Barriers and drivers of seasonal influenza vaccination coverage in the EU

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National Influenza schedule in Europe (www.ecdc/vaccine scheduler)

National vaccination schedules are subject to change. Please feel free to inform us of such changes to the Vaccine Preven
Disease Programme at: vpd@ecdc.europa.eu. All general enquiries can be sent to info@ecdc.europa.eu.

This tool was developed by the European Centre Disease Prevention and Control with the Groupe d'Etudes en Preventolog

Vaccine schedule platform

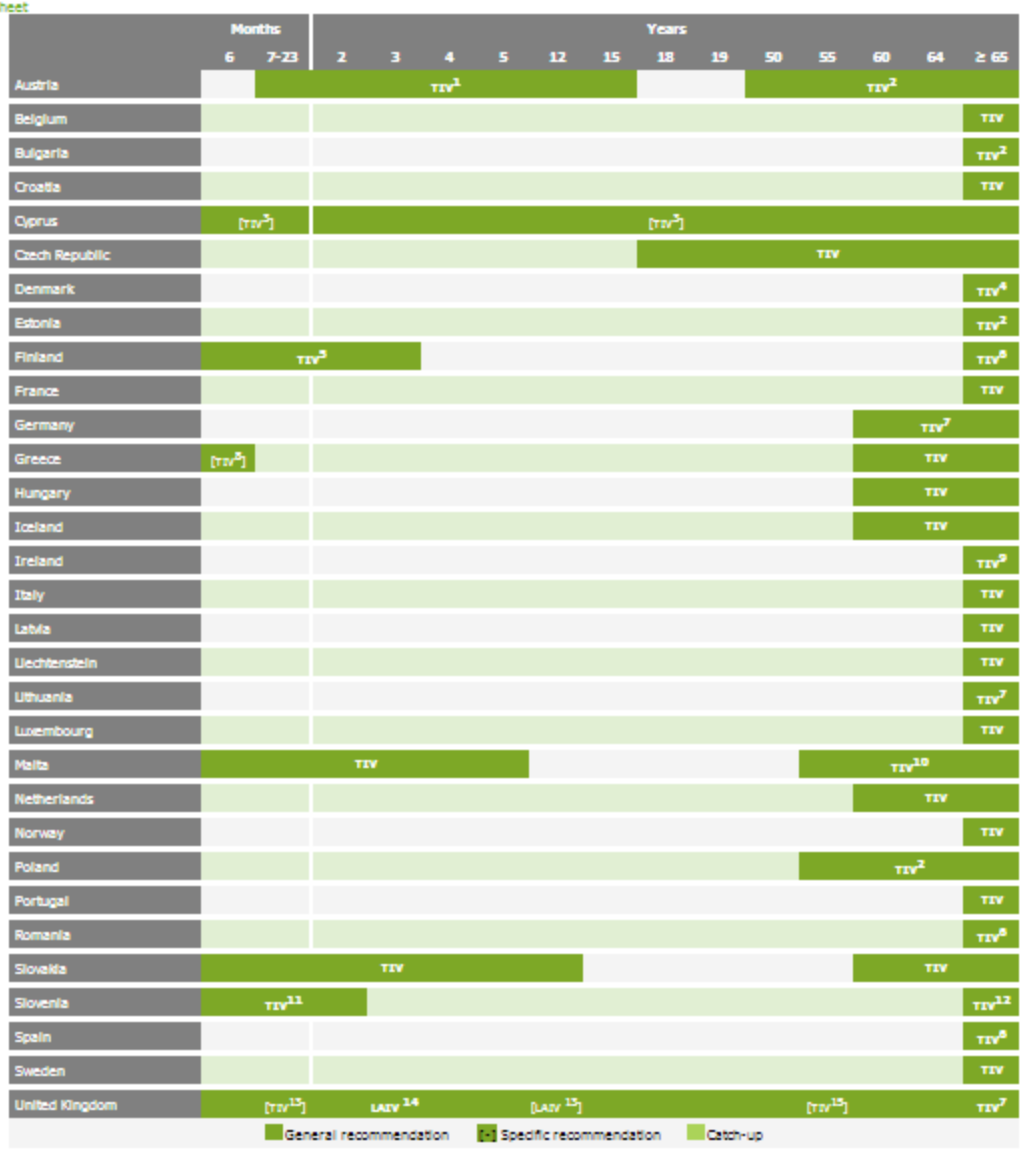
View national immunisation schedules | View immunisation schedules by target disease

Disease: Influenza

Refresh calendar | Advanced search

Recommended immunisations for influenza

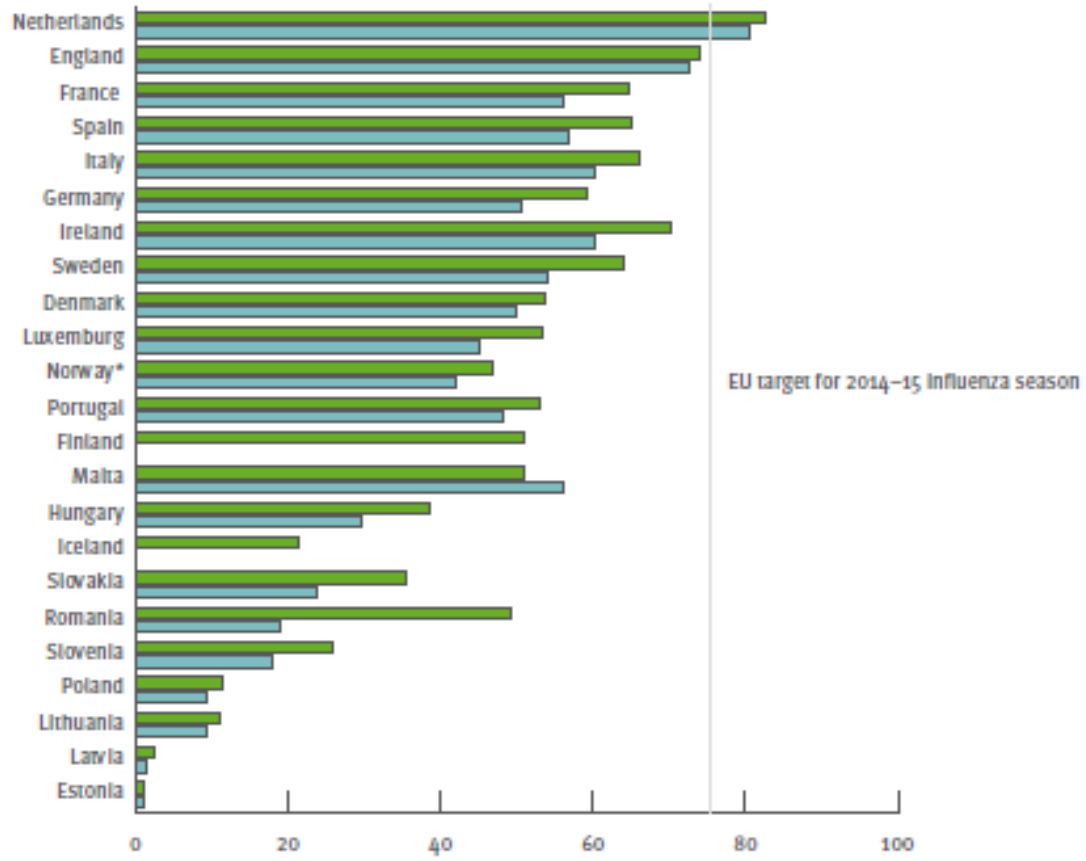
Export as spreadsheet



Footnotes

Influenza vaccination coverage in Europe (VENICE Study)

Figure 2.1.4. Reported seasonal influenza vaccination coverage (%) in the older population in 23 EU/EEA Member States for 2008–2009 and 2010–2011 influenza seasons



Annual epidemiology report 2011-2012, ECDC

Couverture vaccinale grippe en France (InVS)

Couverture vaccinale anti-grippale dans les populations cible						
	2008		2009		2010	
	Couverture	IC95%	Couverture	IC95%	Couverture	IC95%
65 ans et plus	62,7%	58,9-66,4	62,6%	58,1-67,0	61,0%	56,7-65,0
< 65 ans en ALD-grippe	33,6%	26,2-42,0	35,5%	28,0-43,8	46,6%	39,7-53,6

Couverture vaccinale grippe, professionnels de santé, InVS

Couverture vaccinale grippe chez les professionnels de santé					
2008-2009		2009-2010		2010-2011	
Couverture	IC95%	Couverture	IC95%	Couverture	IC95%
24,9%	17,9-33,5	33,9%	25,4-43,6	27,6%	21,3-34,9

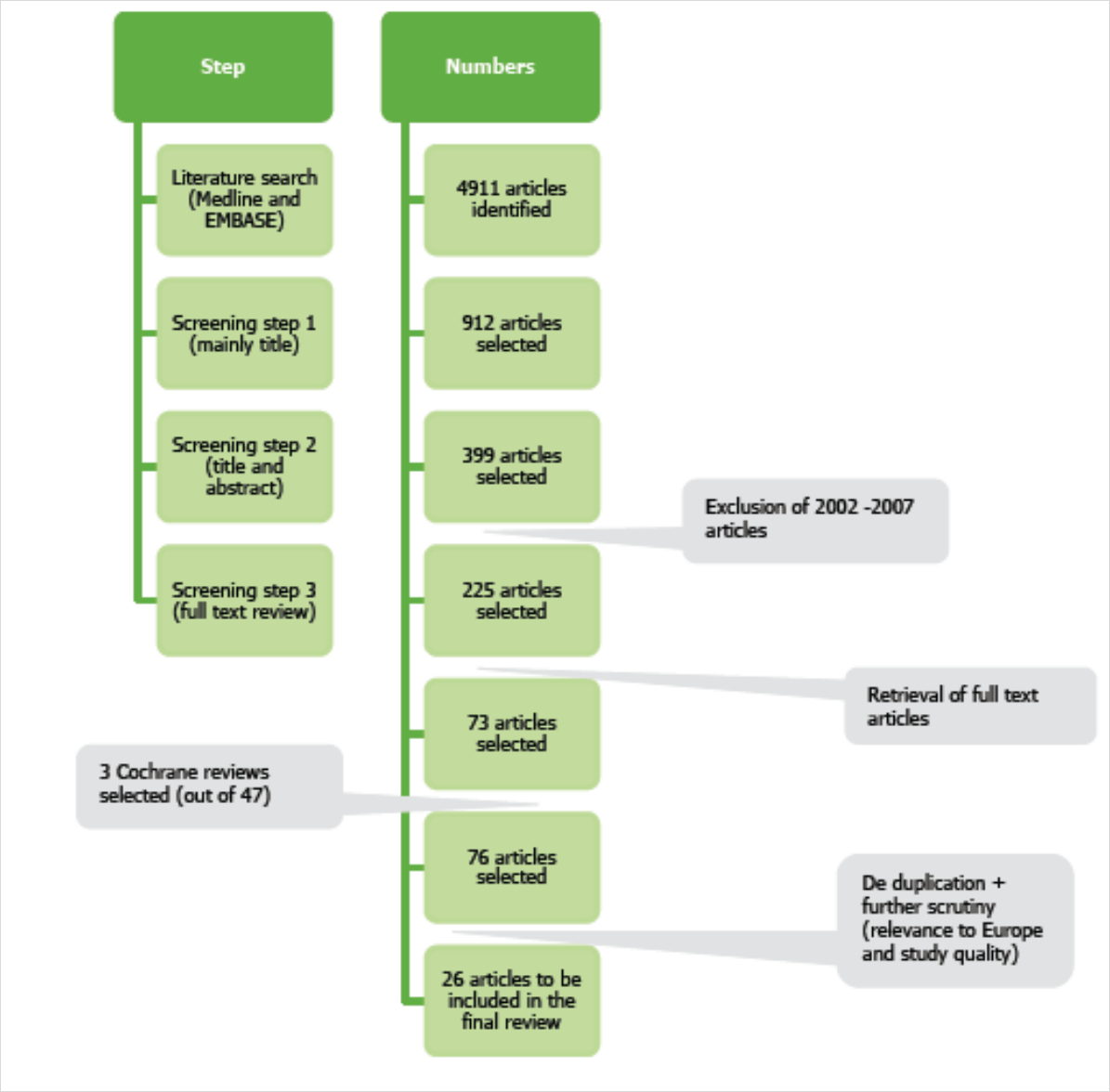
Key questions on the barriers of seasonal influenza vaccination coverage in Europe

- Drivers for increased seasonal flu vaccination coverage in the risk/target groups?
- Improvement of current low rates of healthcare workers'influenza vaccination?
- Good practice that increase vaccination uptake in all groups?

Methodology

- Review Literature on specific risk groups
  - Older age groups: 19/28 countries: ≥ 65 Y.
  - Pregnant women: 19/28 countries
  - Children (< 2Y, < 5Y): 7 countries
  - Healthcare workers
  - Individuals over 6 months of age with chronic medical conditions:
    - Chronic respiratory diseases,
    - Persons with a compromised respiratory function
    - Chronic cardiovascular diseases
    - Chronic metabolic conditions
    - Chronic renal and hepatic diseases
    - Persons with acquired of congenital immunodeficiency
    - Persons with morbid obesity:

Review of scientific literature on barriers of seasonal influenza vaccination coverage in EU (1946-2012)



Interventions to increase flu vaccination in the Elderly people

Design Study	Intervention	Grade of evidence/ Results
Cochrane Systematic review (Thomas et al. (Vaccine 2010) 44 RCT : US (25), Canada (7), Australia (4), UK (4), Denmark (1), Spain (1), Puerto Rico (1), New Zealand (1) 21 RCT 2 RCT	<u>Increasing community demand</u> -Reminders participants (postcard, letter, personalized phone calls) -Educating participants + offer vaccination	Low grade Positive effects: 9/21 OR= 1,61 (1,49-1,74) Very Low grade OR 3,20 (1,91-5,66)
2RCT	<u>Increasing access</u> -Home visits -Free vaccines	Moderate grade OR: 1,3 (1,05-1,61)

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4 RCT	-Reminders to physicians	1/ 4 RCT : OR= 3,79 (2,31-5,55)
4 RCT	- Facilators within the clinics (good pratices, visit of facilitators)	¾ RCT : OR=2,11 (1,27-3,49), to 292,81 (18,16-4721)
3 RCT	- Education and feedback to physician	1/ 3 RCT : OR= 3,43 (2,37-4,97)

Interventions to increase flu vaccination in the Elderly people

Design study	Intervention	Grade of evidence/ Results
1 RCT= 84 community Pharmacies (Usami et al., J Pharmaceutical Society Japan 2009)	Impact of community pharmacists	High grade Positive effects Uptake 8,7% (95 CI= 2,2-15,2%)
Case control (11 European countries) Onder et al., 2008 J Am Med Dir Association: N= 4007 elders + Control UK: Dexter et al.,BMJ Open 2012 N= 795 GP	<u>Increasing access:</u> Interdisciplinary team with a Case manager (planning flu campaign,sending personal invitation, producing performance report)	OR= 2,08 (1,81-2,39) OR= 1;45 (1,1- 1,92)
Cross sectional survey Italy N= 25 183 Chiatti et al., 2011, BMC Public Health	Socioeconomic determinants (use of health care)	Highest rates ≥ 85 Y. OR= 1,99 (1,77-2,21) Suffering from chronic conditions: OR= 2,06 (1,9-2,24)

Interventions to increase flu vaccination in the people with chronic conditions

Design of studies	Intervention	Grade of evidence/ Results
1RCT Walter et al., J Clin Out management, 2008 (USA) (N= 8912 first year, 8355 next year)	Asthmathic patients (children, adults) Reasons for not getting the vaccine <u>Increasing demand to asthmathic patients</u> <u>Increasing access</u>	Low quality - Misperceptions about flu caused by vaccine (adults : 48 %, children 39%) and fear of side effects - No impact of educational message +postcard reminder - Impact of medical insurance and age > 65 Y

Interventions to increase flu vaccination in the people with chronic conditions

Design of studies	Intervention	Grade of evidence/ Results
2 RCT Esposito et al. Vaccine 2009 (N= 285) Fiks et al., Pediatrics 2009 N= 10667 first year, 11919 next year)	<u>Increasing demand in asthmatic patients</u> -Reminders participants (postcard, letter, personalized phone calls) + vaccination in same clinic or another clinic <u>Provider</u> Electronic health reminders alerts to physicians	Best rates of increased coverage to 10 to 21% Very Low grade OR 3,20 (1,91-5,66) Increase in uptake: 4% (-1,3, 9,1%)

Interventions to increase flu vaccination in the people with chronic conditions

Design of studies	Intervention	Grade of evidence/ Results
Cross sectional + survey Dexter et al., BMJ Open 2008 UK	Identification of pratices strategies associated with high flu vaccination (pratice managers, nurses, GP)	- Staff member planning the flu campaign and production of written report of pratice performance : OR : 1,37 (1,1-1,71) 8 % Increase for patients < 65 Y. - Sending personal invitation to elligible patients : OR= 1,45 (1,1- 1,92), 7 % Increase, patients > 65Y

Interventions to increase flu vaccination in the people with chronic conditions

Design of studies	Intervention	Grade of evidence/ Results
Cross sectional + survey Blank, 2009 (UK, Germany, Italy, France, Spain)	Tel ITW: 10.009 participants (2.000/per country) 7 seasons flu : 2001/2002 to 2008/2009	Reasons for vaccination: advice from family doctor (58%) Perception of influenza as a serious illness (52%) Reasons for not be vaccinated: Not being to catch influenza (39,5%) Never having considered the option of being vaccinated (35,8%)

Interventions to increase flu vaccination in the pregnant women

Flu vaccine coverage:

- Romania: 3,6%
- England: 56,6% (High risk)
  36,6% (Healthy)

Interventions to increase flu vaccination in the pregnant women

Design of studies	Intervention	Grade of evidence/ Results
No RCT Cross sectional studies Audits of clinical data Mouzoon et al. Am J Managed Care, 2010 USA,	N= 20 233	Reasons for not be vaccinated: - Concern about risk to unborn baby - Concern about risk to self - Concern about safety and efficacy of vaccines - Lack of availability of vaccine - Lack of inconsistent advice/offer from healthcare professional
	<u>Providers</u> Improvement of knowledge, guidelines on pratices)	Interventions with positive effects: - Assessment of baseline immunisation rates for each obstetrician's pregnant population - Encourage immunization in pregnancy by all immunization providers (primary care physicians, immunization nurses) - Training on vaccinations by obstetric nurses (best guidelines)

Interventions to increase flu vaccination in the pregnant women

Design of studies	Intervention	Grade of evidence/ Results
Cross sectional studies Panda et al. J Maternal fetal & Neonatal Medicine 2011 (USA) N= 520 pregnant women	<u>Increasing community demand:</u> - Information participants (distribution posters in offices offering prenatal care) <u>Increasing access:</u> availabily of vaccine <u>Providers</u> Staff education and information	Bias: no control Increasing vaccination rate from 19% to 31%
Repeat cross-section Mc Carthy et al. Australian & New Zealand J Obstetrics & Gynecology (Australia) N=212 first year, N=240 2nd year	Staff education Patient information	- Bias: no control - 2010: 30% - 2011: 40%

Interventions to increase flu vaccination in the Healthcare workers

Design of studies	Intervention	Grade of evidence/ Results
Cochrane Review Lam et al. 2010 (Canadian Medical Association Journal) 12 studies conducted in the USA, Canada, UK, Germany, France)	<u>Combined interventions</u> Education and improved access to vaccine Education and access and legislation and role model	RR: 1,2-2,43 Personal ITW of the HCW with a member od the sudy : RR: 2,16 (1,96-2,43) RR: 7,06 (5,67-8,78) -8,05 (6,3-10,3)
Cluster RCT Geriatric health care settings Rothan-Tondeur et al., 2011 France	1,814 HCW in 20 interventional group 2,435 HCW in 23 control group Educational programm (information about fears, development their altrism, then promotion vaccination to answer colleagues)	- Vaccination rate to 21% to 44% according to flu season - HCW Interventional group: 44% - HCW control group: 27%

Interventions to increase flu vaccination in the children

Design of studies	Intervention	Grade of evidence/ Results
No RCT Observational studies (Web survey) Flood et al. Clinical Therapeutics 2010 USA 500 parents, representative of the US population		Barriers to vaccination: - Low perception of risk influenza (46%) - Vaccine caused influenza (44%) - Side effects caused by vaccine (36,6%)
	Information public Personal concern	Drivers of vaccination - Prevention of influenza (95%) - Doctor's recommandation (90%) - Reduction of influenza symptoms (83,3%)

Interventions to increase flu vaccination in the Adult population studies

Design of studies	Intervention	Grade of evidence/ Results
RCT Wright et al. USA J General Internal Medicine 2012	<u>Increasing community demand</u> Electronic Personal health record N= 396 case N= 460 control	Vaccination rate from 14 % to 22% OR: 1,83

Conclusions: Interventions may be effective

✓ Personalised messages

Postcards, phone calls: in elderly people
Reminder/recall systems: in patients with chronic conditions
Electronic reminders: in adults

✓ Doctor's recommandations: in elderly, patients with chronic conditions

✓ Information on flu, concerns about side-effects: in pregnant women, in adults, in parents with their children

✓ Combined informations

Education, access to vaccine, legislation: in HCW

✓ Questions:

- Evaluation of efficiency on target populations
- Availability of new generation of flu vaccines