



Pandemic A(H1N1) 2009 Influenza Vaccination Survey, Influenza season 2009/2010

VENICE II Consortium

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Abbreviations

ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EMA	European Medicines Agency
EU	European Union
GPs	General Practitioners
HCWs	Health Care Workers
ICU	Intensive Care Units
MSs	Member States
VENICE	Vaccine European New Integrated Collaboration Effort
CINECA	Consortium of University, Bologna, Italy
WHO	World Health Organization
IHR	International Health Regulations

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ISO 3166-1 Country Codes

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DK	Denmark
EE	Estonia
FI	Finland
FR	France
DE	Germany
GR	Greece
HU	Hungary
IS	Iceland
IE	Ireland
IT	Italy
LV	Latvia
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
EN	England

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Summary

In August 2010 VENICE project conducted a survey to collect information on pandemic influenza A(H1N1)2009 vaccination policies, country-specific recommendations for age, risk and priority groups and vaccination coverage in European Union (EU) Member States (MS), Norway and Iceland for the 2009-10 influenza season. National experts (“gatekeepers”) completed a web-based questionnaire to report information from each of their countries.

All 29 countries responded to the survey. Twenty-six countries organised national pandemic influenza vaccination; two did not and one country had recommendations for vaccination but did not have a specific programme. Twelve countries recommended vaccine for individuals of all ages. Six countries had recommendations for specific paediatric age groups, and three countries recommended pandemic vaccine to specific adult age groups. Most countries recommended vaccine for those in established risk groups and new risk groups identified early in the pandemic. All 27 countries recommended vaccination of health care workers (HCWs) and pregnant women.

The reported vaccination coverage for pandemic vaccine (monovalent) varied across countries from 0.4% to 59% for the entire population (n=22); 2.6% to 68% for HCWs (n=12); 0% to 58% for pregnant women (n=11); 0.2% to 74% for children (n=11). Twenty-two countries prioritised vaccination for specific risk or target groups.

This survey identified similarity in most common target groups with regard to recommendations for pandemic vaccine and variability related with vaccination coverage rates between countries. It also demonstrates changes in vaccination policy and recommendations in response to the pandemic and the changing epidemiology of the disease.

Background

In April 2009, the World Health Organization (WHO) was informed of human infections caused by a new H1N1 virus reported from Mexico and the United States. The report was of immediate concern because the genes contained in the virus were from animal influenza viruses, definitively establishing this virus as very different from the usual seasonal human influenza viruses. Further laboratory testing confirmed that existing antibodies to the current human H1N1 viruses did not react to the new H1N1 virus, further underscoring the potential of the new virus to cause a pandemic. But the most important information was when investigations indicated that this new virus was causing community outbreaks, with person to person spread. The new virus spread with unprecedented speed, reaching 120 countries and territories in about eight weeks, and later was reported from virtually all countries. WHO took decisive actions in accordance with the International Health Regulations (IHR) and announced the start of a pandemic on 11 June 2009.(1)

The epidemiology of the H1N1 pandemic differed in major respects from that associated with seasonal influenza. Although the vast majority of pandemic (H1N1) 2009 cases have been mild with many cases possibly unaware that they have been infected, the virus caused a striking and unusual pattern of severe illness and deaths in younger people, with many deaths caused by viral pneumonia, an especially aggressive form of pneumonia. Large outbreaks occurred outside the usual season for influenza. These patterns are not typically seen during seasonal influenza. (1)

Influenza vaccines are an extremely effective way of containing influenza. Vaccines against pandemic (H1N1) 2009 were authorised by European Medicines Agency (EMA) of the

European Union (EU) in autumn 2009. Vaccination programmes for pandemic (H1N1) 2009 were implemented across the majority of EU/EEA countries, with wide variation in vaccination policy. However, by the end of the pandemic, at EU level there was a lack of comprehensive information available on the status of pandemic influenza programmes across members states, how they were implemented and monitored. Both at European level and within Members States (MSs) it was considered essential to learn from the experience of the pandemic, to improve knowledge on what policies were in place to deal with pandemic influenza, which population groups were targeted for pandemic vaccination, how programmes were resourced, the logistics associated with the national programmes (doses of vaccine were purchased and distributed in each country), and vaccine coverage rates achieved. ECDC requested the VENICE consortium to undertake a survey of MSs to obtain this information. The information obtained from this survey will be used to inform member states and support policy decisions with regard to vaccination programmes to control influenza in the future.

Within the European Union, there is already a commitment to increase seasonal vaccination coverage in line with WHO recommendations. There is a need to continue to monitor seasonal influenza vaccine uptake across MSs, work which has previously been done through the VENICE network. The VENICE network has previously collected data for seasonal influenza vaccine uptake and will continue to undertake this activity for the 2009/2010 influenza season and update data for the 2008/2009 season as not all countries were able to provide this data at the time of the most recent VENICE seasonal influenza survey.

The EU funded VENICE project and network of national gatekeepers and experts is ideally placed with its contacts, expertise and infrastructure to assist ECDC in rapidly accessing this information from participating countries in relation to vaccine preventable diseases. The VENICE project has provided valuable information as a result of the MSs sharing information on vaccination programmes; such as age groups targeted, vaccination schedules used, how the vaccination programmes are delivered, policy decisions are made (and by whom and using what data), and to identify what policy changes are anticipated within member states. (2)

The most recent VENICE surveys on the subject of influenza vaccine have proved invaluable in comparing country policies, programmes, and uptake in relation to achieving WHO goals on vaccination uptake in different risk groups. The data obtained from these studies has demonstrated that some countries are already on, or near target, in achieving WHO or EU goals. Information provided in recent studies has provided valuable insight into policies that can achieve higher uptake. (3;4)

Objectives

The main objective of the pandemic A(H1N1) 2009 Influenza survey was to evaluate and assess the handling and vaccination programmes of the pandemic influenza vaccine at the EU level. To achieve this objective the secondary objectives were:

1. To describe pandemic (H1N1) 2009 influenza vaccination policies during the 2009/2010 influenza season in each country;
2. To identify country specific pandemic (H1N1) 2009 vaccination recommendations for different groups: age, risk, priority groups and the general population;

3. To obtain the available vaccination coverage rates of pandemic (H1N1) 2009 vaccine for 2009/2010 influenza season for age, risk, priority groups for which data were available in countries;
4. To identify methods used to monitor vaccine uptake for the groups targeted with pandemic (H1N1) 2009 vaccine.

The study obtained data from all European Union (EU) and European Economic Area (EEA) Member States (MS) for influenza season 2009/2010 in order to compare data between countries.

Methods

The VENICE consortium project undertook a web-based survey. The survey was conducted in relation to pandemic vaccination strategy and vaccination coverage.

This survey was a collaborative study between the European Centre for Disease Prevention and Control (ECDC) and followed on previous work done under an EU funded contract (VENICE I). The VENICE II Consortium included MSs of the EU and European Economic Area (EEA) Member States (MS) (n=29) (except Lichtenstein). In comparison to previous VENICE surveys an additional collaborator for this survey was the World Health Organization (WHO)-who was planning a survey on pandemic influenza across all WHO regions. As part of the collaboration it was agreed that all European countries (both EU and non EU) would be invited to participate in the one survey. WHO-Euro office collaborated with VENICE, agreement was reached on the questions, WHO Euro office managed the translation, and communication, data analysis and reporting for the non-EU countries. A joint report from WHO and VENICE will be presented separately on this compiled data.

The VENICE survey was conducted through MS gatekeepers, previously identified and involved in other VENICE surveys. These gatekeepers are nominated national experts in vaccination programmes and are delegated responsibility to ensure that all VENICE surveys are completed for their country. For this particular survey the gatekeepers' were asked to collaborate with nominated individuals within the national Ministries of Health (MOH) responsible for influenza. These MOH officials are members of the EU Health Security Council, Influenza section, and each MOH has one such person assigned this function. Both national VENICE gatekeepers and the national member of the Influenza section agreed on the submitted survey responses.

Data were collected developing a standard survey tool – questionnaire. Information was sought on:

- Population groups recommended for pandemic influenza vaccination (age, occupation, medical or social condition risk);
- Recent vaccination coverage results by population group and season;
- Payment and administration costs for vaccine;
- Health care setting where vaccine was typically administered;
- Quantity of vaccine purchased and distributed by country;
- Surveillance of adverse events following vaccination;
- Methodology used to promote influenza vaccines and how this activity is supported.

A draft of the proposed questionnaire was developed and subsequently piloted by four VENICE project-leading partners: Italian Istituto Superiore di Sanita (ISS), the French

Institut de la Veille Sanitaire (INVS), the Irish Health Protection Surveillance Centre (HPSC) and Polish National Institute of Public Health – National Institute of Hygiene.

Following testing and completion of the questionnaire it was placed on the secure VENICE website platform by CINECA (Consortium of University, Bologna, Italy) where it was available for all assigned representatives from each VENICE MSs (and the non-VENICE European countries being surveyed by WHO) responsible for survey completion (<http://venice.cineca.org>). The survey was initiated in August 2010 with calls for completion before end August. To optimise response rate a number of requests to complete the survey were made in September and October (for non-responders). Data was entered directly on-line. Data entered into the survey was agreed by the gatekeepers and the designated national influenza section representative of the MOH. Subsequent data analysis was carried out by WP4 (HPSC in Ireland) using STATA software. Gatekeepers were then requested to perform data validation in the draft report prior to final completion.

Results

Response rate

All 29 EU/EEA countries participating in VENICE II project responded to the survey.

Data validation rate

Countries that validated draft report (79%):

BE,CZ,CY,EE,FR,DE,GR,HU,IS,IE,IT,LV,LT,LU,MT,NL,NO,PT,RO,SK,SI,EN, PL (n=23)

Not validated: AT, BG, DK, FI, ES, SE (n=6)

VACCINATION POLICY AND RECOMMENDATIONS

Twenty six countries (90%; 26/29) implemented a vaccination programme against pandemic influenza; two countries (7%; 2/29) did not have pandemic vaccination programmes and one (3%; 1/29) had only recommendations for vaccination although it did not have a vaccination programme. Twenty five countries (86%; 25/29) published an official document (policy, guidelines) on pandemic influenza vaccination recommendations for their population. (Table 1)

Twenty six countries (AT,BE,BG,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT, LT,LU,MT,NL,NO,RO,PT,SK,SI,ES,EN) had the same policy (96% 26/27) for all regions in the country. SE (4%; 1/27) had different regional vaccination policies in terms of different logistic strategies according to region; however the same general priority groups applied to all regions.

Table 1. Pandemic influenza vaccination and documentation in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=29)

	Country	Total
Pandemic influenza vaccination programme		
Did have vaccination programme	AT,BE,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT, LT,LU,MT,NL,NO,RO, SK,SI,ES,SE,EN,PT	26
Did not have vaccination programme	LV,PL	2
Did have only recommendations	BG	1

Official document (policy, guidelines)		
Did have official document (policy, guidelines)	AT,BE,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LT,LU,NL,NO,RO,PT,SK,SI,ES,SE,EN	25
Did not have official document (policy, guidelines)	BG, MT, PL, LV	4

In table 2 data are presented for the organisations that were used to provide information to develop national vaccination policy/guidance/recommendations. Most countries used the WHO and ECDC documents for defining risk, and for targeting priority groups for vaccination. Information from the EMA and Summary of Product Characteristics (SPCs) from the vaccine manufacturers were used predominantly to provide information on available vaccines and dosing.

Table 2. Organisations that provided useful information which were used to develop vaccination policy/guidance/recommendations against pandemic influenza in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

Organisation	Risk and target groups	Priority groups	Available vaccines	Dosing of vaccine	Logistics	Q & As
WHO	AT,BE,BG, CY,CZ, DK,EE,FI, DE,GR,HU, IS,IE,IT,LT, LU,MT, NL,NO,RO, PT, SK,SI,ES, SE (n=25)	AT,BE,BG, CY,CZ,DK, EE,FI,DE, FR,GR,HU, IS,IE,IT, LT,LU,MT, NL,NO,RO,P T, SK,SI,ES,SE (n=26)	EE,IS,IE, NL,SI (n=5)	BE,CZ,EE, FI,IS,IE,NL ,PT (n=8)	CZ,IS,IT, SK (n=4)	BE,DK, EE,FI,IS, IE,IT, LU,NL, SI (n=10)
EMA	AT,BE,CZ, DK,FI, FR,IE, NL,NO,SI, SE (n=11)	AT,BE,IE,FI, MT,NL,SI, SE (n=8)	AT,BG, CY,EE, FR,DE, GR,IS,IE, IT,LT,LU, MT,NL, SI,SK, ES,SE,PT(n=19)	AT,BE,BG, CY,DK,EE, FI,FR,DE, GR,IE,IT, LT,LU,MT, NL,NO, SI,SK,SE,P T (n=21)	IS,LT,LU, PT (n=4)	IS,IE, LU,MT, NL,SI (n=6)
Drug manufacturer SPC*s	BE,FR,NO, PT (n=4)	BE,DK (n=2)	BG,EE, FR,DE, HU,IE, LT,NL,SI, ES,SE (n=11)	AT,BE,BG, CY,CZ,DK, EE,FI,FR, DE,GR,HU, IS,IE,IT, LU,NO,RO, PT,SK,SI, ES,SE (n=23)	AT,CZ, DK,FR, DE,GR, IS,LU, NO,PT (n=10)	EE,IS, IE,LU,FI (n=5)

ECDC	AT,BE,BG, CY,CZ,DK, EE,DE,GR, HU,IS,IE, IT,LT,LU, MT,NL, NO,RO, SK,SI,ES, SE,PT (n=24)	AT,BE,BG, CY,CZ, EE,FI,FR, DE,GR, HU,IS,IE, IT,LT,RO, MT,NL,NO, SK,SI,ES, SE,PT (n=24)	CZ,IS,IE, NL,SK (n=5)	BE,IS,IE, LT,SI,SE,P T (n=7)	IS (n=1)	BG,CY, CZ,DK, DE,HU, IC,IE,IT, MT,NL, SK,SI, SE (n=14)
Health Security Committee	BG,CZ,EE, DE,HU,IT, LT,LU,MT, NO,SK,ES, SE (n=13)	BG,CZ,EE, DE,HU,IS, IT,LT,LU, MT,NO, SK,ES,SE ,PT(n=15)	BG,EE, SE (n=3)	CZ,SE,PT (n=3)	(n=0)	SE (n=1)
CDC	AT,BG,CZ, EE,FI,DE, GR,HU,IE, LU,MT,NL, NO,SK,SI, ES,PT (n=17)	AT, BE,BG, CY,CZ,EE, FI,FR,DE, GR,HU, IS,IE,LU, MT,NO, SI,ES,PT (n=19)	BG,CZ (n=2)	CZ,SI,PT (n=3)	CZ (n=1)	CZ, HU, IE,LU, MT,NL, SI (n=7)

* Summary of product characteristics

LV,PL- no data, no vaccination programme.

Other sources of information which were used by countries and were mentioned:

DE, EN- Joint Committee for Vaccination and Immunisation (JCVI in UK);

LU- Medical and scientific literature;

NO- Recommendations from other countries and epidemiological data on the pandemic from the southern hemisphere and early phases in the northern hemisphere;

SE- Regional authorities, Swedish Medical Products Agency.

Comments:

BG- The pandemic vaccine became available very late in Bulgaria (February, 2010), after the pandemic wave had declined and because of that vaccine was not used.

EN- Information regarding logistics and available vaccines were provided by Department of Health (DH). All data provided in this survey are for England (EN) only (not UK).

VACCINATION COVERAGE AND ITS MONITORING

Vaccination coverage monitoring

Twenty three countries (85%; 23/27) indicated that they measured/estimated vaccine coverage (AT,BE,CY,CZ,DK,EE,FI,FR,DE,HU,IS,IE,IT,MT,NL,LU, NO,RO,PT,SI,ES,SE,EN), four (15%; 4/27) did not (BG,GR,LT,SK). Method(s) used to evaluate the vaccination coverage are presented in the table 3.

Table 3. Method(s) used to evaluate pandemic influenza vaccination coverage in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

Method	Country	Total
Administrative methods (n=23)		
Administered vaccine	AT,BE,CY,CZ,EE,FI,FR,HU,IS,IE,IT,MT,LU,NL,RO,PT,SI,ES,SE,EN	20
Vaccine sales (industry)		0
Immunisation registry	DK,IS,IE,IT,NL,NO,ES,SE	8
Patient (history) or insurance records	BE,CZ,FR,NL	4
No. of doses distributed (national purchaser)	BE,CY,CZ,DE,HU,NL,NO,SE,PT	9
Other	IE- for some settings (occupational health) patient consent forms used by these settings.	1
Data sources for administrative method		
Payment/reimbursement claims	BE,CZ,DE,IE	4
GP registries	CZ,EE,FI,HU,IS,IT,NL,RO,ES,SE,EN	11
Hospitals	EE,HU,IS,IE,RO,SE,EN	7
Pharmacies	HU	1
Other	AT- reports of vaccination centers; H1N1 was only administrated in dedicated centers; BE-National Database; CY-Data from Pandemic Vaccination Centers; CZ- specific register for the pandemic only. FR-National social security scheme database; IT-Immunization services for vaccine administration at the local level; MT-registries at the immunisation clinics within the Government health centres; NL-MHS; EN- DH ImmForm website, a web-based reporting system. Data on patient groups was obtained from GP practices; data on healthcare workers was obtained from all NHS Trusts in England. PT-registries of vaccine administered. SI-reports from vaccination centres.	11
Survey methods (n=4)		
Telephone (Computer assisted: CATI)	FR,DE,IE	3
Telephone (Not computer assisted: Not CATI)		0
In person (face-to face)		0
Distributed questionnaire (mail, email, handed out)		0
Other methods	IS- Immunization registry	1

Non probability sampling		
Quotas	IE	1
Convenience		0
Probability sampling (random)		
Simple random		0
Systematic	IS	1
Stratified (assessment, LQAS*)		0
Multistage	FR,DE	2
Cluster (EPI)		0
The sample size	IE-1734; FR-3264;DE-13000;IS-300 000	
Response rate to the survey	FR-56%;DE,IS-100%; IE-22.3%.	

LV,PL- no data, no vaccination programme.

*Lot Quality Assessment Sampling

†-IE- full quota achieved, 22.3% response of all people called to achieve quota number

Twenty countries reported that they were able to measure the denominator for all, or for some, population groups' recommended pandemic vaccine. Information on available denominators for specific age, at risk and other groups by countries presented in table 4.

Table 4. Method(s) used to evaluate vaccination coverage for pandemic influenza in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

	Country	Total
Denominator available for all population groups	CZ,EE,FR,IS,IT,SK,EN	7
Denominator available for some population groups	DK,DE,HU,IE,MT,NL,LU,RO,SI,ES,SE,PT,NO*	13
Denominator not available	AT,BE,BG,CY,FI,GR,LT	7
If denominator data are available for "all" or "some" indicate		
Age groups	EE,FR,DE,IS,IE,IT,LU,MT,NL,NO,HU,RO,SK,SI,ES,SE,EN	17
Census data available	DE,IS,IE,IT,LU,MT,NL,NO,RO,SK,SI,ES,SE,PT	14
Census data not available	EE, EN	2
Other sources	EN- GP registered patients; FR- data from the social security database (exhaustive for the French population); IT-Regional administrative population data; NL-age group >60 years; PT-vaccine registries.	5
At risk groups	CZ,DK,EE,FR,DE,IS,IE,IT,NL,RO,SK,ES,EN,PT	14
Chronic diseases registries	CZ,DK,EE,IE,ES	5
Hospital admissions	DK,EE,DE,IS,IE	5

GP visits	EE,IS,NL,SK,EN	5
Prescription data	IS,IE,IT	3
Other sources	FR-social security database; IE-only some disease registries available- these were used. For other chronic diseases estimates were based on estimates using combination of hospital discharge and community prescription data; SK-Health Insurance Companies for the number of chronic patients, health statistics of the Slovak Republic; ES-Estimation data from EDCD/EU; PT-estimated previously through prevalence studies.	5
Pregnant/postpartum women		
Number of births	EE,DE,HU,IS,IE,IT,LU,MT,NL,NO,SK,SI,ES,PT	14
Antenatal registries	EE,HU,IS,NL,NO,SE	6
Other sources	FR-social security database; ES-Estimation data from EDCD/EU; EN, RO-GP registered patients.	4
Occupational groups		
Employer	CZ,EE,IE,IT,MT,NL,SK,EN,PT	9
Labour Union		0
Labour statistics	DE,HU,IE,IT,RO	5
Other sources	CZ-essential services; ES-Estimation data from EDCD/EU.	2

LV,PL- no data, no vaccination programme.

*NO able to measure the denominator for the population as a whole, but not able to measure the denominator for the specific risk groups.

Vaccination coverage targets* and its calculation

Seven of 15 countries that provided this information had vaccination coverage targets for pandemic vaccination for specific targeted groups or entire population. Eight countries did not have specific vaccination coverage targets. Details for this information are presented in table 4a.

Table 4a. Vaccination coverage targets set up by countries for pandemic influenza vaccine in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=15)

Countries	Vaccination coverage targets*					
	Yes	No	Comments	Included to the calculations	Not included to the calculations	Comments
PT	X		100% for the 30% of population that were targeted for vaccination			Not applicable (target 100%)
SK	X		100% of those at risk			Yes, these targets will be

			which accounted 20% of population			included to the calculations of the vaccination coverage when evaluating
IE		X	Aim was to get as high uptake as possible—but not specific target set		X	
RO	X		Entire population 12% ; Eligible population (\geq 16 years old) 14,3%		X	
LU	X			X		
HU	X		Entire population 60%		X	
EE	X		To vaccinate at risk group population (~240 000 inhabitants): pregnant women, children 6-24 months, persons with certain underlying conditions, first line health and social care workers, medical students, pharmacists.			
IT	X			X		The value of vaccination coverage provided below for Italy was calculated using the target population as denominator not for the entire population because the pandemic vaccine was not available for the entire population.
No targets set up	DE,NL,SI,BE,CZ,LT,NO (n=7)					

* The information with regard to vaccination coverage targets for pandemic vaccine was not included in the original questionnaire. It was decided to ask this question following comment from France during the data validation process (14 countries answered these questions). Vaccination coverage may be calculated differently across countries if target is less than 100%. E.g. the target was to vaccinate 75% of the population and 6 million people were vaccinated of 60 million inhabitants. Therefore, there is two options how to calculate vaccination coverage: 1) $6/60=10\%$ or 2) $6/(60*0.75)=13\%$.

Vaccination coverage results

Twenty two countries provided data on pandemic influenza vaccination coverage for their entire population. There was marked variation in reported uptake across countries (range 0.6% to 59%). The highest uptake was reached in Scandinavian countries and The Netherlands.

Vaccination coverage data among HCWs were available in 12 countries. Vaccination coverage varied between countries (range 2.6% to 68%). The highest vaccine uptake was reported by Hungary, Romania and Netherlands.

Vaccination coverage in pregnant women was provided by 11 countries (range 0%-58%). The highest vaccine uptake was reported by Netherlands and Ireland.

Vaccination coverage among children was reported by 11 countries; the range varied from 0.26% to 74%. The highest vaccine uptake was reported by Netherlands and Norway. The paediatric age groups for which vaccination was recommended varied across the MSs and vaccination coverage data presented in this report needs to be interpreted accordingly, keeping this in mind.

Data on vaccination coverage among individuals at risk were provided by eight countries. Vaccination coverage varied between countries (range 8% - 72%). The highest vaccine uptake was reported by Netherlands and Ireland. (note: risk groups recommended vaccine varied across countries. Analysis of uptake needs to take national recommendations into account when reviewing data). Details for pandemic influenza vaccination coverage results are presented in the table 5.

Table 5. Vaccination coverage for pandemic influenza in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

Country	Vaccination coverage (%)	Comments
Entire population (n=22)		
AT	3	
CY	3	
CZ	0.6	
EE	3	
FI	50	
FR	8	
DE**	8	
GR	3	Source: Hellenic Centre of Disease Control and Prevention (HCDC)
HU	26.8	
IS	46	
IE	23	
IT	4	
LU	6	
MT	23	
NL	30	
NO	45	
PT	6	
RO	9	9% in eligible general population (≥ 16 years old); 8% in general population
ES	27.1	
SE	59	
SI	4.6	Source: (National Institute of Public Health) NIPH December

		2010
SK	0.4	
EN,BE,BG,DK,LT	Data not available	
HCWs (n=12)		
CZ	7	
EE	21	
HU	68	
IE	31	
IT	15	
MT	40	
NL	50	
PT	35	
RO	51	
ES	11.6	
EN	40.3	
SK	2.6	
DE	Data available later	Robert Koch Institute (RKI) , date not known
LT,LU,NO,SI,SE,AT,BE,BG,CY,DK,FI,FR,IS,GR	Data not available	
Pregnant women (n=11)		
CZ	0	
EE	5	
HU	9	
IE	32	
IT	12	
NL	58	
ES	9	
EN	14.9	
PT	18	
SI	1.2	Source:NIPH December 2010
FR	23	
AT,BE,BG,CY,DK,FI,DE,IS,LT,LU,MT,RO,SK,SE,NO,GR	Data not available	
Children (n=11)		
IS	45	
IE***	46	
IT	0.26	
LU	7	
NL	74	
NO	55	
EN	23.6	
PT	15	

SI	1.1 (0-4); 1.4 (5-18)	Source: NIPH December 2010
FR	10	
SK	0.2	Children up to 15 years
GR	Data available later	Source: HCDC
FI	Data available later	End of 2010, National Institute for health and Welfare (THL)
RO,ES,SE,AT,BE,BG,HU, CY,DK,EE, DE,LT,MT, CZ	Data not available	
Children at risk (n=4)		
CZ	0	
LU	13	
ES	15.3	
EN	37.3	
GR	Data available later	Source: HCDC
NL,AT,BE,BG,CY,DK,EE,FI,FR,DE, HU,IS,IT,LT,MT,NO,RO,SK,SI,SE,PT IE	Data not available	
Adults at risk (n=3)		
LU	7	
ES	22.8	
EN	39.8	
DE	Data available later	RKI , date not known
NL	Data available later	1 October 2010
AT,BE,BG,CY,CZ,DK,EE,FI, FR,HU,IS,IT,LT,MT,NO,SE,PT,IE,GR	Data not available	
Adults (n=8)		
IS	46	
IT	0.12	
LU	5	
NL	66	
NO	40	
PT	3	
SI	3.6 (19-49) 6.9(50-64)	
FR	4	
IE	19.4	Estimated total vaccinations given aged 15+ yrs
DE	Data available later	RKI , date not known
RO,SK,ES,SE,EN,AT,BE,BG, CY,CZ,DK,EE,FI, HU,LT,MT,GR	Data not available	
Elderly (n=9)		

<i>Those over 65 years</i>		
IS	60	
IE	38	
IT	2	
LU	9	
NO	50	
PT	4	
SI	7.6	
<i>Those over 60 years</i>		
HU	32.5	
FR	4	
FI	Data available later	End of year 2010, THL
DE	Data available later	RKI , date not known
SK,RO,ES,SE,EN,AT,BE,BG, CY,CZ,DK,EE, LT,MT,NL,IE,GR	Data not available	
Those at risk > 6 months and older (n=8)		
DK*	20	
EE	21	
IE	48	Estimated based on combined data sources
IT	13	
LU	8	
NL	72	
ES	23.7	
EN	37.6	
FR	Data available later	September, InVS
AT,BE,BG,CY,CZ,FI,DE, HU,IS,LT,MT,NO,RO,SK,SI,SE,PT,GR	Data not available	
Essential services (n=2)		
IT (other than health care workers)	6	
ES	8.8	
Blood donors (n=1)		
IT	1	

LV,PL- no data, no vaccination programme.

*DK - Vaccination coverage mentioned above is for persons below 65 yrs.

**DE - Data for entire population are for age groups > = 14 years. Q 9: data not available, each round of the survey was about 1000 interviews.

***IE – data available on children aged 6 months – 14 years. There is no data available for 0-18 year age group at present.

BE -Coverage data will be available by the end of the year 2010, based on Insurance data.

IT - institutionalized children -11%; Severe preterm children with less than 24 months of age -7%.

LU- There are no registries for risk groups, so the vaccine coverage for risk groups have been calculated on the prevalence of chronic conditions in the Luxembourg population, as estimated in a 2007 survey. Percentages based on administered vaccines.

NL - Percentages provided estimated based on 1 or 2 vaccinations.

NO -Data presented above are for the entire population (including healthy and at risk).

SK - PHA SR is planning to conduct the administrative survey to measure the vaccination coverage through GP registries in November 2010. The findings are not planned to be divided into the groups, e.g. health children or children at risk but the results will be for all children and all adults.

ES - coverage data are provisional. By the moment data are not available for four (4/19) autonomous regions.

SE - For some counties all data requested above is available, but nationally they are incomplete.

EN - Healthy children and Children at risk figures relate to individuals aged 6 months to less than 5 years. All H1N1 vaccination coverage figures are based on the total number of first doses of Pandemrix administered.

INDIVIDUALS RECOMMENDED VACCINATION BY AGE GROUPS

The population recommended for vaccination by age varied by country. Overall 17 countries (65%; 17/26) had recommended pandemic influenza vaccine to the entire population by the end of influenza season. Thirteen countries (50%; 13/26) recommended vaccine to individuals of all ages. Six countries (23; 6/26) had recommendations for specific paediatric age groups, and three counties (11%; 3/26) recommended pandemic vaccine to specific adult age groups (table 6).

Table 6. Age groups recommended receive pandemic influenza vaccine in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=26)

	Country	Total
Children		
Not recommended for healthy children of any age	AT,BE,CZ,DK,LT,LU,ES	7
Recommended for all children \geq 6 months - <18 years	CY,FI,FR,DE,GR,IS,IE, IT ,MT,NO,SK,SI,SE	13
Recommended for some	EE,HU,NL,RO,EN,PT	6
Recommended >1 year – 2 years	EE	
Recommended \geq 6 months – 4 years	NL	
Recommended \geq 6 months – 5 years	EN	
Recommended \geq 6 months – 12 years	PT	
Recommended \geq 12 months-18 years	HU	
Recommended >16 years – 17 years	RO	
Adults		
Not recommended for healthy adults of any age	AT,BE,CZ,DK,EE,HU,LT,LU,ES,PT	10
Recommended for all adults \geq 18 years	CY,FI,FR,DE,GR,IS,IE,MT,NO, RO ,SK,SI,SE	13
Recommended for adults of some age	IT,NL,EN	3
Recommended \geq 60 years	NL	
Recommended 18-27 years	IT	

Entire population		
Recommended	CY†, CZ***, EE*, FI, FR, DE, GR, IS, LT, LU‡, IE, MT, NO, RO**, SK§, SI, SE	17
Not recommended	AT, BE, DK, HU, IT, NL, ES, EN, PT	9

LV, PL, - no data, no vaccination programme. BG-The vaccination programme was not implemented during the pandemic in Bulgaria.

*EE- Vaccination for individual in risk groups started December 14th 2009. After January 11th 2010 vaccination was recommended for entire population.

**RO-after January 15th, 2010.

***CZ-pandemic vaccine was offered (available) for the entire population (people older than 3 years) from 2nd March 2010.

†CY-The pandemic vaccine was recommended for the entire population on the 5th phase of the vaccination program;

‡LU-The pandemic vaccine was only recommended for priority and at-risk groups, however it was available for the entire population after the first vaccination week.

§SK-At first stage the vaccination was recommended to healthcare workers, at second stage to the risk groups according to WHO recommendations. At third stage the vaccination was recommended to the entire population.

Comments:

IE- vaccine recommended for remaining population (not already prioritised) from 1st February 2010

BE-Groups at risk. Health Personal Educational staff. Parents and caretakers with children < 6 months;

DE-Taking into consideration the availability of vaccines, vaccination against novel influenza A (H1N1) should be conducted in the following time order and sequence; (1). Health care workers and employees in public welfare in contact with patients or infectious material; (2). All persons older than 6 months with an increased health risk due to underlying chronic medical conditions such as: chronic respiratory disease; chronic heart, liver or kidney diseases; malignant cancers; diabetes and other metabolic diseases; neurological and neuromuscular disorders; congenital or acquired immunodeficiency with partially remaining T- or B-cellular function; HIV infection; (3). Pregnant women, preferably from the second trimester onwards, and all women postpartum not vaccinated during pregnancy; (4). Household contact persons who could serve as a possible source of infection for unvaccinated persons at risk (as listed under Nos. 2 and 3, and newborns under 6 months of age); (5). All remaining persons between 6 months and 24 years of age; (6). All remaining persons between 25 and 59 years of age; (7). All remaining persons over the age of 60.

http://www.rki.de/clin_151/nn_216436/EN/Content/Prevention/Vaccination/VaccinationH1N1_templateId=raw.property=publicationFile.pdf/VaccinationH1N1.pdf

GROUPS AT RISK RECOMMENDED VACCINATION

Chronic diseases and conditions presented in the table 7 were considered as indication for pandemic vaccine. All 27 countries (100%) recommended vaccine for individuals suffering from respiratory, cardiovascular, renal diseases; 26 countries (96%; 26/27) had recommendations to vaccinate patients with neurologic and metabolic disorders; 25 countries (92%; 25/27) recommended pandemic vaccine for individuals suffering from chronic liver diseases and individuals that were immunosuppressed due to disease or treatment. Sixteen countries (59%; 16/27) had recommendations to vaccinate severely obese individuals.

Table 7. Chronic diseases and conditions recommended for pandemic influenza vaccine in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

	Country	Total
Chronic respiratory diseases	AT, BE, BG, CY, CZ, DK, EE, FI, FR, DE, GR, HU, IS, IE, IT, MT, NL, NO, PT, RO, SK, SI, SE, EN, LT, LU, ES	27
Chronic cardiovascular	AT, BE, BG, CY, CZ, DK, EE, FI, FR, DE, GR,	27

diseases	HU,IS,IE,IT,MT,NL,NO,RO,PT,SK,SI,SE,EN,LT,LU,ES	
Chronic neurological or neuromuscular conditions	AT,BE,BG,CY,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,MT,NL,NO,RO,PT,SK,SI,SE,EN,LT,LU,ES	26
Chronic metabolic disorders (and/or including diabetes)	AT,BE,BG,CY,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,MT,NL,NO,RO,PT,SK,SI,SE,EN,LT,LU,ES	26
Hematologic disorders	AT,BG,CY,DK,DE,FI,GR,IE,IT,NL,SK,SI,SE,EN,PT,LT,LU,ES	18
Chronic renal diseases	AT,BE,BG,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,MT,NL,NO,RO,PT,SK,SI,SE,EN,LT,LU,ES	27
Chronic hepatic diseases	AT,BE,BG,CY,DK,EE,FI,DE,GR,HU,IS,IE,IT,MT,NL,NO,RO,PT,SK,SI,SE,EN,LT,LU,ES	25
Haemoglobinopathies/sickle cell disease	AT,BG,CY,DK,FR,DE,GR,IE,IT,MT,SK,EN,LT,LU,PT,ES	16
Persons with non-HIV immune deficiency disorders or taking immunosuppressive medication	AT, BE ,BG,CY,DK,EE,FR,FI,DE,GR,HU,IS,IE,IT,MT,NL,NO,SK,SI,SE,EN,LT,LU,ES,PT	25
HIV/AIDS	AT,BG,CY,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,MT,NL,NO, RO ,PT,SK,SI,SE,EN,LT,LU,ES	25
Any condition compromising respiratory function	AT,BG,CY,DK,EE,FI,DE,HU,IS,IE,IT,MT,NL,NO,SK,SE,EN,LT,LU,ES,PT	21
Individuals with severe obesity (BMI >40)	CY,DK,FR,GR,HU,IS,IE,IT,NO,RO,SK,SE,LT,LU,ES,PT	16
Pregnancy	AT,BE,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,MT,NL,NO,SK,SI,SE,EN,LT,LU,ES,PT	25
Other	FR, LU -children and teenagers on long-term aspirin therapy; DE-malignant cancers, household contacts; HU-Malignant diseases; IE-individuals with significant physical or intellectual disability (including neurodevelopmental conditions), residents of disability units regardless of whether they are in one of medically at risk groups; NL-mentally handicapped persons in (intramural) hospital health care; patients after recent bone marrow transplantation; NO- Compromised immune system regardless of cause; SK-Tuberculosis.	

LV,PL,- no data, no vaccination programme.

In six countries, vaccine was recommended only to certain age groups of individuals with risk conditions identified above:

CZ- initially from 10 years of age subsequently extended to include children from 3 years of age;
 DK- above 3 years of age;
 IT- < 65 years or age;
 RO- children over 16 years of age;
 ES, IE- children aged more than 6 months.

Comments:

BG- The pandemic vaccine was not used during the pandemic in Bulgaria.
 LU- High priority was given for vaccination of at-risk groups in the age group 6 months - 64 years. Lower priority was given for vaccination of at-risk groups aged 65 years and older.
 NO- The vaccine was not recommended for children < 6 months of age.
 SK- At first stage the vaccination was recommended to healthcare workers, at second stage to the risk groups according to WHO recommendations. At third stage the vaccination was recommended to the entire population.

PREGNANCY RELATED VACCINATION

All 27 countries that had a pandemic vaccination programme recommended pandemic vaccine for pregnant women: 25 countries (93%; 25/27) to all pregnant women; two countries (7%; 2/27) only for those pregnant women with an additional risk condition. Twelve countries (46%; 12/26) recommended pandemic vaccine at any trimester and 14 (54%;14/26) at either the 2nd or 3rd trimester. Twelve countries (44%; 12/27) also recommended vaccine for postpartum women if not already vaccinated. Detailed description of pregnancy related pandemic vaccine recommendations is provided in the table 8.

Table 8. Pregnancy related recommendations for pandemic influenza vaccine in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

	Country	Total
Pregnant women (n=27)		
Yes. Recommended for all pregnant women (with and without other risk)	AT,BE,CY,CZ DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LT,LU,MT,NL,NO,SK,S,ES,SE,EN,PT	25
Recommended for those otherwise qualified as at risk	BG,RO	2
No. There was a specific recommendation AGAINST vaccination if pregnant		0
There was no recommendation regarding vaccination if pregnant		0
Comment	CZ -pregnant women were one of priority groups to whom vaccination was offered	
Stages of pregnancy or post partum at which vaccine was recommended for pregnant or post partum women (n=26)*		
Any trimester	BG,CY,HU,IS,FI,LT,LU,MT,S,ES,SE,EN	12
Either 2 nd or 3 rd trimester	AT,BE,DK,EE,FR,DE,GR,IE,IT,NL,NO**,RO,SK,PT	14
Postpartum, if not vaccinated during pregnancy (up to 6 weeks after delivery)	CY,EE,DE,IS,IE,IT,LU,MT,NL,NO,SK,PT	12
Comment	LU-Vaccination was encouraged for pregnant women during the 2 nd and 3 rd trimester, and not during the 1 st trimester.	

	NL-post-partum up to 6 months.	
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LV,PL,- no data, no vaccination programme.

*CZ did not respond to that part of question.

**NO Healthy pregnant women in the 2nd and 3rd trimester. Pregnant women in at risk groups in all trimesters.

Comments:

BE,LU- Postpartum included in recommendation for "Parents and caretakers with children < 6 months".

BG- These recommendations have not been implemented because the pandemic vaccine was not used during the pandemic in Bulgaria.

DK- Post partum, an unvaccinated pregnant women at risk were considered due to vaccination as other at risk persons.

FI-all pregnant women.

FR- Non-adjuvanted vaccine recommended for pregnant women. If no possibility, adjuvant vaccine given not before the 2nd term.

DE- vaccination for pregnant women was recommended with a non-adjuvant split vaccine.

SK- At first stage the vaccination was recommended to healthcare workers, at second stage to the risk groups according to WHO recommendations. At third stage the vaccination was recommended to the entire population.

SE,NO- Post-partum was indirectly included since there was a recommendation that all should be vaccinated, however post-partum was no priority group.

INDIVIDUALS BY OCCUPATIONAL GROUPS

All 27 countries (100%) recommended that HCWs should receive pandemic vaccine. Sixteen countries (59%; 16/27) recommended vaccine to all HCWs and 11 to some (41%; 11/27). In some countries pandemic vaccine was recommended to other occupational groups: to police in 12 countries (44%; 12/27), military staff in 11 countries (41%; 11/27), firemen in 9 countries (33%; 9/27). Seven countries recommended vaccination of staff in the educational sector: six countries recommended vaccination of all educational staff and the remaining one recommended vaccine only those educational staff working with very young children. The detailed information presented in the table 9.

Table 9. Occupational groups recommended for pandemic influenza vaccine in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

	Country	Total
Health Care Workers (HCWs)		
Recommended to all HCWs	AT,BE,CY,FR,GR,HU,IE,IT,LU,MT,NO,RO,SK,SI,ES,SE	16
Recommended to some HCWs	BG,CZ,DK,FI,EE,DE,IS,LT,NL,EN,PT	11
If recommended to some		
Staff with close contact with patients	BG,CZ,DK,EE,DE,IS,LT,NL,EN,PT	10
Staff with no contact with patients, but contact with potentially contaminated material (e.g., laundry, laboratory)	DK,EE,DE,PT	4
Staff without close contact with patients or contaminated material	DK,IS,PT	3
Not recommended at all		0
Other	DK- Was decided at local level. FI-staff at close contact to infectious or immunocompromised patient.	2

Other occupational groups		
Recommended to all occupational groups	GR,HU	2
Not recommended at all	FI	1
No specific recommendation	CY,FR,DE,LT,MT,NL,NO,SE	8
Recommended to some occupational groups	AT,BE,BG,CZ,DK,EE,IS,IE,IT,LU,RO,SK,SI,ES,EN,PT	16
If recommended to some		
Police	AT,BG,CZ,DK,EE,IS,IT,RO,SK,SI,ES,PT	12
Firemen	AT,BG,CZ,DK,IS,IT,SK,SI,ES	9
Military	AT,BG,CZ,DK,EE,IT,RO,SK,SI,ES,PT	11
Public transport	BG,DK,IT,RO,SK,SI	6
Border control	BG,EE,IS,IT,RO,SK,SI	7
Immigration/ custom	SK	1
Energy sector	BG,CZ,IS,IT,SK,SI,PT	7
Finance and banking sector	DK,IT,SI	3
Airline workers	EE,IT,SK,SI	4
Educational staff (primary/secondary schools, preschool centers, kindergarten/crèche)	BE,HU,IE,IT,SI	5
Educational staff of only young children (preschool centers, kindergarten/crèche)	LU	1
Field workers who investigate outbreaks of influenza in animals and of human influenza	IS,IE,IT,SK,SI,PT	6
Field workers who investigate outbreaks only of human influenza	BG, RO,PT	3
Other	IT-personnel providing public essential services; ES-prison workers; EN-Doctors, qualified nurses, other professionally qualified clinical staff, and support to clinical staff.	3

LV,PL,- no data, no vaccination programme.

Comments:

CZ- only for some in the selected groups (=people selected as essential services).

IE- vaccine was recommended to all population, but recommended and given as first to priority groups as outlined above; those in other categories could obtain it at later stage. In educational settings teachers, although not a specific priority group, were given vaccine at same time as children (in the schools) during 3rd phase (from 30/11/2009)

IT- q23: Finance and banking sector staff and Airline workers according to their emergency contingency plan.

MT- it was offered to the whole population not to specific occupations.

SK- These occupational groups are those included into the risk groups offered the vaccination at the first stage. At the second stage the vaccination was recommended to the entire population which means to all occupational groups.

PT- Only to the few considered essential for activity continuity.

OTHER POPULATION GROUPS

Twelve countries (44%; 12/27) recommended vaccination of household contacts of babies under 6 months of age and nine countries (33%; 9/27) recommended vaccination of household contacts of at risk individuals (referred to by some as the “cocooning strategy”- see note ** below table 10). The pandemic vaccine was also recommended for residents of long term care facilities in 14 countries (52%; 14/27). These data are in the table 10.

Table 10. Other groups recommended for pandemic influenza vaccine in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

	Country	Total
Household* contacts of babies under 6 months of age (cocooning strategy**)		
Recommended	AT,BE,FR,DE,GR,HU,IS,IE,IT,LU,NL,PT	12
No specific recommendation	BG,CY,CZ,DK,EE,FI,LT,MT, NO,RO,SK,ES,SE,EN,SI	15
Recommended not to get		0
Household contacts of at risk individuals (cocooning strategy)		
Recommended	DK,DE,GR,IS,IE,IT,LU,NL,EN	9
No specific recommendation	AT,BE,BG,CY,CZ,EE,FI,FR,LT, MT,NO,RO,SK,ES,SE,PT, SI	17
Recommended not to get	HU	1
Other	BE- household contacts of immunosuppressed individuals	1
Residents of long term care facilities		
Recommended for all residents	BE,BG,CY,EE,FI,FR,HU,IS,IE,MT,NL,SI,SE, GR	14
No specific recommendation	AT,DK,CZ,DE,LT,NO, RO,SK,ES,EN,PT	11
Recommended, only for those aged ≥65 in long term facilities		0
Recommended only for persons with physical or mental disabilities		0
Recommended not to get		0
Other	IT- considering the age and the underlying medical condition; LU- Recommended in long term care facilities for children and adult suffering from neurological impairment and neuro-muscular diseases.	2

LV,PL,- no data, no vaccination programme.

* **Household contacts** was defined as individuals who share living accommodation on most days over the whole pandemic period and therefore continuing close contact is unavoidable.

** **The concept of “cocooning”**

Children younger than 6 months of age have little if any immunity to influenza for the first 12 months of life if their mothers were not vaccinated during pregnancy and are at higher risk of influenza-related complications and cannot be vaccinated. To ensure protection for the baby, immediate household contacts (representing its cocoon) are vaccinated against influenza so they won’t transmit the virus to the baby.

The same concept applies to the immunocompromised persons (e.g., patients with hematopoietic stem cell transplants) since the immune response to the vaccine may be inadequate, vaccination of contacts (household members, health care workers, and other individuals) is recommended.

Comments:

IT- The pandemic vaccine was recommended for staff working in primary/secondary schools only for some particular activities

NO- When the entire population was recommended vaccination, household contacts of babies and at risk individuals were especially encouraged to be vaccinated.

SK- At first stage the vaccination was recommended to the health care workers, then to the risk groups including the chronic patients living in long term care facilities according to WHO recommendations. At second stage the vaccination was recommended to the entire population.

EN- Household contacts of immunocompromised individuals.

PRIORITY RISK GROUPS* FOR VACCINATION

The information on the dates when pandemic influenza vaccine was available for use and when pandemic influenza vaccination finished in each country is presented in a table 11.

Table 11. Dates on pandemic influenza vaccine availability for use and the end of vaccination programs in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

Country	Date when vaccine became available for use	Date when vaccination programme finished	Comments
AT	20/10/2009	10/08/2010	
BE	01/10/2009	01/04/2010	On 25/03/2010 the federal phase of the management of the pandemic was officially ended.
BG			The pandemic Influenza vaccination programme didn't start during the pandemic wave.
CY	23/11/2009	03/03/2010	Although the pandemic influenza vaccination programme has finished, vaccines are still available for everyone on request on the public Vaccination Centers.
CZ	23/11/2009	31/05/2010	
DK	08/11/2009	30/09/2010	In this aspect we do not consider next season's vaccine to be a pandemic vaccine though it contains the 2009 pandemic H1N1 strain.
EE	14/12/2009	31/12/2010	Vaccination programme was still ongoing at time of survey completion.
FI	16/10/2009	24/08/2010	Dates given are not exact, but best guesses. The same order but different dates for different communities, depending on vaccine use. In some communities with less coverage, more groups could be vaccinated with the same amount of vaccine. All the previous groups were ongoing vaccinated while new groups were started.
FR	20/10/2009		A voucher was sent by the social security scheme to eligible individuals according to the following order of priority: 1. Health care workers 2. Pregnant women, close contacts of < 6 months, all ages at risk individuals

			3. 6-23 months children with no risk 4. Rest of low risk population.
DE	26/10/2009	02/08/2010	The recommendation for pandemic vaccination was officially withdrawn by the German Standing Committee on Vaccination (STIKO) on August 2nd 2010. Because of the epidemiological situation vaccination coverage by the general population and health professionals was very limited since January 2010.
GR	16/11/2009	Ongoing*	No official decision has been taken as of 11/08/2010.
HU	29/09/2009	Unknown*	
IS	15/10/2009	01/06/2010	
IE	19/10/2009	End August 2010	Mass vaccine clinics formally stopped on 31/03/2010, some school clinics continued into April. GPs continued to provide vaccine until end August 2010 to pregnant women, medically at risk groups (including obese) and travellers to Southern hemisphere. Vaccine received in country on 31/08/2009, and delivered out to GPs on 19/10/2009 from which date was available (but programme official start on 2/11/2009).
IT	12/10/2009	01/05/2010	The pandemic influenza vaccination programme should be finished in March but due to the low compliance in the population the availability to have pandemic shot has been prolonged until the 1st of May.
LT	29/12/2009	31/10/2010	
LU	21/10/2009	Ongoing*	First program in public vaccination centers ended on 28/11/2009. Second program in GP and paediatric offices was still ongoing at the time of survey completion.
MT	29/12/2009	30/05/2010	
NL	26/10/2009	16/01/2010	Recommendations for children and caretakers of babies were available after the recommendations for people at risk and health care workers. Hence they were vaccinated later.
NO	19/10/2009	26/03/2010	The start of vaccination of new groups in phases 2 and 3 differed between the municipalities depending on vaccination coverage in the different groups and availability of vaccine. In phase 3 the vaccine was offered to the entire population. There was no specific end date for vaccination at the time of survey completion, but in most municipalities the vaccine was not offered after March 26th (start of Easter holiday).
RO	26/11/2009	13/06/2010	
SK	14/12/2009	Ongoing*	Since November 2009 the population was constantly informed about the strategy and importance of the vaccination. In early December all HCWs were advised to get the vaccine. On 4th February 2010 there was a call of the Chief Hygienist of Slovak republic (SR) for all persons in risk groups. On the 5th February 2010

			there was a call of Chief Hygienist of SR for the entire population to get vaccinated. Since then no public call was made. The expiration date of the pandemic vaccine delivered to Slovakia is due on the 31-st October 2010. Until this time there is still the opportunity to be vaccinated by the monovalent vaccine.
SI	27/10/2009	31/01/2010	
ES	01/10/2009	15/04/2010	
SE	13/10/2009	01/01/2011	Vaccination started with the defined risk-groups, including pregnant women and HCWs, but planning was made regionally, and strategies may have varied somewhat.
EN	21/10/2009	31/08/2010	
PT	26/10/2009	30/04/2010	Ongoing for the 2010/2011 influenza season

LV,PL,- no data, no vaccination programme.

* At time of survey completion.

The pandemic influenza vaccination programme was organised according to priority groups* (table 11a) which were eligible for vaccination in different phases as vaccine became progressively more available in 22 countries (AT,BE,CY,CZ,DK,FI,FR,DE,GR,HU,IS, IE,IT,LU,MT,NO,RO,SK,SI,SE,EN,PT). In the remaining five countries (BG,EE,LT,NL,ES) the vaccination programmes did not prioritise any particular groups.

***Priority risk groups** for pandemic vaccine was defined in this survey as groups who were recommended and offered vaccine as first priority to protect individuals in these groups from severe influenza infection and its complications, or to avoid transmission of influenza to vulnerable individuals, due to limited availability of vaccine at the time when vaccine became available.

Table 11a. Phases and priority risk groups targeted for pandemic influenza vaccine **by age and/or risk groups** in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=22)

Phase 1

Priority group(s):	Countries	Provided details for age, at risk or other groups	Date started*	Date finished*
Age groups (n=2)	IS	Children	15/10/2009	Unknown
	RO	Pupils and students aged ≥ 16 years of age	26/11/2009	On going
	Not recommended: AT,BE,CY,CZ,FI,FR,DE,HU,GR,IE,IT,LU,MT,SK,SI,SE,EN,DK, NO,PT (n=20)			
At risk groups (n=14)	CY	Individuals at risk aged 15- 45 years	23/11/2009	On going
	CZ		23/11/2009	On going
	DK	Individuals at risk aged < 65 years	Unknown	Unknown
	FR		09/11/2009	On going
	DE		26/10/2009	14/12/2009
	GR		16/11/2009	30/04/2010
	HU	Individuals at risk aged >18 years	29/09/2009	On going
	IS		15/10/2009	On going
	IE	Individuals at risk aged ≥ 6 months- 64 years; immunosuppressed individuals	02/11/2009	16/09/2010
LU		27/10/2009	On going	

	NO	Individuals at risk aged < 65 years	19/10/2009	26/03/2010
	SE		13/10/2009	On going
	EN	Individuals at risk aged \geq 6 months	21/10/2009	31/08/2010
	PT	Essential professionals	26/10/2009	On going
	Not recommended: AT,BE,FI,IT,MT,RO,SK,SI (n=8)			
HCWs (n=21)	AT	Majority of vaccination in calendar week 44 or 45, second dose 4 weeks later	27/10/2009	10/08/2010
	BE	Hospital staff	01/10/2009	Unknown
	CY	All HCWs	23/11/2009	On going
	CZ	GPs, HCW in hospitals	23/11/2009	On going
	DK	According to needs	Unknown	Unknown
	FI	Close contact with infectious or immunocompromised patients	23/10/2009	Unknown
	FR		20/10/2009	On going
	DE	Contact with patients	26/10/2009	14/12/2009
	GR	All HCW	16/11/2009	30/04/2010
	HU	All HCW	29/09/2009	On going
	IS	Contact with patient	15/10/2009	On going
	IT		13/10/2009	01/05/2010
	LU	All HCWs	21/10/2009	On going
	MT	All HCWs (government/private sector)	29/12/2009	30/05/2010
	NO	Frontline health care workers and key health personnel	19/10/2009	26/03/2010
	RO	GPs, emergency department physicians, physicians from infectious diseases wards/hospitals, ambulance services	26/11/2009	On going
	SK	All HCWs	14/12/2010	On going
	SI	All HCWs	27/10/2009	On going
	SE		13/10/2009	On going
	EN	All frontline healthcare workers with direct patient care	21/10/2009	31/08/2010
PT	ICU, emergency units, blood services, transplant units	26/10/2009	On going	
	Not recommended: IE (n=1)			
Cocooning strategy (n=5)	FR		09/11/2009	On going
	GR		16/11/2009	30/04/2010
	IE	Household contacts of individuals with immunosuppression	02/11/2009	16/09/2010
	LU	Household and professionals taking care of babies	27/10/2009	On going
	EN	Healthy contacts of immunosuppressed persons	21/10/2009	03/08/2010
	Not recommended: AT,BE,CY,CZ,DK,FI,DE,HU,IS,IT,MT,NO,RO,SK,SI,SE,PT (n=17)			
Pregnant women (n=14)	CY	All pregnant women at any trimester	23/11/2009	On going
	CZ	Pregnant women that wanted to be vaccinated	23/11/2009	On going

	DK	At risk	Unknown	Unknown
	FR		16/11/2009	On going
	DE	Preferably from the 2 nd trimester onwards, and all women postpartum not vaccinated during pregnancy	26/10/2009	14/12/2009
	GR	Pregnant women to 2 nd and 3 rd semester	16/11/2009	30/04/2010
	HU	All pregnant women in any trimester	29/09/2009	On going
	IS	All pregnant women	15/10/2009	On going
	IE	Women in 2nd and 3rd trimester and up to 6 weeks post partum, or in 1st trimester with an additional risk factor	02/11/2009	16/09/2010
	LU	All pregnant women	27/10/2009	On going
	NO	Healthy pregnant women in the 2nd and 3rd trimester. Pregnant women in at risk groups in all trimesters	19/10/2009	26/03/2010
	SE		13/10/2009	On going
	EN	All pregnant women	21/10/2009	31/08/2010
	PT	2 nd , 3 rd trimester with risk factors	26/10/2009	On going
	Not recommended: AT, BE, FI, IT, MT, RO, SK, SI (n=8)			
Other groups (n=6)	DE	In phase 1 vaccination was recommended for the 3 priority groups, but nobody was excluded from vaccination if he/she wanted to get a shot	26/10/2010	14/12/2009
	HU	People working in the home security services and essential services, critical infrastructure	29/09/2009	On going
	IS	Security groups	15/10/2009	Unknown
	IE	Residents of disability units regardless of whether in one of medically at risk groups, individuals with significant physical or intellectual disability (including neurodevelopment conditions)	02/11/2009	31/03/2010
	IT	People who work in socio-medical institutions and rescue workers and police and blood donors	13/10/2009	01/05/2010
	RO	Personnel from the essential services (Transport, Defence, Justice)	26/11/2009	On going
	Not recommended: AT, BE, CY, CZ, DK, FI, GR, LU, MT, NO, SK, SI, SE, EN, PT (n=15) FR – no data provided			

* "Unknown" or "Ongoing" - at time of survey completion.

Phase II

Priority group(s):	Country	Provided details for age, at risk or other groups	Date Started*	Date Finished*
Age groups (n=11)	AT	Major part of vaccination centres stopped vaccination after 30th April 2010; a possibility for single vaccination was given until the end of declaration of phase 6	11/11/2009	10/08/2010

	DK	Individuals aged ≥ 65 years	Unknown	Unknown
	FR	$\geq 6-23$ months; then 12-18 years; then 2-11 years; then 19-64 years; then ≥ 65 years	17/11/2009	On going
	DE	There was a prioritisation within age groups 5. All remaining persons between 6 months and 24 years of age; 6. All remaining persons between 25 and 59 years of age; 7. All remaining persons over the age of 60	14/12/2009	01/08/2010
	IS	Children	Unknown	Unknown
	IE	Children aged ≥ 6 months - 5 years	09/11/2009	31/03/2010
	NO	Individuals at risk in all age groups including those aged ≥ 65 years	Unknown**	26/03/2010
	EN	Healthy children aged ≥ 6 months -5 years	08/12/2009	31/03/2010
	HU	Children aged 3-18 years	02/11/2009	23/12/2009
	MT	Children aged ≥ 6 months - 14 years of age	14/01/2010	30/05/2010
	RO	Pupils and students aged ≥ 16 years	26/11/2009	On going
	Not recommended: BE,CY,CZ,FI,GR,IT,LU,SK,SI,SE,PT (n=11)			
At risk groups (n=16)	AT	Major part of vaccination centres stopped vaccination after 30th April 2010; a possibility for single vaccination was given until the end of declaration of phase 6	11/11/2009	10/08/2010
	BE		01/11/2009	01/04/2010
	CY	Individuals at risk aged ≥ 6 months	02/12/2009	On going
	CZ	Adults and children from 10 years with very high risk respiratory and cardiovascular conditions, on dialysis or after transplantation	02/12/2009	On going
	DK	Individuals at risk aged ≥ 65 years	Unknown	Unknown
	DE	Individuals at risk aged ≥ 6 months	14/12/2009	01/08/2010
	IS		Unknown	Unknown
	IE	Individuals at risk aged ≥ 6 months- 64 years; immunosuppressed individuals	02/11/2009	16/09/2010
	IT	Individuals at risk aged ≥ 6 months -17 years; premature babies aged ≥ 6 and 24 months	20/10/2009	01/05/2010
	LU	Individuals at risk aged ≥ 65 years	02/11/2009	On going
	MT	Individuals at risk aged > 1 year	02/01/2010	30/05/2010
	NO	Individuals at risk aged ≥ 6 months	Unknown**	26/03/2010
	RO		08/12/2009	On going
	SK	Individuals at risk aged ≥ 6 months	04/02/2010	On going
	SI		17/11/2009	31/01/2010
	PT	Asthma, neuromuscular, respiratory illness, immunosuppression, obesity >40 BMI	02/11/2009	On going
	Not recommended: FI,FR,GR,HU,SE,EN (n=6)			
HCWs (n=10)	AT	major part of vaccination centres stopped vaccination after 30th April 2010; a possibility for single vaccination was given	11/11/2009	10/08/2010

		until the end of declaration of phase 6		
	BE	Hospitals + first line HVWs	01/11/2009	01/04/2010
	CY	All HCWs	23/11/2009	On going
	DE	Contact with patients	14/12/2009	01/08/2010
	IS	Contact with patients	Unknown	Unknown
	IE	All HCWs	09/11/2009	31/03/2010
	NO	All HCWs	Unknown**	26/03/2010
	RO	All HCWs: doctors, nurses, hospital staff	08/12/2009	On going
	PT	Contact with patients or lab	02/11/2009	On going
	SI	All HCWs	27/10/2009	31/01/2010
	Not recommended: CZ,DK,FI,GR,HU,IT,LU,MT,SK,SE,EN (n=11) FR–no data provided			
Cocooning strategy (n=5)	BE	Carers of children < 6 months of age	01/11/2009	01/04/2010
	DE	Household contacts of babies < 6 months of age; household contacts of individuals at risk	14/12/2009	01/08/2010
	IE	Household contacts of individuals with immunosuppression	02/11/2009	16/09/2010
	IT	Carers of children < 6 months of age and household contacts of at risk individuals	20/10/2009	01/05/2010
	PT	Children < 6 months with risk factors	02/11/2009	On going
	Not recommended: AT,CY,CZ,DK,FI,GR,HU,IS,LU,MT,NO,RO,SK,SI,SE,EN (n=16) FR–no data provided			
Pregnant women (n=13)	AT	major part of vaccination centres stopped vaccination after 30 th April 2010; a possibility for single vaccination was given until the end of declaration of phase 6	11/11/2009	10/08/2010
	BE	2 nd and 3 rd Trimester	01/11/2009	01/04/2010
	CY	All pregnant women at any trimester	23/11/2009	On going
	FI	All pregnant women	02/11/2009	Unknown
	DE	Preferably from the 2 nd trimester onwards, and all women postpartum not vaccinated during pregnancy	14/12/2009	01/08/2010
	IS	All pregnant women	Unknown	Unknown
	IE	Women in 2 nd and 3 rd trimester and up to 6 weeks post partum, or in 1st trimester with an additional risk factor	02/11/2009	16/09/2010
	IT	2 nd and 3 rd trimester	20/10/2009	01/05/2010
	MT	All trimesters	02/01/2010	30/05/2010
	NO	Healthy pregnant women in the 2 nd and 3 rd trimester. Pregnant women in at risk groups in all trimesters	19/10/2009	26/03/2010
	SK	All pregnant women	04/02/2010	On going
	SI	All pregnant women	17/11/2009	31/01/2010
PT	2 nd 3 rd trimester	02/11/2009	On going	
	Not recommended: CZ,DK,GR,HU,LU,RO,SE,EN (n=8)			

	FR–no data provided			
Other groups (n=7)	AT	Individuals who wished to be vaccinated	11/11/2009	10/08/2010
	BE	Educational staff	01/11/2009	01/04/2010
	GR	All the healthy people	01/12/2009	30/04/2010
	IS	security groups	Unknown	Unknown
	RO	Personnel from the essential services (Transport, Defence, Justice)	26/11/2009	On going
	SK	Individuals in occupational risk	04/02/2010	On going
	SE	The entire population	Unknown	Unknown
	Not recommended: CY,CZ,DK,FI,DE,IE,IT,LU,NO,SI,EN ,PT (n=12) FR–no data provided			

* “Unknown” or “Ongoing” - at time of survey completion.

** The start of vaccination of new groups in phases 2 and 3 differed between the municipalities depending on the uptake of the vaccine in the different groups and availability of vaccine.

Phase III

Priority group(s):	Country*	Provided details for age, at risk or other groups	Date Started**	Date Finished**
Age groups (n=8)	CY	Healthy individuals aged ≥ 6 months -25 years	10/12/2009	On going
	IE	Children aged 5-18 years; Individuals aged ≥ 65 years; for school children some clinics continued into April 2010	02/11/2009	16/09/2010
	MT	The entire population	28/01/2010	30/05/2010
	NO	The entire population aged ≥ 6 months	Unknown***	26/03/2010
	SI	The entire population	30/11/2009	On going
	HU	Children aged 1-3 years;	11/11/2009	On going
	RO	The entire population aged ≥ 16 years, willing to be vaccinated; pupils and students aged ≥ 16 years		
	PT	< 2 years	16/11/2009	
	Not recommended: AT, BE, CZ, DK, FI, DE, GR, HU, IS, IT, LU, RO, SK, SE, EN (n=15)			
At risk groups (n=8)	CY	Individuals at risk aged ≥ 6 months	02/12/2009	On going
	FI	Individuals at risk aged ≥ 6 month- 64 years	16/11/2009	Unknown
	IE	Individuals at risk aged ≥ 6 months- 64 years; immunosuppressed individuals	02/11/2009	On going
	IT	Individuals at risk aged 17 -64 years	20/10/2009	01/05/2010
	NO	Individuals at risk aged ≥ 6 months	Unknown***	26/03/2010
	RO		08/12/2009	13/06/2010
	SI		30/11/2009	On going
	PT	Diabetes, cardiovascular diseases, respiratory, hepatic, renal, blood disease	16/11/2009	On going
	Not recommended: AT, BE, CZ, DK, DE, GR, HU, IS, LU, MT, SK, SE, EN (n=13)			
HCWs (n=5)	CY	All HCWs	23/11/2009	On going
	IE	All HCWs	09/11/2009	30/03/2010
	NO	All HCWs	Unknown***	26/03/2010
	RO	All HCWs: doctors, nurses, hospital staff	08/12/2009	13/06/2010
	SI	All HCWs	24/10/2009	31/01/2010
	Not recommended: AT, BE, CZ, DK, FI, DE, GR, HU, IS, IT, LU, MT, SK, SI, SE, EN, PT (n=17)			

Cocooning strategy (n=2)	HU	Household contacts of children ≤ 12 months of age	11/11/2009	On going
	IE	Household contacts of individuals with immunosuppression and children aged < 6 months of age	30/11/2009	31/03/2010
	Not recommended: AT, BE, CY, CZ, DK, FI, DE, GR, IS, IT, LU, MT, NO, SK, SE, EN, PT, SI (n=18)			
Pregnant women (n=4)	CY	All pregnant women at any trimester	23/11/2009	On going
	IE	Women in 2 nd and 3 rd trimester and up to 6 weeks post partum, or in 1st trimester with an additional risk factor	2/11/2009	16/09/2010
	NO	Healthy pregnant women in the 2 nd and 3 rd trimester. Pregnant women in at risk groups in all trimesters	19/10/2009	26/03/2010
	SI	All pregnant women	30/11/2009	On going
	Not recommended: AT, BE, CZ, DK, FI, DE, GR, HU, IS, IT, LU, MT, RO, SK, SE, EN, PT (n=17)			
Other groups (n=6)	CZ	Essential services	11/01/2010	On going
	DK	The entire population	12/02/2010	30/09/2010
	IT	Essential services	20/10/2009	01/05/2010
	LU	The entire population	02/11/2009	On going
	RO	Personnel from the essential services (Transport, Defence, Justice);	15/01/2010	13/06/2010
	SK	The entire population	05/02/2010	On going
Not recommended: AT, BE, CY, FI, DE, GR, IS, MT, NO, SI, SE, EN, PT (n=13)				

*FR–no data provided.

** “Unknown” or “Ongoing” - at time of survey completion.

*** The start of vaccination of new groups in phases 2 and 3 differed between the municipalities depending on the uptake of the vaccine in the different groups and availability of vaccine.

Phase IV

Priority group(s):	Country*	Specify details for age, at risk or other groups	Date started	Date finished**
Age groups (n=6)	CY	Healthy individuals aged ≥ 6 months - 65 years	28/12/2009	On going
	CZ	The entire population aged > 3 years	02/03/2010	On going
	FI	Healthy children aged ≥ 6 months- 3 years	30/11/2009	Unknown
	IE	All individuals aged ≥ 18 years not already vaccinated (although some school clinics in April)	01/02/2010	31/03/2010
	IT	Healthy individuals aged ≥ 6 months -17 years	07/12/2009	01/05/2010
	PT	< 12 years	21/12/2009	On going
	Not recommended: AT, BE, DK, DE, GR, HU, IS, LU, MT, RO, SK, SI, SE, EN (n=14)			
At risk groups (n=3)	CY	All individuals aged ≥ 6 months old	02/12/2009	On going
	IE	Individuals aged ≥ 6 months- 64 years; immunosuppressed individuals	02/11/2009	End August 2010
	PT	Obesity > 29	21/12/2009	On going
	Not recommended: AT, BE, CZ, DK, FI, DE, GR, HU, IS, IT, LU, MT, RO, SK, SI, SE, EN (n=17)			

HCWs (n=2)	CY	All HCWs	23/11/2009	On going
	IE	Individuals aged ≥ 6 months- 64 years; immunosuppressed individuals	09/11/2009	31/03/2010
	Not recommended: AT,BE,CZ,DK,FI,DE,GR,HU,IS,IT,LU,MT, RO,SK,SI,SE,EN,PT (n=18)			
Cocooning strategy (n=1)	IE	Household contacts of individuals with immunosuppression; Household contacts of children aged < 6 months of age	30/11/2009	31/03/2010
	Not recommended: AT,BE,CY,CZ,DK,FI,DE,GR,HU,IS,IT,LU,MT,RO,SK,SI,SE,EN, PT (n=19)			
Pregnant women (n=2)	CY	All pregnant women at any trimester	23/11/2009	On going
	IE	Women in 2 nd and 3 rd trimester and up to 6 weeks post partum, or in 1st trimester with an additional risk factor	02/11/2009	16/09/2010
	Not recommended: AT,BE,CZ,DK,FI,DE,GR,HU,IS,IT,LU,MT, RO,SK,SI,SE,EN,PT (n=17)			
Other groups (n=1)	IT	Essential services	07/12/2009	01/05/2010
	Not recommended: AT,BE,CY, CZ,DK,FI,DE,GR,HU,IS,IE,LU,MT,RO,SK,SI,SE,EN, PT (n=19)			

*FR—no data provided.

** “Unknown” or ”Ongoing” - at time of survey completion.

Phase V

Priority group(s):	Country*	Provided details for age, at risk or other groups	Date started	Date finished**
Age groups (n=3)	CY	All individuals aged ≥ 6 months	12/01/2010	On going
	FI	Healthy individuals aged 3- 24 years	07/12/2009	Unknown
	IT	Healthy individuals aged 18-27 years	07/12/2009	01/05/2010
	Not recommended: AT,BE,CZ,DK,DE,GR,HU,IS,IE,LU,MT, RO,SK,SI,SE,EN,PT (n=17)			
At risk groups (n=1)	CY	All individuals aged ≥ 6 months old	02/12/2009	On going
	Not recommended: AT,BE,CZ,DK,DE,GR,HU,IS,IE,FI,IT,LU,MT,RO,SK,SI,SE,EN,PT (n=19)			
HCWs (n=1)	CY	All Health Care Workers	23/11/2009	On going
	Not recommended: AT,BE,CZ,DK,DE,GR,HU,IS,IE,FI,IT,LU,MT, RO,SK,SI,SE,EN,PT (n=19)			
Cocooning strategy (n=1)	0	0	0	0
	Not recommended: AT,BE,CZ,DK,DE,GR,HU,IS,IE,FI,IT LU,MT, RO,SK,SI,SE,EN,PT (n=19)			
Pregnant women (n=1)	CY	All pregnant at any trimester	23/11/2009	On going
	Not recommended: AT,BE,CZ,DK,DE,GR,HU,IS,IE,FI,IT,LU,MT, RO,SK,SI,SE,EN,PT (n=19)			
Other groups (n=1)	IT	≥ 65 years old at risk	07/12/2009	01/05/2010
	Not recommended: AT,BE,CZ,DK,DE,GR,HU,IS,IE,FI,IT,LU,MT, RO,SK,SI,SE,EN,PT (n=19)			

*FR—no data provided.

** “Unknown” or ”Ongoing” - at time of survey completion.

NO - Did have 3 phases in the prioritization.

VACCINE TYPE AND NUMBER OF DOSES USED

Information on pandemic vaccine product purchased and used by countries is provided in a table 12. The most commonly used vaccine (74%; 20/27) was Pandemrix; nine countries (33%; 9/27) used Celvapan. Three countries (AT, RO, HU) used their own pandemic vaccine produced by national manufacturer (Celvapan, Cantgrip and Fluval P respectively). Ten countries (37%; 10/27) used several pandemic vaccine products, the remaining 16 countries (59%; 16/27) purchased only one pandemic vaccine product. One country (4%; 1/27) did not report the name of the vaccine used in their country.

Table 12. Pandemic influenza vaccine product purchased and proportion of product used in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

Country		Celvapan % (n=9)	Pandem rix % (n=20)	Focetria % (n=5)	Panenza % (n=4)	Cantgrip % (n=1)	Fluval P % (n=1)	CSL H1N1 (n=1)
AT	Purchased	100						
	Used	100						
BE	Purchased		100					
	Used		100					
BG****		100						
CY	Purchased		100					
	Used		100					
CZ	Purchased		100					
	Used		100					
DK**			100					
EE**		60	40					
FI			100					
			100					
DE**		1.1	98.2	0.1				0.4
FR	Purchased	0.1	40.9	20.4	38.6			
	Used	0.1	66.2	0.2	33.3			
GR*								
HU	Purchased						100	
	Used						100	
IS	Purchased		100					
	Used		50					
IE	Purchased	21	79					
	Used	20	80					
IT	Purchased			100				
	Used			7.5				
LT	Purchased		100					
	Used		19					
MT	Purchased		84					
	Used		23					
LU	Purchased		98		2			
	Used		96		3			
NO	Purchased	0.03	99.97					

	Used	0.04	99.96					
NL	Purchased		26	74				
	Used		20	80				
PT	Purchased		100					
	Used		100					
RO	Purchased					100		
	Used					64		
SK**					100			
SI	Purchased	4.5	95.5					
	Used	0.2	99.2					
ES	Purchased		38.8	58.2	2.9			
	Used		25.3	63.9	2.3			
SE	Purchased		100					
	Used		53					
EN	Purchased	21	79					
	Used	0.3	17.4					

* Estimation unknown for product purchased and used.

** Estimation unknown for product used.

*** No vaccine used.

LV,PL,- no data, no vaccination programme.

Most countries did not recommend using specific pandemic vaccine products (e.g. adjuvanted versus non adjuvanted; thiomersal containing versus thiomersal free) for any at risk or targeted group. However three countries used non-adjuvanted pandemic vaccine for pregnant women and five countries used specific vaccines for different age groups (table 13).

Table 13. Specific pandemic influenza vaccine used for pregnant women, risk or target groups in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

Vaccine	Country	Total
Pregnant women		
Specific pandemic vaccine not used	AT,BE,BG,CY,CZ,DK,EE,FI,GR,HU,IS,IE,IT, LT,LU,MT,NL,NO,RO,SK,SI,SE,EN,PT	24
Specific pandemic vaccine used	FR,ES -panenza because non-adjuvanted. DE-CSL H1N1, Standing Committee on Vaccination recommended a non adjuvanted split vaccine because of lack of data for adjuvanted vaccines for pregnant women.	3
Other at risk or target group		
Specific pandemic vaccine not used	AT,BE,BG,CY,CZ,DK,EE,FI, DE, GR,HU,IS,IE,IT,LT, MT,NL,RO,SK,SE,EN,PT	22
Specific pandemic vaccine used	FR-Non-adjuvanted vaccines for 6-23 months children and some immunosuppressed diseases or systemic diseases; LU-If available, non-adjuvanted vaccine in children < 24 months of age and patients with severe auto-immune diseases (for its reduced reactogenicity); NO-Celvapan was offered to people with severe known hypersensitivity to egg;	5

	SI-persons with known hypersensitivity to egg or ovalbumin; ES-6 months-7 years Focetria because thiomersal free. >60years Focetria because contains MF59 adjuvant; 18-60 Pandemrix.	
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LV,PL,- no data, no vaccination programme.

Some countries changed number of doses of different vaccines for different age or at risk groups (e.g. children 6 months - 9 years – two doses; >10 years – one dose) as new information about immunogenicity of the pandemic vaccines became available and guidance was amended. This information is presented in table 14. Number of doses changed/not changed varied between countries greatly.

Table 14. Number of doses of pandemic influenza vaccine used for different age or risk groups in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

Countries	Specified population group(s)	No. of initial doses	Final doses
Age group(s) (n=15)			
BE	-	2	Changed from 2 to 1 dose
CY	6 months - 9 years	2	Not changed
	> 10 years	1	Not changed
DK	> 10 years	2	Changed from 2 to 1 dose
EE	6 months - 9 years (Pandemrix)	2	Not changed
	>9 years (Pandemrix)	1	Not changed
	All age groups (Celvapan)	2	Not changed
DE	6 months to 9 years (half dose)	2	Changed from 2 to 1 dose
	>60 years	2	Changed from 2 to 1 dose
	10-60 years	1	Not changed
GR	6 months- 4 years (Pandemrix)	2	Changed from 2 to 1 dose
FR	0-9 years	2	Not changed
	>10 years	2	Changed from 2 to 1 dose
IE	≥6 months (Celvapan)	2	Not changed
	≥6 months - 12 years (Pandemrix)	2	Changed from 2 to 1 dose
	Pandemrix for immunocompromised	1	Two doses
IT	All ≥ 13 years and over (including HCWs) who are NOT immunocompromised	1	Not changed
	10 - 60 years	2	Changed from 2 to 1 dose
	> 60 years	2	Not changed
LU	6 months - 9 years (half-dose)	2	Not changed
NO	6 months- 9 years	2	Changed from 2 to 1 dose
	>10 years	1	Not changed
PT	<9 years	2	Changed from 2 to 1 dose
	All others	1	Not changed
SK	< 3 years (0.25 ml)	2	Not changed
	> 3 years and adults (0.5 ml)	1	Not changed

SI	6 months-9 years	2	Changed from 2 to 1 dose
	>10 years	1	Not changed
SE	3-12 years; (half dose)	2	Changed from 2 to 1 dose
	13	2	Changed from 2 to 1 dose
	3 month-2 years; (half dose)	2	Changed from 2 to 1 dose
EN	<10 years (Pandemrix)	2	Changed from 2 to 1 dose
No changes in number of doses by age: AT,BG,CZ,FI, HU,IS,LT,MT,NL,RO,ES (n=11)			
At risk groups (n=6)			
CY	Immunocompromised persons	2	Not changed
FR	Immunocompromised persons	2	Not changed
GR	Immunocompromised persons; chronic renal failure, chronic hepatic failure	2	Not changed
IE	Celvapan 2 doses at all times	2	
	Immunocompromised persons	2	Not changed
NO	Immunocompromised persons	2	Not changed
	Other risk groups	1	Not changed
SI	Immunocompromised persons	2	Not changed
No changes in number of doses by at risk: AT,BE,BG,CZ,DK,EE,FI,DE,HU,IS,IT,LT,LU, MT,NL,RO,SK,ES, SE,EN,PT (n=21)			
HCWs (n=2)			
FR		2	Changed from 2 to 1 dose
IE	Celvapan	2	Not changed
	Pandemrix	1	Not changed
No changes in number of doses for HCWs: AT,BE,BG,CY,CZ,GR,DK,EE,FI,DE,HU, IS,IT,LT,LU,MT,NL,NO,RO,SK,ES,SE, SI,EN,PT (n=25)			
Cocooning (n=2)			
FR		2	Changed from 2 to 1 dose
IE	Celvapan	2	Not changed
	Pandemrix	2	Changed from 2 to 1 dose
No changes in number of doses for cocooning strategy: AT,BE,BG,CY,CZ,GR,DK,EE,FI, FR,DE,HU,IS,IT,LT,LU,MT,NL,RO,SK,ES,SE,SI,EN ,PT (n=25)			
Pregnant women (n=2)			
DK	Both healthy and at risk	2	Changed from 2 to 1 dose
FR		2	Changed from 2 to 1 dose
No changes in number of doses for pregnant women: AT,BE,BG,CY,CZ,GR, EE,FI,DE,HU, IS,IT,LT,LU,MT,NL,NO,RO,SK,ES,SE, SI,EN,PT,IE (n=25)			

LV,PL,- no data, no vaccination programme.

Three countries were able to identify group(s) recommended two doses of pandemic vaccine and the proportion of people vaccinated with one or two doses (table 15).

Table 15. Proportion of population vaccinated with 1 or 2 pandemic vaccine doses in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

Countries	Group	Two doses (%)	One dose (%)
EE	Children 6 months -24 months	4	5
NL	Children 6 months - 4 years	60	13
	Household contacts	52	13

PT	≤9 years	10	14
Not able to identify number of doses: AT,BE,BG,CY,GR,FR,DE,IS,IT,LT,LU,SI,IE,SE,NO,EN (n=16)			
Not applicable: CZ,DK,HU,FI,MT,RO,SK,ES (n=8)			

LV,PL,- no data, no vaccination programme.

Comments:

BE- No groups were vaccinated with two doses. The strategy changed for children according to EMA and WHO recommendations.

DK- After the change of dosing for most persons, two doses of pandemic vaccine were only given to at risk children below 10 years and to at risk persons with immunodeficiency.

FI-One dose for all.

IE- Two different vaccines used, recommendations varied depending on the vaccine used. Celvapan recommendations did not change (two doses of 0.5 mls each for all age agr groups), There were a number of changes in relation to dosage and number of doses of Pandemrix as more information provided by EMA

NL- Group of household contacts defined as household members at address where less than 10 adults (aged ≤18 years) were registered.

NO- Initially, before the vaccination started, it was planned to recommend two doses for everybody. However, just after the vaccination started more data regarding the number of doses needed was available and it was decided to recommend one dose to everybody except the groups mentioned above.

SK- The recommendation was to vaccinate the children < 3 years with 2 doses 0.25 ml and the children > 3 years and adults with 1 dose 0.5 ml.

EN-Two brands of H1N1 vaccine were used in the EN - Pandemrix and Celvapan. Pandemrix was recommended for all individuals (one dose required for most but two doses required for those immunocompromised and, initially, children under 10 years of age who, although during the programme the number of doses for children aged under 10 years was revised to one dose), apart from those with a history of severe anaphylactic reaction to egg containing products, for which Celvapan (two doses required) was recommended. Pandemrix was used widely and relatively few received Celvapan. Therefore, the data in this report primarily reflects the uptake of Pandemrix.

VACCINATION SITES

The principal outlets for pandemic influenza vaccination were primary and hospital health care settings (22 (81%) and 17 (63%) countries respectively), followed by occupational (10; 37%) and outpatient (9; 33%) care clinics. Detailed data presented in table 16.

Table 16. Principal outlets for pandemic influenza vaccination programme in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

	Country	Total
Primary health care settings (General Practitioners)	BE,BG,CY,CZ,DK,EE,DE,GR,HU,IS,IE,IT,LT,LU,NL,NO,RO,SK,ES,SE,EN,PT	22
Hospital settings	BE,CY,CZ,DK,EE,FR,GR,HU,IS,IE,LT,LU,NO,SK,ES,SE,EN	17
Outpatient care clinics	CZ,EE,DE,GR,IE,LT,SK,ES,SE	9
Occupational health services	EE,DE,HU,IE,RO,SK,ES,SE,EN,PT	10
Vaccination in other health service setting for general public	AT,CZ,EE,FI,DE,GR,HU,IE,NO	9
Mass vaccination clinics for students in schools, for children in kindergartens/crèches	FI,FR,HU,IE,NO,RO,SE	7
Other mass vaccination sites (conducted in community	FR,IE,LU,NL,NO,RO,SE	7

settings, not medical) for general public		
Other, specify	DK-Private vaccination clinics. IT-vaccine services of the local health authorities. LU-Vaccination centers set up in public facilities. MT-immunisation clinics run by nurses at government primary health care settings. NL-Municipal Health Services (children & household contacts), Health care workers were vaccinated in their own work environment. SI-established vaccination centres specially for pandemic vaccination.	6

The special mass vaccination venues organised specifically for pandemic influenza vaccination were in nine countries (AT,FR,IE,LU,NL,NO,RO,SI,SE).The remaining 18 countries did not have specific venues for pandemic vaccination (BE,BG,CY,CZ,DK,EE,FI,DE,GR,HU,IS,IT,LT,MT,SK,ES,EN,PT).

AT-Health care centres at 3rd level administration.

FR-Around 1000 centres opened (in sport centres for instance) with GPs' and Nurses employed for vacation - 78% of vaccination in these centres.

IE-If no health site available other public venues used.

LU-7 vaccination centers were set up in public facilities. 4 of them were operated for 1 week only, 2 of them for 4 weeks, and 1 for 5 weeks.

NL-0-5 health children & household members.

NO-Many municipalities organised mass vaccination sites.

RO-Vaccination centers.

SI-68 special locations.

The estimated percentage of pandemic vaccine delivered and administered presented in the table 17. Thirteen countries (50%; 13/26) delivered/administered pandemic vaccine only in public sector settings; both public and private sector (with predominance of public sector) in SI, HU,LU and IE. In two countries vaccine was administered only in private sector settings (EE,SK).

Table 17. Proportion of delivered/administered pandemic vaccine in the public/private sector in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=26)

		Delivered vaccine %	Administered vaccine %
AT	Public	100	100
	Private	0	0
CY	Public	100	100
	Private	0	0
EE	Public	0	0
	Private	100	100
FI	Public	100	*
	Private	0	*
IS	Public	100	100
	Private	0	0
IE	Public	64	64

	Private	36	36
IT	Public	100	100
	Private	0	0
LT	Public	100	100
	Private	0	0
MT	Public	100	23
	Private	*	*
LU	Public	*	79
	Private	*	21
NO	Public	100	80
	Private	0	20
NL	Public	100	100
	Private	0	0
PT	Public	100	100
	Private	0	0
RO	Public	100	*
	Private	*	*
SK	Public	2	*
	Private	98	*
SI	Public	97.7	99.2
	Private	2.3	0.6
ES	Public	100	100
	Private	0	0
EN	Public	100	100
	Private	0	0
HU	Public	99	99
	Private	1	1
Both sectors unknown	BE, CZ, DK,DE,FR,GR,SE		

*Unknown

LV,PL,- no data, no vaccination programme.BG-not applicable.

Comments:

BE- 15 % administered in hospitals; 85 % administered by GPs.

CY- The vaccine was available only in the Public sector.

FI- All vaccine was distributed via communities. Some communities were giving vaccine for private sector to be able to vaccinate people as fast as possible.

FR- Private practitioners involved in vaccination as of January 2010.

DE- Vaccination delivery and administration was organized by the 16 federal states in different ways.

LU- Nearly 80% of the vaccines were administered in the public vaccination centres; of the remaining, 10.7% were administered in GP offices, 7.5% in paediatric offices, and 2.4% in hospitals.

MT- The vaccine was dispensed only from the public sector from the immunisation centres within the government health centres and those bed bound in the community it was administered to them in their homes. All vaccines were dispensed by nurses. Also administered in the hospitals, geriatric hospital and homes of the elderly.

NO- The exact numbers are not known and the estimates are quite uncertain.

SK- All of the purchased doses of the vaccine were delivered - 1 million doses. The percentage of the administered doses will be known after the evaluation of the vaccination coverage. PHA SR is planning to conduct the administrative survey during November 2010. The private sector means: private hospitals, paediatric offices, GP offices and other private health facilities but financially covered from the mandatory public health insurance.

IMPACT ON ROUTINE SERVICES

The impact of pandemic influenza vaccination on the routine immunisation services was minimal (40%; 10/25) or not noticeable (32%; 8/25) in most countries. Twenty countries (80%; 20/25) reported equal impact across all regions in the country (table 18).

Table 18. Pandemic influenza vaccination programme impact on routine vaccination services and regional variation on services in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=25)

	Country	Total
Impact on routine services		
No noticeable impact on routine services. Programme was managed within routine available resources	BE,DK,DE,GR,IS,LT,SK,SI	8
Minimal impact on routine services. Most routine services continued as per normal using routinely available resources	AT,CZ,EE,IT,LU,MT,RO,ES,EN,PT	10
Moderate impact on routine services. Required recruitment of additional resources to maintain routine services	CY,FI,HU,NL,NO	5
Marked impact on routine services, as staff had to be redeployed to undertake vaccination programme. Many non-essential routine services were suspended or deferred during vaccination programme	IE	1
Impact not known	SE	1
Impact on regional services		
Impact similar across regions	BE,CY,CZ,DK,EE,FI,DE,GR,HU,IS,LT,LU,MT,NL,NO,RO,SK,ES,EN,PT	20
Impact varied by region	IE,IT	2
No impact/no noticeable impact	AT,SI	2
Impact not known	SE	1

FR- no data provided. BG-not applicable. LV,PL,- no data, no vaccination programme.

Comments:

NO- There was some variation between the municipalities within the regions.

IE- impact by region was dependent on how staff were allocated and in areas where there were already staffing issues (not enough staff) then the impact would have been more marked.

FI- We do not really know about the impact.

BE- No measurable impact.

VACCINATION COMMUNICATION

Communication with public

Twenty six countries responded to this question and reported that their country had a specific pandemic vaccination information campaign for the general public (100%); eighteen countries (69%; 18/26) had specific information for pregnant women; and nineteen countries (73%; 19/26) for persons with chronic medical conditions (table 19).

Table 19. Pandemic vaccination communication with public in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=26)

	Country	
	Yes	No
General public	AT, BE, CY, CZ, DK, EE, FI, FR, DE, GR, HU, IS, IE, IT, LT, LU, MT, NL, NO, RO, SI, ES, SE, EN, PT, SK (n=26)	(n=0)
Pregnant women	BE, DK, EE, FI, FR, DE, HU, IS, IE, IT, MT, NL, NO, SI, ES, SE, EN, PT (n=18)	AT, CY, CZ, GR, SK, LT, LU, RO (n=8)
Persons with chronic medical conditions	CY, CZ, DK, EE, FI, FR, DE, GR, IS, IE, IT, MT, NL, NO, SI, ES, SE, EN, PT (n=19)	AT, BE, HU, LT, LU, RO, SK (n=7)
Other groups	BE, MT-Health professionals. FI-parents of small children. SI-all ages. LU- School and day care centre personnel NL- Health care personnel, parents of infants 0-6 months and infants/children 6mo-4 years	

LV, PL, - no data, no vaccination programme. BG-not applicable.

Details relating to specific national pandemic vaccination information campaign for public are provided in a table 20.

Table 20. Information campaigns used for public during pandemic vaccination campaign in EU/EEA for 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=13)

	Country*	Total
Radio	CY, CZ, EE, FR, IS, IE, LU, NL, RO, ES, SK	11
TV	CY, EE, FR, GR, IS, IE, LU, NL, NO, RO, ES, SK	12
News papers	CY, CZ, EE, FR, GR, IS, IE, LU, NL, RO, ES, SK	12
Leaflets	CY, CZ, EE, FR, IE, LU, NL, NO, RO, ES, SK	11
Posters	CY, EE, FR, IE, NL, NO, RO, ES, SK	9
Website	CY, CZ, EE, FR, GR, IS, IE, LU, NL, NO, ES, SK	12

* Analysing data on pandemic influenza survey (conducted in August 2010) it was noticed that some errors occurred in vaccination communication section when the questionnaire was placed on the VENICE website. Due to some technical reasons some variables for the above question did not appear on the screen and this

question was not completed by all countries. Validating data gatekeepers were asked to complete this question again. Following countries did not reply to this question during error correction process: AT,BE,DK,FI,DE,HU,IT,LT,MT,SI,SE,EN,PT (n=13).

The media campaigns for pandemic influenza vaccination for the general public were sponsored by the national/regional health authorities in 23 countries (92%; 23/25) (table 21).

Table 21. Sponsorship of media campaigns for the general public during pandemic vaccination programmes in EU/EEA MSs in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=25)

	Country	Total
National/regional health authorities	BE,CY,CZ,DK,EE,FI,FR,DE,GR, IS, IE,IT,LT,LU,MT,NO,NL,RO,SI,ES,SE,EN,PT	23
Pharmaceutical sector		0
Public service announcement*	AT,CY,CZ,DK,DE,HU,LU,SI,SE	9

* Advertisement content and production is provided by government or industry, including national health authority, with air time (radio, TV) or space (newspapers, magazines) provided by media company at no charge. LV,PL,- no data, no vaccination programme.BG-not applicable.

NL-Ministry of Health paid for the campaign.

Countries were asked to report on public concerns related to the vaccine or the programme. The most commonly reported public concern general scepticism regarding need for vaccination, reported by 23 countries (92%; 23/25). Other public concerns encountered included use of adjuvanted vaccines, presence of thiomersal in some vaccines, and the licensing process. Full detailed information is in a table 22.

Table 22. Public concerns related to pandemic vaccine in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=25)

	Country	Total
Thiomersal	DK,EE,FI,DE,HU,IE,IT,MT,NO,RO,SI,SE	12
Adjuvanted vaccines	BE,DK,EE,FI,FR,DE,GR,HU,IS, IE,IT,LU,MT,NO,SI,ES,SE,PT	18
Accelerated licensing process	AT,BE,CY,CZ,DK,FI,FR, DE,GR,HU,IE,IT,NO,RO,ES,PT	16
Mock-up vaccine approach	DK,FI,DE,IE,IT,NO	6
General scepticism regarding need for vaccination	AT,BE,CY,CZ,DK,FI,FR,DE,GR,HU, IS,IE,IT,LT,LU,MT,NO,RO,SI,ES,SE,SK,PT	23
Disagreement or scepticism with recommendation for non-traditional groups to be vaccinated	CZ,DK,EE,FI,DE,GR,IE,IT,LT,NO,ES	11
Vaccination of Pregnant women	AT,BE,CY,EE,FI,DE,GR,HU,IE,NO,PT	11
Other, specify	BE-Scepticism from some health professionals. DE-different vaccines for general population and federal civil servants. IE-vaccination of >65 years was deferred until later stages of programme. This caused some concern among those individuals (who wanted it sooner).	6

	<p>MT-the scepticism of certain hospital consultants and GPs who did not encourage their patients to take the vaccine.</p> <p>NL-None of above mentioned is applicable.</p> <p>NO-Ethical aspects regarding the cost of purchasing and administering the vaccine.</p> <p>Scepticism regarding relation between WHO and the pharmaceutical industry.</p>	
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LV,PL,- no data, no vaccination programme.BG-not applicable.

Comments:

BE- Anti vaccination lobby was active during the pandemic and affected the programme, especially in the French speaking part of Belgium. A registration system to monitor the number of administered doses was set up. However, there were big differences between the French and Flemish speaking part of Belgium. This was due to a controversy among French-speaking practitioners. They felt uncomfortable about recording their vaccinations mainly for confidentiality reasons (ref. Antoine et al. Influenza vaccination recording system in Belgium. *Arch Public Health*. 2010, 68, 109-114a.

RO-Anti vaccination lobby was very active during the pandemic and certainly affected the programme.

LU- The information campaign included information for pregnant women and risk groups.

MT- Death of a youth 4 days after taking the vaccine which the media is pinned that the cause of death could have been caused by the vaccine and it was very difficult for the health authorities to convince the general public that the vaccine had nothing to do with the death.

SK- Information campaign was conducted through the Press Conference, media and official web sites accessible to general population. On regional level HCW at hospitals, GPs, workers in educational sector, regional politicians and occupational health services were informed through seminars, meetings and hand-outs.

Communication with health professionals

Details relating to specific national pandemic vaccination information campaign for health professionals are presented in tables below.

Table 23. Information campaigns used for health professionals during pandemic vaccination campaign in EU/EEA for 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=13)

	Country	Total
Radio	CZ,EE,IS,IE,ES	5
TV	EE,IS,IE,ES,SK	5
News papers	CZ,EE,IS,IE,ES	5
Leaflets	EE,GR,IE,NO,ES,SK	6
Posters	EE,GR,IS,IE,ES	5
Website	CZ,EE,GR,IS,IE,NL,NO,RO,ES	9
Professional medical societies	CZ,EE,IS,IE,NL,NO,RO	7
National medical publication	CZ,EE,IS,IE,NL,ES	6
Other, specify	<p>PT-national call centre.</p> <p>BE-Hot line for medical staff.</p> <p>CY-Helpline for the public.</p> <p>IT-Toll-free hot line.</p> <p>LU-Specific newsletter sent to all medical doctors & Letters to all day care facilities.</p> <p>EN-The DH provided information on the pandemic</p>	6

	H1N1 vaccination programme.	
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* Analysing data on pandemic influenza survey (conducted in August 2010) it was noticed that some errors occurred in vaccination communication section when the questionnaire was placed on the VENICE website. Due to some technical reasons some variables for the above question did not appear on the screen and this question was not completed by all countries. Validating data gatekeepers were asked to complete this question again. Following countries did not reply to this question during error correction process: AT,BE,DK,FI,DE,HU,IT,LT,MT,SI,SE,EN,PT(n=13).

Table 24. Health professionals' concerns related to pandemic vaccine in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=13)

	Country	Total
Thiomersal	ES	1
Adjuvanted vaccines	FR,GR,IS,IE,LU,ES	6
Accelerated licensing process	CZ,EE,FR,IS,IE,RO,ES	7
Mock-up vaccine approach	IS,IE	2
General scepticism regarding need for vaccination	CZ,EE,FR,GR,IE,LU,ES,SK	8
Disagreement or scepticism with recommendation for non-traditional groups to be vaccinated	CZ,EE,IS,IE,RO,ES	6
Vaccination of Pregnant women	GR,IS,IE,RO,ES	5
Other, specify	BG-not applicable. DE-different vaccines for general population and federal civil servants. NO-Ethical aspects regarding the cost of purchasing and administering the vaccine. Scepticism regarding relation between WHO and the pharmaceutical industry. EN-nil relevant.	

* Analysing data on pandemic influenza survey (conducted in August 2010) it was noticed that some errors occurred in vaccination communication section when the questionnaire was placed on the VENICE website. Due to some technical reasons some variables for the above question did not appear on the screen and this question was not completed by all countries. Validating data gatekeepers were asked to complete this question again. Following countries did not reply to this question during error correction process: AT,BE,DK,FI,DE,HU,IT,LT,MT,SI,SE,EN,PT(n=13).

IE -In general it was a minority of health professionals who would have public expressed these concerns. We did hear of anecdotal reports of some concerns expressed about the above, but it was not a big problem.
LU - Newsletter (n=12) sent to all MDs from the beginning of the pandemics; regular updates as needed.
NL- none did significantly affect the campaign.

Twenty four countries (83%; 24/29) prepared communication materials in response to health professionals' concerns during the course of pandemic influenza. Twenty-two countries outlined the methods used to communicate with health professionals; 12 updated communication materials using a website (54%; 12/22); seven of these countries (32%; 7/22) also made available telephone hotlines to address issues related to pandemic vaccination. Other methods used are presented in table 25.

Table 25. Communication materials used to respond to concerns voiced by the health professionals during the course of pandemic influenza in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=29)

	Country	Total
Yes, regular updates and responses	BE,BG,CZ,DK,FI,FR,DE,GR,HU,IS,IE,IT,LT,LU,MT,NL,NO,SI,ES,EN,PT	21
Yes, infrequent updates and responses	EE,PL,SE	3
No	AT,CY,LV,RO,SK	5
If yes, how was this done? Please specify		
BE	Website, hotline	
PT	Technical guidance, information sessions, call centre	
BG	official information from the Ministry of Health	
CZ	web pages of Ministry of Health	
DK	news releases to media and weekly news letter	
EE	Telephone hotline for information.	
FI	via www pages prepared, emails	
FR	website updated	
DE	Hotlines, FAQ, leaflets, publications	
GR	press conference on a weekly basis	
HU	Websites of the CMO, NCE, MoH, Government, Communication Office of the Prime Minister, telephone hotline, press conferences on the weekly bases.	
IS	Newspapers, websites	
IE	newsletters, bulletins, website updates,	
IT	Daily report on MoH website, updates and recommendation from CSS (Health Superior Council) were sent by e-mail to Regional Authorities and to Scientific/Medical Associations, Societies, and Federations.	
LT	by website, phone (24/7)	
LU	Newsletter sent to all medical doctors	
MT	by email to all government and private doctors	
NL	through a dedicated website	
NO	Information on NIPHs website and specific pandemic website and regular information letters to all community health officers, hotline	
PL	web pages, seminars	
SI	information meeting and web page reports	
EN	The DH set up an email address for all H1N1 vaccination policy queries.	

At the time of the survey, a formal evaluation of communications with health professionals was being either being done or was planned by 15 countries (54%; 15/28), details of which are presented in the table 26.

Table 26. Communication for health professional's evaluation in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=28)

	Country	Total
Yes already done	BE,FI,IE	3
Not yet, but planned	DK,EE,IT,SI,ES	5
None planned	AT,BG,CY,GR,IS,LV,LT,LU,MT,PL,RO,SK,PT	13
Evaluation is on-going	CZ,DE,HU,NL,NO,SE	6
Other, specify	EN-DH will undertake.	1

If evaluation was completed following improvements were recommended at the time of conducting survey:

BE- The conclusions of this evaluation are not yet available.

FI- Same messages game too many times, so more co-ordination needed.

IE- 1. Develop a communication strategy to facilitate both upwards and downwards communications within the Health Service Executive (HSE), (i.e. the national health service), and externally with other stakeholders and 2. Maintain strong media message for public throughout the campaign.

PAYMENT AND ADMINISTRATION FOR VACCINES

In all countries with a vaccination programme the pandemic vaccine was free for all individuals recommended vaccine. The same payment scheme was applied for the public and the private health sector in 23 countries (88%; 23/26).

Table 27. Payment scheme for pandemic vaccine and by countries and health sector (public/private) in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=26)

	Country	Total
Vaccine was free for all	AT,BE,CY,CZ,DK,EE,FI,FR,DE,GR, HU,IS,IE,IT,LT,LU,MT,NL,NO,RO,SK,SI,ES,SE,EN,PT	26
Vaccine was free for some		0
Payment scheme by health sector (public/private)		
The same scheme in public and private sectors	AT,CZ,DK,EE,FI,FR,DE,GR, HU,IS,IE,IT,LT,LU,MT,NL,NO,RO,SK,SI,ES,SE,PT	23
Not the same scheme in public and private sectors	BE-Hospital: free of charge; GPs: payment of the consultation but full refunding. CY- The vaccine was only available in the public sector free of charge. EN-Vaccine was free in public sector.	3

LV,PL,- no data, no vaccination programme.BG-not applicable.

BE- vaccination through hospitals intended for HCW; vaccination through GP intended for identified target groups.

LU- In both sectors vaccination was free for all, but physicians in the private sector were compensated for each vaccine administered, while physicians who vaccinated in the public sector were paid on a fixed hourly fee.

NL- There is no private sector in NL so answer is not applicable.

NO- The vaccine was free, but the individuals had to pay an administration fee which could vary from site to site.

INFORMATION SYSTEMS (IS) CAPACITY

All but two countries with a pandemic vaccination programme used some sort of Information system. The type of Information system used to monitor pandemic vaccine administered across the remaining 25 countries is presented in table 25. Specifically designed individual based vaccine ISs were developed and used in nine countries (33%; 9/27); eight countries (30%; 8/27) used pre-existing ISs with minimal or moderate modification (table 28).

Table 28. Information systems used to monitor pandemic vaccination coverage in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=26)

	Country	Total
There is no IS in the country at all	CZ,SK	2
Pre-existing individual based vaccination IS was used with no or minimal modification	IS,RO,PT	3
Pre-existing individual based vaccination IS was used following moderate to major modification	EE,FR,NO,ES,EN	5
Specifically designed individual based vaccine IS was developed and used	BE,DK,FI,GR,IE,IT,LU,MT,SE	9
It was not possible to collect individual based vaccine information	AT,CY,DE,HU,LT,SI	6
Other, specify	NL-pre-existing for at risk, modified for healthy children.	1

LV,PL,- no data, no vaccination programme.BG-not applicable.

Comments:

CY- Though individual based vaccine information was not collected aggregated data according to age and high risk group were collected but not computerised.

CZ- information available in individual patient's documentation at GP sites. Summary data by reported categories provided to centre.

FI- We have a www -based system recording only the number of vaccines administered.

IE- IS developed for mass vaccine clinics as above, but also used already existent IS system used for paying GPs - to monitor uptake of vaccine in GP setting. By August approximately 30,000-100,000 vaccination forms were still not entered from mass vaccine clinics (we do not know how many of these related to 2nd dose of Celvapan vaccine and how many may be 1st doses of vaccine (either Celvapan or Pandemrix).

NO- There may be some delay in the registration.

SK- Public Health Authority of the Slovak Republic is planning to conduct the administrative survey to measure the vaccination coverage through GP registries in November 2010.

SE- Different IS were used in the different counties. Three major IS used + some minor.

EN- The DH ImmForm website, a web-based reporting system, was used to collect H1N1 vaccine uptake data.

VACCINE PROCUREMENT

Twenty two countries (81%; 22/27) used the national tender process to purchase the pandemic vaccine. In three countries (11%; 3/27) vaccine was produced by national manufacturer (table 29).

Table 29. Pandemic influenza vaccine procurement in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=29)

	Country	Total
No vaccine purchased	PL, LV	2
Through national tender process	BE, BG, CY, CZ, DK, EE, FI, FR, DE, GR, IS, IE, IT, LU, MT, NL, NO, SK, SI, ES, EN, PT	22
Through regional /local tender process	SE	1
Insurance company purchase		
Private purchase with insurance reimbursement		0
Vaccine donated		0
Vaccine produced by national manufacturer	AT, HU, RO	3
Vaccine purchased from other EU/EEA country	LT	1

The number of doses purchased, donated and distributed by country varied and detailed information is presented in table 30.

Table 30. Number of doses purchased/donated and distributed in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=26)

Country	No of doses purchased	No of doses donated	No of doses distributed
AT	1,173,400	0	663,000
PT	6,000,000	0	2,300,000
BE	126,000,00	0	2160,000
BG	80,000	0	Not applicable
CY	200,000	0	23,500
CZ	700,000	0	Not applicable
DK	Not applicable	0	Not applicable
EE	248,000 (Celvapan 148 000; Pandemrix 1 00000)	Not applicable	989,00
FI	5,286,000	0	3,721,500
DE	50,000,000	Not known	34,000,000
GR	3,799,590	0	364,559
HU	4,000,000	0	3,800,000
IS	300,000	0	150,000
IE	2,977,000	0	1,778,160
IT	24,000,000	2,400,000	12,500,000
LT	27,000	0	27,000
LU	715,000	0	Not known
MT	345,500	Not applicable	-
NL	34,000,000	0	11,000,000
NO	6,580,000	0	3,318,000

RO	3,080,000	500,000	2,580,000
SK	1,000,000	0	1,000,000
SI	222,000	0	157,300
ES	13,000,000	Not applicable	6,600,000
SE	13,500,000	Not applicable	6,900,000
EN	44,100,000	0	17,100,000

LV,PL,- no data, no vaccination programme. FR- did not respond to this question.

NO- Total number of doses ordered according to APA: 9,400,000. Reduction in number of doses: 2,820,000.

Total number of doses purchased: 6,580,000. Number of doses donated to WHO: 940,000.

Sixteen countries (59%; 16/27) had an Advanced Purchase Agreement (APA) in place prior to start of pandemic influenza; 11 countries (41%; 11/27) did not have an APA. Eleven countries (69%; 11/16) had an APA with one manufacturer, four countries (25%; 4/16) with two manufactures and one country (6%; 1/16) had agreements with three manufacturers. Information with regard to this is specified in the table 31.

Table 31. Advanced Purchase Agreement prior to start of pandemic influenza in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=27)

	Country	Total
Did not have an Advanced Purchase Agreement (APA)	BE,BG,CY,CZ,EE,GR,LT,RO,SK,ES,PT	11
Did have an APA	AT,DK,FI,FR,DE,HU,IS,IE, IT, LU,MT,NL,NO,SI,SE,EN	16
Number of manufacturers for APA (n=16)		
With one manufacturer	AT,DK,FI,IS,HU,MT,NO,LU,NL,SI,SE	11
With two manufacturers	DE(GSK, Novartis), IE,EN,IT	4
With three manufacturers	FR	1
Reduction of quantity of pandemic vaccine (n=16)		
Reduced the quantity of pandemic vaccine purchased in the APA	AT,DK,FR,DE,IS,IE,LU,NO,SI,SE,EN	11
Did not reduce the quantity of pandemic vaccine purchased in the APA	FI,HU,MT,NL,IT	5
Agreement of manufacturer to reduce vaccine quantity (n=11)		
Vaccine manufacturer agreed	AT,DK,FR,DE,IE,NO,SI,SE,EN	9
Vaccine manufacturer did not agree	IS,LU	2

LV,PL,- no data, no vaccination programme.

BE: there was no APA prior to the start of the pandemic influenza, but we had an agreement to reduce the vaccine quantity.

Twenty five countries (93%;25/27) had excess of pandemic vaccine (AT,BE,BG,CY,CZ,DK,FI,FR,DE,GR,HU,IS,IE,IT,LU,MT,NL,NO,RO,SK,SI,ES,SE, EN,PT); two countries (7%; 2/27) did not have any vaccine excess (EE,LT). Most countries kept excess vaccine in reserve. Further detail on actions taken with excess pandemic vaccine is shown in the table 32.

Twenty five countries (96%;25/26) reported that by the end of the vaccination campaign their country had received sufficient vaccine supplies to meet their requirements (AT,BE,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LU,MT,NL,NO,RO,SK,SI, ES,SE, EN, PT); one country, LT (4%;1/26) reported that there was insufficient vaccine in the country.

Table 32. Actions taken with excess of pandemic vaccine in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=25)

	Country	Total
Sold to other countries	FR,HU,NL,EN	4
Donated to other countries	BE,FR,IT,NO,RO,ES,EN	7
Kept in reserve	AT,BE,BG,CY,CZ,DK,FI,FR,DE,GR,HU,IS,IE,IT,LU,MT,NL,NO,RO,SK,SI,SE,EN,PT	24
Disposed/Destroyed	DE,IE,NL,RO,ES	5
Other, specify	BE- Negotiation with industry to reduce the amount. PT-negotiated with firm to reduce	2
Vaccine distribution if vaccine was sold or donated (n=11)		
Distributed only within EU/EEA	EE,GR	2
Distributed only outside EU/EEA	RO,ES	2
Distributed both: within and outside EU	NL,EN	2
WHO	BE,FR,IT,NO	4
Middle East	FR	1

LV,PL,- no data, no vaccination programme.BG-not applicable.

Comments:

IT- It was based on the advanced purchase agreement signed in 2005 and redefined in 2009.

SK-The expiration date of the pandemic vaccine delivered to Slovakia is due on the 31st

October 2010.

REASONS FOR NON VACCINATION

A likert scale response (from very important to least important) was used to assess the importance of various factors in influencing vaccination uptake varied widely across countries. Doubts on severity of pandemic was the most commonly report very important, or slightly important, factors reported by 15 and 8 countries respectively. Complete data on this question are presented in table 33.

Table 33. Principal reasons why people declined vaccination in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=24)

	Very important factor	Slightly important factor	Not of particular importance	Not of any importance at all
Cost of vaccine to individual	(n=0)	(n=0)	DK,FI (n=2)	AT,BE,CY,CZ,EE,DE,GR,HU,IS,IE,IT,LT,LU,MT,NL,NO,RO,SK,SI,ES,SE,EN,PT (n=23)

Cost of vaccine administration to individual	(n=0)	SI (n=1)	DK,FI (n=2)	AT,BE,CY,CZ,EE,DE,GR,HU,IS,IE,IT,LT,LU,MT,NO,RO,SK,ES,SE,EN,PT (n=21)
Lack of information about vaccination programme	(n=0)	CZ,IT,RO,SE (n=4)	BE,DK,EE,FI,DE,GR,HU,LT,LU,NO,EN (n=11)	AT,CY,IS,IE,MT,SK,SI,ES,PT (n=9)
Lack of confidence of professionals in the vaccine or need for vaccination	AT,EE,FI,DE,GR,IT,LU,MT,NO,SK,SI (n=11)	BE,CY,CZ,HU,IE,LT,RO,ES,SE,PT (n=10)	DK,IS,EN (n=3)	(n=0)
Difficult to access vaccination sites	(n=0)	CZ,FI (n=2)	BE,DK,EE,DE,GR,HU,IE,LT,LU,NO,RO,SI,SE,EN (n=14)	AT,CY,IS,IT,MT,SK,ES,PT (n=8)
Doubts on vaccine efficacy	EE,GR,LT,MT,SK (n=5)	AT,BE,CY,CZ,DE,HU,IE,IT,NO,RO,SI,ES,PT (n=13)	DK,IS,LU,SE,EN (n=5)	FI(n=1)
Doubts on vaccine safety	CY,CZ,EE,DE,GR,HU,IT,LT,MT,NO,SK,SI,PT (n=13)	AT,BE,DK,FI,IS,IE,LU,NO,ES,SE (n=10)	EN (n=1)	(n=0)
Doubts on severity of pandemic	AT,CY,DK,EE,DE,GR,HU,IT,LT,MT,NO,RO,SK,SI,PT (n=15)	BE,CZ,FI,IS,IE,LU,ES,SE (n=8)	EN (n=1)	(n=0)
Too much bureaucracy in the campaign	(n=0)	CZ (n=1)	BE,CY,DK,EE,DE,GR,IE,LT,LU,NO,RO,EN,PT (n=13)	AT,FI,HU,IS,IT,MT,SK,SI,ES,SE (n=10)
Risk communication not clear and confident	CZ,GR,IT (n=3)	EE,DE,HU,LT,LU,NO,RO,SK,SI,SE,PT (n=11)	BE,DK,FI,IE,EN (n=5)	AT,CY,IS,MT,NL,ES (n=6)
Anthroposophy objection	SK (n=1)	FI,IT (n=2)	BE,CZ,DK,EE,DE,GR,HU,NO,RO,SI,EN (n=11)	AT,CY,IS,IE,LT,LU,MT,ES,SE,PT (n=10)
Religious objection	(n=0)	(n=0)	CZ,DK,FI,DE,GR,LT,NO,RO,SI,EN (n=10)	AT,BE,CY,EE,HU,IS,IE,IT,LU,MT,SK,ES,SE,PT (n=14)
Other anti-vaccine group, specify	FI*,SL (n=2)	DE,IT,NO,SE (n=4)	DK,IE (n=2)	AT,BE,CY,CZ,EE,GR,HU,IS,LT,LU,MT,RO,SI,ES,EN,PT (n=16)

LV,PL,- no data, no vaccination programme.BG-not applicable.

*FI- anti-vaccine group : not religious , just opposing.

DE- sceptical health professionals and so called experts.
 IT,NO- Anti-vaccine groups.
 SK- Initiative for Vaccine Risk Awareness.

Information provided by gatekeepers used to respond to the question above is based on the following reasons that are specified in the table 34.

Table 34. Information used for response to the table (question) above. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=24)

	Country	Total
Subjective impression based on media reports	DK,IS,EN	3
Subjective opinion based on feedback from those working in the area	AT,BE,CY,CZ,EE,FI,HU,IE,IT,LT,LU,MT,RO,SK,ES,SE,PT	17
Subjective opinion based on feedback from members of the public	GR,SK	2
Response was based on quantitative data (surveys)	DE,NO	2

LV,PL,- no data, no vaccination programme.BG-not applicable.

Comment:

BG-The reason for non vaccination was that the vaccine was not available during the pandemic.

CY- This subjective opinion was enhanced from media reports also through panels discussions.

DE- Information was also based on subjective impressions and opinions as well.

MT- I was heading the pandemic surveillance and monitoring and had direct access to doctors and patients and got feedback from them regarding reasons why people took and did not take the vaccine.

SK- The representatives of the Initiative for Vaccine Risk Awareness claimed in the media about the ineffectiveness of the vaccine and exaggeration of the severity of the disease. They claimed that the vaccine is harmful. Lack of information about vaccination programme: there were enough information but the media manipulated them.

EN- Reasons for non-vaccination were not collected.

MONITORING FOR ADVERSE EVENTS FOLLOWING VACCINATION (AEFI)

Twenty four countries (96%; 24/25) have had a surveillance system to identify Adverse Events Following Immunization (AEFIs) for pandemic vaccine in place (AT,BE,CY,CZ,DK,EE,FI,FR,DE,GR,HU,IS,IE,IT,LT,LU,NL,NO,RO,SK,SI,ES,SE,EN,PT) ; MT (4%;1/25) responded that there was no AEFI system in place in their country.

VACCINE DEPLOYMENT ASSESSMENT

Nineteen countries responded to this section regarding vaccination programme activities successfully (or not) implemented and additional comments on how future programmes could be strengthened. Five countries indicated that all activities were implemented. The common them among recommendations to improve future vaccination programmes included earlier availability of vaccine, better communications with the public and health professionals. Further detail for each country is presented in table 35.

Table 35. Vaccine deployment assessment in EU/EEA in 2009/2010 influenza season. Pandemic A(H1N1) 2009 influenza vaccination survey, August 2010. (n=19)

Country	Not implemented actions	Not implemented reasons	Future improvement strategy
AT	-	-	still under evaluation
PT	All actions implemented	N/A	More doses available on time. Have more quantity of vaccines earlier when population still wants it.
BE	The plan included vaccination centres for immunization of the whole population. Due to the mild pandemic, only specific groups were vaccinated through usual structures	due to the mild pandemic	A scalable strategy taking into account the severity of the disease
CY	All planned activities were implemented	NA	Improve the communication with Health Professionals in order to cope with any negative concerns affecting the need for immunization
EE	vaccination of specific target groups vaccination of all population	low activity of general practitioners	early procurement of the vaccine, more precise planning of the quantities of vaccine, raise of the public awareness
DE	all have been implemented	see above	better coordination and communication, earlier communication with private physicians
GR	Social mobilisation	Because of confused information	Provide the public with clear messages very early on. Be better prepared regarding the vaccination centres which will be used
HU	-	-	less administration, more vaccination harmonized professional communication better assessment of persons who are at risk

IE	all activities implemented	not relevant	need to have robust information systems in place prior to future event to capture vaccination information - Also need for surge capacity required that would minimise disruption to routine services.
IT	None	not applicable	Improving communication strategy in both general public and health care workers (e.g. general practitioners and pediatricians)
LT	N/A	N/A	It is important to implement public communication on vaccination; timely procurement of pandemic vaccine is essential as well
LU	None	NA	Better communication of objective data about pandemic activity and vaccine associated benefits and risks.
MT	AEFI monitoring	Doctors did not bother to fill in adverse events reports	Give the doctors access to the vaccine to vaccinate their patients
NO	The plan was implemented	The plan was implemented	Evaluation of the handling of the pandemic is ongoing. Improvement of the management of vaccination strategy will depend on this evaluation
RO	Vaccination of children	lack of vaccine	Better communication
SK	All planned activities were implemented.	All planned activities were implemented.	More consistent communication with HCW about the safety, efficacy and importance of the vaccination. Earlier purchase of the pandemic vaccine. More quality communication with the population - media, infoleaflets for population, information in advance.

SI	vaccination of essential services beside health care workers	doubts on the severity of the pandemic	proactive communication with media, comprehensive guidelines accompanied with workshops for health care workers, target young people using suitable media (facebook,twitter,...)
ES	An assessment of pandemic influenza vaccination programme is in process. Final results can help us to answer this question	An assessment of pandemic influenza vaccination programme is in process. Final results can help us to answer this question	An assessment of pandemic influenza vaccination programme is in process. Final results can help us to answer this question
EN	All were implemented	They were implemented	NA

LV,PL,- no data, no vaccination programme.BG-not applicable.

Key findings from Survey

1. Pandemic vaccination in EU/EEA countries:
 - a. Majority of MSs implemented a national vaccination programme (n= 26; 90%);
 - b. Vaccination was not implemented in two countries (PL, LV (7%);
 - c. Only recommendations, no vaccination in one country (3%).
2. Vaccination coverage (VC) varied by country:
 - a. For entire population: was measured in 22 countries (81%) with reported uptake ranging from 0.4% (SK) to 59% (SE); the highest VC reported in Scandinavian countries and Netherlands;
 - b. For those at risk ≥ 6 months of age: was measured in eight countries with reported uptake ranging from 8% (LU) to 72% (NL); the highest VC was achieved in NL and IE;
 - c. For HCWs: was measured in 12 countries with reported uptake ranging from 2.6% (SK) to 68% (HU); the highest VC reported by HU, RO, NL;
 - d. For pregnant women: was measured in 11 countries, with reported uptake ranging from 0% (CZ) to 58% (NL); the highest VC achieved in NL, IE;
 - e. For children of different age groups: was measured in 11 countries, with reported uptake ranging from 0.2% (IT) to 74% (NL); the highest VC reported by NL and NO.
3. Vaccination coverage monitoring:
 - a. The most common method used was administrative (23 countries; 85%); survey methodology was used in addition to administrative methods in four countries (14%);
4. Pandemic vaccine was recommended for the following population groups:
 - a. Age groups:
 - i. Children aged 6 months- <18 years: in 13 countries (50%); Children of some age groups: in six countries (23%);
 - ii. Adults aged >18 years: in 13 countries (52%); Adults of some age groups: in three countries (11%); The full population by the end of pandemic influenza season: in 17 countries (65%).
 - b. Chronic medical diseases or conditions:

Individuals suffering from: respiratory, cardiovascular and renal disease in 27 countries (100%); neurological or neuromuscular conditions, metabolic disorders in 26 countries (96%); hepatic diseases, immunosuppression due to disease or treatment in 25 countries (92%); severe obesity (≥ 40 BMI), haemoglobinopathies in 16 countries (59%).
 - c. Pregnant women and pregnancy related:
 - i. All pregnant women in 25 countries (93%); pregnant women at risk in two countries (7%).
 - d. Health Care Workers:
 - i. All HCWs in 16 countries (59%); some HCWs in 11 countries (41%).
 - e. Other occupational groups:
 - i. Police in 12 countries (44%); military personnel in 11 countries (41%); firemen in 9 countries (33%); border control, educational staff, energy sector personnel in 7 countries (26%).
 - f. Other population groups:
 - i. Close contacts (cocooning strategy) of babies < 6 months of age in 12 countries (44%); cocooning strategy of household contacts of at risk

individuals in 9 countries (33%); residents of long term care facilities in 14 countries (52%).

5. Priority risk groups for vaccination:
 - a. Pandemic vaccination programmes were organised by offering vaccine first to priority groups in 22 countries (81%).
6. Pandemic vaccine product:
 - a. The most commonly used pandemic vaccine (by 20 countries) was Pandemrix (74%); 16 countries had only one vaccine product available to use (59%); three countries produced and used their own vaccine.
7. Pandemic vaccine procurement:
 - a. Twenty two countries purchased pandemic vaccine through national tendering process (81%); one country through regional tendering process; one from other EU/EEA country and three countries had a vaccine produced by national manufacturer.
 - b. Sixteen countries had Advanced Purchase Agreements (APA) (59%), eleven of them with one manufacturer (69%);
 - c. Eleven countries reduced the quantity of pandemic vaccine purchased in APA (69%); Vaccine manufacturer agreed to reduce vaccine quantity for nine countries (82%).
 - d. Excess vaccine not used during the programme was kept in reserve in 24 countries (at the time survey) (96%); four countries sold and seven countries donated pandemic vaccine to other countries;
8. Pandemic vaccination communication
 - a. Of the countries responding (n=26) all reported that they had specific information campaigns to communicate with the public (100%);
 - b. Additional information directed at pregnant women and for persons with medical conditions was reported by 69% and 73% of responding countries;
 - c. Media campaigns were sponsored in all countries by the public sector.
9. Pandemic vaccination concerns:
 - a. General scepticism among the general public and health professionals about the severity of the pandemic and the need for vaccination (especially for non-traditional groups) was reported in a majority of countries;
 - b. The vaccine licensing process, components used in the vaccines (novel adjuvants, thiomersal) caused some concern among the populations in approximately half of countries.
10. Pandemic vaccine payment and administration
 - a. Vaccine was free to all individuals in all 26 countries (100%);
11. Reasons for non vaccination
 - a. The most common reasons were mentioned as very important or slightly important factors were: lack of confidence of professionals in the vaccine or need for vaccination; doubts on vaccine efficacy and safety and pandemic severity; risk communication not clear and confident.

Reference List

[1] Statement by Dr Keiji FENuda on behalf of WHO at the Council of Europe hearing on pandemic (H1N1) 2009. World Health Organisation. http://www.who.int/csr/disease/swineflu/coe_hearing/en/index.html 2010 January 26

[2] VENICE website. 2009.

Ref Type: Online Source

[3] Mereckiene J, Cotter S, Nicoll A, et al. National seasonal influenza vaccination survey in Europe, 2008. *Euro Surveill* 2008 Oct 23;13(43).

[4] Mereckiene J, Cotter S, Weber JT, et al. Low coverage of seasonal influenza vaccination in the elderly in many European countries. *Euro Surveill* 2008 Oct 9;13(41).

Appendix: Questionnaire

**Vaccination coverage and policy
for influenza A (H1N1) 2009 pandemic
for 2009/2010 influenza season
in EU/EEA, 2010**

Country: _____

Gatekeeper/Respondent: _____

Contact email: _____

Contact phone number: _____

Questionnaire completion date _____

Persons name responsible for validating the transmission of data to
VENICE/ECDC* _____

Contact email: _____

Contact phone number: _____

Questionnaire validation date _____

*Member of Health Security Committee (HSC), Ministry of Health Official, Member who is nominated by HSC;

All questions in this questionnaire are related to the influenza A (H1N1) 2009 pandemic for 2009/2010 influenza season and all of them (except a few questions regarding regional vaccination) seek information on country level recommendations. In order to simplify questions we use the following terms in the questionnaire:

“*Pandemic influenza*” we refer to the influenza A (H1N1) 2009 pandemic;

“*Pandemic vaccine*” we refer to the pandemic influenza vaccine (H1N1) (monovalent, pandemic strain).

VACCINATION POLICY

Q.1. Did your country organise a vaccination programme against pandemic influenza?

Yes

No

Have only recommendations

Q.2. Did your country publish an official document (policy, guidelines) on the pandemic influenza vaccination programme at any time during pandemic?

Yes

No

Q.3. Did your country have different regional vaccination programme policies for pandemic influenza?

Yes

No

If yes, specify _____

Q.4. Which of the following organisations provided useful information which was used to develop vaccination policy/guidance/recommendations in your country?

	Risk and target groups	Priority groups	Available vaccines	Dosing of vaccine	Logistic o	Q & As
WHO						
EMA						
Drug manufacturer SPC*s						
ECDC						
Health Security Committee						
CDC						
All of them						
None of them						
Other						
Other, specify						

* Summary of product characteristics

Additional comment (specifying question it relates to) _____

VACCINATION COVERAGE AND ITS MONITORING

Q.5. Did your country measure/estimate vaccination coverage for pandemic vaccine?

- Yes
 No

Q.6. What method(s) did you use to evaluate the vaccination coverage? (tick all that apply) (check list)

Administrative methods

- Administered vaccine
 Vaccine sales (industry)
 Immunisation registry
 Patient (history) or insurance records
 No. of doses distributed (national purchaser)
 Other

Other, specify _____

Data sources for administrative method:

- Payment/reimbursement claims
 GP registries
 Hospitals
 Pharmacies
 Other

Other, specify _____

Survey methods

- Telephone (Computer assisted: CATI)
- Telephone (Not computer assisted: Not CATI)
- In person (face-to face)
- Distributed questionnaire (mail, email, handed out)
- Other

Other, specify _____

Q.7. If survey method used, what sampling strategy was used?

Non probability sampling

- Quotas
- Convenience
- Other

If other, please specify _____

Probability sampling (random)

- Simple random
- Systematic
- Stratified (assessment, LQAS*)
- Multistage
- Cluster (EPI)
- Other

Other, specify _____

*Lot Quality Assessment Sampling

Q.8. What was the sample size?

Number of respondents, specify _____

Q.9. What was response rate to the survey?

Specify (%) _____

Q.10. Were you able to measure the denominator of population groups recommended pandemic vaccine?

- Yes, for all
- Yes, for some
- No

Q.11. If denominator data are available for “all” or “some”, please indicate from the following list data sources which were available for vaccination coverage measurement: (tick all that apply) (check list)

Age groups

- Census data
- Data not available
- Other

Other, specify _____

At risk groups

- Chronic diseases registries
- Hospital admissions
- GP visits

- Prescription data
- Data not available
- Other

Other, specify _____

Pregnant/postpartum women

- Number of births
- Antenatal registries
- Other

Other, specify _____

Occupational groups

- Employer
- Labour Union
- Labour statistics
- Other

Other, specify _____

Q.12. Please indicate estimated/measured vaccination coverage data for following groups (regardless of recommendations) where data are available:

(If there is work underway and data are not yet available, please choose appropriate answer)

***At risk** – we refer in this survey to an underlying/medical condition which increases the risk of severe influenza infection and its complications listed below.

Entire population

Vaccination coverage (%) _____

- Data not available
- Data will be available later (detail when and who by) _____

Health Care Workers

Vaccination coverage (%) _____

- Data not available
- Data will be available later (detail when and who by) _____

Pregnant/post partum women (up to 6 weeks after delivery)

Vaccination coverage (%) _____

- Data not available
- Data will be available later (detail when and who by) _____

Healthy children

Specify age group covered _____

Vaccination coverage (%) _____

- Data not available
- Data will be available later (detail when and who by) _____

Children at risk*

Specify age group covered _____

Vaccination coverage (%) _____

- Data not available
- Data will be available later (detail when and who by) _____

Adults at risk:

Specify age group covered _____

Vaccination coverage (%) _____

- Data not available
- Data will be available later (detail when and who by) _____

Healthy adults:

Specify age group covered _____

Vaccination coverage (%) _____

- Data not available
- Data will be available later (detail when and who by) _____

Those other > 65 at risk

Vaccination coverage (%) _____

- Data not available
- Data will be available later (detail when and who by) _____

Those at risk > 6 months and older (adults and children together)

Vaccination coverage (%) _____

- Data not available
- Data will be available later (detail when and who by) _____

Q. 13. Please indicate estimated/measured vaccination coverage data for any other targeted population not covered in the section above:

Please indicate population _____

Vaccination coverage (%) _____

- Data will be available later (detail when and who by) _____

Please indicate population _____

Vaccination coverage (%) _____

- Data will be available later (detail when and who by) _____

Please indicate population _____

Vaccination coverage (%) _____

- Data will be available later (detail when and who by) _____

Additional comment (specifying question it relates to) _____

INDIVIDUALS RECOMMENDED VACCINATION BY AGE GROUPS

Q.14. Which age groups among healthy children* and adults were recommended pandemic vaccine at any time during the vaccination programme?**

(tick all that apply) (check list)

*Healthy children in this survey are defined as children aged 6 months <18 years who do not suffer from any other chronic medical conditions.

**Healthy adults individuals aged \geq 18 years who do not suffer from any other chronic medical conditions .

Children

- Not recommended for healthy children of any age
- Recommended for all children \geq 6 months - <18 years
- Recommended \geq 6 months – 1 year
- Recommended >1 year – 2 years
- Recommended >2 years – 3 years
- Recommended >3 years – 4 years
- Recommended >4 years – 5 years
- Recommended >5 years – 6 years
- Recommended >6 years – 7 years
- Recommended >7 years – 8 years

- Recommended >8 years – 9 years
- Recommended >9 years – 10 years
- Recommended >10 years – 11 years
- Recommended >11 years – 12 years
- Recommended >12 years – 13 years
- Recommended >13 years – 14 years
- Recommended >14 years – 15 years
- Recommended >15 years – 16 years
- Recommended >16 years – 17 years
- Recommended >17 years – <18 years
- Other: From ____ months to ____ months
- Other: From ____ years to ____ years
- Other: From ____ years to ____ years
- Other: From ____ years to ____ years

Adults

- Not recommended for healthy adults of any age
- Recommended for all adults ≥ 18 years old
- ≥ 18 years – 20 years
- >20 years – 30 years
- >30 years – 40 years
- >40 years – 50 years
- >50 years – 55 years
- >55 years – 60 years
- >60 years – 65 years
- ≥ 65 years
- Other: From ____ years to ____ years
- Other: From ____ years to ____ years
- Other: From ____ years to ____ years

Q.15. Was the pandemic vaccine recommended for the entire population in your country?

- Yes
- No

Additional comment (specifying question it relates to) _____

GROUPS AT RISK RECOMMENDED VACCINATION

Q. 16. Specify which of the following chronic diseases and conditions were considered as indications for pandemic vaccine? (tick all that apply) (check list)

- Chronic respiratory diseases
- Chronic cardiovascular diseases
- Chronic neurological or neuromuscular conditions
- Chronic metabolic disorders (and/or including diabetes)
- Hematologic disorders
- Chronic renal diseases
- Chronic hepatic diseases
- Haemoglobinopathies/sickle cell disease
- Persons with non-HIV immune deficiency disorders or taking immunosuppressive medication

- HIV/AIDS
- Any condition compromising respiratory function
- Individuals with severe obesity (BMI >40)
- Pregnancy
- All of the above
- Other

Other, specify _____

Q.17. For at risk children and adults specified above was vaccine recommendation limited to the certain age groups?

- Yes
- No

If yes, specify _____

Additional comment (specifying question it relates to) _____

PREGNANCY RELATED VACCINATION

Q.18. Was the pandemic vaccine recommended for healthy pregnant women?

- Yes. Recommended for healthy pregnant women without other risk
- No. There was a specific recommendation AGAINST vaccination if pregnant
- There was no recommendation regarding vaccination if pregnant
- Other

Other, specify _____

Q.19. If yes (recommended), please indicate stages of pregnancy or post partum at which vaccine was recommended for healthy pregnant or post partum women (not otherwise qualified as at risk)? (tick all that apply) (check list)

- Any trimester
- Either 2nd or 3rd trimester
- Postpartum, if not vaccinated during pregnancy (up to 6 weeks after delivery)
- Other

Other, specify _____

Q.20. Was the pandemic vaccine recommended for pregnant women who were otherwise qualified as at risk?

- Recommended for those otherwise qualified as at risk
- Not recommended for pregnant women otherwise qualified as at risk
- There is no recommendation regarding vaccination if pregnant and otherwise qualified as at risk
- Other

Other, specify _____

Q.21. If yes, please indicate stage of pregnancy or post partum at which vaccine was recommended for pregnant or post partum women who were otherwise qualified as at risk? (tick all that apply) (check list)

- Any trimester
- Either 2nd or 3rd trimester
- Postpartum, if not vaccinated during pregnancy (up to 6 weeks after delivery)
- Other

Other, specify _____

Additional comment (specifying question it relates to) _____

INDIVIDUALS BY OCCUPATIONAL GROUPS

Health Care Workers

Q. 22. Which groups of Health Care Workers were recommended pandemic vaccine during the vaccination programme? (tick all that apply) (check list)

- Staff with close contact with patients
- Staff with no contact with patients, but contact with potentially contaminated material (e.g., laundry, laboratory)
- Staff without close contact with patients or contaminated material
- Not recommended at all
- Recommended to all Health Care Workers
- Other

Other, specify _____

Other occupation groups targeted

Q.23. Which staff in the following occupations were recommended pandemic vaccine during the vaccination programme? (tick all that apply) (check list)

- Police
- Firemen
- Military staff
- Public transport personnel
- Border control staff
- Immigration/ custom staff
- Energy sector personnel
- Finance and banking sector staff
- Airline workers
- Field workers who investigate outbreaks of influenza in animals
- Field workers who investigate outbreaks of human influenza
- All above
- None of them
- No specific recommendation
- Other

Other, specify _____

Additional comment (specifying question it relates to) _____

OTHER GROUPS

Q.24. Was the pandemic vaccine recommended for household* contacts of babies under 6 months of age (cocooning strategy)?**

- Recommended
- No specific recommendation
- Recommended not to get

* **Household contacts** is defined as individuals who share living accommodation on most days over the whole pandemic period and therefore continuing close contact is unavoidable.

**** The concept of “cocooning”**

Children younger than 6 months of age have little if any immunity to influenza for the first 12 months of life if their mothers were not vaccinated during pregnancy and are at higher risk of influenza-related complications and cannot be vaccinated. To ensure protection for the baby, immediate household contacts (representing its cocoon) are vaccinated against influenza so they won't transmit the virus to the baby.

The same concept applies to the immunocompromised persons (e.g., patients with hematopoietic stem cell transplants) since the immune response to the vaccine may be inadequate, vaccination of contacts (household members, health care workers, and other individuals) is recommended.

Q.25. Was the pandemic vaccine recommended for household contacts of at risk individuals (cocooning strategy)?

- Recommended
- No specific recommendation
- Recommended not to get

Q.26. Was the pandemic vaccine recommended for staff in charge of care of young children (preschool centers, kindergarten/crèche)?

- Recommended
- No specific recommendation
- Recommended not to get

Q.27. Was the pandemic vaccine recommended for staff working in primary/secondary schools?

- Recommended for staff of primary and secondary schools
- Recommended only for staff of primary schools
- Recommended only for staff of secondary schools
- Recommended not to get in primary and secondary schools
- No specific recommendation

Q.28. Was the pandemic vaccine recommended for residents of long term care facilities?

- Recommended for all residents
- Recommended, only for those aged ≥ 65 in long term facilities
- Recommended only for persons with physical or mental disabilities
- No specific recommendation
- Recommended not to get
- Other

Other, specify _____

Additional comment (specifying question it relates to) _____

PRIORITY RISK GROUPS* FOR VACCINATION

Q.29. Please indicate the date when pandemic influenza vaccine was available for use in your country?

Date _____ (month and year if exact date unknown)

Q.30. Was the pandemic influenza vaccination programme organised according to priority groups which were eligible for vaccination in different phases as vaccine became progressively more available*?

- Yes
- No

***Priority risk groups** for pandemic vaccine is defined in this survey as groups who were recommended and offered vaccine as first priority to protect individuals in these groups from severe influenza infection and its complications or to avoid transmission of influenza to vulnerable individuals due to limited availability of vaccine at the time when vaccine became available.

Q.31. If yes, please choose the phase, indicate the priority group(s) and date when vaccination started/finished:** *If end date not available (phase is ongoing) please insert the code 'CONT' at the place of the year. If date is unknown please insert 'dummy' date: 01/01/1970.*

**If dates, when vaccination started/finished were different for each group, please indicate these dates, for each group if it's available; if these dates were the same for all groups for the same phase please enter the same date for each group.

Phase	Priority group(s):	Specify details for age, at risk or other groups	Date started	Date started unknown	Date finished	Date finished unknown	Ongoing
Phase 1							
	<input type="checkbox"/> Age groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> At risk groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Health Care Workers		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Cocooning strategy		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Pregnant women		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Other groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
Phase 2							
	<input type="checkbox"/> Age groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> At risk groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Health Care Workers		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Cocooning strategy		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Pregnant women		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Other groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
Phase 3							
	<input type="checkbox"/> Age groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> At risk groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Health Care Workers		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Cocooning strategy		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Pregnant women		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>

			YYYY		YYYY		
	<input type="checkbox"/> Other groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
Phase 4							
	<input type="checkbox"/> Age groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> At risk groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Health Care Workers		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Cocooning strategy		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Pregnant women		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Other groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
Phase 5							
	<input type="checkbox"/> Age groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> At risk groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Health Care Workers		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Cocooning strategy		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Pregnant women		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Other groups		DD/MM/YYYY	<input type="checkbox"/>	DD/MM/YYYY	<input type="checkbox"/>	<input type="checkbox"/>

Q.32. When will (or did) pandemic influenza vaccination programme finish in your country?

Date _____ (month and year if exact date unknown)

Continuing as of _____ (date survey completed)

Additional comment (specifying question it relates to) _____

VACCINE TYPE AND NUMBER OF DOSES USED

Q.33. Please indicate vaccine product and proportion of total (must add up to 100%) purchased in your country: (tick and specify all that apply)

Celvapan _____ (%)

Pandemrix _____ (%)

Focetria _____ (%)

Other _____ (%)

Other, specify _____

None

Estimation unknown

Q.34. Please indicate vaccine product and proportion of total (must add up to 100%) used in your country: (tick and specify all that apply)

Celvapan _____ (%)

Pandemrix _____ (%)

Focetria _____ (%)

Other _____ (%)

Other, specify _____

None

Estimation unknown

Q.35. Was there a specific pandemic vaccine that was recommended for pregnant women (e.g. adjuvanted versus non adjuvanted; thiomersal containing versus thiomersal free)?

Yes

No

If yes, please specify which specific vaccine(s) and why they were recommended

Q.36. Was a specific pandemic vaccine recommended for any other at risk or target group (e.g. adjuvanted versus non adjuvanted; thiomersal containing versus thiomersal free)?

Yes

No

If yes, please specify which group, what specific vaccine and why it was recommended

Q. 37. Please specify if number of doses recommended was different for different age or at risk groups (e.g. children 6 months - 9 years – two doses; >10 years – one dose) and if recommended number of doses changed as new information become available?

Age, at risk or other group if number of doses was different (tick all that apply)	Specify	Two doses	One dose	Number of doses changed following new information	If yes, specify changes:
<input type="checkbox"/> Age groups		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
<input type="checkbox"/> At risk groups		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
<input type="checkbox"/> Health Care Workers		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)

					To _____ dose(s)
<input type="checkbox"/> Cocooning strategy		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
<input type="checkbox"/> Pregnant women		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
<input type="checkbox"/> Other groups		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)
		<input type="checkbox"/>	<input type="checkbox"/>	Yes/No	From _____ dose(s) To _____ dose(s)

Q.38. For group(s) recommended two doses of pandemic vaccine were you able to identify the number of people vaccinated with 1 or 2 doses?

- Yes
- No
- Not applicable

If yes, specify group and what percent received one and two doses:

Specify group _____

Two doses _____ (%)

One dose _____ (%)

Specify group _____

Two doses _____ (%)

One dose _____ (%)

Specify group _____

Two doses _____ (%)

One dose _____ (%)

Additional comment (specifying question it relates to) _____

VACCINATION SITES

Q.39. What were the principal outlets for pandemic influenza vaccination programme? (tick all that apply) (Check list)

- Primary health care settings (General Practitioners)
 - Hospital settings
 - Outpatient care clinics
 - Occupational health services

- Vaccination in other health service setting for general public
 - Mass vaccination clinics for students in schools, for children in kindergartens/crèches
 - Other mass vaccination sites (conducted in community settings, not medical) for general public
 - Other
- Other, specify _____

Q. 40. Were special mass vaccination venues organised specifically for pandemic influenza vaccination programme?

- Yes
- No

If yes, specify _____

Q.41. Please indicate the estimated percentage (must add up to 100%) of pandemic vaccine delivered in:

- Public sector _____ (%)
- Private sector _____ (%)
- Unknown

Q.42. Please indicate the estimated percentage (must add up to 100%) of pandemic vaccine administered in:

- Public sector _____ (%)
- Private sector _____ (%)
- Unknown

Additional comment (specifying question it relates to) _____

IMPACT ON ROUTINE SERVICES

Q.43. To what extent did the vaccination programme for pandemic influenza implemented in your country have a significant negative impact on routine services? (tick all that apply) (check list)

- No noticeable impact on routine services. Programme was managed within routine available resources
 - Minimal impact on routine services. Most routine services continued as per normal using routinely available resources
 - Moderate impact on routine services. Required recruitment of additional resources to maintain routine services
 - Marked impact on routine services, as staff had to be redeployed to undertake vaccination programme. Many non-essential routine services were suspended or deferred during vaccination programme
 - Other
- Other, specify _____

Q.44. Was there regional variation on services impacted as a result of the pandemic influenza vaccination programme?

- Impact on services was similar across regions
- Impact on services varied by region
- Other

Other, specify _____

Additional comment (specifying question it relates to) _____

VACCINATION COMMUNICATION

Communication with public

Q.45. Did your country prepare a specific information campaign to inform the following groups about pandemic vaccination?

- a. General public Yes No
b. Pregnant women Yes No
c. Persons with chronic medical conditions Yes No
d. Other groups Yes No

(If yes, please specify: _____)

Q.46. If yes, which of the following did your country use to inform these groups? (tick all that apply) (check list)

- Radio
 TV
 News papers
 Leaflets
 Posters
 Website
 All of them
 Other

Other, specify _____

Q.47. If yes, who sponsored the media campaigns for public for pandemic influenza vaccination programme? (tick all that apply) (check list)

- National/regional health authorities
 Pharmaceutical sector
 Public service announcement*
 Other

Other, specify _____

* Advertisement content and production is provided by government or industry, including national health authority, with air time (radio, TV) or space (newspapers, magazines) provided by media company at no charge.

Q.48. Please select from the following list any particular public concerns related to pandemic vaccine either at the beginning or during vaccination programme that in your opinion significantly affected campaign? (tick all that apply) (check list)

- Thiomersal
 Adjuvanted vaccines
 Accelerated licensing process
 Mock-up vaccine approach
 General scepticism regarding need for vaccination
 Disagreement or scepticism with recommendation for non-traditional groups to be vaccinated

Vaccination of Pregnant women

Other

Other, specify _____

Additional comment (specifying question it relates to) _____

Communication with health professionals

Q.49. Did your country prepare a specific information campaign for health professionals about pandemic vaccination?

- Yes
- No

Q.50. If yes, which of the following did your country use for health professionals? (tick all that apply) (check list)

- Radio
 - TV
 - News papers
 - Leaflets
 - Posters
 - Website
 - All of them
 - Professional medical societies
 - National medical publication
 - Other
- Other, specify _____

Q.51. Please select from the following list any particular health professionals' concerns related to pandemic vaccine either at the beginning or during vaccination programme that in your opinion significantly affected campaign? (tick all that apply) (check list)

- Thiomersal
 - Adjuvanted vaccines
 - Accelerated licensing process
 - Mock-up vaccine approach
 - General scepticism regarding need for vaccination
 - Disagreement or scepticism with recommendation for non-traditional groups to be vaccinated
 - Vaccination of pregnant women
 - Other
- Other, specify _____

Q.52. Did your country prepare communication materials to respond to concerns voiced by the health professionals during the course of pandemic influenza?

- Yes, regular updates and responses
- Yes, infrequent updates and responses
- No

If yes, how was this done? Please specify _____

Q.53. Will/was the communications for health professionals (be) formally evaluated?

- Yes already done
- Not yet, but planned
- None planned
- Evaluation is on-going
- Other

Other, specify _____

If completed, what improvements were recommended?

Additional comment (specifying question it relates to) _____

PAYMENT AND ADMINISTRATION FOR VACCINES

Q.54. Was pandemic vaccine free for all individuals who were recommended vaccine?

- Yes, vaccine was free for all Go to Q. 55.
- No, vaccine was free for some Go to Q. 56.
- Other
- Other, specify _____

Q.55. Was the same payment scheme applied for the public and the private health sector?

- Yes, scheme was the same in both sectors
- No, approach was different

If “No”, specify _____

Q.56. If pandemic vaccine was not free to all, what was the cost to persons being vaccinated in the following groups? (check list)

Not applicable in this section means that this group was not targeted for vaccination.

- Healthy children, specify age group** _____
- Free for all
- Free for some
- Partly funded for all
- Full cost paid by recipient
- Not applicable
- Other

Other, specify _____

- Children at risk, specify age group** _____
- Free for all
- Free for some
- Partly funded for all
- Full cost paid by recipient
- Not applicable
- Other

Other, specify _____

- Adults at risk, specify age group** _____
- Free for all
- Free for some
- Partly funded for all
- Full cost paid by recipient
- Not applicable
- Other

Other, specify _____

- Healthy adults, specify age group** _____
- Free for all

- Free for some
- Partly funded for all
- Full cost paid by recipient
- Not applicable
 - Other

Other, specify _____

At risk population \geq 6 months and older (children and adults together)

- Free for all
- Free for some
- Partly funded for all
- Full cost paid by recipient
- Not applicable
 - Other

Other, specify _____

Pregnant women

- Free for all
- Free for some
- Partly funded for all
- Full cost paid by recipient
- Not applicable
 - Other

Other, specify _____

Health Care Workers

- Free for all
- Free for some
- Partly funded for all
- Full cost paid by recipient
- Not applicable
 - Other

Other, specify _____

Other occupational groups targeted*

*As indicated in the Q.16.

- Free for all
- Free for some
- Partly funded for all
- Full cost paid by recipient
- Not applicable
 - Other

Other, specify _____

Please specify other groups for whom pandemic vaccine was recommended and choose appropriate cost for that group _____

- Free for all
- Free for some
- Partly funded for all
- Full cost paid by recipient
- Not applicable
 - Other

Other, specify _____

Please specify other groups for whom pandemic vaccine was recommended and choose appropriate cost for that group _____

- Free for all
- Free for some
- Partly funded for all
- Full cost paid by recipient
- Not applicable

Other

Other, specify _____

Additional comment (specifying question it relates to) _____

INFORMATION SYSTEMS (IS) CAPACITY

Q.57. What information systems were used to monitor pandemic vaccine administered in your country?

- No IS in the country at all for vaccination status
- Pre-existing individual based vaccination IS was used with no or minimal modification
- Pre-existing individual based vaccination IS was used following moderate to major modification
- Specifically designed individual based vaccine IS was developed and used
- It was not possible to collect individual based vaccine information

Other

Other, specify _____

Additional comment (specifying question it relates to) _____

VACCINE PROCUREMENT

Q.58. How was the pandemic vaccine purchased or obtained? (check list)

- No vaccine purchased
- Through national tender process
- Through regional /local tender process
- Insurance company purchase
- Private purchase with insurance reimbursement
- Vaccine donated
- Vaccine produced by national manufacturer
- Vaccine purchased from other EU/EEA country
- Other

Other, specify _____

Q.59. What was the total number of doses of the pandemic vaccine purchased or donated in your country?

No. doses purchased _____

No. doses donated _____

Unknown

Q.60. What was the total number of doses of the pandemic vaccine distributed in your country?

No. doses distributed _____

Unknown

Q.61. Did your country have an Advanced Purchase Agreement (APA) (contract/bids) in place prior to start of pandemic influenza?

- Yes
 No

If, yes with how many manufacturers? Please specify _____

Q.62. Did your country try to reduce the quantity of pandemic vaccine purchased in the APA during pandemic influenza?

- Yes
 No

Q.63. If yes, did vaccine manufacturer agree?

- Yes
 No

Q.64. What did your country do with the excess of pandemic vaccine? (tick all that apply) (check list)

- Did not have vaccine at all
 Sold to other countries
 Donated to other countries
 Kept in reserve
 Disposed/Destroyed
 Other

Other, specify _____

Q.65. If vaccine was sold or donated please indicate where the vaccine was distributed?

- Distributed only within EU/EEA
 Distributed only outside EU/EEA
 Distributed both: within and outside EU
 Other

Other, specify _____

Q.66. By the end of the vaccination campaign had your country received sufficient vaccine supplies to meet your requirements?

- Yes
 No

Additional comment (specifying question it relates to) _____

REASONS FOR NON VACCINATION

Q.70. What were the principal reasons people declined vaccination in risk groups and other target groups in your country?

	1 Very important factor	2 Slightly important factor	3 Not of particular importance	4 Not of any importance at all
Cost of vaccine to individual				
Cost of vaccine administration to individual				
Lack of information about vaccination programme				
Lack of confidence of professionals in the vaccine or				

need for vaccination				
Difficult to access vaccination sites				
Doubts on vaccine efficacy				
Doubts on vaccine safety				
Doubts on severity of pandemic				
Too much bureaucracy in the campaign				
Risk communication not clear and confident				
Anthroposophy objection				
Religious objection				
Other anti-vaccine group, specify				
Other, specify				
Other, specify				
Other, specify				

Q.71. On what information have you based your response to the question above? (check list)

- Subjective impression based on media reports
- Subjective opinion based on feedback from those working in the area
- Subjective opinion based on feedback from members of the public
- Response was based on quantitative data
- Other

Other,specify _____

If quantitative, what data was used to inform your response? (surveys, focus groups, other), specify _____

Additional comment (specifying question it relates to) _____

MONITORING FOR ADVERSE EVENTS FOLLOWING VACCINATION(AEFI)

Q72. Does your country have a surveillance system to identify Adverse Events Following Immunization (AEFIs) with H1N1 influenza vaccine? Yes No

VACCINE DEPLOYMENT ASSESSMENT

Q.73a Which if any activities(e.g social mobilization, AEFI monitoring, vaccination of specific target groups) from your deployment and vaccination plan were not implemented?

b. Please indicate the reasons for these activities not being implemented.

Q.74a. In a future influenza pandemic, how would you improve the management of vaccination strategy?

What would you do differently in the implementation of your plan and why?
