FI,CY,LI,SK
Poultry industry workers	BE,EE,DE,GR,HU,IS, IE,IT,SI,CY,LI	BG,HR,FR,MT,NL,NO, PL,ES,UK-ENG, UK-WL,FI,SK
Swine industry workers	BE,EE,IS,IE,IT,CY,LI	BG,HR,FR,DE,GR, HU,MT,NL,NO, PL,SI,ES,UK-ENG, UK-WL,FI,SK
Families raising swine, poultry or geese	EE,IS,IE,NO,LI	BE,BG,HR,FR,DE,GR,HU,IT ,MT,NL,PL,SI,ES,

		UK-ENG,UK-WL,FI,CY,SK
Social care workers	BG,EE,HU,MT,PL,ES,UK-ENG,UK-WL,FI	BE,HR,FR,DE,GR,IS,IE,IT,NL,NO,SI,CY,LI,SK
Laboratory workers working in other laboratories (not medical/public health laboratories, but who may work with avian influenza viruses in the environmental/ academic sector)	HR,EE,DE,GR, IE, IS,IT,MT,NL,SI,LI,SK	BE,BG,CY,FI,FR,HU,NO,PL,ES,UK-ENG,UK-WL
Wildlife environmentalists (workers who work with birds directly e.g. bird ringing)	EE,DE,IE,LI,SK	BE,BG,HR,FR,GR,HU,IS,IT,MT,NL,NO,PL,SI,ES,UK-ENG,UK-WL,FI,CY
Other	IE ^g , NO ^h ,UK-WL ⁱ ,LI ^j	-
None of above	CZ,DK,LV,LT,LU,RO,SE,PT,UK-NI,UK-SC	

^a "No recommendation" defined here, and in the following questions, as an absence of a specific written recommendation in the official policy document regarding vaccination for this group.

^b "Recommended" is defined here, and in the following questions, as the existence of a specific written recommendation in the official policy document that this population group should receive seasonal influenza vaccine.

^c Recommended for some.

^d Crew members of airlines and cruises lines, tourist guides.

^e All- teachers and administrative workers.

^f Kindergarten and crèches.

^g Abattoir and zoo workers;

^h Others in regular contact with live swine.

ⁱ Members of voluntary organisations providing planned emergency first aid.

^j Whoever wishes to minimize their risk of influenza.

In the 2012-13 season there were no recommendation changes relating to other occupational groups in any of the 33 countries (BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,FI,CY,LI,SK,PT) in comparison to influenza season 2011-12.

Payment scheme and funding mechanism for other occupational groups

Data relating to payment schemes and funding mechanisms for seasonal influenza vaccine with regard to recommendations to HCWs, by country, are presented in tables 13 and 13a.

Table 13. Payment scheme and funding mechanism for other occupations (professions) in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=23)

Payment scheme	For vaccine itself	For vaccine administration
Employer	NL,NO,SI,UK-WL,LI,SK,FR	LI,NL,NO,SI,SK,UK-WL,FR
National health service	HR,IS,IT,MT,UK-ENG,FI	IT,MT,UK-ENG
Employer; National insurance scheme; Private insurance	DE,HU	DE,GR,HU

Out of pocket; Employer	BG,EE	BG,EE
Regional health service	ES	ES,FI
National health service; Out of pocket; Employer	IE	
National health service; Out of pocket; Employer	-	IE
National insurance scheme	-	HR
National insurance scheme; National health service;	GR	
Out of pocket	-	IS
National insurance scheme; Out of pocket; Employer	BE	BE
Private insurance; Out of pocket; Employer	PL	-
National insurance scheme; Private insurance	-	PL
National health service; Private insurance; Out of pocket	CY	CY

* Out of pocket means not reimbursed, paid by vaccinee.

CZ,DK,LV,LT,LU,RO,SE,UK-NI,UK-SC,PT- Not applicable.

Table 13a. Co-payment for vaccine and administration of vaccine (vaccination) for other occupations for influenza vaccination in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=20)

	Countries
<i>Co-payment for vaccine</i>	
There is no co-payment	DE,BG,HR,EE,FI,FR,GR,IS,IE,IT,LI,MT,NL, NO,PL,SK,SI,ES,UK-ENG,UK-WL
Co-payment exist ^a	BE, CY
<i>Co-payment for administration</i>	
There is no co-payment	DE,BG,HR,EE,FI,FR,IS,IE,IT,LI,MT,NL,NO, PL,SK,SI,ES,UK-ENG,UK-WL
Co-payment exist ^b	BE,CY

^{a, b} BE-Partly refunded.

^{a, b} CY- There is a co-payment in cases they are eligible to "free" health care by the public. The others pay out of pocket or by private insurances.

Comment for issues with reimbursement of cost of vaccine, or its administration, that may influence vaccination coverage:

EE- Full cost of vaccine and vaccination paid by vaccinee. For some occupational workers vaccines and vaccinations are being paid by employer.

IE- For work purposes, if recommended the flu vaccine for work this should be paid by employer. For private individuals with small flocks (farmers, families) they would have to pay costs for vaccine and administration themselves (out-of-pocket) should be paid by employer.

PL- Local government reimbursement of cost of vaccine only for special age group -mostly for elderly.

UK-WL - There may well be issues for this group, although we have no data available. The answer is 'probably'.

Population groups in closed communities

Twenty-nine of the 33 survey participating countries recommended vaccination of residents of long-term care facilities; vaccine for prisoners was recommended in three countries; vaccine for children in day care centers was recommended in five countries (table 14).

Table 14. Other population groups in closed communities recommended seasonal influenza vaccine in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Population group	Recommended^a	No recommendation^b
Prisoners	EE,MT,PL	BE,BG,HR,CZ,DK,FR,DE,GR,HU IS,IE,IT,LV,LT,LU,NL,NO,RO,SI,ES, SE,UK-ENG,UK-NI,UK-SC, UK-WL,FI,CY,LI,SK,PT
Children in day care centres, boarding schools etc.	BG,EE,GR,MT,PL	BE,HR,CZ,DK,FR,DE,HU,IS,IE,IT,LV,LT, LU,NL,NO,RO,SI,ES,SE,UK-ENG, UK-NI,UK-SC,UK-WL,FI,CY,LI,SK,PT
Residents of long term care facilities	BE,BG,HR,CZ,EE,FR,DE, GR, LT ^c ,HU,IS,IE, IT,LU,MT,NO,PL,RO,SI, ES,UK-ENG,UK-NI, UK-SC,UK-WL, FI,CY,LI,SK,PT	DK,LV, NL ^d ,SE
Other, Please specify	IE ^e ,LU ^f	-

^a "No recommendation" is defined here, and in the following questions, as an absence of a specific written recommendation in the official policy document on whether this population group should be vaccinated or not.

^b "Recommended" is defined here, and in the following questions, as the existence of a specific written recommendation in the official policy document that this population group should receive seasonal influenza vaccine .

^c Recommended: people, which live in social or nurse institutions.

^d Persons with a mental handicap living in residential homes.

^e Children with any condition that can compromise respiratory function (e.g. spinal cord injury, seizure disorder, or other neuromuscular disorder) especially those attending special schools/ day centre.

^f All residents of close communities.

In the 2012-13 season there were no recommendation changes with regard to population groups in closed communities in any of the 33 countries

(BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,FI,CY,LI,SK,PT) in comparison to influenza season 2011-12.

Payment scheme and funding mechanism for population groups in closed communities

Data on payment schemes and funding mechanisms for seasonal influenza vaccine with regard population groups in closed communities, by country, are presented in tables 15 and 15a.

Table 15. Payment scheme and funding mechanism for population groups in closed communities influenza vaccination in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=29)

Payment scheme	For vaccine itself	For vaccine administration
National health service	HR,IS,IE,IT,LT,MT, UK-ENG,UK-NI,UK-SC, UK-WL,FI,PT	IT,LT,MT,UK-ENG,UK-NI, UK-SC, UK-WL,PT
National insurance scheme	FR,GR,SI,SK	HR,CZ,GR,LU,SK
Out of pocket ^a	EE,LU	EE,SI
Regional health service	ES	ES,FI
Employer	-	IS
National health service; Out of pocket	-	IE
National insurance scheme; Regional health service; Out of pocket	BE	BE
National insurance scheme; Private insurance	DE	DE
Government (Public Health Service)	HU	-
No extra pay of administration of flu vaccine	-	HU
Health care facility	NO	NO
Ministry of Health; Public Sector	RO	RO
See above - such residents are elderly or with chronic conditions	CZ	-
National insurance scheme; Private insurance	-	PL,FR
Private insurance; Out of pocket; Employer	PL	-
Out of pocket; Ministry of Health	BG	BG
National health service; Private insurance; Out of pocket	CY	CY
Private insurance	LI	LI

^aOut of pocket means not reimbursed, paid by vaccinee.
DK,LV,NL,SE -Not applicable.

Table 15a. Co-payment for vaccine and administration of vaccine (vaccination) for population groups in closed communities influenza vaccination in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=28)

Countries	
<i>Co-payment for vaccine</i>	
There is no co-payment	DE,BG,HR,EE,FR,GR,HU,IS,IE,IT,LT,MT,NO,PL,RO,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL,FI,SK,PT,NO
Co-payment exist ^a	BE,CZ,LU,CY,LI
<i>Co-payment for administration</i>	
There is no co-payment	DE,BG,HR,CZ,EE, GR,HU,IS,IE,IT,LT,MT,NO,PL,RO,SI ES,UK-ENG,UK-NI,UK-SC,UK-WL,FI,SK,PT,NO
Co-payment exist ^b	BE,LU,CY,LI, FR

^{a, b} BE- Partly refunded.

^{a, b} CY- There is a co-payment co-payment in cases they are eligible to "free" health care by the public. The others pay out of pocket or by private insurances.

^{a, b} LI- 10% of the cost.

^a LU- out of pocket.

^a CZ- only cheapest vaccine is covered from insurance for people with chronic conditions. For other vaccine, you have to pay the difference.

^b LU- 10% of the doctor's visit price.

^b FR- 35% of the vaccine administration cost is paid by the patient which is refunded if the patient has a private insurance (most of the time). Those with a chronic disease are totally refunded by the national insurance.

Comment for issues with reimbursement of cost of vaccine, or its administration, that may influence vaccination coverage:

EE- Full cost of vaccine and vaccination paid by vaccinee.

IE- Most living or working in closed communities would be vaccinated free of charge, in theory some may have to pay if they are not eligible (in which case this would negatively impact on uptake).

Household contacts or care takers

Household contacts of babies <6 months of age were recommended vaccine in seven countries; contacts of those with clinical risk were recommended vaccine in 20 countries; contacts of immunosuppressed individuals were recommended vaccine in 22 countries (table 16).

Table 16. Household contacts or caretakers recommended seasonal influenza vaccine in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Household contact/Carer of:	Recommended ^a	No recommendation ^b
Infants <6 months of age	BE,EE,GR,LU,PL,FI,LI	BG,HR,CY,CZ,DK,FR,DE,HU,IS,IE,IT,LV,LT,MT,NL,NO,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,SK,PT
Immunosuppressed individuals	BE,BG,HR,DK,EE,CY,DE,GR,IS,IE,IT,LU,NL,PL,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,FI,LI	CZ,FR,HU,LV,LT,MT,NO,RO,SI,SK,PT
Persons with clinical risk indication	BE,BG,HR,CY,CZ,EE,FI,DE,GR,IS,IE,IT,LI,LU,NL,PL,RO,ES,UK-NI,UK-WL	DK,FR,HU,LV,LT,MT,NO,PT,SK,SI,SE,UK-ENG,UK-SC
Adults (≥65)	BG,EE,GR,IS,IE,LU,PL,UK-NI,UK-WL,FI,LI	BE,HR,CY,CZ,DK,FR,DE,HU,IT,LV,LT,MT,NL,NO,RO,SI,ES,SE,UK-ENG,UK-SC,SK,PT
Other	FR ^c ,IE ^d ,LU ^e ,UK-SC ^f ,UK-WL ^g ,PT ^c ,NO ^h	-

^a "No recommendation" is defined here, and in the following questions, as an absence of a specific written recommendation in the official policy document on whether this population group should be vaccinated or not.

^b "Recommended" is defined here, and in the following questions, as the existence of a specific written recommendation in the official policy document that this population group should receive seasonal influenza vaccine.

^c Infants <6 months of age with clinical risk indication.

^d Household contacts of at-risk persons and out-of-home care givers to at-risk person (at risk groups are many and are outlined in national guidance).

^e Care takers of infant and toddlers <2 years of age.

^f Unpaid carers.

^g Those who are in receipt of a carer's allowance, or those who are the carer of an elderly or disabled person whose welfare may be at risk if the carer falls ill.

^h Household contacts of severely immunosuppressed individuals.

In the 2012-13 season there were no changes in recommendations with regard to household contacts or care takers recommended seasonal influenza vaccine in any of 33 countries (BE,BG,HR,CZ,DK,EE,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,PL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,FI,CY,LI,SK,PT) in comparison to influenza season 2011-12.

Payment scheme and funding mechanism for household contacts or care takers

Payment scheme and funding mechanism for seasonal influenza vaccine with regard population groups in closed communities by country presented in tables 17 and 17a.

Table 17. Payment scheme and funding mechanism for household contacts or care takers in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=26)

Payment scheme	For vaccine itself	For vaccine administration
National health service	HR,DK,FI,IS,IE,IT,UK-ENG, UK-NI,UK-SC,UK-WL	DK,IT,UK-ENG,UK-NI, UK-SC,UK-WL
Out of pocket	EE, BG,NL, CZ	BG,EE,IS,NL
National insurance scheme;	FR,GR	HR,GR
National insurance scheme; Out of pocket	BE	BE
National insurance scheme; Private insurance	DE	CZ,DE
Ministry of Health, Public Sector	RO	RO
Out of pocket; Employer	LU	-
Private insurance; Out of pocket; Employer	PL	-
National insurance scheme; Private insurance; Employer	-	PL
Regional health service;	ES	ES,FI
Regional health service; Out of pocket; Varies with regions: In some regions, the vaccinee was charged a symbolic amount (approximately 10€) for vaccine & vaccination	SE	SE
National health service; Out of pocket; Employer	-	IE
National insurance scheme; Employer	-	LU
Private insurance;	LI	LI
37% reimbursement; vaccine free for ≥ 65 years and other risk groups	PT	-
National health service; paid if administered in pharmacies	-	PT
National health service; Private insurance; Out of pocket;	CY	CY
National insurance scheme; Private insurance		FR

* Out of pocket means not reimbursed, paid by vaccinee.

HU,LV,LT,MT,NO,SI,SK- Not applicable.

Table 17a. Co-payment for vaccine and administration of vaccine (vaccination) for population groups in household contacts or care takers in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=26)

Countries	
Co-payment for vaccine	
There is no co-payment	DE,BG,HR,DK,EE,FR,GR,IS,IE,IT,NL,PL,RO,ES, UK-ENG,UK-NI,UK-SC,UK-WL,FI
Co-payment exist ^a	BE,CY,CZ,LU,SE,LI,PT
Co-payment for administration	
There is no co-payment	DE,BG,HR,DK,EE, GR,IS,IE,IT,NL,PL,RO,ES, UK-ENG,UK-NI,UK-SC,UK-WL,FI,PT
Co-payment exist ^b	BE,CY,LU,SE,LI,FR

^{a,b} BE -Partly refunded in some groups.

^{a,b} CY-There is a co-payment in cases they are eligible to "free" health care by the public. The others pay out of pocket or by private insurances.

^a CZ-You have to pay 100%.

^{a,b} LI-10% of the cost.

^a LU-Out of pocket for private contacts or if employer doesn't provide the vaccine.

^a PT-37% reimbursement NHS

^{a,b} SE-In some regions, the vaccinee was charged a symbolic amount (approximately 10€) for vaccine & vaccination.

^b LU-10% of the doctor's visit price.

^b FR-35% of the vaccine administration cost is paid by the patient which are refunded if the patient has a private insurance (most of the time).

HU,LV,LT,MT,NO,SI,SK- Not applicable.

Comment for issues with reimbursement of cost of vaccine, or its administration, that may influence vaccination coverage:

EE-Full cost of vaccine and vaccination paid by vaccinee.

IE-Household contacts, if they do not have medical card would have to pay, employee care givers would not have to pay (covered by employer).

Recommendation for travellers

Of the 33 survey participating countries eight indicated having influenza vaccine recommendations for travellers (EE,DE,IE,LT,MT,SI,UK-SC,FI). In FI influenza vaccine is recommended for those travellers if they belong to medical risk groups. In UK-SC season/ circumstance dependent, the details are presented in the following document: <http://www.fitfortravel.nhs.uk/advice/disease-prevention-advice/influenza.aspx>. In IE all travellers are considered at some risk of influenza especially as they often travel in crowded conditions and visit very crowded locations; at risk travellers going to another hemisphere during influenza season are recommended to arrange to have influenza vaccine as soon as possible after arriving at their destination. In DE the recommendation are restricted and depend on the destination, risk factors, and available vaccine. In SI and LT influenza vaccine is recommended for all travelling from November to February in the northern hemisphere and from April to September in the southern hemisphere. In EE and MT vaccine is recommended to all travellers and there are no restrictions to certain regions, countries of specific population groups.

Overall comments on groups recommended for seasonal influenza vaccination and needs for further scientific guidance from ECDC:

HR- Scientific guidance is OK and just has to be updated periodically.

DK-We would like more evidence-based scientific guidance recommendation of influenza vaccination to pregnant and postpartum women. We also hope that ECDC will follow-up with scientific guidance on vaccination with LAIV to children.

PL- because recommendation exist, we need update scientific guidance support.

SE- More information regarding vaccination of children with live-attenuated vaccines would support our work.

Section II: VACCINATION COVERAGE DATA (SEASON 2012-13)

Overall, for the season 2012-13,29 countries provided vaccination coverage(VC) calculated for entire population or different age and population groups, using administrative methods: BG,HR,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,PL,PT,RO, SK,SI,ES,SE,UK-ENG,UK-WL,UK-NI,UK-SC. Four countries (BE,CY,CZ,LI) did not provide VC for any population group. Eight countries provided VC data for entire population (BG,SI,PL,LT,NO,HU,SK,MT), ranging from 2.7% in BG to 19% in MT.

Influenza VC among **older population** (≥ 55 ; ≥ 60 , ≥ 65 years of age) was measured in 26 countries (MT,IS,DE,NL,HR,EE,DK,FR,HU,FI,IE,IT,LV,LT,LU,NO,SI,ES,SE,PL,RO,UK-ENG,UK-NI,UK-SC,UK-WL,PT). The VC among those ≥ 65 varied from 1% in EE to 77.4% in UK-SC; median was 45%.

VC for **clinical risk groups** was reported by nine countries and ranged from 28% in PT to 80.2% in UK-NI; median was 50%. NO reported a combined vaccination coverage of 44.5% for both clinical risk groups and those aged ≥ 65 years.

Estimates of coverage for **residents of long stay care facilities** were provided by three countries (SK,PT,IE) and VC reported was 71.1%, 89%, and 73% respectively.

Ten countries (HU,IE,IT,LT,RO,SI,UK-ENG,UK-NI,UK-SC,UK-WL) provided VC data for **pregnant women**, which varied from 0.2% in LT to 64.6% in UK-NI; median was 16%.

Thirteen countries (HR,HU,IE,PL,LT,RO,ES,UK-ENG,UK-NI,UK-SC,UK-WL,PT,GR) were able to provide VC data for **HCWs** with a wide range reported, from 9.5% in PL to 45.6% in UK-ENG; median was 28%. Details are presented in table 18.

Table 18. Reported Seasonal influenza vaccination coverage, by method of monitoring, for entire population or targeted population groups among EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=29)

Country	Measured/estimated vaccination coverage (%)			
	Administrative method	Survey method	Combination of administrative and survey method	Immunisation registry
Entire population				
BG	2.67	-	-	-

SI	4.4	-	-	-
PL	5.3	-	-	-
LT	6.95	-	-	-
NO	10.4	-	-	-
HU	9.7	-	-	-
SK	4.6	-	-	-
MT	19			
Children and adolescents				
≥6months-18 years				
FI	-	-	-	4
LV	0.02	-	-	-
SI	0.4	-	-	-
≥6months-15 years				
SK	1.6	-	-	-
≥6months - 24 months				
LV	0.12	-	-	-
12 months -36 months				
FI	-	-	-	15
<15 years				
PT	-	9	-	-
Adults				
Overall adults ≥18years				
IE	-	21	-	-
NL	19.8	-	-	-
NO	-	15.4	-	-
SI	5.1	-	-	-
PT	-	16	-	-
SK ^a	4.8	-	-	-
Healthy adults ≥18years				
NO	-	10	-	-
Adults ≥18years with clinical condition/risk				
NO	-	37.1	-	-
PT	-	28	-	-
Adults ≥50 years				
EE	1	-	-	-
Overall adults ≥55 years				
MT	52	-	-	-
Overall adults ≥60 years				
IS	44.7	-	-	44.7
NL	67.8	-	-	-
DE	37.4	-	-	-
Healthy adults ≥60 years				
IS	44.7	-	-	44.7
NL	51.8	-	-	-

Adult ≥60 years of age with clinical indication/risk				
NL	76.5	-	-	-
Overall adults ≥65 years				
HR	30	-	-	-
EE	1	-	-	-
DK	-	-	-	46
FR	53.1	-	-	-
HU	30.9	-	-	-
FI	-	-	-	38
IE	56.9	60	-	-
IT	54.2	-	-	-
LV	1.8	-	-	-
LT	19.2	-	-	-
LU	43.3	-	-	-
NO	-	36.2	-	-
SI	16.8	-	-	-
ES	57	-	-	-
SE	-	-	44	-
PL	7.4	-	-	-
RO	53	-	-	-
UK-ENG	73.4	-	-	-
UK-NI	75	-	-	-
UK-SC	77.4	-	-	-
UK-WL	67.7	-	-	-
PT	-	45	55	-
Healthy adults ≥65 years				
NO	-	27.8	-	-
Adults ≥65 years with clinical condition/risk				
NO	-	53.5	-	-
All clinical risk groups and ≥ 65 years together				
NO	44.5	-	-	-
Children, adolescents and adults with clinical risk ≥6months-64 years				
FR	39.1	-	-	-
NL	52.1	-	-	-
UK-ENG	51.3	-	-	-
UK-NI	80.2	-	-	-
UK-SC	59.2	-	-	-
UK-WL	49.7	-	-	-
Children, adolescents and adults with clinical risk other age groups				
IE ^b	-	28.4 (age ≥18-64 years)	-	-
NL ^c	72.1	-	-	-
PT		28 (≥6 months of		

		age)		
Overall pregnant women				
HU	3.3	-	-	-
IE	-	27.8	-	-
IT	0.36	-	-	-
LT	0.2	-	-	-
RO	4.2	-	-	-
SI	1.4	-	-	-
UK-ENG	40.3	-	-	-
UK-NI	64.6	-	-	-
UK-SC	54.1	-	-	-
UK-WL	43.6	-	-	-
Healthy pregnant women				
UK-ENG	38.8	-	-	-
UK-SC	52.9	-	-	-
UK-WL	52.1	-	-	-
Pregnant women with additional clinical risk				
UK-ENG	59	-	-	-
UK-SC	68.7	-	-	-
UK-WL	59.6	-	-	-
Overall HCWs				
HR	19	-	-	-
HU	29.2	-	-	-
IE	-	29.5	-	-
PL	9.5	-	-	-
LT	36.6	-	-	-
RO	42	-	-	-
ES	22.9	-	-	-
UK-ENG	45.6	-	-	-
UK-NI	14.8	-	-	-
UK-SC	33.7	-	-	-
UK-WL	35.5	-	-	-
PT	28	-	-	-
Outpatient healthcare settings				
GR	19	-	-	-
UK-ENG	49.6	-	-	-
PT	45	-	-	-
Inpatient health care settings				
GR	11.5	-	-	-
IE	17.4	-	-	-
UK-ENG	45.3	-	-	-
UK-NI	20.4	-	-	-
PT	24	-	-	-
Long term health care settings				

IE	15	-	-	-
PT	27	-	-	-
Military/Armed forces				
FI	90	-	-	-
Residents of long term care facilities				
IE	73	-	-	-
PT	89	-	-	-
SK	71.1	-	-	-
Household contacts or care takers				
UK-WL	53.2	-	-	-

^a In SK VC of total population for the age groups 0-15 years, 16-58 years and ≥59 and more years is monitored; for this questionnaire we put the two latter age groups together.

^b National telephone Survey 2012-2013 conducted in September 2013.

^c NL- Vaccination coverage by age groups – Adults (any age group ≥ 18) with clinical condition/risk.

Comments on VC for clinical risk groups:

NL calculation of VC for clinical risk groups -Coverage data is not available, but coverage is available from groups with different conditions/risks. Coverage % of **72,1%** is not a statistic correct aggregated %: patients with abnormalities and functional disorders of the airways and lungs: 66,4; patients with a chronic heart disorder: 74,5%; patients with diabetes mellitus: 76,3%; patients with a chronic kidney disease: 79,5% ; persons infected with HIV: 66,1; persons with a reduced resistance to infection (e.g. because of (functional) asplenia, auto-immune disease, liver cirrhosis, chemotherapy or immunosuppressive medication): 70,8%.

Comments on VC for adults:

HR-Number of vaccinated available (98200), but denominator unknown.

DK-Only information on absolute numbers.

IE-National Telephone Survey 2012-2013 conducted in August-September 2013.

LI-The government does not survey vaccination coverage in adults.

PL-coverage is possible to estimate according the following age groups:0-4, 5-14, 15-64 and >65.

UK-WL - Public Health Wales monitor General Practice influenza immunisation uptake rates throughout the seasonal campaign and produce end of season influenza immunisation coverage statistics at national, Health Board and Local Authority level. Immunisation statistics published are not a measure of all those who have been immunised during the course of the immunisation campaign, but represent a snapshot in coverage in those living and registered with Welsh General Practices at the end of the immunisation campaign. Data on influenza immunisation for the 2012/13 campaign were collected directly from General Practice computer records using centrally provided software, which interrogates General Practice systems using specified Read-codes and automatically relays the relevant anonymous aggregate data to a central database.

Overall comments on VC:

IE-we did a national telephone survey in August-September 2013 and we also surveyed hospitals and residential facilities to obtain administrative data. Difficult to obtain data as registries are not available and vaccination of staff not closely monitored.

LT-In Lithuania general population flu vaccination coverage in 2012-2013 flu season was 6,95%. Population 2944459 people.

MT-A total of 75,200 doses were administered to eligible groups and the general population through National Immunisation Service. An unspecified number of vaccines also taken through private sector. Total country population 400,00-19%.

PL-coverage is estimated according to the age groups (4 groups acc. WHO) in population and for HCWs only.

LU-coverage for 65+ populations might be overestimated as the numerator concerns all patients that had a reimbursement for at least on vaccine dose during the season, resident and non-resident social security affiliated persons. As our transborder working population is important, this concerns also an important number of retired former transborder workers residing in a neighbour country but still socially insured in Luxembourg and in their residing country. Nevertheless it is estimated that their use of the Luxemburgish social insurance system for flu vaccination is very limited due to a free of charge flu vaccination policy for the 65+ population in the neighbouring countries.

Section III: METHODS TO MONITOR VACCINATION COVERAGE, SAFETY AND EFFECTIVENESS

Method/s and mechanism/s used to measure vaccination coverage

Of 33 responding countries 27 monitor seasonal influenza vaccination coverage using administrative method only; four countries use a combination of administrative and survey methods and the remaining two use only survey methodology to monitor influenza vaccination coverage (table 19).

Table 19. Mechanism used to monitor seasonal influenza vaccination coverage in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

	Countries	Total
Administrative method only	DE,BG,HR,CY,CZ,DK,EE,FI,FR,GR,HU,IS,IT,LV,LT,LU,MT,NL,PL,RO,SK,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL	27
Combination of administrative and survey methods	IE,NO,SE,PT	4
Survey method only	BE,LI	2
Frequency: every 4 years	BE	1
Frequency ^a	LI	1

a Not specified.

There have been no changes in the methods for monitoring influenza vaccination coverage in comparison to those used in the influenza season 2011-12 in 31 countries (BE,BG,HR,CY,CZ,DK,EE,FI,FR,GR,HU,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,PL,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL). Two countries, DE and PT, reported changes to vaccination coverage monitoring in their countries. In DE- usually there is annual survey to assess influenza vaccination coverage in the older population and at-risk-groups; due to technical reasons no such survey in 2012-13 was conducted; however, administrative data were used to estimate coverage in persons aged >60 years. In PT, “*weekly number of vaccines administered within NHS is available now.*”

The methods used for monitoring vaccination coverage by population groups recommended for vaccination and details relating to specific groups are provided in tables 20 and 20a. The information relating to status of development of immunisation registries to document influenza vaccination in the countries, and when these are expected to be available for use is summarised in table 20b.

Table 20. Methods (administrative or survey) used to monitor vaccination coverage by population groups recommended for seasonal influenza vaccine in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Population groups	Administrative	Survey	Both	No monitoring	Not applicable
Entire population	SI,DE,NO,SK			EE	BE,BG,HR,CY,CZ,DK,FI,FR,GR,HU,IS,

					IE,IT,LV,LI,LT,LU, MT,NL,PL,RO,ES,SE, PT,UK-ENG, UK-NI,UK-SC,UK-WL
Children and adolescents	FI,LV,SK ^a ,SI			EE,MT	BG,BE,HR,CY,CZ,DK, FR,DE,GR,HU,IS,IE,IT, LI,LU,LT,NL,NO,PL,RO , ES,SE,PT,UK-ENG, UK-NI,UK-SC,UK-WL
Adults: aged 18 - < 65 years old	NL,SK ^a ,DE	BE,IE		EE,IS,MT,PT	BG,HR,CY,CZ, DK,FI,FR,HU,IT, LV,LI,LT,LU,NO,PL, RO,SI,ES,SE, UK-ENG,UK-NI, UK-SC,UK-WL,GR
Adults: aged ≥65 years old	HR,DK,EE, FI,FR,HU, LV,LU,SI,ES,UK-ENG, UK-NI, UK-SC, UK-WL, DE,SK ^a ,LT,IT	NO	IE,PT ,SE	BG,CZ,LI,CY, GR(>60)	BE,DE,IS,MT,NL,PL, RO
Individuals with medical/risk conditions (clinical risk groups)	HR,FR,IT, LV,NL,SI, UK-NG, UK-NI, UK-SC, UK-WL	BE, IE, NO, PT	-	BG,CY,CZ, DK,EE,FI,GR, HU,IS,LI,LT, LU,MT,PL, RO,SK,ES,SE , DE	-
Pregnant women	UK-ENG, UK-SC, HU,LT	IE	-	DK,FR,SE, DE,GR,NO, ES	BG,BE,HR,CY,CZ, EE,FI, IS,IT,LV,LI, LU,MT,NL, PL,PT,RO,SI, UK-NI, ,UK-WL,SK
Health care workers	UK-SC, HU, GR,SK, UK-ENG, LT	-	IE	BG,SE, NO	BE, HR,CY,CZ,EE,FI, FR,DE, DK, IS,IT,LV,LI,LU,MT,NL, PL,PT,RO,SI,ES, UK-NI, UK-WL
Essential public sector workers	IT	-	-	BE,BG,CY,H R,EE,FI,DE,G R,HU,IS,IE,LI ,MT,NL,NO, PL, SK,SI,ES,	CZ,DK,LV,LT,LU,PT, RO,SE,UK-NI, UK-SC,FR

				UK-ENG, UK-WL	
Prisoners	-	-	-	EE,MT	BE,BG,CY,HR,CZ,DK, FI,FR,DE,GR,HU,IS,IE,I T,LV,LI,LT,LU,NL,NO,P L,PT,RO,SK,SI,ES,SE, UK-ENG,UK-NI, UK-SC,UK-WL
Residents of long term care institutions	IT,LI,PT,SK	-	IE	BE,BG,HR,C Y,CZ,EE,FI,F R, DE,GR,HU,IS ,LU,MT,NO, PL,RO,SI,ES, UK-ENG,UK- NI,UK-SC, UK-WL	DK,LV,LT,NL,SE
Educational institutions	-	-	-	EE,MT,PL	BG,BE,HR,CY,CZ,DK, FI,FR,DE,HU,IS,IE,IT, LV,LI,LT,LU,NL,NO,PT, RO,SK,SI,ES,SE, UK-ENG,UK-NI, UK-SC,UK-WL, GR
Household contact/Carer of:					
Infants ≤6 months of age	-	-	-	BE,EE,FI,GR, LI,LU	BG,HR,CY,CZ,DK,FR,D E,HU,IS,IE,IT,LV,LT,M T, NL,NO,PL,PT,RO,SK,SI ,ES,SE,UK-ENG,UK-NI, UK-SC,UK-WL
Immunosuppresse d individuals	IT,UK-WL, UK-SC	-	-	BE,BG,CY,H R,DK,EE,FI, DE,GR,IS,IE, LI,LU,NL,PL, ES,SE, UK-ENG, UK-NI	CZ,FR,HU,LV,LT,MT,N O,PT,RO,SK,SI
Persons with clinical risk indication	IT,UK-WL	-	-	BE,BG,HR, CY,CZ,EE,FI, DE, GR,IS, IE,LI, LU,NL,PL, RO,ES, UK-NI	DK,FR,HU,LV,LT,MT, NO,PT,SK,SI,SE, UK-ENG,UK-SC
Adults (≥65)	UK-WL,ES	-	-	BG,EE,FI,GR ,	BE,HR,CY,CZ,DK,FR, DE,HU,IT,LV,LT,MT,

				IS,IE,LI,LU, UK-NI	NL,NO,RO,PL,PT,SK, SI,SE,UK-ENG,UK-SC
Other, please specify	UK-SC, UK-WL	-	-	BE,EE,FR,IE, LI,LU,PT,NO	BG,HR,CY,CZ,DK,FI, DE,GR,HU,IS,IT,LV,LT, MT,NL,PL,RO,SK,SI, ES,SE,UK-ENG,UK-NI

^a The vaccination coverage is monitored for officially and also not officially recommended age groups (overall entire population, overall children 0 – 15 years, overall adolescents and adults 16 – 58 years and overall 59 years and older).

Table 20a. Details on administrative methods used to monitor vaccination coverage by population groups recommended for seasonal influenza vaccination in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Population groups	Medical records		Immunisation registry ^a		Not applicable	Blank
	Manual	Electronic	Manual	Electronic		
Entire population	SI	DE,SK			EE,FR	BE,BG,HR,CY,CZ,DK,FI,GR,HU,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,PL,PT,RO,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL
Children and adolescents	LV,SI	SK		FI	BG,EE,LT,MT,PL,FR	BE,HR,CY,CZ,DK,DE,GR,HU,IS,IE,IT,LI,LU,NL,NO,RO,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,PT

Adults aged 18 - < 65 years old		NL,SK,DE			BE,EE,GR,IS,IE,MT,PL,FR	BG,HR,CY,CZ,DK,FI,HU,IT,LV,LI,LT,LU,NO,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,PT
Adults aged ≥65 years old	HR,HU,LV,SI,UK-NI	ES ^b ,SE ^b ,EE,IE,DE,LU ^c ,SK,UK-ENG,UK-SC,UK-WL		ES ^b ,SE ^b ,DK,FI,PT	BG,CZ,LI,NO	BE,CY,GR,IS,IT,LT,MT,NL,PL,RO,FR
Individuals with medical/risk conditions (clinical risk groups)	HR,LV,SI,UK-NI	NL,UK-ENG,UK-SC,UK-WL	IT		BE,BG,CZ,DK,EE,FI,DE,GR,HU,IS,IE,LI,LT,LU,MT,NO,PL,RO,SK,ES,SE	CY,FR,PT
Pregnant women	HU	UK-SC, UK-ENG			BG, SK,SE	BE,HR,CY,CZ,DK,EE,FI,FR,DE,GR,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,PL,RO,SI,ES,UK-NI,UK-WL,PT
Health care workers	HU,UK-ENG				SE	BE,BG,HR,CY,CZ,DK,EE,FI,FR,DE,GR,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,PL,RO,SK,SI,ES,UK-NI,UK-SC,UK-WL,PT
Essential public sector workers			IT		BE,BG,HR,EE,FI,FR,DE,GR,HU,IS,IE,LI,MT,NL,NO,PL,SK,SI,ES,UK-ENG,UK-WL	CY,CZ,DK,LV,LT,LU,RO,SE,UK-NI,UK-SC,PT
Prisoners					EE,MT,PL,FR	BE,BG,HR,CY,CZ,DK,FI,DE,GR,HU,IS,IE,IT,LV,LI,LT,LU,NL,NO,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,PT
Residents of long term care	IE,LI,SK		IT,PT		BE,BG,HR,CZ,EE,FI,FR,DE,GR,HU,IS,	CY,DK,LV,LT,NL,SE

institutions					LU,MT,NO,P L,RO,SI ES,UK- ENG,UK- NI,UK- SC,UK-WL	
Educational institutions					BG,EE,GR,M T,PL,FR	CY,BE,HR,CZ,DK,FI, DE,HU,IS,IE,IT,LV,LI, LT,LU,NL,NO,RO,SK, SI,ES,SE,UK- ENG,UK-NI,UK- SC,UK-WL,PT
Household contact/Carer of:						
Infants ≤ 6 months of age					BE,EE,FI,GR, LI,LU,PL,FR	BG,HR,CY,CZ,DK,DE, HU,IS,IE IT,LV,LT,MT,NL,NO, RO,SK,SI,ES,SE,UK- ENG,UK-NI,UK- SC,UK-WL,PT
Immunosuppressed individuals		UK-WL, UK-SC	IT		BE,BG,HR,D K,EE,FI,FR,D E,GR,IS,IE,LI ,LU,NL,PL,E S,SE,UK- ENG,UK-NI,	CY,CZ,HU,LV,LT,MT, NO,RO,SK,SI,PT
Persons with clinical risk indication		UK-WL	IT		BE,BG,HR,C Z,EE,FI,FR,D E,GR,IS,IE,LI ,LU,NL,PL,R O,ES,UK-NI	CY,DK,HU,LV,LT,CY, MT,NO,SK,SI,SE,UK- ENG,UK-SC,PT
Adults (≥ 65)		UK-WL			BG,EE,FI,FR, GR,IS,IE,LI,L U,PL,UK-NI	BE,HR,CY,CZ,DK,DE, HU,IT,LV,LT,MT,NL, NO,RO,SK,SI,ES,SE, UK-ENG,UK-SC,PT

^b Both medical records and immunization registries. Medical records: Electronic; Immunisation registries: Electronic.

^c Coverage assessed on the basis of medico-administrative reimbursement data.

Table 20b. Development of electronic immunisation registries and their availability to document exposure of influenza vaccines. National seasonal influenza vaccination survey, March 2014 (n=8)

Status of immunisation registry	Countries	Expected availability for use to document exposure to influenza vaccines
Immunisation registry is under development	HR,PL	2017
	EE	Electronic immunization record form is created since 2011 in the frame of e-health system. It is available for use now.

	FI	It is being developed, almost real time covering over 50% of population right now, entire country hopefully by the end of the year
	IT	Information not available
	LV	Not specified
	SK	This is the responsibility of National Health Information Center (budgetary organization of MoH)
	SI	2015

NO-In Norway an electronic immunisation registry is established. Influenza vaccination has been notifiable to the Norwegian immunisation registry since 2011. However the reporting to the registry is incomplete. Only about 40 % of the doses distributed is reported to the immunisation registry.

Ten countries estimated that more that 90% of all vaccination sites report vaccination coverage; 18 countries do not know the proportion of vaccination sites reporting vaccination coverage (table 21).

Table 21. Proportion on vaccination sites reporting vaccination coverage. National seasonal influenza vaccination survey, March 2014 (n=33)

	Countries	Total
Less than 50% of all sites	BE,CY,LI	3
Between 50 and 70% of all sites	-	0
Between 70 and 90% of all sites	FI,SI	2
More than 90% of all sites	HR,EE,HU,IS,IT,UK-ENG,UK-NI,UK-SC,UK-WL,PT	10
Not known	BG,CZ,DK,FR,DE,GR,IE,LV,LT,LU,MT,NL,NO,PL,RO,SK,ES,SE	18

Of 27 countries that reported monitoring by administrative method only, in eight of these countries there is no time lag between vaccination and reporting to a medical card or immunisation registry; in 12 countries the reported time lag varied from one week to 2 months (table 22).

Table 22. Time lag between vaccination and reporting to a medical record or immunization registry. National seasonal influenza vaccination survey, March 2014 (n=27)

	Countries	Total
No time lag, entered at the time of vaccine administration	CZ,IS,LT,MT,SK,UK-ENG,UK-NI,UK-SC	8
1 week	EE,NO,RO,SE,UK-WL,PT	6
3 weeks	FI	1
1 month	CY,IT,LV,NL	4
2 months	HR	1
More than 1 month		
Three months now, in the future no time lag	DK	1
At national level coverage is collected annually	ES	1
At the end of the season	SI	1
During the year following the end of the flu	LU	1

season		
GPs send in reports of vaccines administered to payment office, the time may vary from immediately to months later	IE	1
The hospitals and the health centers are required to report until December	GR	1
We collect data twice in one season	HU	1

BE,DE,LI,PL,FR, BG- not applicable.

Six countries reported that it was possible to link of regional/national electronic immunization registry data with medical records in General practitioner (Family doctor) clinics or hospitals or with influenza laboratory data. The data is presented in table 23.

Table 23. Link of regional/national electronic immunization registry with other medical information. National seasonal influenza vaccination survey, March 2014 (n=6)

	Country	Total
Link of regional/national electronic immunization registry with medical records in hospitals		
Link exists	DK,FI,ES,SE	4
Link does not exist	PT,NO	2
Link of regional/national electronic immunization registry with medical records in General practitioner (Family doctor) clinics		
Link exists	DK,FI,ES,SE,NO ^a	5
Link does not exist	PT	1
Link of regional/national electronic immunization registry with influenza laboratory data		
Link exists	DK,FI,SE	3
Link does not exist	ES,PT,NO	3

^a Most of the GPs have an electronic patient record system that has integration to the national electronic immunisation registry, but not all.

Comments:

HR- Medical records are used here as a proxy name for seasonal influenza immunization reports collected every year following the vaccination season.

CZ- entered to medical record, there is no immunization registry.

FI- for administrative purposes can link without special permission, for research purposes need permission which takes time.

FR- Vaccine coverage assessed through the reimbursement of vaccine sale and administration, not through medical records.

HU- every vaccinator has to report number of vaccinated persons.

IT- Not at the national level but only at the Local Health Units level.

LU- Medico-administrative data from the health insurance fund are available during the following year.

MT- All vaccines registered manually at time of vaccination.

PT- Only immunisation registry not linked to others in 2012/2013.

SI- Reporting on vaccination coverage is done in April.

ES- There are several electronic immunization registries at regional level. They have different characteristics.

SE - For research purposes, an ethical permission is needed to link databases.

Numerator and denominator assessment

Of the 33 survey responding countries, only four (BE,IE,NO,PT) used survey methods to estimate influenza vaccination coverage for influenza season 2012-13. More detailed information on survey methodologies used, by country, is presented in table 24.

Table 24. Details for survey method used to assess vaccination coverage in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=4)

Countries	Type of Survey	Survey mode	Sampling strategy	Sample size	Response rate (%)	Population groups to whom vaccination coverage was estimated	Comments
BE	Individual	In person	Probability sampling; Cluster (EPI)	10000	3	Entire population; Adults aged between 18 and 65 years old; Adults aged more than 65 years old	
IE	Household	By telephone	Non probability sampling; Quotas	1700	10	Adults aged between 18 and 65 years old; Adults aged more than 65 years old	Quota sample based on age, gender and area and pregnancy. risk groups will then be identified
NO	Individual	By telephone	Probability sampling; Stratified (assessment, LQAS ^a)	2000	6.1	Adults aged between 18 and 65 years old; Adults aged more than 65 years old; Other adult age group: 16 years and older; Individuals with medical/risk conditions (clinical risk groups); Individuals with medical/risk conditions - other age group: 16 years and older	
PT	Household	By telephone	Probability sampling; Stratified (assessment, LQAS ^a)	2719	84	Entire population; Children and adolescents <15 years old; Children and adolescents; Individuals with medical/risk conditions (clinical risk groups)	

^aLot Quality Assessment Sampling

Numerator assessment

Eight countries (BG,CY,IS,LU,NO,PL,SK,PT) reported that they used pharmaceutical data for assessing the numerator in order to estimate influenza vaccination coverage for entire population for 2012-13 influenza season. Seven of these countries use pharmaceutical data to measure vaccination coverage for entire population; in NO pharmaceutical data were used to estimate vaccination coverage for individuals with medical/risk conditions and persons 65 years and older (combined) (table 25).

Twenty five countries (BE,HR,CZ,DK,EE,FI,FR,DE,GR,HU,IE,IT,LV,LI,LT,MT,NL,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL) did not use pharmaceutical data for influenza vaccination coverage assessment.

Table 25. Pharmaceutical data used to measure vaccination coverage in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=8)

Population groups/Countries	Month/year
Vaccine distribution data from industry- entire population	
LU ^a	Not indicated
PT	04/2013
Vaccine distribution data from national purchaser-entire population	
CY	01/2014
BG,NO,PT	04/2013
IS	05/2013
PL	04/2013
SK	06/2013
Vaccine data by sales and distribution from pharmacies- entire population	
CY	01/2014
NO	04/2013
SK,PT	06/2013
Number of doses distributed from national purchaser intended for medical/risk conditions and persons 65 years and older together	
NO	04/2013

^a -Wholesalers for pharmaceutical products.

Of the 33 participating countries 11 countries collect aggregate data on of the number of vaccines administered (HR,CZ,IT,LT,MT,NL,RO,ES,UK-ENG,UK-SC,UK-WL) to assess the numerator ; these data are also collected in IS,SK,HU,LV,SE,UK-NI,LU,PT in addition to other data used for numerator assessment. Three counties (BE,EE,GR) do not collect this information (table 26).

Table 26. Vaccine data collection methods by country used in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

	Countries	Total
Aggregate collection of number of vaccines administered	HR,CZ,IT,LT,MT,NL,RO,ES,UK-ENG,UK-SC,UK-WL	11
Aggregate collection of number of vaccines administered;	LV,SE,UK-NI	3

Payment/ reimbursement claims		
Aggregate collection of number of vaccines distributed (national purchaser);	BG,PL	2
Payment/ reimbursement claims	DK,LI	2
Aggregate collection of number of vaccines administered; Aggregate collection of number of vaccines distributed (national purchaser)	IS	1
Aggregate collection of number of vaccines administered; Aggregate collection of number of vaccines distributed (national purchaser); Aggregate collection of number of vaccines sales (private pharmacies); Payment/ reimbursement claims	SK	1
Aggregate collection of number of vaccines administered; Prescription data	HU	1
Aggregate collection of number of vaccines distributed (industry); Payment/ reimbursement claims	LU	1
Aggregate collection of number of vaccines distributed (national purchaser); Aggregate collection of number of vaccines sales (private pharmacies); Aggregated number of doses distributed from all wholesalers	NO	1
Aggregate collection of number of vaccines distributed (national purchaser); Payment/ reimbursement claims	IE	1
Aggregate collection of number of vaccines sales (private pharmacies); Payment/ reimbursement claims	DE	1
Actual numbers of vaccines given	FI	1
Target individual are personally invited to be vaccinated and receive a voucher for free vaccine. Denominator is the number of vouchers sent and numerator the number of vouchers back for reimbursement	FR	1
Aggregate collection of number of vaccinated persons	SI	1
Aggregate collection of number of vaccines administered; Aggregate collection of number of vaccines distributed (national purchaser); Aggregate collection of number of vaccines distributed (industry); Aggregate collection of number of vaccines sales	PT	1

(private pharmacies)		
Aggregate collection of number of vaccines distributed (national purchaser); Aggregate collection of number of vaccines sales (private pharmacies)	CY	1
None	BE,EE,GR	3

Five countries collect numerator data weekly (FR,MT,UK-ENG, UK-SC, UK-WL); in three other countries (LV,UK-NI, DK) these data are collected on a monthly basis; and in 17 countries (BG,CY,CZ,EE,LT,NO,RO,SE,HR,DE,IS,LU,NL,PL,SK,SI,ES) numerator data is collected once, at the end of the influenza season (annual data collection at, or towards, end of season) (table 27).

Table 27. Interval of numerator assessment in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=32)

Countries	Time specified
Weekly	
FR,MT,UK-ENG, UK-SC, UK-WL ^a	
Monthly	
LV,UK-NI, DK	
Every two months	
PT	
Twice during the season	
HU	In January and in April
IT	31st of January and 15th of April
Once, at the end of influenza season	
BG,CY,CZ,EE,LT,NO,RO,SE	
Annually	
HR	February
DE	no specific date
IS	May each year
LU	during the year thereafter
NL	2013
PL	the second/third quarter of the year
SK	May – June
SI	April
ES	March each year
Different intervals for different groups whom vaccine is recommended	
IE	For HCWs and residents in long term care it was collected twice during flu season in 2012-2013 season, for elderly the data is requested monthly intervals from national payment agency for those entitled to this service.
LI	Children and adolescents annually, others rarely

Other	
BE	No regular monitoring takes place in Belgium
GR	No regular monitoring takes place in Greece

^a This information is collected, but not reported on a routine basis.

FI-no data.

EE- Vaccination data source: immunization reports presented by vaccinators every 3 months.

Denominator assessment

The details relating to the denominator assessment for each country are presented in table 28. A denominator for children and adolescents is used in 14 countries; a denominator for individuals with medical/risk conditions is available in seven countries; for residents of long term care facilities, in four countries; for pregnant women, in nine countries; and for HCWs, in 12 countries.

Table 28. Denominator assessment in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Assessment	Population groups/countries	
Entire population		
Not used	CZ,EE,FR,GR,IE,ES,UK-SC	
Used	CY,BE,BG,HR,DK,FI,DE,HU,IS,IT,LV,LI,LT,LU,MT,NL,NO,PL,RO,SK,SI,SE,UK-ENG,UK-NI,UK-WL,PT	
Please specify (e.g. population registries, Central statistic data, diseases registries and etc.)		
	CY,BE,BG, HU,LV,PL,RO,LT,IT,LU, MT,PT	National central statistic data
	SI,SE,DK,FI,NO,LI	National population registry/ies
	HR	Census
	DE	Mandatory insured population (i.e. 90% of total population)
	IS	From the National Consensus
	NL	Central population statistics
	SK	The total number of population
	UK-ENG	GP registered
	UK-NI	Registered Population
	UK-WL	Electronic medical records from General Practice
Children and adolescents		
Not used	BG,CY,CZ,EE,FI,FR,DE,GR,IS,IE,LT,LU,MT,NO,RO,ES,SE,UK-SC,PT	
Used	BE,HR,DK,HU,IT,LV,LI,NL,PL,SK,SI,UK-ENG,UK-NI,UK-WL	
Please specify (e.g. population registries, Central statistic data, diseases registries and etc.)		
	BE,HU,LV,PL	National central statistic data
	HR	census
	DK,LI,SI	National population registry/ies
	IT	National Bureau of Statistics
	NL	Central population statistics

	SK	The number of 0-15 years olds out of the total number of population
	UK-ENG	GP registered
	UK-NI	Registered Population
	UK-WL	Electronic medical records from General Practice
Adults		
Not used	BG,CY,CZ,EE,FI,FR, GR,IE,LI,LT,LU,MT,NO,RO,ES,SE, UK-NI,PT	
Used	DE,BE,HR,DK,HU,IS,IT,LV,NL,PL,SK,SI,UK-ENG,UK-SC,UK-WL	
Please specify (e.g. population registries, Central statistic data, diseases registries and etc.)		
	BE,HU,LV,PL	Central statistics data
	HR	Census
	DK,SI	Population registries
	IS	>60 years
	DE	Mandatory insured population (i.e. 90% of total population)
	IT	National Bureau of Statistics
	NL	Central population statistics
	SK	The number of 16-58 years olds and 59 and more years olds out of the total population
	UK-ENG	GP registered
	UK-SC	GP medical records (65+)
	UK-WL	Electronic medical records from General Practice
Individuals with medical/risk conditions (clinical risk groups)		
Not used	CY,BE,BG,HR,CZ,DK,EE,DE,GR,HU,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,RO,SK,SI,ES,SE,PT	
Used	FI,FR,PL,UK-ENG,UK-NI,UK-SC,UK-WL	
Please specify (e.g. population registries, Central statistics data, diseases registries and etc.)		
	FI	Drug insurance register
	FR	number of vouchers sent (see comments)
	PL	Diseases registers
	UK-ENG	GP registered
	UK-NI	Registered Population
	UK-SC	GP medical records
	UK-WL	Electronic medical records from General Practice
Pregnant women		
Not used	BE,BG,CY,CZ,DK,EE,FI,FR,DE,GR,IS,IE,LV,LI,LU,MT,NL,NO,SK,SI,ES,SE,PT	
Used	HR,HU,IT,PL, LT, RO,UK-ENG,UK-NI,UK-SC,UK-WL	

Please specify (e.g. population registries, Central statistics data, diseases registries and etc.)		
	HR	Health service statistics reports
	HU	Central statistics data
	IT	Number of live births
	PL	Diseases registers
	RO	GP medical records
	LT	Number of live births
	UK-ENG	GP registered
	UK-NI	Registered Population
	UK-SC	GP medical records
	UK-WL	Electronic medical records from General Practice
Health care workers		
Not used	BE,BG,CY,CZ,DK,EE,FI,FR,DE,IS,IT,LV,LI,LU,MT,NL,NO,SK,SI,SE	
Used	HR,GR,HU,IE, LT, PL,RO,ES,UK-ENG,UK-NI,UK-SC,UK-WL,PT	
Please specify (e.g. population registries, Central statistics data, diseases registries and etc.)		
	HR	Health service statistics reports
	GR	Administrative method HCWs from NHS registries
	HU, PL,RO	Central statistics data
	LT	-
	IE	Based on denominator data provided from units providing data on numerator
	ES	Denominator provided by regions based on Regional Health System occupational records
	UK-ENG	Occupational health records
	UK-NI	Occupational Health
	UK-SC	Staff records
	UK-WL	Aggregate notifications of vaccinations given in NHS Health Board Occupational Health Departments
	PT	HCWs from NHS registries
Essential public sector workers		
Not used	BE,BG,HR,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,PT	
Used	PL	
Please specify (e.g. population registries, Central statistics data, diseases registries and etc.)		
	PL	Central statistics data

Prisoners		
Not used	BE,BG,HR,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,PT	
Used	PL	
Please specify (e.g. population registries, Central statistics data, diseases registries and etc.)		
	PL	Central statistics data
Residents of long term care institutions		
Not used	BE,BG,HR,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IT,LV,LT,LU,MT,NL,NO,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC	
Used	IE,LI,PL,UK-WL,PT	
Please specify (e.g. population registries, Central statistics data, diseases registries and etc.)		
	IE	Based on denominator data provided from units providing data on numerator
	LI	Reports of long term care institutions, estimate only
	PL	Diseases registers
	UK-WL	Medical records from General Practice
	PT	Aggregate number people in each institution
Educational institutions		
Not used	BE,BG,HR,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL,PT	
Used	PL	
Please specify (e.g. population registries, Central statistics data, diseases registries and etc.)		
	PL	Central statistics data
Other, please specify		
Not used	BE,BG,CY,HR,DK,FR,DE,GR,HU,IS,IE,IT,LV,LI,LT,MT,NL,PL,RO,SI,SE,UK-ENG,UK-WL	
Used	CZ,EE,LU,NO,SK,ES,UK-NI,UK-SC	
Please specify (e.g. population registries, Central statistics data, diseases registries and etc.)		
	CZ	Individuals with medical/risk conditions (clinical risk groups) plus people of age ≥65 together Number of vaccine administered, one summary number from health insurance company
	EE	≥65 years of age; coverage= number of vaccinated people in group≥65/number of people in

		this age group
	LU	Adults ≥ 65 years old; National statistical office estimation for 1 January (corresponding year).
	NO	Medical risk groups and all persons ≥65 years together; It has been estimated that persons belonging to risk groups (medical risk groups and persons ≥65 years) comprise about 19% of the total population
	SK	The number of 16-58 years olds and 59 and more years olds out of the total population
	ES	≥64 years of age; The total number of registered population in each region
	UK-NI	Adults aged ≥65 years; Registered Population
	UK-SC	Unpaid carers; GP medical records

Scientific studies on vaccination coverage

Three (FI, DE, UK-WL) of 33 countries reported that scientific studies on vaccination coverage were undertaken in their countries. Details of these studies are specified in table 29.

Table 29. Details on scientific studies performed on vaccination coverage in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=3)

Country	Methods	Availability of geographical information systems (GIS) for study purposes	Time frame and frequency	Target groups
FI	Surveys for validation of data quality	-	-	-
DE	Utilization of reimbursement claims data, telephone surveys, face-to-face interviews following snowballing techniques	No	Depending on funding - specific research question - often in combination with KAP questions	Depending on the research question (pregnant women, elderly)
UK-WL	We use vaccine uptake data to monitor the effectiveness of interventions to improve	No	Weekly	As indicated above

uptake			
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Comments:

IE- The national telephone surveys are done every few years, the surveys of hospitals and residential facilities will be annual.

ES-The results of the evaluation is published in the web page. These results are used in scientific studies conducted by other researchers/institutions.

Vaccine safety monitoring

National Systems to monitor influenza vaccine safety (adverse events following immunization) in vaccinated individuals are available in all 33 countries (table 30): in 21 countries case-based data (including age, sex and suspected symptoms) should be reported; in seven countries case-based data with a personal identifier and suspected symptoms should be reported in two countries aggregate data (including age, sex and suspected symptoms) should be reported; in the UK-ENG and UK-WL the Yellow card reporting system to MHRA is in place; in BE there is a national, general online notification system of adverse effects of medicines.

Table 30. Availability of the system to monitor influenza vaccine safety (adverse events following immunization) in vaccinated individuals at the national/regional level and linkage to immunisation registry in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

	Countries	Total
<u>National level</u>		
Yes, case based data including age, sex and suspected symptoms should be reported	BG,HR,CZ,EE,FR, HU,GR,IS,IE, IT,LV,LT,LU,MT,NO,PL,ES,SE, UK-NI,UK-SC,PT	21
Yes, aggregated data including age, sex and suspected symptoms should be reported	NL,SK	2
Yes, case based data with a personal identifier and suspected symptoms should be reported	CY,DK,FI,DE,LI,RO,SI	7
Other	BE ^d ,UK-ENG ^c ,UK-WL ^c	3
<i>Data linkage to immunisation registry</i>		
Not possible	BG,HR,CZ,EE,FR,DE,GR,HU,IE,IT, LV,LI,LT,LU,NO,PL,SI,ES,SE,UK-NI,UK-SC,PT, SK	23
Possible	CY,DK,FI,IS,MT,NL,RO,	7
<u>Regional level^a</u>		
Yes, aggregated data including age, sex and suspected symptoms should be reported	SK, HU	2
Yes, case based data including age, sex and suspected symptoms should be reported	BG,HR,CZ,EE,FR,GR,IS,IE, IT,LT,NO,PL,ES,UK-NI	14
Yes, case based data with a personal identifier and suspected symptoms should be reported	CY, LI,RO	3

No, there is no such system	BE,DK,FI,DE,LV,MT,NL, SI,SE,UK-ENG,UK-SC,UK-WL,PT	13
Data linkage to immunisation registry		
Not possible	BG,HR,CZ,EE,FR,GR,HU, IE,LI,LT,NO,PL,SK,ES ^b ,UK-NI	15
Possible	CY,IS,IT,RO	4

^aLU- No regional level existing, national monitoring for the whole country.

^b It is possible in some Regions.

^cYellow card reporting system to MHRA.

^dA national, general online notification of adverse effects of medicines.

The availability of the system to monitor influenza vaccine break-through* infections in vaccinated individuals, and its availability to link these data with immunisation registry, was reported by seven countries. Most countries (n=25) do not have such systems in place (table 31).

Table 31. Availability of the system to monitor influenza vaccine break-through^a infections in vaccinated individuals and linkage to immunisation registry in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country	Total
No, there is no such system	GR,BE,BG,CY,CZ,DK ^a ,EE,FI,FR,HU,IE, IT,LV,LI,LT, LU,PL,RO,SK,SI,SE,UK-ENG,UK-NI,UK-SC,ES	25
Yes, aggregated should be reported to the national level	NL	1
Yes, case based data should be reported to the national level	HR,DE,IS,MT,NO,PT	6
Yes, case based data should be reported to the regional level	-	0
Other	UK-WL	1
Data linkage to immunisation registry		
Not possible	HR,DE,NO,PT	4
Possible	IS,MT,NL	3

^a Break-through infection is defined as laboratory-confirmed influenza infection >14 days after seasonal influenza vaccination in the current season (i.e. vaccine failure).

^b There is no such system in place to routinely monitor break-through infection in DK, but it is possible to do it by data-linkage.

Is it mandatory to report adverse events following vaccination (AEFV) in 23 countries (CY,BG,HR,DK,EE,FI,DE,GR,HU,IS,IE,LV,LI,LT,NO,PL,RO,SK,SI,ES,SE^a,UK-ENG,UK-NI,UK-WL); and in the remaining nine countries (BE,CZ,FR,IT,LU,MT,NL,UK-SC,PT) report this information is not mandatory (table 32).

Table 32. Report of adverse events following vaccination in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=33)

Countries	Total
Not mandatory to report adverse events following vaccination	
BE,CZ,FR,IT,LU,MT,NL,UK-SC,PT	9

Mandatory to report adverse events following vaccination (AEFV)		
CY,BG,HR,DK,EE,FI,DE,GR,HU,IS,IE,LV,LI,LT,NO,PL,RO,SK,SI,ES,SE ^a ,UK-ENG,UK-NI,UK-WL		23
Institution whom AEFV is reported (n=23)		
CY	To the Pharmaceutical services of the MoH	1
BG	MoH and Bulgarian Drug Agency	1
HR	Croatian Institute of Public Health and Agency for Medical Products and Medical Devices of Croatia	1
DK	To the Danish Health and Medicines Authority	1
EE	To the State Agency of medicines	1
FI	National Institute for Health and Welfare	1
DE	local public health office -> regulatory authority	1
GR	National Agency for Medicines (EOF)	1
HU	National Center For Epidemiology and Directorate General of National Institute of Pharmacy	1
IS	Medical Agency	1
IE	to regulatory body- the Irish Medicines Board	1
LV	Centre for Disease Prevention and Control of Latvia, State medicine Agency	1
LI	National Agency for Therapeutic Products	1
LT	It is mandatory to perform adverse events to Centre for communicable diseases and AIDS and to National drugs control institution	1
NO	Norwegian Institute of Public Health on behalf of Norwegian Medicines Agency	1
PL	Medical doctors	1
RO	National Centre of Communicable Diseases Surveillance and Control	1
SK	State Institute of Drug Control, Regional Public Health Authorities	1
SI	Register for AEFI at National Institute of Public Health	1
ES	to the Spanish Pharmacovigilance System. the information is received in the Regional Center and uploaded to the National database (FEDRA)	1
SE	The Swedish Medical Products Agency.	1
UK-ENG	MHRA	1
UK-NI	MHRA Yellow Card Scheme	1
UK-WL	The Medicines and Healthcare products Regulatory Agency (MHRA)	1
UK-SC	MHRA Yellow Card Scheme	1

^aOnly mandatory to report unexpected and severe events AND for those responsible for health care services.

Studies on influenza vaccine safety and vaccine effectiveness

Of 33 survey participating countries five (DK,FI,IT,ES,UK-ENG) reported that they had carried out studies on influenza vaccine safety within the last five years and 16 (HR,DK,FI,FR,DE,HU,IE,IT,NL,PL,ES,UK-ENG, UK-NI,UK-SC,UK-WL,PT) undertook vaccine effectiveness studies. Details and links to these studies presented in table 33 and 33a.

Table 33. Scientific studies on influenza vaccine safety and vaccine effectiveness performed within the last 5 years. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country	Total
Studies on influenza safety		
Not performed	BE,BG,HR,CY,CZ,EE,FR,DE,GR,HU,IS,IE,LV,LI,LT,LU,MT,NL,NO,PL,RO,SK,SI,SE,UK-NI,UK-SC,UK-WL,PT	28
Performed	DK,FI,IT,ES,UK-ENG	5
Time intervals for safety studies		
Every year	IT	1
Other time interval	DK,FI,ES,UK-ENG	4
Product-specific safety studies		
Not performed	DK,IT,ES,UK-ENG	4
Performed	FI	1
Studies on influenza vaccine effectiveness		
Not performed	BE,BG,CY,CZ,EE,GR,IS,LV,LI,LT,LU,MT,NO,RO,SK,SI,SE	17
Performed	HR,DK,FI,FR,DE,HU,IE,IT,NL,PL,ES,UK-ENG, UK-NI,UK-SC,UK-WL,PT	16
Time intervals for vaccine effectiveness studies		
Every year	DK,FI,DE,HU,IE,NL,ES,UK-ENG,UK-NI,UK-SC,UK-WL,PT	12
Every other year	IT,PL	2
Other time interval	HR,FR	2
Product-specific safety studies		
Not performed	DK,FI,FR,DE,IE,IT,NL,ES,UK-ENG, UK-NI,UK-SC,UK-WL,PT	13
Performed	HR,HU,PL	3

Table 33a. Scientific studies on influenza vaccine safety and effectiveness and details for studies performed within the last 5 years. National seasonal influenza vaccination survey, March 2014 (n=15)

Country/ Link to publication	Study type	Year	Method	Target groups
	<i>Study year 1</i>			
HR/ Link to publication	Effectiveness	2010-11	Case-effectiveness	Entire population
	Not published yet			
DK/ Link to publication	Effectiveness	2009-10	Register-based cohort study	Risk groups
	http://www.ncbi.nlm.nih.gov/pubmed/22277542			
DK Link to publication	Safety	2009/10	Register-based cohort study	Pregnant women
	http://www.ncbi.nlm.nih.gov/pubmed/22782418			
DK/ Link to publication	Safety	2009-10	Register-based cohort study	Pregnant women
	http://www.ncbi.nlm.nih.gov/pubmed/22551713			
FI	Safety	-	-	-
FR/ Link to publication	Effectiveness	2011-12	Screening method	Severe cases in ICU
	Eurosurveillance, Volume 17, Issue 18, 03 May 2012			
DE/ Link to publication	Effectiveness	Annual	Screening methods, test-negative case-control	Total population, persons aged ≥60 yrs
	http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19388			
HU	Effectiveness	2008-09	Case control study	Patients in age group ≥60 presenting with influenza-like illness (meeting the EU ILI case definition) at participating GPs
IE/ Link to publication	Effectiveness	2009-10; 2010-11; 2011-12; 2012-13	Sentinel sites- part of IMOVE study	All population
	https://www.hpsc.ie/hpsc/A-Z/Respiratory/Influenza/SeasonalInfluenza/Publications/InfluenzaVaccinationPublications/File_4511,en.pdf			
IT/ Link to publication	Effectiveness	2009-10; 2010-11; 2011-12	Case control study	General population
	https://sites.google.com/site/epiflu/			
NL/ Link to publication	Effectiveness	2012-13	Test-negative case-control method	Swabbed medically attended ILI patients in the sentinel GP network.

	http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20399			
PL	Effectiveness	2010-11	CC study-part of I-MOVE	Entire population
ES/ Link to publication	Effectiveness	cycEVA/ 2008-09	Design: test-negative case-control study. Outcome: lab confirmed influenza	Elderly
	http://dx.doi.org/10.1016/j.vaccine.2010.01.054			
UK-ENG/ Link to publication	Effectiveness	2012-13	TNCC method	Vaccine target groups
	http://www.ncbi.nlm.nih.gov/pubmed/23399421			
UK-SC/ Link to publication	Effectiveness	2012-13	Test-negative	All population (stratified by age and clin at risk)
	UK mid-season analysis http://www.ncbi.nlm.nih.gov/pubmed/23399421			
UK-WL/ Link to publication	Effectiveness	2011, 2012, 2013	Swab-negative case-control (Wales provide data for a collaborative UK study)	Adults aged 65y and older and those aged 6m to 64y at clinical risk
	http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20389			
	http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19791			
	http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20389			
PT/ Link to publication	Effectiveness	EuroEVA	-	-
	I-move study			
<i>Study year 2</i>				
FR/ Link to publication	Effectiveness	Every year since 2008	Case control study	-
	I move study			
IT	-	-	-	General population
NL		2006-07 to 2010-11		Swabbed medically attended ILI patients in the sentinel GP network.
HU		2009-10	Case control study using systematic sampling, test negative design (comparing influenza-positive to influenza laboratory-negative patients)	Practitioners interviewed and collected swabs from a systematic sample (in age group 60+: all ILI cases, in 18-59: the first and second eligible patient in every single week) of patients presenting with influenza-like illness (meeting the EU ILI case definition).
Link to publication	http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1000388			

PL		2011-12		Entire population
ES/ Link to publication		CycEVA-2009-10; SISS-2009-10		All population
	www.biomedcentral.com/content/pdf/1471-2458-11-899.pdf			
UK-SC/ Link to publication		2011-12	Test-negative	All population (stratified by age and clinical risk group)
	UK end-of-season http://www.ncbi.nlm.nih.gov/pubmed/23399424			
<u>Study year 3</u>				
NL		2009-10		Cases were patients hospitalised with laboratory-confirmed 2009 A/H1N1 influenza infection between November 16, 2009 and January 15, 2010.
PL		2012-13		Entire population
ES/ Link to publication		CycEVA-2010-11; SISS-2010-11		All population; target groups for vaccination; age groups; previous vaccination
	Effectiveness of the 2010/11 seasonal trivalent influenza vaccine in Spain: preliminary results of a case-control study. Euro Surveill. 2011;16(11):1-6.pii=19820. Available from: http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19820 Effectiveness of the 2010–11 seasonal trivalent influenza vaccine in Spain: cycEVA study. Vaccine, 2012, 30: 3595-3602.			
UK-SC/ Link to publication		2010-11	Comparison of different methods	All population (stratified by age and clinical risk group)
	Scotland end-of-season http://www.ncbi.nlm.nih.gov/pubmed/23933371			
<u>Study year 4</u>				
HU/ Link to publication		2010-11	As above	As above
	http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0027622; http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19818			
ES/ Link to publication		CycEVA-2011-12; SISS-2011-12		All population; target groups for vaccination; age groups; time since vaccination
	Early estimates of the effectiveness of the 2011/12 influenza vaccine in the population targeted for vaccination in Spain, 25 December 2011 to 19 February 2012. Euro Surveill. 2012;17(12):1-6. Available from: http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20129 Effectiveness of influenza vaccine against laboratory-confirmed influenza, in the late 2011–2012 season in Spain, among population targeted for vaccination. BMC Infectious Diseases 2013 13:441. Available from: http://www.biomedcentral.com/1471-2334/13/441			
UK-SC/		2010-11	Screening method	Severe influenza cases

Link to publication	England and Scotland http://www.ncbi.nlm.nih.gov/pubmed/23591102		
<i>Study year 5</i>			
HU/ Link to publication	2011-12	As above	As above
	http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20281 ; http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20146 ; http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20390		
ES/ Link to publication	-	CycEVA-2012-13 ;SISS-2012-13	-
	All population; target groups for vaccination; age groups		
	Estimating the 2012/13 influenza vaccine effectiveness using the cycEVA study, the Spanish component of the multicentre I-MOVE study. European Scientific Conference on Applied Infectious Disease Epidemiology (ESCAIDE). Stockholm, 5-7 November 2013.		
UK-SC/ Link to publication	2010-11	Test negative	All population (stratified by age and clinical risk group)
	UK mid-season http://www.ncbi.nlm.nih.gov/pubmed/21329644		

Section IV: VACCINE PROCUREMENT AND DELIVERY

Information on number of doses for influenza season 2012-13 purchased, distributed, used or estimated varied by countries; overall 22 countries were able to provide this information (table 34).

Table 34. Vaccine procurement in EU/EEA countries in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014 (n=22)

Country	Number of doses			
	Purchased ^a	Distributed	Used	Estimated
BG	194398	NK	NK	NK
HR	450000	445000	288440	288440
CY	91640	76708	76708	76708
DK	575000	575000	NK	NK
FI	1200000	900000	900000	900000
DE	13322945	NK	NK	NK
HU	1500000	1300000	1000000	NK
IE	749992	702027	659596	749992
IT	NK	NK	8825063	NK
LV	30500	23640	9201	
LT	97177	97177	95136	95136
MT	75200	75200	75200	75200
NL	3950000	3735000	3490000	NK
NO	645894	541771	526134	526134
PL	1500000	1500000	910000	1410000
PT	1900000	1900000	NK	NK
RO	1000000	1000000	904251	2746000
SK	262996	249684	249684	249684
SI	140755	121491	88000	100000
UK-ENG	NK	17566957	11914798	11914798
UK-NI	480000	NK	NK	437000
UK-SC	1156463	NK	NK	NK

^a If parallel systems exist (public/private), please provide if possible an estimate for overall number of doses purchased in your country.

Not known (NK)- UK-WL,CZ,EE,FR,IS,GR,BE,ES,SE,LI.

Not provided- LU.

Comments on vaccine procurement:

CZ -Purchases of vaccine for 5.8 % of population.

EE -Influenza vaccination is not included in to the national immunization schedule. There is no seasonal influenza vaccination program in Estonia. All people have to pay for influenza vaccines and vaccination from their pockets. All vaccinators are obligated to report the number of vaccinated people.

FI -Private sector also sells influenza vaccines which we do not keep calculus on.

FR Distributed= vaccines purchased less vaccines returned back by the office.

DE-This is the number of prescribed vaccine doses in the public market (around 90% of the total population).

IE- Refers to doses purchased by national authority and distributed. Additional private supplies would have been used by pharmacies or provided to GPs for private patients. But we do not have any data on this at moment (it is requested).

LV- No. of doses purchased and distributed - obtained from companies representatives in LV (GSK, Sanofi, Abbott). No complete data of No. of doses used.

MT- This year all doses were utilised as there was an initiative to vaccinate persons visiting Out-Patients Department at the General Hospital.

PT- Vaccines are both purchased by NHS for free vaccination and sold in pharmacies.

SI- No of doses used is actually no of persons reported to be vaccinated. Estimated number of doses is somewhere between this number and number of doses distributed.

ES- Each Region purchase, distribute and administer their own vaccines. This information is not usually collected at national level.

UK-ENG -This is based data collected on GP registered population and HCWs collected through the Inform system and will not include information on doses of vaccine administered in non-primary health care settings.

UK-NI -This includes only those provided by the NHS, not private supply.

UK-SC No exact data on numbers distributed/used: estimated 2% wastage annually (i.e. 98% distribution/usage of purchased vaccines).

UK-WL -During 2012-13 trivalent seasonal influenza vaccine was purchased directly from pharmaceutical companies by general practices at an individual practice level. Central collation of purchasing information was not possible.

The amount of vaccines purchased was not sufficient to cover vaccination for recommended population groups in one (HR) of the 21 countries. Four countries (DE,IT,LI,ES) reported that vaccine shortages and/or stock-outs during the last influenza season affected vaccination coverage in their countries (table 35).

Table 35. Amount of vaccines purchased to cover vaccination for recommended population groups and vaccine shortages and/or stock-outs in 2012-13 influenza season. National seasonal influenza vaccination survey, March 2014

	Country	Total
Amount of vaccines purchased (n=21)		
Amount not sufficient	HR	1
Amount sufficient	BE,CZ,DK,FI,FR,IE,IT,LI,LT,MT,NL,NO,PT,SK,SI,ES,SE, UK-ENG,UK-NI,UK-SC	20
Vaccine shortages and/or stock-outs that affected vaccination coverage (n=28)		
Vaccination coverage not affected	CY,BE,HR,CZ,DK,EE,FI,FR,HU,IS,IE,LT,MT,NL,NO,PL,RO,SK, SI,SE,UK-ENG,UK-NI,UK-SC,UK-WL	24
Vaccination coverage affected	DE ^a ,IT ^b ,LI ^c ,ES ^d	4

^aBegripal und Flud.

^bSuspension from the market of some vaccine lots of two different brands due to quality control check.

^cOne supplier had to withdraw his product for impurities.

^dThere were two incidents in Crucell and Novartis that affected several Regions.

Vaccine products used in 2012-13 among MSs, by type of vaccine, product name, and specific population group/s for which it was used, are detailed in table 36. The trivalent inactivated non-adjuvanted vaccine (TIV) was the most commonly used vaccine in the influenza season 2012-13; overall this vaccine have been used in 30 countries (CY,BE,BG,HR,CZ,DK,EE,FI,FR,DE,GR, IS,IE,IT,LI,LT,MT,NL,NO,PL,PT,RO,SK,SI,SE,UK-ENG,UK-NI,UK-SC,UK-WL,ES). Trivalent inactivated adjuvanted vaccines (aTIV) were used in eight

countries (DE,IT,LI,PL,UK-SC,UK-WL,HU,ES) in 2012-13. Trivalent live attenuated nasal vaccine (LAIV) was available in four countries (DE,SE,UK-NI,UK-WL) and Quadrivalent inactivated non-adjuvanted vaccine (QIV) was not used in 2012-13.

Table 36. Vaccine products used and population groups targeted in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=31)

Country	Type of vaccine /Product name	Target groups
Trivalent inactivated non adjuvanted vaccines (TIV)		
Used	CY,BE,BG,HR,CZ,DK,EE,FI,FR,DE,GR,IS,IE,IT,LI,LT,MT,NL,NO,PL,PT,RO,SK,SI,SE,UK-ENG,UK-NI,UK-SC,UK-WL,ES	
Not used	HU	
CY	GaxoSmithKline; Sanofi Pasteur	Those with medical condition/s; Older adults (e.g. ≥60/65 years); Pregnant women; Health Care Workers
BE	Abbott healthcare; GlaxoSmithKline; Sanofi Pasteur; Novartis (non adjuvanted); Other manufacturer: Janssen-Cilag	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers
BG	Abbott healthcare; Sanofi Pasteur	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Residents of long stay care facilities; Health Care Workers; Other occupational groups
HR	Sanofi Pasteur	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Residents of long stay care facilities; Health Care Workers
CZ	Abbott healthcare; Sanofi Pasteur	Children and adolescents; Healthy adults; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
DK	GlaxoSmithKline; Sanofi Pasteur	Older adults (e.g. ≥65 years); Those with medical condition/s; Pregnant women; Other target group: The vaccines may be given to all individuals on their own cost

EE	Abbott healthcare; GlaxoSmithKline; Sanofi Pasteur	Children and adolescents; Healthy adults; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
FI	GlaxoSmithKline; Sanofi Pasteur	Children and adolescents; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Health Care Workers; Other target group: Close vicinity / household contacts
FR	Abbott healthcare; Sanofi Pasteur; Novartis (non adjuvanted); Other manufacturer: Pierre Fabre; GlaxoSmithKline	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
DE	Abbott healthcare; Baxter; GlaxoSmithKline; Pfizer/CSL Australia; Sanofi Pasteur; Novartis (non adjuvanted)	Children and adolescents; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
GR	Abbott healthcare; GlaxoSmithKline; Sanofi Pasteur; Novartis (non adjuvanted)	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
IS	Sanofi Pasteur	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
IE ^a	GlaxoSmithKline; Sanofi Pasteur	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups; Other target group: GSK product was

		procured by pharmacies for private patients (we are informed)
IT	Abbott healthcare; GlaxoSmithKline; Sanofi Pasteur; Novartis (non adjuvanted); Other manufacturer: Kedrion	Children and adolescents; Healthy adults; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
LI	GlaxoSmithKline; Sanofi Pasteur; Novartis (non adjuvanted)	Children and adolescents; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers
LT	Sanofi Pasteur	Children and adolescents; Those with medical condition/s; Health Care Workers
MT	Sanofi Pasteur	Children and adolescents; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Residents of long stay care facilities; Health Care Workers; Other occupational groups
NL	Abbott healthcare; Sanofi Pasteur;	Older adults (e.g. ≥60/65 years); Those with medical condition/s
NO	Abbott healthcare; GlaxoSmithKline; Sanofi Pasteur	Children and adolescents; Healthy adults; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
PL	Abbott healthcare; GlaxoSmithKline; Sanofi Pasteur; Novartis (non adjuvanted)	Children and adolescents; Healthy adults; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers;

		Other occupational groups
PT	Abbott healthcare; GlaxoSmithKline; Sanofi Pasteur	Children and adolescents; Healthy adults; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
RO	GlaxoSmithKline	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers
SK	Abbott healthcare; GlaxoSmithKline; Sanofi Pasteur	Children and adolescents; Healthy adults; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups; Other target group: Residents of social care facilities
SI	Sanofi Pasteur	Children and adolescents; Healthy adults; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
SE ^b	Abbott healthcare; Baxter; GlaxoSmithKline; Sanofi Pasteur	Children and adolescents; Healthy adults; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups

UK-ENG	Abbott healthcare; GlaxoSmithKline; Pfizer/CSL Australia; Sanofi Pasteur; Novartis (non adjuvanted)	Children and adolescents; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers
UK-NI	Sanofi Pasteur; Novartis (non adjuvanted)	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers
UK-SC	Abbott healthcare; GlaxoSmithKline; Pfizer/CSL Australia; Sanofi Pasteur; Novartis (non adjuvanted)	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers
UK-WL	Abbott healthcare; Baxter; GlaxoSmithKline; Pfizer/CSL Australia; Sanofi Pasteur; Novartis (non adjuvanted)	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers
Trivalent inactivated adjuvanted vaccines (aTIV)		
Used	DE,IT,LI,PL,UK-SC,UK-WL, HU ,ES	
Not used	CY,BE,BG,HR,CZ,DK,EE,FI,FR,GR, IS,IE,LT,MT,NL,NO,PT,RO,SK,SI,SE, UK-ENG,UK-NI	
DE	Crucell (viroosomal vaccines); Novartis (adjuvanted/Squalene (MF59)	Older adults (e.g. ≥60/65 years)
IT	Crucell (viroosomal vaccines); Novartis (adjuvanted/Squalene (MF59)	Children and adolescents; Older adults (e.g. ≥60/65 years)
HU	GlaxoSmithKline; Omnivest	Children over 3 years and adolescents; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers; Other occupational groups
LI	Crucell (viroosomal vaccines); Novartis (adjuvanted/Squalene (MF59); Other manufacturer: Abott	Children and adolescents; Healthy adults; Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers;

PL	Other manufacturer: Berna Biotech	Healthy adults
UK-SC	Crucell (viroosomal vaccines)	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Residents of long stay care facilities; Health Care Workers
UK-WL	Crucell (viroosomal vaccines)	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Residents of long stay care facilities
Trivalent live attenuated nasal vaccine (LAIV)		
Used	DE,SE,UK-NI,UK-WL	
Not used	BE,BG,HR,CY,CZ,DK,EE,FI,FR,GR,HU,IS,IE,IT,LI,LT,MT,NL,NO,PL,PT,RO,SK,SI,ES,UK-ENG,UK-SC	
DE	Astra Zeneca	Other target group: children aged 2-6 years with medical conditions
SE ^b	Astra Zeneca	Children and adolescents
UK-NI	Astra Zeneca	Children and adolescents with medical conditions
UK-WL	Astra Zeneca	Those with medical condition/s
Quadrivalent attenuated nasal vaccine (LAIV)		
Used	-	
Not used	BE,BG,HR,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LI,LT,MT,NL,NO,PL,PT,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL	
Quadrivalent inactivated non-adjuvanted vaccine (QIV)		
Used	-	
Not used	BE,BG,HR,CY,CZ, EE,DK,FI,FR,DE,GR,HU,IS,IE,IT,LI,LT,MT,NL,NO,PL,PT,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL	
Other products used		
Used	BE,ES	
Not used	BG,HR,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LI,LT,MT,NL,NO,PL,PT,RO,SK,SI,SE,UK-ENG,UK-NI,UK-SC,UK-WL	
BE	Trivalent inactivated intradermal vaccine Intanza (Sanofi Pasteur MSD)	Age group / medical conditions
ES	Trivalent inactivated intradermal vaccine Intanza (Sanofi Pasteur MSD)	≥ 65 years of age / medical conditions

^a Sanofi Pasteur product procured by national agency, we believe that GSK (Fluarix) was procured privately by some pharmacies for private patients.

^b TIVs are mostly used. Vaccines are procured before the influenza season by each county separately. LAIV vaccines were available season 2012-2013, but it is not known to what extent they were used.

LU,LV –No data.

The ECDC information site on influenza vaccines

(http://ecdc.europa.eu/en/healthtopics/seasonal_influenza/vaccines/Pages/influenza_vaccination.aspx) have been used in eighteen countries (CY,BE,BG,EE,FI,GR,HU,IS,IE,IT,LI,MT,PL,PT,RO,SE,UK-NI,UK-WL); in the remaining 13 countries (HR,CZ,DK,FR,DE,LT,NL,NO,SK,SI,ES,UK-ENG,UK-SC) this information have not been used.

In most countries influenza vaccine administration was most frequently given in General practitioner's (Family doctors) surgeries, hospitals and workplaces, reported by 31, 23 and 20 countries respectively (table 37).

Table 37. The main health care settings where influenza vaccine was administered by country. National seasonal influenza vaccination survey, March 2014 (n=33)

Country	Health care setting	Total
BE,DE,HU,LI	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Paediatricians	4
DK,EE,MT	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Walk-in clinics; Paediatricians	3
NL,RO	General Practitioners (Family doctors) surgeries	2
ES, UK-NI	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces	2
FI,FR	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Well-baby clinics; Paediatricians;	2
BG	General Practitioners (Family doctors) surgeries; Hospitals; Paediatricians; Other: Immunization centres	1
GR	General Practitioners (Family doctors) surgeries; Hospitals; Walk-in clinics; Paediatricians	1
LU	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Paediatricians; Other: medical specialist's private practices and occupational health services	1
SK	General Practitioners (Family doctors) surgeries; Hospitals;	1

	Workplaces; Paediatricians; Other: Social care facilities	
SI	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Paediatricians; Other: Vaccination clinics on regional units of NIPH	1
UK-WL	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Pharmacies	1
UK-SC	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Pharmacies; Walk-in clinics	1
IE	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Pharmacies; Walk-in clinics; Other: in residential care facilities	1
UK-ENG	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Schools; Pharmacies; Supermarkets; Walk-in clinics; Well-baby clinics; Paediatricians; Other: Antenatal clinics	1
IS	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Schools; Walk-in clinics; Well-baby clinics	1
NO	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces; Walk-in clinics; Other: Public Health Services	1
HR	General Practitioners (Family doctors) surgeries; Hospitals; Workplaces;	1

	Walk-in clinics; Paediatricians; Other: Institutes of Public Health	
CZ	General Practitioners (Family doctors) surgeries; Paediatricians; Other: vaccination centres	1
IT	General Practitioners (Family doctors) surgeries; Paediatricians; Other: vaccine services in local Health Units	1
SE	General Practitioners (Family doctors) surgeries; Workplaces; Walk-in clinics; Paediatricians	1
PL	General Practitioners (Family doctors) surgeries; Workplaces; Walk-in clinics; Well-baby clinics	1
LT	Hospitals; General Practitioners (Family doctors) surgeries	1
CY	General Practitioners (Family doctors) surgeries; Hospitals; Walk-in clinics; Well-baby clinics; Paediatricians	1
PT	Hospitals; Workplaces; Pharmacies; Walk-in clinics	1

LV-no data.

Doctors and nurses were reported as the most common health care workers who administered influenza vaccines in all 32 countries; in four countries (IE,PT,UK-WL,UK-ENG) vaccine was also administered by pharmacists (table 38).

Table 38. Health care worker professionals who administered influenza vaccines in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=32)

	Country	Total
Doctors	BE,HR,CZ,DE,GR,HU,SI	7
Doctors; Nurses	BG,CY,DK,EE,FI,FR,IS,IT,LI,LT,LU,MT, NO,PL,RO,SK,ES,SE,UK-NI,UK-SC	20
Doctors; Nurses; Others: GP's assistants	NL	1
Doctors; Nurses; Pharmacists	IE,PT,UK-WL	3

Doctors; Nurses; Pharmacists; Others: Midwives	UK-ENG	1
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LV-no data.

Of 25 responding countries 17 reported that special protocols were required (e.g. license, standing order) if vaccine was administered by anyone other than a doctor (table 39).

Table 39. The need of special protocol (e.g. licence, standing orders) for influenza vaccine administration in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=25)

	Country	Total
No need of special protocol	CY,FI,IS,LI,LT,MT,NL,PT	8
The special protocol is required	BG,DK,EE,FR,IE,IT,LU,NO,PL,RO,SK,ES,SE ^a ,UK-ENG,UK-NI,UK-SC,UK-WL	17

^aA binding regulation (SOSFS 2000:1) regulates the ordination of vaccines by nurses. This limits the ordination to groups included in national vaccination recommendations. Furthermore, not all nurses are allowed to prescribe influenza vaccines, only those with formal competence.

BE,HR,CZ,DE,GR,HU,LV,SI- not applicable.

Most countries (n=23) do not provide financial incentives to those administering vaccine in order to achieve higher vaccination coverage; in ten countries financial incentives were reported and these are specified in table 40.

Table 40. Financial incentive provided to vaccine administrators to achieve high vaccination coverage for influenza vaccine in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country/Comment if financial incentive exist
No financial incentive	BE,BG,HR,DK,EE,FI,DE,GR,HU,IS,IT,LI,LT,LU,MT,NL,NO,PL,PT,RO,SK,SI,ES,SE ^a
There is financial incentive	CY,CZ,FR,IE,LV,UK-ENG,UK-NI,UK-SC,UK-WL
CY	The financial incentive is only for the Paediatricians and GPs working in the private sector as they are paid the full cost of the vaccine plus what they charge for the visit.
CZ	Some bonus payment for GPs that achieve specified level of vaccination coverage among registered patients.
FR	General practitioner can obtain an additional remuneration based on public health objectives, which include influenza immunization coverage among their at-risk patients.
IE	They are paid for vaccine administration.
UK-ENG	GPs are reimbursed for the cost of the vaccine and receive a flat rate amount per vaccine administered. There are also performance related payments if certain coverage rates are achieved.
UK-NI	GPs are paid per vaccine given.

UK-SC	For ≥65s increased payment per patient if uptake of 75% or over is achieved.
UK-WL	Quality Outcomes Framework, which specifies a target for a subset of at-risk patients, but this, is lower than the 75% recommended target.

^a It is possible that some individual counties used financial incentives to increase coverage and/or fed back information on coverage.

LV-no data.

Mechanisms to provide feedback information relating to vaccination coverage achieved to respective vaccinator/vaccinating clinic was reported by seven countries; most countries indicated that there is no such mechanism in their countries (table 41).

Table 41. Mechanism to feedback on vaccination coverage achieved to respective vaccinator/vaccinating clinic. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country/ Comment if feedback mechanism on vaccination coverage achieved to vaccinators exists
There is no mechanism	BE,BG,HR,CY,CZ,DK,EE,FI,DE,GR,HU,IS,IE,IT,LI,LT,LU,MT,NL,NO,PL,RO,SK,SI,ES,SE
There is a mechanism	FR,LV,PT,UK-ENG,UK-NI,UK-SC,UK-WL
FR	Information about the immunization coverage rates is provided through several channels (media, article ...)
PT	Vaccination coverage is available at each level.
UK-ENG	Collection of vaccine uptake data is automated and viewable on line. Local immunisation coordinators can provide feedback at GP level on comparative performance, and whether individual sites have met.
UK-NI	Annual Reports.
UK-SC	Health boards have access to weekly practice level data on uptake based on electronic GP records and provide feedback to individual practices.
UK-WL	General practice level reporting and feedback is provided by Public Health Wales.

LV-no data.

Comments on vaccine procurement and delivery:

EE -All vaccinators are obligated to report the number of vaccinated people.

IE -vaccine is distributed by the National Cold Chain distribution network.

ES-A joint procurement agreement was conducted coordinated from the MoH. A total of 16 out of 19 Regions and other national institutions participated.

Section V: PROMOTING SEASONAL INFLUENZA VACCINATION

Communication with general public

Specific information materials (table 42) for the general public existed in 22 countries. Specific information for other population groups- pregnant women or individuals with chronic medical conditions existed in 19 and 24 countries respectively. Most countries also had information materials for those with ≥ 65 years of age.

Table 42. Information campaigns for seasonal influenza vaccination that targets the general public and other specific population groups in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country	Total
General public		
Yes	BE,BG,HR, EE,FI,FR,GR,HU, IS,IT,LV,LI,LU,MT,PL,PT,RO,SK,SI,ES,UK-NI,UK-WL	22
No	CY,CZ,DK,DE,IE,LT,NL,NO,SE,UK-ENG,UK-SC	11
Population over 65		
Yes	BE,BG,HR,CY,CZ,DK,EE,FI,FR,DE,GR,IS,IE,IT,LI,MT,NO,PL,PT,SI,ES, SE,UK-NI,UK-SC,UK-WL,SK	26
No	HU,LV,LT,LU,NL,RO, UK-ENG	7
Pregnant women		
Yes	BE,HR,CY,DK,FI,FR,DE,GR,IS,IE,IT,LI,MT,NO,PT,SI,UK-NI,UK-SC,UK-WL	19
No	BG,CZ,EE,HU,LV,LT,LU,NL,PL,RO,SK,ES,SE,UK-ENG	14
Clinical risk		
Yes	BE,BG,HR,CY,CZ,DK,FI,FR,DE,GR,IS,IE,IT,LI,MT,NO,PL,PT,SI,SE, UK-NI,UK-SC,UK-WL, SK,	24
No	EE,HU,LV,LT,LU,NL,RO,ES,UK-ENG	9
Others		
Yes	HR, FI, SI	3
No	BE,BG,CY,CZ,EE,DK,FR,GR,HU,IS,IT,LV,LI,LT,LU,NL,NO,PL,RO,SK,ES,SE, DE,IE,MT,PT,UK-ENG,UK-SC,UK-WL, UK-NI	30
HR	All population through media	1
FI	Close vicinity / Household contacts	1
SI	Children < 2 years old	1

Various media campaigns (radio, TV or newspapers) were used in all 30 countries during 2011-12 influenza season. Detailed information by country is specified in table 43.

Table 43. Sources used to inform the general public in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=30)

Sources of information	Country	Total
Radio; TV; Newspapers; Leaflets;	BG,DK,IE,IT,ES,SE,UK-SC	7

Posters; Website		
Radio; Newspapers; Leaflets; Posters; Website	LI,LU,PL	3
Leaflets; Posters; Website	DE,UK-NI	2
Leaflets; Website;	NO,SI	2
Newspapers; Leaflets; Posters; Website	FI,FR	2
Radio; Newspapers; Website	PT,SK	2
Posters	LV	1
Radio; Leaflets; Posters; Website	BE	1
Radio; Newspapers; Leaflets; Posters; Website; Other: Social media and sponsorship of national weather updates on one TV channel	UK-WL	1
Radio; TV; Leaflets; Website	HU	1
Leaflets; Posters; Other: press conference, discussion with experts	CZ	1
Radio; TV; Newspapers; Leaflets; Posters; Website; Other: influenza forum for HCW	EE	1

Radio; TV; Newspapers; Leaflets; Website	HR	1
Radio; TV; Newspapers; Posters; Website	MT	1
Radio; TV; Newspapers; Website	IS	1
Radio; TV; Website	RO	1
TV; Newspapers; Leaflets;	CY	1
TV; Newspapers; Leaflets; Posters; Website	GR	1

LT,NL,UK-ENG-Not applicable.

Media campaigns were sponsored by the national health authorities in 26 countries and by the pharmaceutical sector in seven countries. Details are presented in a table 44.

Table 44. Sponsors of seasonal influenza vaccination media campaigns for public in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=30)

	Country	Total
National / Regional health authority;	BE,DK,EE,FI,FR,DE,IS,IT,LI,LU, NO,RO,SK,SI,ES,SE,UK-SC,UK-WL	18
National / Regional health authority; Pharmaceutical sector;	BG,CZ,IE	3
National / Regional health authority; Pharmaceutical sector; Public service announcement ^a	PL	1
National / Regional health authority; Public service announcement ^a	GR,MT	2
Pharmaceutical sector	LV	1
Public service announcement ^a	HR,CY,HU,PT,UK-NI	5

^aAdvertisement content and production is provided by government, including national health.

LT,NL,UK-ENG- Not applicable.

Comments on vaccination information campaigns:

EE -The Ministry of Social Affairs and Health Board are the main organizers of seasonal influenza information campaigns.

IE-Pharmacists and some large pharmacy chains did some additional local advertisements.

LT -there are no information campaigns, because there are no financial and human resources.

NL- There is no campaign, but target groups are invited to be vaccinated and receive information through a invitation letter and leaflet, and can find additional information on a website.

SI-It is actually not sponsored campaigns but proactive communication of NIPH with media.

ES-A small promotion is done at national level. Main promotion campaigns are mainly designed and conducted at regional level.

SE-The county medical officer is responsible for media campaigns.

LV-There was no special vaccination campaign with the separate budget, however a lot of work has been done as usually to communicate general public and professionals using websites, press releases, interviews to newspapers, TV, radio and letters to GPs.

Communication with health professionals

Specific information materials (table 45) for health professionals regarding seasonal influenza vaccination (e.g. leaflets, posters) existed in 21 countries for the 2012-13 influenza season. Professional medical societies and website were the most common source of information (in 11 and 12 countries respectively).

Table 45. Information campaigns for seasonal influenza vaccination that targeted health care workers in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country	Total
Yes	BE,BG,HR,CY,EE,FI,FR,DE,GR,IS,IE,IT,LI,LU,MT,RO,SI,ES,UK-NI,UK-SC,UK-WL	21
No	CZ,DK,HU,LV,LT,NL,NO,PL,PT,SK,SE,UK-ENG	12
Sources of information (n=21)		
Leaflets; Other: Letter from the Ministry of Health to all health care professionals	CY	1
Leaflets; Posters; Website	UK-NI	1
Leaflets; Posters; Website; E-based learning modules; Professional medical societies	ES,UK-WL	2
Leaflets; Posters; Website; National medical publications	DE	1
Leaflets;	UK-SC	1

Posters; Website; Other: flu champions		
Leaflets; Posters; Website; Professional medical societies; National medical publications	IT,LI	2
Leaflets; Website	SI	1
Newspapers; Leaflets; Posters; Professional medical societies; National medical publications	FI	1
Other: Letter from ministry of health to hospitals and long-term care	FR	1
Posters	LU	1
Posters; Professional medical societies	MT	1
Posters; Website	BE	1
Professional medical societies;	HR	1
Radio; TV; Newspapers; Leaflets; Posters; Website; Professional medical societies	EE	1
Radio; TV; Newspapers; Leaflets; Posters; Website; Professional medical societies; National medical publications	IE	1
Radio; TV; Newspapers;	BG,IS	2

Website; Professional medical societies; National medical publications		
TV; Leaflets; Posters; Website; Professional medical societies; National medical publications	GR	1
Website; Professional medical societies	RO	1

The ECDC promotional materials to support information campaigns on seasonal influenza vaccination (http://ecdc.europa.eu/en/healthtopics/seasonal_influenza/communication_toolkit/Pages/communication_toolkit.aspx) have been used in eight countries (BG,EE,GR,HU,IE,IT,PT,UK-WL); the details are provided in table 46.

Table 46. Use of ECDC promotional materials to support information campaigns on seasonal influenza vaccination in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=32)

	Country	Total
Yes	BG,EE,GR,HU,IE,IT,PT,UK-WL	8
No	BE,HR,CY,CZ,FI,HU,FR,DE,DK,IS,LV,LI,LU,MT,NO,PL,RO,SK,SI,ES,SE,UK-NI,UK-SC,UK-ENG	24
Comment if promotional materials used		
BG	Adapted, in Bulgarian.	1
EE	ECDC influenza communication tools translated into Estonian.	1
GR	Poster, leaflet, banners.	1
IE	At time of preparation of campaign ECDC materials reviewed and used as needed.	1
IT	Influenza toolkit has been translated in Italian.	1
PT	-	1
UK-WL	In formulating national guidance and policy.	1

NL,LT – not applicable.

The indicative time (according to your plan) for the start and duration of information campaign on seasonal influenza vaccination is provided in table 47. The median for duration of information campaign was 13 weeks.

Table 47. Indicative time for the beginning and duration of information campaign on seasonal influenza vaccination in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=28)

Country	Start week	End week	Duration
BE	38	40	2
BG	40	41	1
HR	40	51	12
CY	36	40	4
DK	40	52	12
EE	37	20	35
FI	44	3	11
FR ^a	40	04	16
DE	36	52	16
GR	36	52	16
HU	44	6	15
IS	34	13	20
IE	40	20	32
IT	40	50	10
LV	40	43	4
LI	40	48	8
LU ^b	-	-	-
MT	1	4	4
NO	38	4	19
PL	35	45	10
PT	39	52	-
RO	38	52	15
SK	41	45	5
SI	40	9	22
ES	38	52	14
SE	42	-	-
UK-NI	39	15	28
UK-SC	40	13	25
UK-WL	40	52	12

^aA specific campaign is performed to French overseas departments of the southern hemisphere during since the sixteenth week.

^b Campaign from 15 September until 15 October, re-launch in January.

LT,NL,UK-ENG- Not applicable.

CZ-No data.

Comments on promoting seasonal influenza vaccination:

EE-Useful and positive (evaluation from health care providers) Scientist.

IE-despite substantial promotion uptake is still disappointingly low.

MT-There is still not enough public awareness of the benefits of influenza vaccination, particularly as many doctors still do not advise their patients to get vaccinated.

PT-Duration is flexible depending on influenza season occurrence.

ES- Time provided before is not accurate as it depends on. In 2012-2013 season started between 17 September and 22 October 2012.

UK-NI- Most of the time period is aimed at pregnant women who will get vaccinated throughout the season.

Section VI: USE OF ANTIVIRAL AGENTS FOR TREATMENT AND CHEMOPROPHYLAXIS OF INFLUENZA

Of the 33 responding countries 21 and seven reported that Amantadine and Remantadine was licensed in their country respectively. All countries reported that antiviral agents such as Oseltamivir and Zanamivir (with exception of CY) was licensed for use (table 48).

Table 48. Licence for antiviral agents in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country	Total
Amantadine		
Licensed	HR,CZ,FI,FR,DE,GR ^a ,HU,IT,LV,LI,LT,LU,MT,NL,PL,RO,SK,ES,UK-NI,UK-WL,DK	21
Not licensed	BE,BG,CY,EE,IS,IE,NO,PT,SI,SE,UK-ENG,UK-SC	12
Remantadine		
Licensed	BG,FI,HU,LV,LT,PL, GR ^a	7
Not licensed	BE,HR,CY,CZ,DK,EE,FR,DE,IS,IE,IT,LI,LU,MT,NL,NO,PT,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL	26
Oseltamivir		
Licensed	BE,BG,HR,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,PL,PT,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL	33
Not licensed	-	0
Zanamivir		
Licensed	BE,BG,HR,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LV,LI,LT,LU,MT,NL,NO,PL,PT,RO,SK,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL	32
Not licensed	CY	1

^a Licensed but not recommended for treatment or chemoprophylaxis because of the resistance of influenza viruses to this agent.

DK- no data for Amantadine.

Of 33 responding countries 23 reported that only neuraminidase inhibitors are recommended for use in their countries; in eight countries both adamantanes and neuraminidase inhibitors are recommended (table 49).

The recommendations and/or guidelines (policy document) on antiviral use were available in 24 countries (BG,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IE,LI,MT,NL,NO,PT,RO,SI,ES,SE,UK-ENG,UK-NI,UK-SC,UK-WL); in the remaining nine countries (BE,HR,IS,IT,LV,LT,LU,PL,SK) there were no such recommendations.

Table 49. Recommendation for antiviral agents use in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country	Total
Adamantanes are not recommended against due to observed resistance	HU	1
Only neuraminidase inhibitors are recommended	BE,CY,CZ,DK,EE,FR,DE,IS,IE,IT,NL,PT,SI,ES,UK-ENG,UK-SC,UK-WL,UK-NI, MT,BG,NO,LT,GR	23
Only some are recommended: no official, national recommendation	LU	1
Yes, they all are recommended	HR,FI,LV,LI,PL,RO,SK,SE	8

Treatment

The population or medical risk groups, for which antiviral agents for treatment with suspected or laboratory-confirmed influenza are recommended are presented in table 50. Antiviral agents are recommended for in-patients requiring treatment for severe complicated ILI in all 24 countries; and for patients with progressive ILI in 22 countries. Antiviral agents also recommended for treatment of out-patients who are at higher risk of influenza complications as a result of age and/or underlying medical conditions: children <5 years of age in seven countries; for adults aged ≥65 years in 16 countries; for Individuals belonging to risk groups in 18 countries; for pregnant women in 13 countries; and for residents of nursing homes and other chronic-care facilities in 16 countries.

Table 50. Recommendations for **treatment** with suspected or laboratory-confirmed influenza in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=24)

Population group/medical risk group	Recommended	No recommendation
For in-patients who have:		
- severe, complicated influenza-like illness (ILI)	BG,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IE,LI,MT,NL ^a ,NO,PT,RO,SI,ES,SE,UK-ENG,UK-SC,UK-WL, UK-NI	
- progressive influenza-like illness	BG,CY,CZ,DK,EE,FI,DE,GR,HU,IE,LI,MT,NL ^a ,NO,PT,SI,ES,SE,UK-ENG, UK-SC,	FR, RO

	UK-WL, UK-NI	
- who require hospitalisation due to influenza- like illness	BG,DK,EE,FI,FR,DE,GR,IE,LI,NL ^a ,NO,PT,SI,ES,SE,UK-ENG,UK-SC,UK-WL,UK-NI	CY,CZ,HU,MT,RO
For out-patients who are at higher risk of influenza complications on the basis of their age or underlying medical conditions:		
- Children < 2 years	FI,GR,IE,PT,UK-SC,UK-WL,UK-NI	BG,CY,CZ,DK,EE,FR,DE,HU,LI,MT,NL,NO,RO,SI,SE,UK-ENG,ES
- Children < 5 years	BG,FI,GR,PT,UK-SC,UK-WL,UK-NI	CY,CZ,DK,EE,FR,DE,HU,IE,LI,MT,NL,NO,RO,SI,SE,UK-ENG,ES
- Adults aged ≥65 years	BG,CY,DK,EE,FI,FR,DE,GR,IE,NO,PT,SE,UK-ENG,UK-NI,UK-SC,UK-WL	CZ,HU,LI,MT,NL,RO,SI,ES
- Individuals belonging to risk groups with e.g.: ^b	BG,CY,DK,EE,FI,FR,DE,GR,IE,LI,NL ^a ,NO,PT,SE,UK-ENG,UK-NI,UK-SC,UK-WL	CZ,HU,MT,RO,SI,ES
For women who are pregnant or postpartum (within 6 weeks after delivery)	DK,FI,FR,DE,GR,IE,NO,PT,SE,UK-ENG,UK-SC,UK-WL, UK-NI	BG,CY,CZ,EE,HU,LI,MT,NL,RO,SI, ES
For residents of nursing homes and other chronic-care facilities	BG,CY,EE,FI,FR,GR,IE,NL ^c ,NO,PT,SI,ES,UK-ENG,UK-NI,UK-SC,UK-WL	CZ,DK,DE,HU,LI,MT,RO,SE

^a Only individuals who belong to the following risk groups were recommended for treatment:

- Patients with severe abnormalities or disorders of the heart or lung function, who despite medication have a high risk of decompensation of heart or lung function.

- Patients with serious liver or kidney failure.

- Patients with a deficient immune system, for example because of an HIV infection, chemotherapy or treatment with immunosuppressive medicine.

^b chronic pulmonary (including asthma), cardiovascular (except hypertension alone), renal, hepatic, haematological (including sickle cell disease), metabolic disorders (including diabetes mellitus), or neurologic and neurodevelopment conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy [seizure disorders], stroke, intellectual disability [mental retardation], moderate to severe developmental delay, muscular dystrophy, or spinal cord injury), immunosuppressed, including those caused by medications or by HIV infection, <19 years who receive long-term aspirin therapy, morbid obesity (i.e., BMI ≥40);

^c For those residents it is recommended that they will only receive treatment when there is virological confirmation of an outbreak. This means that in 48 hours two patients in one care unit are confirmed with an influenza virus infection.

BE,HR,IS,IT,LV,LT,LU,SK,PL – Not applicable.

Other recommendations:

IE- children with any condition that can compromise respiratory dysfunction, and children with moderate to severe neurodevelopmental disorders such as cerebral palsy and intellectual disability.

UK-SC- In primary care contractually the guidance should only be used once the SG issues notice that influenza is circulating and that antiviral agents can be used, except for outbreak situations.

UK-WL- Antiviral agents are only licensed and recommended for the above groups when there is evidence that influenza is circulating.

FR- A curative treatment is recommended for an asymptomatic person at a very high risk of complicated influenza if he/she has had a close contact with a laboratory confirmed or a probable case.

Post exposure prophylaxis

The population or medical risk groups, for which antiviral agents are recommended for post-exposure prophylaxis, are presented in table 51. For family or other close contacts of a person who are at higher risk for influenza complications, and have not been vaccinated with influenza vaccine at the time of exposure, antiviral agents are recommended in seven countries; for unvaccinated HCWs with occupational exposure and who did not use PPE^b at the time of exposure antiviral agents are recommended in six countries.

Table 51. Recommendations for **post-exposure prophylaxis** in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=24)

Population group/ medical risk group	Recommended	No recommendation
For family or other close contacts of a person who are at higher risk for influenza complications and have not been vaccinated with influenza vaccine at the time of exposure	CY,IE,FR, UK-NI, UK-SC,UK-WL, GR	BG,CZ,DK,EE,DE, ,HU,LI,MT, NL ^a ,NO,PT, RO,SI,SE, UK-ENG,ES
For unvaccinated HCWs with occupational exposure and who did not use PPE ^b at the time of exposure	IE,LI,UK-NI, UK-SC,UK-WL, GR	BG,CY,CZ,DK,EE,FR, DE,HU,MT,NL,NO, PT,RO,SI,ES,SE, UK-ENG

^a Only family contacts form a non-vaccinated environment might be considered for post-exposure prophylaxis, but not the general population.

^b Personal protective equipment.

FI- no data.

BE,HR,IS,IT,LV,LT,LU,SK,PL – No applicable.

Other recommendations:

IE- Decision for chemoprophylaxis is based on individual risk assessment of exposed person's risk for influenza complications, type and duration of contact and clinical judgement.

SE- Unvaccinated in clinical risk groups. Immunocompromised irrespective of vaccination. Pregnant women with clinical risk factor in any trimester. Pregnant women without risk factors in 2 & 3 trimester.

UK-WL -Recommended: Unvaccinated, risk-group individuals exposed (within 36/48 hours), when influenza is circulating.

FR- individuals in long term care facilities/care if there is a cluster of laboratory confirmed influenza.

Pre-exposure prophylaxis (PrEP)

The population groups or medical risk groups, whom antiviral agents are recommended for pre-exposure prophylaxis is presented in table 52. For individuals who are at high risk (e.g.

severely immunosuppressed patients) for influenza-related complications who cannot otherwise be protected during times when a high risk for exposure exists antiviral agents are recommended in four countries.

Table 52. Recommendations for **pre-exposure prophylaxis** in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=24)

Population group/ medical risk group	Recommended	No recommendation
For individuals who are at high risk (e.g. severely immunosuppressed patients) for influenza-related complications who cannot otherwise be protected during times when a high risk for exposure exists	IE, UK-SC, UK-WL, UK-NI	BG,CY,CZ,DK,EE, FR,DE,GR,HU,LI,M T,NO,PT,RO,SI, ES,SE, UK-ENG

FI- no data.

BE,HR,IS,IT,LV,LT,LU,SK,PL – Not applicable.

Other recommendations:

IE-Particularly in residential care facilities or settings where high risk patients.

LI- Unvaccinated, directly exposed health care workers.

SE- Only as an exception under very special circumstances, e.g. during local outbreak. Severely immunosuppressed are recommended NOT to receive PreEP.

Control of influenza outbreaks

The population groups or medical risk groups, whom antiviral agents are recommended for pre-exposure prophylaxis in case of an outbreak is presented in table 53. For individuals in long term care facilities/care for immunocompromised if not vaccinated or if circulating influenza strain is not matching the vaccine strains antiviral agents are recommended in nine of 22 countries. For unvaccinated health care staff member who provide care to persons at high risk of complications in long term care facilities/ care for immunocompromised patients if not vaccinated, or if circulating influenza strain is not matching the vaccine strains, antiviral agents are recommended in seven of 22 countries. For all health care staff regardless of whether they received influenza vaccination if circulating influenza strain is not matching the vaccine strains antiviral agents are recommended in two of 22 countries.

Table 53. Recommendations for **pre-exposure prophylaxis in case of outbreak** in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=22)

Population group	Recommended	No recommendation
For individuals in long term care facilities/care for immunocompromised if not vaccinated or if circulating influenza strain is not matching the vaccine strains	CY, GR,IE, MT,NL ^a ,SI, ES,UK-SC,UK-WL	BG,CZ,DK,EE,DE, FR,HU,NO,PT,RO, SE,UK-ENG, UK-NI
For unvaccinated health care staff who provide care to persons at high risk of complications in long term care facilities/ care for immunocompromised patients if	CY,GR,IE,MT,NL ^b , ES,UK-SC	BG,CZ,DK,EE,FR, DE,HU,NO,PT,RO, SI,SE,UK-ENG, UK-NI,

not vaccinated or if circulating influenza strain is not matching the vaccine strains		UK-WL
For all health care staff regardless of whether they received influenza vaccination if circulating influenza strain is not matching the vaccine strains	IE,UK-SC	BG,CY,CZ,DK,EE,FR,DE,HU,MT,NL,NO,PT,RO,SI,ES,SE,UK-ENG,UK-NI,UK-WL, GR
Prisoners	UK-SC	BG,CY,CZ,DK,EE,FR,DE,HU,IE,MT,NL,NO,PT,RO,SI,ES,SE,UK-ENG,UK-NI,UK-WL, GR
Educational institutions	UK-SC	BG,CY,CZ,DK,EE,FR,DE,HU,IE,MT,NL,NO,PT,RO,SI,ES,SE,UK-ENG,UK-NI,UK-WL, GR

^aAll not ill individuals who are living in a care unit with an influenza outbreak (this means that in 48 hours two patients in one care unit are confirmed with an influenza virus infection) are recommended to receive pre-exposure prophylaxis, despite their immune or vaccination status and circulating influenza virus strains.

^b All not ill healthcare staff who are working in the coming next two weeks on the affected care unit with an influenza outbreak (this means that in 48 hours two patients in one care unit are confirmed with an influenza virus infection) are recommended to receive pre-exposure prophylaxis, despite their immune or vaccination status and circulating influenza virus strains.

FI- no data.

BE,HR,IS,IT,LV,LI,LT,LU,SK,PL – No applicable.

Comments:

PT- outbreaks in institutions.

SI- influenza outbreak in nursing homes.

UK-SC -only in outbreak settings.

Of 33 responding countries 20 reported having antiviral resistance surveillance system in place that monitors influenza antiviral resistance. The details if antiviral resistance are identified in the laboratory and to whom antiviral resistance results should be notified are presented, by country, in tables 54 and 54a.

Table 54. Antiviral resistance surveillance system in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country	Total
There is no antiviral resistance surveillance system in place	BG,CY,CZ,EE,IS,LV,LI,LT,LU,MT,SK,SI,UK-NI	13
There is antiviral resistance surveillance system in place	BE,HR,DK,FI,FR,DE,GR,HU,IE,IT,NL,NO,PL,PT,RO,ES,SE,UK-ENG,UK-SC,UK-WL	20
Institution which should be notified if antiviral resistance is identified (n=20)		

Public health;	BE,HR,FI,FR,DE,IT,NL,NO,PT,RO,SE,UK-ENG,UK-SC,UK-WL	14
Other	DK ^a	1
Public health; National regulatory Agency; Others: ECDC/WHO	HU, GR	2
Public health; Others: To the treating clinician, the referring laboratory (if relevant) and the Health Protection Surveillance Centre (National infectious disease surveillance institute)	IE ^b	1
Others: National Drug Institute	PL	1
Public health; Others: Clinician that asked for the test is the first to be notified	ES	1

^a Option other not specified.

^b Antiviral resistance testing is not done routinely on all samples. Antiviral resistance testing is undertaken on a small proportion of clinical samples usually based on clinical requests.

Table 54a. Notification to clinicians if antiviral resistance is identified. National seasonal influenza vaccination survey, March 2014 (n=19)

	Country	Total
Not notified	BE, IT,NL,PT,HU	5
It is notified	HR,DK,FR,DE,GR,IE,NO,PL,RO,ES,SE,UK-ENG,UK-SC,UK-WL	14
The way how notification is made		
HR	Professional publications	1
DK	By phone	1
FR	Personal contact	1
DE	Weekly reports of the influenza working group	1
GR	Email, personal communication	1
IE	To the treating clinician by the NVRL (phone or lab report)	1
NO	When clinically relevant finding of antiviral resistance is reported back through the normal diagnostic system outcome reporting	1
PL	Information in medical documents	1
RO	Laboratory data form	1
ES	Electronic system	1
SE	Information to treating physician (single patient). Broad communication in case of increased prevalence of resistant strains.	1
UK-ENG	By PHE	1

UK-SC	Laboratory report	1
UK-WL	Through Public Health Wales	1

BG,CY,CZ,EE,IS,LV,LI,LT,LU,MT,SK,SI,UK-NI - Not applicable.

FI-no data.

Information on how antiviral agents are purchased for the individual patient is presented for 33 responding countries in table 55. Twenty three countries reported that antiviral agents can be purchased only if prescribed by a doctor.

Table 55. Purchase of antiviral agents in 2012-13 influenza season in EU/EEA countries. National seasonal influenza vaccination survey, March 2014 (n=33)

	Country	Total
Purchased only if prescribed by doctor	BE,BG,HR,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IT,LI,LT,LU,MT,NL,NO,PL,PT,SK,SI,SE,UK-ENG,UK-NI,UK-SC,UK-WL	29
No need for prescription and available in pharmacies	-	0
Other:	IE,LV,RO,ES	4
IE	By prescription for individuals but in outbreak situations public health can make additional supplies available to facility	1
LV	Both depending on agent	1
RO	only in infectious diseases hospitals	1
ES	purchased only if prescribed by doctor, and Hospitals provide antiviral for treatment (stockpiles in hospitals)	1

Section VII: Technical support from ECDC and overall comments

Additional comments on the technical support from ECDC and other general comments were provided by four countries. CY- On assessing the vaccine coverage and in general on guidelines on influenza management. No significant problems- I think our campaign must be more intense.

MT- More scientific-based evidence on added value to give vaccine to the elderly.

PL-Methods which help to increasing coverage, acceptance of flu vaccine.

PT-Effectiveness of influenza vaccine; how long does immunity last in healthy people? Need for revaccination in subsequent years when vaccine does not change.

Limitations

There are some limitations to this survey (many of which have been previously highlighted in VENICE publications). The limitations are summarised below:

- Comparison of vaccination coverage data is difficult across European countries as different methods of estimating coverage are often used; within a given country,

comparisons between years may be difficult if methods or response rate differ by year.

- How countries enumerate the denominator data (numbers eligible for vaccination) is often difficult to determine, especially when it comes to less specific groups, such as the clinical risk groups and HCWs.
- The enumeration of numbers vaccinated (numerator data) also has limitations as countries may use either data provided from administrative records or immunisation registries or from others surveys, both of which may have their own limitations. While the surveys report exact details on how numerator and denominator data are calculated, the surveys do not explore or report the specific limitations.
- Denominator data for clinical risk groups are particularly difficult to estimate accurately for most EU/EEA countries, reflecting the lack of information systems (disease registers) or other standardised methodologies for collecting these data in the countries.
- Some countries have used population surveys to estimate the number of individuals at risk. But even this may not be comparable between countries as a variety of methodologies have been used (e.g. household surveys, mail, face to face, telephone interviews). The reasons for low or high uptake across EU/EEA countries were not collected in these surveys: future studies are needed.
- This particular survey (2012-2013 season) had some additional complexity due to expansion in the number of questions and other changes in the format and structure of the questionnaire. Due to increased size of the questionnaire separate stand alone sections need to be created on the web-based platform and linkages between related data across sections had to be created; this created additional difficulties for data management and analysis. Discordant responses for some questions (e.g. questions relating to ability to monitor vaccination coverage and responses provided on vaccination coverage) were not always accurate and needed further clarification with the member states – some of which were not clarified at the time of this final report and will require further follow up.

Summary

1. Official policy for seasonal influenza vaccination in 2012-13 influenza season:

- All 33 survey responding countries have an official national seasonal influenza vaccination policy/recommendations available in their countries; seven of them adopted or updated the previously developed national action plan to improve vaccination coverage for seasonal influenza as requested by European Commission (8); 15 countries did not have such plan in place at the time of the survey, however, respective policy to achieve higher vaccination coverage was in place in these countries at the time of the survey; two countries indicated that such plans are

under development in their countries at the time of the survey; no plan was adopted in nine countries.

2. Seasonal influenza vaccine was recommended in 2012-13 influenza season:

- Of 33 responding countries 25 countries had influenza vaccine recommendations for those aged 65 years and older. DE,GR, IS and NL recommended vaccination for those aged 60 years and older, MT and PL recommended vaccination for those aged 55 years and older, IE for those aged 50 years and older; in SK vaccine was recommended for those aged 59 years and older. Seven countries recommended vaccine for children: two of them (EE,PL) for children of all ages; LV and SI for children aged ≥ 6 months- 2 years; FI ≥ 6 months -3 years; MT > 6 months-5 years; and SK for children aged ≥ 6 months – 12 years;
- Of 33 responding countries 32 recommended influenza vaccine for HCWs; twenty-five of them had recommendations to vaccinate all HCWs; seven recommended vaccination for only some (e.g. outpatient/inpatient/long term care) HCWs. Approximately one-third of MSs recommended vaccination for those working in essential (n=7) and military (n=11) and veterinary (n=7) services, or for people working in the poultry (n=11) or swine (n=7) industry;
- In all 33 countries people with chronic pulmonary, cardiovascular and renal diseases were recommended influenza vaccine; vaccine was recommended for those with haematological disorders in 30 countries; metabolic disorders and immunosuppression due to disease or treatment in 32 countries; in 30 countries vaccine was recommended for individuals suffering from hepatic; 17 countries recommended vaccine for those with long-term aspirin use (children < 18 years old). In twenty eight countries individuals with HIV/AIDS were also recommended vaccine. Fifteen countries had recommendations to vaccinate those with morbid obesity;
- Of 33 responding countries 30 recommended vaccination of pregnant women. In 28 of these countries vaccination of all pregnant women was recommended; in two countries only those pregnant women with additional clinical risk were recommended vaccine. Twenty-two of 30 countries recommended influenza vaccination for pregnant women in any trimester of pregnancy.

3. Vaccination coverage measured by administrative or estimated by survey methods in 2012-13:

- Was known in 26 countries for older populations (those aged ≥ 55 , ≥ 60 and ≥ 65) and ranges from 1.0% in EE to 77.4% in UK-SC between countries; median was 45%;
- The coverage among health care workers was known in 13 countries, ranging from 9.5% in PL to 45.6% in UK-ENG; median was 28%;

- The coverage for clinical risk groups was known in nine countries ranging from 28% in PT to 80.2% in UK-NI; median was 50%;
- The coverage for pregnant women was known in ten countries: ranging from 0.2% in LT to 64.6% of all pregnant women in UK- NI; median was 16%;
- The coverage for residents of long-term care stay facilities was available in three countries: 71.1% in SK, 73% in IE and 89% in PT.

4. Promoting vaccination

- Of 33 countries 22 countries have used specific information materials to promote influenza vaccination coverage for the general public. Specific information for other population groups targeted for vaccine e.g. pregnant women or individuals with chronic medical conditions, existed in 19 and 24 countries respectively. Most countries also had information materials for those ≥ 65 years of age.
- Of 33 countries specific information materials for health professionals regarding seasonal influenza vaccination (e.g. leaflets, posters) existed in 21 countries; professional medical societies and website were the most common source of information (in 11 and 12 countries respectively).

5. Use of antiviral agents for treatment and chemoprophylaxis of influenza

- Of 33 responding countries 20 reported having influenza antiviral resistance surveillance systems in place to monitor antiviral resistance;
- Of 33 countries a policy document on use of antiviral agents existed in 24 countries;
- Antiviral agents for treatment were recommended for in-patients of severe or complicated ILI in all 24 countries. Most countries also have recommendations to use antiviral agents for treatment of out-patients at higher risk of influenza complications;
- For control of influenza outbreaks, in nine of 22 countries antiviral agents are recommended for individuals in long term care facilities/care if immunocompromised and not vaccinated, or the circulating influenza strain does not match the vaccine strains. In seven of 22 countries antiviral agents are recommended for unvaccinated health care staff member providing care to persons at high risk of complications in long term care facilities/ care for immunocompromised patients if not vaccinated, or, if circulating influenza strain does not match the vaccine strains. Antiviral agents are recommended in two of 22 countries For all health care staff, regardless of whether they received influenza vaccination, if circulating influenza strain does not match the vaccine strains.

6. Monitoring of vaccination coverage (discordant responses are highlighted in brackets in red)

- **Overall** of 33 responding countries 27 monitor seasonal influenza vaccination coverage using administrative method only; four countries use a combination of

administrative and survey methods, and the remaining two use only survey methodology to monitor influenza vaccination coverage;

- Of 33 countries that have recommendations to vaccinate **older** population groups 22 reported that they monitor vaccination coverage for this specific population group **(26 provided VC)**;
- Of 33 countries that recommend vaccine for those with **clinical risk**, 14 monitor vaccination coverage among them **(9 provided VC)**;
- Of 33 countries **five** reported that they monitor vaccination coverage among **pregnant women (10 provided VC)**;
- Of 27 countries that recommend vaccine to **HCWs** **seven** monitor vaccination coverage among them **(13 provided VC)**;
- Of 29 countries which recommend vaccine for residents of **long stay care facilities**, **five** monitor vaccination coverage **(3 provided VC)**.

Conclusions

1. Official policy and recommendations for seasonal influenza vaccination in 2012-13 influenza season:
 - The results of the survey demonstrate that although not all countries have a 'formal' national action plan that has been endorsed to improve vaccination coverage for seasonal influenza (as recommended by European Commission) for the most part, most countries have policies that complying with EU recommendations;
 - There were no significant changes in terms of age groups recommended influenza vaccine either for healthy children/adolescents or older population groups when compared to the previous influenza season;
 - Recommendations for seasonal influenza vaccination exist in most countries for the older population, pregnant women, those with a clinical risk condition, those living in long-term care facilities and health care workers; and additional six countries (21 in 2011-12 vs. 27 2012-13; CZ,FR,LV,LU,LI,HR) have recommended vaccination of those with hepatic diseases in comparison to previous influenza season, and additional five countries (FI,HR,EE,IS,CY) have recommended vaccination for those with morbid obesity (10 in 2011-12 vs. 15 in 2012-13); four additional countries (23 in 2011-12 vs.27 in 2012-13) recommended vaccine for pregnant women in 2012-13 in comparison to 2011-12; three additional countries recommended vaccination of HCWs in comparison to previous influenza season (26 in 2011-12 vs.29 in 2012-13);
 - There is no consensus to vaccinate children across EU/EEA countries as only seven countries have a recommendation to vaccinate (different) age groups under <18 years of age; vaccination of other occupational groups (not HCWs) is not common across EU/EEA countries, as only one third or less of them recommend influenza vaccine for these population groups.

2. Vaccination coverage in 2012-13 influenza season:

- Vaccination coverage varies widely across groups targeted by vaccination across EU/EEA countries;
- Although all surveyed countries recommend vaccination of the older population groups, and vaccination coverage was reported by 26 countries for this group, uptake is low in many countries and does not meet the EU target. The vaccination coverage target of 75% in the older population groups was achieved by the NL, UK-NI,UK-SC and almost achieved by UK-ENG and UK-WL; vaccination coverage was higher in RO and lower in PL,DE and IT in 2012-13 than in the previous influenza season. Seven countries were not able to provide vaccination coverage data for older population groups;
- Although seasonal influenza vaccine is recommended for the main clinical risk groups (e.g. pulmonary, cardiovascular, renal diseases, metabolic disorders and immunosuppression due to disease or treatment) in all countries, vaccination coverage for persons with clinical risk was available for approximately one-third of the countries (n=9). Vaccination coverage in this group was considerably lower in comparison to the vaccination coverage among the older population groups in most countries that provided these data and do not meet EU target for 2014-15, except the NL and UK-NI, where uptake is high;
- Vaccination coverage among HCWs was available from approximately half (n=13) of the 32 countries that recommend vaccine for this population group. In comparison to previous the influenza season three more countries were able to provide vaccination coverage data for the 2012-13 season (LT,GR,HR). Coverage varied greatly between countries with a few countries reporting moderate (RO,UK-ENG) uptake. In the remaining countries vaccination coverage was low and lower for HCWs than for other targeted population groups. Vaccination coverage data among staff of long-stay care facilities was available in two (IE, PT) countries and was as low as among other HCWs;
- Among residents of long-stay care facilities, vaccination coverage was very high in those countries that were able to provide data for this specific population group; however uptake was known in only three countries;
- Although vaccination was recommended for pregnant women in 30 of the surveyed countries, vaccination coverage in this group was reported by just ten of these countries; in comparison to previous season an additional three countries were able to report uptake for this specific population group (IE,IT,LT). Vaccination coverage was moderate in UK-SC,UK-NI,UK-ENG and UK,WL; in the remaining countries vaccination coverage was low;

- The results of this survey have shown that achieving high vaccination coverage for those who are at risk of developing severe complications due to influenza infection remains a serious public health challenge.

Recommendations

- Countries that do not have seasonal influenza vaccination action plan to achieve higher seasonal influenza vaccination coverage are encouraged to develop and adopt such a document.
- In order to enable assessment of the performance of the national influenza vaccination programme, countries should strive to develop and strengthen influenza vaccination coverage monitoring systems for target groups for whom vaccination is most commonly recommended (older populations, those with clinical risk, pregnant women and HCWs). Those countries that do not monitor vaccination coverage among older population groups should strive to implement uptake monitoring systems. Data on uptake should be collected on an annual basis at the end of each influenza season.
- This survey shows that vaccination coverage rates need to be improved among all targeted groups: the older population (except in countries that have already achieved vaccination target of 75%), those with clinical risk, pregnant women and health care workers.
- Countries are advised to: encourage health care workers to proactively recommend seasonal influenza vaccination to persons identified as key target groups by the national vaccination programme (including themselves and their peers); to implement communication campaigns on influenza and influenza vaccines specifically for these population groups; to support vaccination by providing adequate funding.
- Judging by the results of this survey, more work is needed to explore how recommendations (at both national and international levels) can be effectively translated into higher vaccination coverage. This may also require research to identify the reasons for non-vaccination in countries with low vaccination coverage rates and possible drivers for vaccination in countries that have already achieved targets of 75%.
- To enable comparison of vaccination coverage rates at European level, annual population-based surveys conducted using the same or similar methodologies may be useful.
- Surveys on seasonal influenza vaccination policies and coverage should be conducted annually. Surveys conducted at the same time of each year will allow better planning of the work for VENICE project and also gatekeepers in each country. It is also proposed to shorten surveys in order to get improve data quality. The standardised information provided by such surveys enables

ongoing monitoring of progress onwards implementation of internationally accepted recommendations and goals relating to seasonal influenza vaccination at EU level.

References

- (1) de Blasio BF, Xue Y, Iversen B, Gran JM. Estimating influenza-related sick leave in Norway: was work absenteeism higher during the 2009 A(H1N1) pandemic compared to seasonal epidemics? *Euro Surveill.* 2012;17(33):pii=20246.
- (2) Molinari NA, Ortega-Sanchez IR, Messonnier ML, Thompson WW, Wortley PM, Weintraub E, et al. The annual impact of seasonal influenza in the US: measuring disease burden and costs. *Vaccine.* 2007;25(27):5086-96.
- (3) Schanzer DL, McGeer A, Morris K. Statistical estimates of respiratory admissions attributable to seasonal and pandemic influenza for Canada. *Influenza Other Respi Viruses.* 2013 Sep;7(5):799-808.
- (4) Nicoll A, Ciancio BC, Lopez Chavarrias V, Mølbak K, Pebody R, Pedzinski B, et al. Influenza-related deaths--available methods for estimating numbers and detecting patterns for seasonal and pandemic influenza in Europe. *Euro Surveill.* 2012;17(18):pii=20162.
- (5) Centers for Disease Control and Prevention (CDC). Influenza. Epidemiology and prevention of vaccine preventable diseases. The pink book: course textbook. 12th ed. Second printing. Atlanta, GA: CDC; May 2012. Available from: <http://www.cdc.gov/vaccines/pubs/pinkbook/flu.html>
- (6) Nicoll A, Sprenger M. Low effectiveness undermines promotion of seasonal influenza vaccine. *Lancet Infect Dis.* 2013;13(1):7-9.
- (7) Poehling KA, Szilagyi PG, Staat MA, Snively BM, Payne DC, Bridges CB, et al. Impact of maternal immunization on influenza hospitalizations in infants. *Am J Obstet Gynecol.* 2011;204(6 Suppl 1):S141-8.
- (8) Commission of the European Communities. Proposal for a Council recommendation on seasonal influenza vaccination. Brussels; Commission of the European Communities; 2009. Available from: http://ec.europa.eu/health/ph_threats/com/Influenza/docs/seasonflu_rec2009_en.pdf
- (9) Nicoll A, Ciancio B, Tsoлова S, Blank P, Yilmaz C. The scientific basis for offering seasonal influenza immunisation to risk groups in Europe. *Euro Surveill.* 2008;13(43):pii=19018.
- (10) World Health Organization (WHO). Prevention and control of influenza pandemics and annual epidemics. Resolution of the Fifty-Sixth World Health Assembly

WHA56.19. Tenth plenary meeting, 28 May 2003. Geneva: WHO. [Accessed 4-Jan-2013]. Available from:
http://apps.who.int/gb/archive/pdf_files/WHA56/ea56r19.pdf

- (11) Influenza vaccines. Wkly Epidemiol Rec. 2005;80(33):279-87.
- (12) Vaccine European New Integrated Collaboration Effort (VENICE). National seasonal influenza vaccination survey in Europe, 2007/2008 influenza season. Collaboration between VENICE project and ECDC. VENICE II. July - October 2009. [Accessed 1 Apr 2012]. Available from:
http://venice.cineca.org/Final_2009_Seasonal_Influenza_Vaccination_Survey_in_Europe_1.0.pdf

Annex 1. Questionnaire

National seasonal influenza vaccination survey for 2012-13 influenza season in EU/EEA, October 2013- January 2014 ECDC_HPSC Version 12 January 2014 (24/01/2014)

Dear Colleagues,

We kindly ask you, to fill in the seasonal influenza vaccination survey questionnaire with your country-specific data for the **INFLUENZA SEASON 2012-13**. The questionnaire contains eight sections, all must be completed but you can do one at a time (for your convenience):

Section I: Groups recommended for seasonal influenza vaccination

Section II: Vaccination coverage data

Section III: Methods for monitoring vaccination coverage, safety and effectiveness

Section IV: Vaccine procurement and delivery

Section V: Promoting seasonal influenza vaccination

Section VI: Use of antiviral agents for treatment and chemoprophylaxis of influenza

Section VII: Technical support from ECDC and overall comments

If you have any questions, please contact Jolita Mereckiene by email:

jolita.mereckiene@hse.ie

COUNTRY: _____

GATEKEEPER: _____

NAME OF PERSON WHO FILLS QUESTIONNAIRE (IF DIFFERENT FROM ABOVE):

TITLE/FUNCTION: _____

CONTACT EMAIL: _____

CONTACT PHONE NUMBER: _____

Section I: GROUPS RECOMMENDED SEASONAL INFLUENZA VACCINATION (2012-13 influenza season) BY NATIONAL/REGIONAL AUTHORITY

Q1. Are there national seasonal influenza vaccination recommendations (e.g. age and target group recommendations and guidelines) available in your country?

Yes

No

Q2. If no, which authority in your country issues recommendations for seasonal influenza vaccination?

Regional authorities

Communal (local) authorities

Professional groups only

No authority

Other

Please specify other _____

Q3. Did your country adopt a National Action Plan to improve vaccination coverage for seasonal influenza vaccination as recommended by EC 22/12/2009?

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:348:0071:0072:EN:PDF>

Yes, plan was adopted

Yes, plan was developed previously and updated according EC recommendation

Plan is under development

No need to adopt as vaccination coverage meet EC/WHO targets

Plan not adopted

If national Action plan is available on website, please specify link to the published document:

If national Action plan is not available on website, please copy it here:

Overall population

Q4. Is the policy document (guidelines and recommendations) recommending seasonal influenza vaccine to ALL \geq 6 months of age?

Yes

No

Healthy children or adolescents

Q5. For which of the following healthy children or adolescents was seasonal influenza vaccine recommended?

- NO recommendation for healthy children or adolescents of any age
- Recommended for all children \geq 6 months – 12 months of age
- Recommended for all children between 13 months 24 months of age
- Recommended for all children between 25 months 36 months of age
- Recommended for all children between 37 months 49 months of age
- Recommended for all children between 50 months 60 months of age
- Recommended for all children and adolescents between 1 - 18 years of age
- Recommended for all children and adolescents \geq 6 months – 12 years of age
- Recommended for some children and adolescents \geq 6 months - 18 years of age
- Recommended for all children and adolescents \geq 24 months -18 years of age
- Other

Please specify _____

Q6. For the 2012-13 season did your country introduce any changes in relation to seasonal influenza vaccination recommendations for healthy children and adolescents in comparison to recommendations for influenza season 2011-12?

Yes, Please specify _____

No

Q7. If vaccine was recommended for healthy children and adolescents please specify how the vaccination programme was funded (This question opens only if answer is "recommended for ":

* Out of pocket means not reimbursed, paid by vaccinee.

Vaccine was paid by: (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Parent/guardian employer/
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for vaccine:

Yes, Please specify _____

No

Administration of vaccine (vaccination) was paid by (drop down menu – with more than one option)

- National insurance scheme/
- National health service/

- Regional health service/
- Private insurance/
- Out of pocket*/
- Parent/guardian employer
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for administration of vaccine (vaccination)

Yes, Please specify _____

No

If in your country there are any issues with reimbursement of cost of vaccine, or its administration, that may influence vaccination coverage, please specify (e.g. delay in reimbursement for vaccinee) _____

Adults

Q8. For which of the following adult age groups was seasonal influenza vaccine recommended?

- NO recommendation for healthy adults of any age
- Recommended for healthy adults 15-50 years old
- Recommended for healthy adults 51- 55 years old
- Recommended for healthy adults 56 - 60 years old
- Recommended for healthy adults 61-64 years old
- Recommended for healthy adults >18 years old

- Recommended for ALL adults ≥50 years old
- Recommended for ALL adults ≥55 years old
- Recommended for ALL adults ≥59 years old
- Recommended for ALL adults ≥60 years old
- Recommended for ALL adults ≥65 years old
- Other, Please specify _____

If other, specify age group _____

Q9. Has your country introduced any changes in relation to seasonal influenza vaccination recommendations for adults in comparison to recommendations for influenza season 2011-12?

Yes, Please specify _____

No

Q10. If vaccine was recommended for healthy adults please specify how the vaccination programme was funded (This question opens only if answer is "recommended for"):

* Out of pocket means not reimbursed, paid by vaccinee.

Vaccine was paid by: (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer/
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for vaccine:

Yes, Please specify _____
No

Administration of vaccine (vaccination) was paid by (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for administration of vaccine (vaccination)

Yes, Please specify _____
No

If in your country there are any issues with reimbursement of cost of vaccine or its administration that may influence vaccination coverage, please specify (e.g. delay in reimbursement for vaccinee) _____

Clinical risk groups

Q11. For which of the following clinical risk groups (individuals with *chronic diseases or underlying clinical condition*) was seasonal influenza immunisation recommended (tick as appropriate)

* "No recommendation" defined here and in the following questions that there is no specific written recommendation in the official policy document on whether this population group should be vaccinated or not.

**Recommended defined here and in the following questions that there is specific written recommendation in the official policy document that this population group have to receive seasonal influenza vaccine

Medical condition/risk	No recommendation*	Recommended**	Comments
Chronic pulmonary (such as chronic obstructive pulmonary disease, cystic fibrosis, asthma) disease			
Cardiovascular (such as congenital heart disease, congestive heart failure and coronary artery disease, except hypertension) disease			
Renal disease			
Hepatic disease			
Hematological disorders (such as sickle cell disease)			
Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders, including diabetes mellitus)			
Immunosuppression due to disease or treatment (including asplenia/ splenic dysfunction, organ transplantation, cancer, but other than HIV/AIDS)			
HIV/AIDS			
Chronic neurologic diseases or neuromuscular conditions (e.g. including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy (seizure disorders), stroke, intellectual disability (mental retardation), moderate to severe developmental delay, muscular dystrophy, or spinal cord injury).			
Long-term aspirin use (in children up to 18 years old)			
Any condition that can compromise respiratory function			
Morbid obesity (Body Mass Index (BMI) ≥ 40)			

Other (Please specify)			
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Q12. Has your country introduced any changes in relation to seasonal influenza vaccination recommendations for children, adolescents and adults with clinical conditions in comparison to recommendations for influenza season 2011-12?

Yes, Please specify _____

No

Q13. If vaccine was recommended for clinical risk groups please specify how the vaccination programme was funded (This question opens only if answer is “recommended for “):

* Out of pocket means not reimbursed, paid by vaccinee.

Vaccine was paid by: (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer/
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for vaccine:

Yes, Please specify _____

No

Administration of vaccine (vaccination) was paid by (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for administration of vaccine (vaccination)

Yes, Please specify _____

No

If in your country there are any issues with reimbursement of cost of vaccine or its administration that may influence vaccination coverage, please specify (e.g. delay in reimbursement for vaccinee) _____

Pregnancy related vaccination

* “No recommendation” defined here and in the following questions that there is no specific written recommendation in the official policy document on whether this population group should be vaccinated or not.

**Recommended defined here and in the following questions that there is specific written recommendation in the official policy document that this population group have to receive seasonal influenza vaccine

Q14. Is seasonal influenza vaccination recommended for pregnant women?

NO recommendation

Recommended only for those with medical/clinical risk indication

Recommended for all

Q15. Please indicate in which trimester of pregnancy seasonal influenza vaccination is recommended? (This question opens only if answer is “recommended for....”)

Any trimester

2nd trimester

3rd trimester

Comments:

Q16. Is seasonal influenza vaccination recommended to women in the postpartum* period (giving birth during influenza season) if not vaccinated during pregnancy?

* “No recommendation” defined here and in the following questions that there is no specific written recommendation in the official policy document on whether this population group should be vaccinated or not.

**Recommended defined here and in the following questions that there is specific written recommendation in the official policy document that this population group have to receive seasonal influenza vaccine

NO recommendation

Recommended only fothose with medical/clinical risk indication

Recommended for all

* Within 6 weeks after delivery. If other recommendation, please specify _____

Q17. If seasonal influenza vaccination is recommended to women in pregnancy or in the postpartum* period (giving birth during influenza season), please provide information where such vaccination is performed. (This question opens only if answer is “recommended for....”)

Maternity outpatient clinic

Wetbaby clinic

General practitioners/Family doctors

Antenatal clinic

At the time of delivery (hospital, home or other clinic setting)

Postnatal clinic
Other,
Please specify _____

Q18. Has your country introduced any changes in relation to seasonal influenza vaccination recommendations for pregnant and post partum women in comparison to recommendations for influenza season 2011-12?

Yes, Please specify _____
No

Q19. If vaccine was recommended for pregnant women please specify how the vaccination programme was funded: (This question opens only if answer is “recommended for....)

* Out of pocket means not reimbursed, paid by vaccinee.

Vaccine was paid by: (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer/
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for vaccine:

Yes, Please specify _____
No

Administration of vaccine (vaccination) was paid by (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for administration of vaccine (vaccination)

Yes, Please specify _____

No

If in your country there are any issues with reimbursement of cost of vaccine or its administration that may influence vaccination coverage, please specify (e.g. delay in reimbursement for vaccinee)_____

Health care workers

Q20. Is seasonal influenza vaccination recommended for health care workers?

*"Voluntary" defined here as individual free will (choice) when deciding on seasonal influenza vaccination and there is no penalty for not getting the vaccine.

** "Mandatory" (compulsory, obligatory, authoritatively ordered) defined here as vaccination for which there is a "penalty" for those who refuse seasonal influenza vaccination.

NO recommendation to HCWs

Recommended to some HCWs (e.g. outpatient/inpatient/long term care)
(Please specify _____)

Recommended to all HCWs

If Yes, was vaccination: Voluntary*/ Mandatory**

If answer "Yes"

Please specify what the "penalty" in your country is_____

Is there an exemption policy based on philosophical or religious background for HCWs in your country?

Yes

No

If yes, please specify_____

Comments:

Q21. Has your country introduced any changes in relation to seasonal influenza vaccination recommendations for health care workers in comparison to recommendations for influenza season 2011-12?

Yes, Please specify _____

No

Q22. If vaccine was recommended for health care workers please specify how the vaccination programme was funded: (This question opens only if answer is "recommended for...")

* Out of pocket means not reimbursed, paid by vaccinee.

Vaccine was paid by: (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer/

- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for vaccine:

Yes, Please specify _____

No

Administration of vaccine (vaccination) was paid by (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for administration of vaccine (vaccination)

Yes, Please specify _____

No

If in your country there are any issues with reimbursement of cost of vaccine or its administration that may influence vaccination coverage, please specify (e.g. delay in reimbursement for vaccinee) _____

Other occupational groups

Q23. Is seasonal influenza vaccination recommended for other occupational groups? (tick as appropriate)

* “No recommendation” defined here and in the following questions that there is no specific written recommendation in the official policy document on whether this population group should be vaccinated or not.

**Recommended defined here and in the following questions that there is specific written recommendation in the official policy document that this population group have to receive seasonal influenza vaccine

Profession	No recommendation	Recommended	Comments
Police & Firemen			
Military			
Border/Immigration control/ customs			

Veterinary			
Public transport (e.g. ground, rail, air, marine) (if specific recommendations for particular transport workers, please specify)			
Educational staff - e.g. primary/secondary schools, preschool centres, kindergartens, crèches - please specify if for all or for some educational staff.)			
Community services (energy, electricity, water)			
Postal service			
Poultry industry workers			
Swine industry workers			
Families raising swine, poultry or geese			
Social care workers			
Laboratory workers working in not medical/public health laboratories (e.g. laboratory workers who work with avian influenza viruses in the environmental/academic sector)			
Wildlife environmentalists (workers who work with birds directly e.g. bird ringing)			
Other (Please specify)			

Q24. Has your country introduced any changes in relation to seasonal influenza vaccination recommendations for occupational settings in comparison to recommendations for influenza season 2011-12?

Yes, Please specify _____

No

Q25. If vaccine was recommended for other occupational groups please specify how the vaccination programme was funded: (This question opens only if answer is "recommended for....")

* Out of pocket means not reimbursed, paid by vaccinee.

Vaccine was paid by: (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer/
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for vaccine:

Yes, Please specify _____

No

Administration of vaccine (vaccination) was paid by (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for administration of vaccine (vaccination)

Yes, Please specify _____

No

If in your country there are any issues with reimbursement of cost of vaccine or its administration that may influence vaccination coverage, please specify (e.g. delay in reimbursement for vaccinee) _____

Population groups in closed communities

Q26. Is seasonal influenza vaccination recommended for specific populations living/working/staying in closed communities? (tick as appropriate)

* "No recommendation" defined here and in the following questions that there is no specific written recommendation in the official policy document on whether this population group should be vaccinated or not.

**Recommended defined here and in the following questions that there is specific written recommendation in the official policy document that this population group have to receive seasonal influenza vaccine

Population group	No recommendation	Recommended	Comments
Prisoners			
Children in day care centres, boarding schools etc.			
Residents of long term care facilities			
Other, Please specify			

Q27. Has your country introduced any changes in relation to seasonal influenza vaccination recommendations for populations living/working/staying in closed communities in comparison to recommendations for influenza season 2011-12?

Yes, Please specify _____

No

Q28. If vaccine was recommended for populations living/working/staying in closed communities please specify how the vaccination programme was funded: (This question opens only if answer is "recommended for....")

* Out of pocket means not reimbursed, paid by vaccinee.

Vaccine was paid by: (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer/
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for vaccine:

Yes, Please specify _____

No

Administration of vaccine (vaccination) was paid by (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for administration of vaccine (vaccination)

Yes, Please specify _____

No

If in your country there are any issues with reimbursement of cost of vaccine or its administration that may influence vaccination coverage, please specify (e.g. delay in reimbursement for vaccinee) _____

Household contacts or care takers

Q29. Is seasonal influenza vaccination recommended for household contacts or care takers of the following population groups?

* "No recommendation" defined here and in the following questions that there is no specific written recommendation in the official policy document on whether this population group should be vaccinated or not.

**Recommended defined here and in the following questions that there is specific written recommendation in the official policy document that this population group have to receive seasonal influenza vaccine

Household contact/Carer of:	No recommendation	Recommended	Comments
Infants ≤ 6 months of age			
Immunosuppressed individuals			
Persons with clinical risk indication			
Adults (≥ 65)			
Other, Please specify			

Q30. Has your country introduced any changes in relation to seasonal influenza vaccination recommendations for household contact/carer in comparison to recommendations for influenza season 2011-12?

Yes, Please specify _____

No

Q31. If vaccine was recommended for household contacts or care takers please specify how the vaccination programme was funded: (This question opens only if answer is "recommended for...")

* Out of pocket means not reimbursed, paid by vaccinee.

Vaccinewas paid by: (drop down menu – with more than one option)

- National insurance scheme/
- National health service/
- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer/
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for vaccine:

Yes, Please specify _____

No

Administration of vaccine (vaccination) was paid by (drop down menu – with more than one option)

- National insurance scheme/
- National health service/

- Regional health service/
- Private insurance/
- Out of pocket*/
- Employer
- Other (please specify) _____
- No data available

If different for regions, please specify _____

Co-payment for administration of vaccine (vaccination)

Yes, Please specify _____

No

If in your country there are any issues with reimbursement of cost of vaccine or its administration that may influence vaccination coverage, please specify (e.g. delay in reimbursement for vaccinee) _____

Q32. Is seasonal influenza vaccination recommended for travellers?

Yes

No

If yes, is this recommendation restricted to certain regions/countries

Yes, this is restricted to some regions/countries

Please specify _____

Recommended but not specified

Q33. When elaborating /updating recommendation policy in your country for seasonal influenza vaccination, have you used the following published ECDC/WHO documents:

- Council recommendation on seasonal influenza vaccination 22/12/2009 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:348:0071:0072:EN:PDF>

Yes

No

- ECDC GUIDANCE Priority risk groups for influenza vaccination, 2008 (http://www.ecdc.europa.eu/en/publications/Publications/0808_GUI_Priority_Risk_Groups_for_Influenza_Vaccination.pdf)

Yes

No

- ECDC scientific advice on seasonal influenza vaccination of children and pregnant women 2012 (<http://www.ecdc.europa.eu/en/publications/publications/seasonal%20influenza%20vaccination%20of%20children%20and%20pregnant%20women.pdf>)

Yes

No

- European Medicine Agency (Summary of product characteristics): e.g. http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Product_Information/human/001101/WC500103709.pdf

Yes

No

- Vaccines against influenza WHO position paper – November 2012
<http://www.who.int/wer/2012/wer8747.pdf>

Yes

No

- Others, please specify _____

Q34. Overall comments on groups recommended for seasonal influenza vaccination and needs for further scientific guidance from ECDC

Section II: VACCINATION COVERAGE DATA (SEASON 2012-13)

Q35. If available, please provide data on vaccination coverage for the entire population

Entire population

Vaccination coverage was **NOT** measured for the entire population

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

If vaccination coverage was measured by other method/s please specify method _____ and provide vaccination coverage _____%

Q36. Have you observed any change in vaccination coverage for the entire population compared to previous season (2011-12)?

- Yes, please specify and list 3 main reasons for the change.
- No

Comments for reasons for change in vaccination coverage:

Vaccination coverage by age groups

Children and adolescents

Q37. If available, please provide data on vaccination coverage for children (≥6 months – 18 years of age)

Total

No data available for this age group

Vaccination coverage was measured by:

- Administrative method, please provide coverage_____%
- Survey method, please provide coverage_____%
- Combination of administrative and survey method, please provide coverage_____%
- Immunisation registry, please provide coverage_____%

- *of which*

- *healthy children (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

- Administrative method, please provide coverage_____%
- Survey method, please provide coverage_____%
- Combination of administrative and survey method, please provide coverage_____%
- Immunisation registry, please provide coverage_____%

- *Children with clinical condition/risk (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

- Administrative method, please provide coverage_____%
- Survey method, please provide coverage_____%
- Combination of administrative and survey method, please provide coverage_____%
- Immunisation registry, please provide coverage_____%

If vaccination coverage was measured by other method/s please specify method_____ and provide vaccination coverage_____%

Q38. If available, please provide data on vaccination coverage for children (≥6 – 12 months of age)

Total

No data available for this age group

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

- *of which*

- *healthy children (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

- *Children with clinical condition/risk (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

If vaccination coverage was measured by other method/s please specify method_____ and provide vaccination coverage_____%

Q39. If available, please provide data on vaccination coverage for children and adolescents (1 – 18 years of age)

Total

No data available for this age group

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

- *of which*

- *healthy children* (this appears if there is an answer on vaccination coverage)

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

- *Children with clinical condition/risk* (this appears if there is an answer on vaccination coverage)

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

If vaccination coverage was measured by other method/s please specify method_____ and provide vaccination coverage_____%

Q40. If available, please provide data on vaccination coverage for children and adolescents (>6months – 18 years of age by groups)

Age group	Vaccination coverage in season 2012-13	Comment	No data
12 months - 36 months of age			
37 months - 60 months of age			
5 years - 18 years			
If additional age groups, please specify_____			

Comments concerning vaccination coverage in children and adolescence:

Adults

Q41. If available, please provide data on vaccination coverage for adults (age groups >18 years of age)

Total

No data available for this age group

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage _____ %
Combination of administrative and survey method, please provide coverage _____ %
Immunisation registry, please provide coverage _____ %

- *of which*
 - *healthy adults (age group >18) (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____ %
Survey method, please provide coverage _____ %
Combination of administrative and survey method, please provide coverage _____ %
Immunisation registry, please provide coverage _____ %

- *adults (any age group >18) with clinical condition/risk (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____ %
Survey method, please provide coverage _____ %
Combination of administrative and survey method, please provide coverage _____ %
Immunisation registry, please provide coverage _____ %

If vaccination coverage was measured by other method/s please specify method _____ and provide vaccination coverage _____ %

Q42. If available, please provide data on vaccination coverage for adults (age groups >50 years of age)

Total

No data available for this age group

Vaccination coverage was measured by:

Administrative method, please provide coverage _____ %
Survey method, please provide coverage _____ %
Combination of administrative and survey method, please provide coverage _____ %
Immunisation registry, please provide coverage _____ %

- *of which*
 - *healthy adults (>50 years of age) (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

- *adults (>50 years of age) with clinical condition/risk (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

If vaccination coverage was measured by other method/s please specify method _____ and provide vaccination coverage _____%

Q43. If available, please provide data on vaccination coverage for adults (age group >55 years of age)

Total

No data available for this age group

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

- *of which*
 - *healthy adults (>55 years of age) (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

- *adults (>55 years of age) with clinical condition/risk (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

If vaccination coverage was measured by other method/please specify method_____ and provide vaccination coverage_____%

Q44. If available, please provide data on vaccination coverage for adults (age groups >60 years of age)

Total

No data available for this age group

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

• *of which*

- *healthy adults (>60 years of age) (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

- *adults (>60 years of age) with clinical condition/risk (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

If vaccination coverage was measured by other method/s please specify method_____ and provide vaccination coverage_____%

Q45. If available, please provide data on vaccination coverage for adults (age groups > 65 years of age)

Total

No data available for this age group

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

• *of which*

- *healthy adults (>65 years of age) (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

- *adults (>65 years of age) with clinical condition/risk (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____%

Survey method, please provide coverage_____%

Combination of administrative and survey method, please provide coverage_____%

Immunisation registry, please provide coverage_____%

If vaccination coverage was measured by other method/s please specify method_____ and provide vaccination coverage_____%

Children, adolescents and adults with clinical risk

Q46. If available, please provide data on vaccination coverage for those with clinical risk (Age group ≥6 months-64 years)

Total

No data available for this population group

Vaccination coverage was measured by:

Administrative method, please provide coverage _____ %
Survey method, please provide coverage _____ %
Combination of administrative and survey method, please provide coverage _____ %
Immunisation registry, please provide coverage _____ %

If vaccination coverage was measured by other method/s please specify method _____ and provide vaccination coverage _____ %

Q46a. If available, please provide data on vaccination coverage for those with clinical risk (Other age group with clinical risk than ≥ 6 months-64 years, please specify age)

Total

No data available

Other age group with clinical risk, please specify age _____

Vaccination coverage was measured by:

Administrative method, please provide coverage _____ %
Survey method, please provide coverage _____ %
Combination of administrative and survey method, please provide coverage _____ %
Immunisation registry, please provide coverage _____ %

If vaccination coverage was measured by other method/s please specify method _____ and provide vaccination coverage _____ %

Comments concerning vaccination coverage in adults:

Vaccination coverage for other population groups
Pregnant women

Q47. If available, please provide data on vaccination coverage for pregnant women

Total

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____ %
Survey method, please provide coverage _____ %
Combination of administrative and survey method, please provide coverage _____ %
Immunisation registry, please provide coverage _____ %

• *of which*

- *Healthy (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____ %

Survey method, please provide coverage _____ %
Combination of administrative and survey method, please provide coverage _____ %
Immunisation registry, please provide coverage _____ %

- *With clinical condition/risk (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____ %
Survey method, please provide coverage _____ %
Combination of administrative and survey method, please provide coverage _____ %
Immunisation registry, please provide coverage _____ %

If vaccination coverage was measured by other method/s please specify method _____ and provide vaccination coverage _____ %

Health care workers

Definition (in a footnote)

- *Medical and other staff, including those in primary care, secondary and long term facilities, who have regular, clinical contact with patients. This includes staff such as doctors, dentists, nurses, psychologists, paramedical professionals such as occupational therapists, physiotherapists, diagnostic radiographers (incl. radiologists), ambulance workers, porters, and students;*
- *Laboratory and other health staff (including mortuary staff) who have direct contact with potentially infectious clinical specimens. This includes those in academic (or commercial research) laboratories who handle clinical specimens;*
- *Non-clinical ancillary staff, who may have social contact with patients, but not usually of a prolonged or close nature. This group includes receptionists, ward clerks, maintenance staff such as engineers, gardeners, cleaners, and other administrative staff working in hospitals and primary care settings, etc.*

Reference (adapted): The UK Association of National Health Occupational Physicians (ANHOPS) guidance on Immunisation of healthcare workers defines three categories of healthcare workers
http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1195733758763

Q48. If available, please provide data on vaccination coverage for health care workers

Total

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____ %
Survey method, please provide coverage _____ %
Combination of administrative and survey method, please provide coverage _____ %
Immunisation registry, please provide coverage _____ %

- *of which*

- *In outpatient health care setting (e.g. GP, family medicine practice, polyclinic/ outpatient centres) (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

- *In inpatient health care setting (e.g. hospitals) (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

- *In long term health care setting (e.g. nursing homes) (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

If vaccination coverage was measured by other method/s please specify method _____ and provide vaccination coverage _____%

Other occupational groups essential for functional public sector (including police, military, public transport, community supply etc)

Q49. If seasonal influenza vaccine is recommended to other occupational groups and these data are available, please provide data on vaccination coverage for other occupational groups essential for functional public sector

Total

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage_____ %
Immunisation registry, please provide coverage_____ %

of which

- *Police (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____ %
Survey method, please provide coverage_____ %
Combination of administrative and survey method, please provide coverage_____ %
Immunisation registry, please provide coverage_____ %

- *Military/Armed forces (including air/marine, etc.) (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____ %
Survey method, please provide coverage_____ %
Combination of administrative and survey method, please provide coverage_____ %
Immunisation registry, please provide coverage_____ %

- *Public transport (including air, ground, water) (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____ %
Survey method, please provide coverage_____ %
Combination of administrative and survey method, please provide coverage_____ %
Immunisation registry, please provide coverage_____ %

- *Community supply (water/electricity, energy) workers (this appears if there is an answer on vaccination coverage)*

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage_____ %
Survey method, please provide coverage_____ %
Combination of administrative and survey method, please provide coverage_____ %
Immunisation registry, please provide coverage_____ %

- *Other (this appears if there is an answer on vaccination coverage)*

No data available

Please indicate group _____

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

If vaccination coverage was measured by other method/s please specify method _____ and provide vaccination coverage _____%

Population groups living in closed communities

Q50. If available, please provide data on vaccination coverage for residents of long term care facilities

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

If vaccination coverage was measured by other method/s please specify method _____ and provide vaccination coverage _____%

Q51. If available, please provide data on vaccination coverage for prisoners

No data available

Vaccination coverage was measured by:

Administrative method, please provide coverage _____%

Survey method, please provide coverage _____%

Combination of administrative and survey method, please provide coverage _____%

Immunisation registry, please provide coverage _____%

If vaccination coverage was measured by other method/s please specify method _____ and provide vaccination coverage _____%

Comments concerning vaccination coverage in specific population groups living in closed communities:

Q52. Overall comments on obtained vaccination coverage in your country

Section III: METHODS TO MONITOR VACCINATION COVERAGE, SAFETY AND EFFECTIVENESS

Q53. Which method has been used to measure vaccination coverage for season 2012-13?

Administrative method only

Survey method only

Please specify the frequency: annual/biannual/other, specify _____

Combination of administrative and survey methods

Q54. Have there been changes in the methods for monitoring influenza vaccination coverage in comparison to those used in the influenza season 2011-12?

Yes, Please specify _____

No

Q55. Please specify current methods used for monitoring vaccination coverage of population groups recommended for vaccination (tick the corresponding practice in your country)

Population groups	No monitoring	Administrative method		Survey		No recommendation
		Manual	Electronic	Manual	Electronic	
Entire population						
Children and adolescents						
Adults: aged 18 - < 65 years old						
Adults: aged \geq 65 years old						
Individuals with medical/risk conditions (clinical risk groups)						
Pregnant women						
Health care workers						
Essential public sector workers						
Prisoners						
Residents of long term care institutions						

Educational institutions						
Household contact/Carer of:						
Infants ≤ 6 months of age						
Immunosuppressed individuals						
Persons with clinical risk indication						
Adults (≥ 65)						
Other, please specify						

Q56. If administrative methods are used to measure the numerator assessing influenza vaccination coverage, please provide some more information below (you can tick more than one)

Population groups	Medical records			Immunisation registry*		
	No	Yes		No	Yes	
		Non-electronic (paper form)	Electronic		Manual	Electronic
Entire population						
Children and adolescents						
Adults aged 18 - < 65 years old						
Adults aged ≥ 65 years old						
Individuals with medical/risk conditions (clinical risk groups)						
Pregnant women						
Health care workers						
Essential public sector workers						
Prisoners						
Residents of long term care institutions						
Educational institutions						
Household contact/Carer of:						
Infants ≤ 6 months of age						
Immunosuppressed individuals						
Persons with clinical risk indication						
Adults (≥ 65)						

Other, please specify						
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*If electronic immunisation registry is under development when is it expected to be available for use to document exposure to influenza vaccines: _____ (year)

Comments:

Q57. Please provide estimate on how many vaccination sites report vaccination coverage

- less than 50% of all sites
- between 50 and 70% of all sites
- more than 70% of all sites
- more than 90% of all sites
- unknown/has not been assessed and not possible to estimate

Q58. Please provide estimate on time lag between vaccination and reporting to a medical record or immunization registry

- No time lag, entered at the time of vaccine administration
- 1 week
- 2 weeks
- 3 weeks
- 1 month
- > 1 month please specify _____

Q59. If regional/national electronic immunization registry exists, can you link data with:

Medical records in General practitioner (Family doctor) clinics

- Yes
- No

Medical records in hospitals

- Yes
- No

Influenza laboratory data

- Yes
- No

Comments:

Numerator and denominator assessment

Q60. If surveys are used to measure influenza vaccination coverage, please provide some more information below (you can tick more than one)

Survey							
No	Yes						
	Type of Survey drop down menu household individual	Survey mode drop down menu in person by telephone by mail	Sampling strategy		Sample size	Response rate (%)	Comments
			Non Probability Drop down menu:	Probability sampling Drop			

			Quotas Convenience Other, please specify...	down menu: Simple random Systematic Stratified (assessment, LQAS _ Lot Quality Assessment Sampling *) Multistage Cluster (EPI) Other, specify_____			
--	--	--	--	---	--	--	--

Q61. If survey was conducted, please specify if vaccination coverage was estimated for the following population groups? *drop down menu*

- Entire population
- Children and adolescents
Please specify age group_____
- Adults aged 18 - < 65 years old
- Adults aged ≥ 65 years old

- Older adult age group (e.g. ≥ 60 years old)
Please specify age group_____
- Individuals with medical/risk conditions (clinical risk groups)
- Individuals with medical/risk conditions aged ≥ 6 months-64 years
- Individuals with medical/risk conditions- other age group
Please specify age group_____
- Pregnant women
- Health care workers
- Essential workers in the public sector
- Prisoners
- Residents of long term care institutions
- Educational staff
- Other, please specify_____

Q62. If pharmaceutical data are used to measure the numerator in assessing influenza vaccination coverage, please provide some more information below (you can tick more than one)

Population groups	Vaccine distribution data from industry		
	No	Yes	
		Month/year	Comments
Entire population			

Population groups	Vaccine distribution data from national purchaser		
	No	Yes	
		Date/year	Comments
Entire population			

Population groups	Vaccine data by sales and distribution from pharmacies		
	No	Yes	
		Date/Yes	Comments
Entire population			

Children and adolescents			
Adults			
Individuals with medical/risk conditions (clinical risk groups)			
Pregnant women			
Health care workers			

If OTHER pharmaceutical data are used to measure the numerator, please specify _____

Q63. Please specify if any of the following vaccine data collection methods are used in your country

- Aggregate collection of number of vaccines administered
- Aggregate collection of number of vaccines distributed (industry)
- Aggregate collection of number of vaccines distributed (national purchaser)
- Aggregate collection of number of vaccines sales (private pharmacies)
- Payment/ reimbursement claims
- Other

If other, specify: _____

Q64. What is the most frequent interval at which numerator data assessing influenza vaccination coverage is collected?

- Weekly
- Monthly
- Every two months
- Every three months (quarterly)
- Once, at the end of flu season
- Annually, specific date/time of year _____
- Other, specify: _____

Different intervals for different groups whom vaccine is recommended, specify _____

Q65. Please provide information on what type of assessment is used in your country for denominator

Population groups	Denominator assessment		
	No	Type	Yes Please specify (e.g. population registries, Central statistic data, diseases registries and etc.)
Entire population			
Children and adolescents			
Adults			
Individuals with medical/risk conditions (clinical risk groups)			
Pregnant women			
Health care workers			
Essential public sector workers			
Prisoners			
Residents of long term care institutions			
Educational institutions			

Other, please specify			
-----------------------	--	--	--

Q66. Do you perform scientific studies on vaccination coverage?

No

Yes,

If YES

- please specify the method(s) you use

- do you have Geographical Information Systems (GIS) tools available for study purposes?

Yes, please specify

- what is the time frame and frequency of the used method(s)

- what is the target group for the vaccination coverage study/ies

<i>Comments:</i>

Q67a. Is there a system available to monitor influenza vaccine safety (adverse events following immunization) in vaccinated individuals and what data should be reported to the national level?

Yes, case based data including age, sex and suspected symptoms should be reported
Yes, case based data with a personal identifier and suspected symptoms should be reported
Yes, aggregated data including age, sex and suspected symptoms should be reported
No, there is no such system
Other relevant information, please specify _____

If yes, can these data be linked to an immunisation registry if available?

Yes

No

Other relevant information, please specify _____

Q67b. Is there a system available to monitor influenza vaccine safety (adverse events following immunization) in vaccinated individuals and what data should be reported to the regional level?

Yes, case based data including age, sex and suspected symptoms should be reported
Yes, case based data with a personal identifier and suspected symptoms should be reported
Yes, aggregated data including age, sex and suspected symptoms should be reported
No, there is no such system
Other relevant information, please specify _____

If yes, can these data be linked to an immunisation registry if available?

Yes

No

Other relevant information, please specify _____

Q68. Is there a system available to monitor influenza vaccine breakthrough* infections in vaccinated individuals and what data should be reported?

*a breakthrough infection is defined as laboratory-confirmed influenza infection >14 days after seasonal influenza vaccination in the current season (i.e. vaccine failure)

Yes, case based data should be reported to the national level
Yes, aggregated should be reported to the national level
Yes, case based data should be reported to the regional level
Yes, aggregated should be reported to the regional level
No, there is no such system
Other, specify _____

If yes, can these data be linked an the immunisation registry if available?

Yes

No

Other, specify _____

Q69. Is it mandatory to report adverse events following vaccination?

Yes

If yes,

- to whom

No

Q70. Do you perform studies on influenza vaccine safety?

Yes

If yes,

- please provide more details for studies performed within the last 5 years

<i>Study/year</i>	<i>Methods used</i>	<i>Target group (by age/occupation/health status)</i>	<i>Link to publication</i>

- please specify at what time intervals (every year, every other year)?
- do you perform product-specific safety studies?

No

Q71. Do you perform studies on influenza vaccine effectiveness?

Yes

If yes,

- please provide more details for studies performed within the last 5 years

<i>Study/year</i>	<i>Methods used</i>	<i>Target group (by age/occupation/health status)</i>	<i>Link to publication</i>

- please specify at what time intervals (every year, every other year)?
- do you perform product-specific effectiveness studies?

No

Q72. Overall comments on monitoring methods

--

Section IV: VACCINE PROCUREMENT AND DELIVERY

Q73. For vaccination season 2012-13, please provide information on number of doses:

Doses:	Number	No data	Comment
Purchased*			
Distributed			
Used			
Estimated number of doses			

**If parallel systems exist (public/private), please provide if possible an estimate for overall number of doses purchased in your country*

Q74. Was the amount of vaccines purchased in your country sufficient to cover vaccination for recommended population groups?

- Yes
- No, please specify
- No data available

Q75. Where there vaccine shortages and/or stock-outs in your country during the last influenza season that affected vaccination coverage?

- Yes, Please specify _____
- No
- No data available

Q76. Please indicate the vaccine products used in your country in 2012-13: (you can tick more than one) and for which population group it has been used

Type of vaccine	Product name(s) and manufacturer on the market	Used for: Please specify (age group/group with medical condition/s)	Comments
Trivalent inactivated intramuscular influenza vaccine			
Trivalent live attenuated nasal vaccine			
Trivalent inactivated intra dermal vaccine			
Produced by manufacturer			
Other, please specify			

Q77. Please indicate if you have used ECDC information site on influenza vaccines:

http://ecdc.europa.eu/en/healthtopics/seasonal_influenza/vaccines/Pages/influenza_vaccination.aspx?

Yes

No

Q78. Please select where influenza vaccines are administered

General Practitioners (Family doctors) surgeries

Hospitals

Workplaces

Schools

Pharmacies

Supermarkets

Walk-in clinics

Wet baby clinics

Paediatricians

Other, please specify _____

Q79. Please select the different health care workers that may administer vaccines:

Doctors

Nurses

Pharmacists

Others

If other, specify _____

Q80. If administered by health care staff except doctors are special protocols (e.g. licence, standing orders) needed to administer vaccine?

Yes

No

Q81. Is there a financial incentive to the vaccine administrators to achieve high vaccination coverage?

Yes, please specify _____

No

Q82. Is there a mechanism to feedback achieved vaccination coverage targets to respective vaccinator/vaccinating clinic?

Yes, please specify _____

No

Q83. Overall comments on vaccine procurement and delivery

--

Section V: PROMOTING SEASONAL INFLUENZA VACCINATION

Q84. Are information campaigns for seasonal influenza vaccination conducted in your country that targets the general public and the following specific population groups?

General public	Yes	No
Population aged ≥ 65	Yes	No
Pregnant women	Yes	No
Persons with chronic medical conditions	Yes	No
Other groups, please specify: _____	Yes	No

Q85. Which of the following sources was used to inform the general public? (tick all that apply)

Radio
TV
News papers
Leaflets
Posters
Website
Other
Other, specify _____

Q86. Who sponsors the media campaigns for public for seasonal influenza vaccination programme? (tick all that apply)

National/regional health authorities
Pharmaceutical sector
Public service announcement
Other
Other, specify _____

* Advertisement content and production is provided by government, including national health

Comments:

Q87. Are information campaigns for seasonal influenza vaccination conducted in your country that targets health care workers?

Yes
No

If yes, which of the following did your country use (tick all that apply)

Radio
TV
News papers
Leaflets
Posters

- Websites
- E-based learning modules
- Professional medical societies
- National medical publications
- Other, please specify _____

Q88. Have you used ECDC promotional materials to support your information campaigns on seasonal influenza vaccination?

http://ecdc.europa.eu/en/healthtopics/seasonal_influenza/communication_toolkit/Pages/communication_toolkit.aspx

Yes, Please specify _____

No

Q89. Please provide indicative time (according to your plan) for the start and duration of your information campaign on seasonal influenza vaccination?

- Start week no _____
- End week no: _____
- Duration in number of weeks: ____

Q90. Overall comments on promoting seasonal influenza vaccination

Section VI: USE OF ANTIVIRAL AGENTS FOR TREATMENT AND CHEMOPROPHYLAXIS OF INFLUENZA

Q91. Are the following antiviral agents licensed in your country?

- Adamantanes:
 Amantadine
 Remantadine
 Neuraminidase inhibitors:
 Oseltamivir
 Zanamivir
 Others, please specify_____

Q92. Are they recommended for use in your country?

- Yes, they all are recommended
 Only some are recommended, please specify_____
 Only neuraminidase inhibitors are recommended
 Adamantanes are not recommended due to observed resistance

Q93. Are there recommendations and/or guidelines (policy document) on antiviral use in your country?

- Yes
 No

Treatment

Q94. If recommendation exists, who is recommended treatment with suspected or laboratory-confirmed influenza?

Population group/medical risk group	No recommendation	Recommended	Comments
For in-patients who have:			
- severe, complicated influenza-like illness			
- progressive influenza-like illness			
- who require hospitalisation due to influenza- like illness			
For out-patients who are at higher risk of influenza complications on the basis of their age or underlying medical conditions:			
- Children < 2 years			
- Children < 5 years			
- Adults aged >65 years			
- Individuals belonging to risk groups with e.g.: chronic pulmonary (including asthma), cardiovascular (except hypertension alone), renal, hepatic, hematological (including sickle cell disease), metabolic disorders			

(including diabetes mellitus), or neurologic and neurodevelopment conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy [seizure disorders], stroke, intellectual disability [mental retardation], moderate to severe developmental delay, muscular dystrophy, or spinal cord injury), immunosuppressed, including those caused by medications or by HIV infection, <19 years who receive long-term aspirin therapy, morbid obesity (i.e., BMI ≥40);			
For women who are pregnant or postpartum (within 6 weeks after delivery)			
For residents of nursing homes and other chronic-care facilities			
Other, specify _____			

Post exposure prophylaxis

Q95. If recommendation exists, who is recommended post-exposure prophylaxis?

Population group/ medical risk group	No recommendation	Recommended	Comments
For family or other close contacts of a person who are at higher risk for influenza complications and have not been vaccinated with influenza vaccine at the time of exposure			
For unvaccinated HCWs with occupational exposure and who did not use PPE* at the time of exposure			
Other, specify _____			

*Personal protective equipment

Pre-exposure prophylaxis

Q96. If recommendation exists, who is recommended pre-exposure prophylaxis?

Population group/ medical risk group	No recommendation	Recommended	Comments
For individuals who are at high risk (e.g. severely immunosuppressed patients) for influenza-related complications who cannot otherwise be protected during times when a high risk for exposure exists			

Other, specify _____

Control of influenza outbreaks

Q97. If recommendation exists, who is recommended pre-exposure prophylaxis in case of an outbreak? (tick as appropriate)

Population group	No recommendation	Recommended	Comments
For individuals in long term care facilities/care for immunocompromised if not vaccinated or if circulating influenza strain is not matching the vaccine strains			
For unvaccinated health care staff member who provide care to persons at high risk of complications in long term care facilities/ care for immunocompromised patients if not vaccinated or if circulating influenza strain is not matching the vaccine strains			
For all health care staff regardless of whether they received influenza vaccination if circulating influenza strain is not matching the vaccine strains			
Prisoners			
Educational institutions			
Other, specify _____			

Q98. Does your country have an antiviral resistance surveillance system in place that monitors influenza antiviral resistance?

- Yes
- No

Q99. If antiviral resistance is identified in the laboratory to whom should it be notified in your country? (tick as appropriate)

- Public health
- National regulatory Agency
- Others, specify _____

Q100. If antiviral resistance is identified in the laboratory are clinicians notified

- Yes, please specify how _____
- No

Q101. How antiviral might be purchased on the individual level?

- Purchased only if prescribed by doctor
- No need for prescription and available in pharmacies
- Other, specify _____

Section VII: Technical support from ECDC and overall comments

Q102. In which areas related to influenza vaccination would you like to receive technical support from ECDC?

Please specify: _____

Q103. Overall comments on activities, reporting, achievements and obstacles encountered during influenza season 2012-13

Thank you very much for your time!

Annex 2. Glossary of terms used in questionnaire

Breakthrough infection is defined as laboratory-confirmed influenza infection >14 days after seasonal influenza vaccination in the current season (i.e. vaccine failure).

Health Care Workers

- Medical and other staff, including those in primary care, secondary and long term facilities, who have regular, clinical contact with patients. This includes staff such as doctors, dentists, nurses, psychologists, paramedical professionals such as occupational therapists, physiotherapists, diagnostic radiographers (incl. radiologists), ambulance workers, porters, and students;
- Laboratory and other health staff (including mortuary staff) who have direct contact with potentially infectious clinical specimens. This includes those in academic (or commercial research) laboratories who handle clinical specimens;
- Non-clinical ancillary staff, who may have social contact with patients, but not usually of a prolonged or close nature. This group includes receptionists, ward clerks, maintenance staff such as engineers, gardeners, cleaners, and other administrative staff working in hospitals and primary care settings, etc.

Reference (adapted): The UK Association of National Health Occupational Physicians (ANHOPS) guidance on Immunisation of healthcare workers defines three categories of healthcare workers

http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1195733758763

Mandatory vaccination of health care workers (compulsory, obligatory, authoritatively ordered) defined as vaccination for which there is a “penalty” for those who refuse seasonal influenza vaccination.

No recommendation- defined here that there is no specific written recommendation in the official policy document on whether this population group should be vaccinated or not.

Out of pocket means not reimbursed, paid by vaccinee.

Recommended defined here that there is specific written recommendation in the official policy document that this population group have to receive seasonal influenza vaccine.

Voluntary vaccination of health care workers defined here as individual free will (choice) when deciding on seasonal influenza vaccination and there is no penalty for not getting the vaccine.

Annex 3. The draft template for country specific profile

Name of the country: X

Influenza immunisation policy/General facts	
National seasonal influenza recommendations	Yes/No
National Action Plan (NAP) as requested by EC	Adopted/updated/respective policy in place/under development/not adopted
URL link to NAP	If provided
Total population of the country	Eurostat
Those ≥ 65	Eurostat

Vaccination recommendations (population groups targeted by vaccination) in 2012-13 influenza season	
Overall population	Yes/No
Healthy children and adolescents	Yes/No
Older population groups (≥ 50 ; ≥ 55 ; ≥ 59 ; ≥ 60 ; ≥ 65 years of age)	Yes/No
Clinical risk groups (by each clinical risk group)	Yes/No
Pregnancy related vaccination (including post-partum women)	Yes/No
Health Care Workers (including staff of long stay care facilities)	Yes/No
Other occupational groups	Yes/No
Population groups in closed communities	Yes/No
Household contacts or care takers	Yes/No

Payment mechanism for vaccine and its administration in 2012-13 influenza season for the following population groups	
Healthy children and adolescents	National insurance scheme; National health service; Regional health service; Private insurance; Out of pocket; Employer
Older population groups (≥ 50 ; ≥ 55 ; ≥ 59 ; ≥ 60 ; ≥ 65 years of age)	National insurance scheme; National health service; Regional health service; Private insurance; Out of pocket; Employer
Clinical risk groups (by each clinical risk group)	National insurance scheme; National health service; Regional health service; Private insurance; Out of pocket; Employer
Pregnancy related vaccination (including post-partum women)	National insurance scheme; National health service; Regional health service; Private insurance; Out of pocket; Employer
Health Care Workers (including staff of long stay care	National insurance scheme;

facilities)	National health service; Regional health service; Private insurance; Out of pocket; Employer
Other occupational groups	National insurance scheme; National health service; Regional health service; Private insurance; Out of pocket; Employer
Population groups in closed communities	National insurance scheme; National health service; Regional health service; Private insurance; Out of pocket; Employer
Household contacts or care takers	National insurance scheme; National health service; Regional health service; Private insurance; Out of pocket; Employer

Vaccination coverage in from 2008-09 to 2012-13 influenza season (for countries that provided the following data for one to five influenza seasons) by method of data collection (administrative and /or survey)

	2008-09	2009-10	1010-11	2011-12	2012-13
Children/adolescents	%	%	%	%	%
Older population groups	%	%	%	%	%
Clinical risk groups	%	%	%	%	%
Pregnant women	%	%	%	%	%
HCWs	%	%	%	%	%
Staff in long stay care facilities	%	%	%	%	%
Residents in long stay care facilities	%	%	%	%	%

Monitoring of vaccination coverage in 2012-13 influenza season

Method used to monitor influenza vaccination coverage	Administrative method only; Survey method only; Combination of administrative and survey methods	Yes/No
Method used (administrative, survey) to monitor vaccination coverage by population group	Entire population; Children and adolescents; Adults: aged 18 - < 65 years old; Adults: aged ≥65 years old; Individuals with medical/risk conditions (clinical risk groups); Pregnant women; Health care workers; Essential public sector workers; Prisoners; Residents of long term care institutions; Educational institutions; household contacts/carers	Yes/No
Details on administrative method used	Entire population; Children and	Yes/No

(medical records vs. immunisation registry; manual vs. electronic) by population groups	adolescents; Adults: aged 18 - < 65 years old; Adults: aged ≥ 65 years old; Individuals with medical/risk conditions (clinical risk groups); Pregnant women; Health care workers; Essential public sector workers; Prisoners; Residents of long term care institutions; Educational institutions; household contacts/carers	
Details for survey method used	Type of the survey; survey mode; sample size; population targeted	Yes/No
Numerator assessment	Pharmaceutical data; administrative data; frequency of numerator assessment	Yes/No
Denominator assessment by population groups and data source	Entire population; Children and adolescents; Adults; Individuals with medical/risk conditions (clinical risk groups); Pregnant women; Health care workers; Essential public sector workers; Prisoners; Residents of long term care institutions; Educational institutions	Yes/No
Scientific studies conducted for vaccination coverage; vaccine safety and vaccine effectiveness	URL link to the studies if provided	Yes/No
Vaccine safety monitoring (adverse events following immunisation)	Data collected at the national/regional level; data linkage with immunisation registry;	Yes/No

Influenza vaccine procurement and delivery n 2012-13 influenza season

Number of doses purchased, distributed, used, estimated	No. of doses
Type of vaccine/Product name used	Trivalent inactivated non adjuvanted vaccine (TIV);trivalent inactivated adjuvanted vaccine (aTIV);Trivalent live attenuated nasal vaccine (LAIV); Qudrivalent attenuated nasal vaccine (LAIV); Qudrivalent inactivated non-adjuvanted vaccine (QIV)

Promoting of seasonal influenza vaccination in 2012-13 influenza season

Communication with general public and availability of information materials for targeted population groups (those ≥ 65 ; pregnant women; those with clinical risk	Radio,TV,News papers, Leaflets, Posters, Website	Yes/No
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condition)		
Communisation with health professionals	Radio, TV, News papers, Leaflets, Posters, Website, Professional medical societies	Yes/No

Use of antiviral agents for treatment and chemoprophylaxis of influenza in 2012-13 influenza season	
Use of antivirals for treatment for in-patient and out-patient who are at higher risk of influenza complications	Yes/No
Use of antivirals for post-exposure prophylaxis	Yes/No
Use of antivirals for pre-exposure prophylaxis	Yes/No
Use of antivirals for control of influenza outbreaks	Yes/No
Existence of antiviral resistance surveillance system	Yes/No