

Seasonal influenza vaccination programme country profile: Netherlands

2012–13 Season

Background information

Influenza immunisation policy and general facts about the Netherlands	
Volume indices of GDP per capita in 2011 and 2013 (EU-28=100) Source: Eurostat ^a	135 and 131 respectively
Health costs as % of GDP 2011 Source: Eurostat ^b	8.5%
Total population of the country, 2011 Source: Eurostat ^c	16 655 799
Population ≥65, 2011 Source: Eurostat ^c	2 594 946 (15.6% from the total population)
Population with chronic medical conditions <65 years, 2006 Source: ECDC (based on methodology by Fleming and Eliot, 2006) ^d	1 358 000 (8.2% from the total population)
Number of live births in 2011 ^e	180 060 (1.1% from the total population)
National seasonal influenza recommendations (e.g. age and target group recommendations and guidelines)	Recommendations available
URL link to Immunisation Guidelines for the Netherlands	-
National Action Plan (NAP) as requested by EC	Plan was adopted
URL link to NAP	na

na: Not applicable

EUROSTAT links:

^aGDP per capita 2013 (accessed 15.12.2014): http://ec.europa.eu/eurostat/statistics-explained/index.php/GDP_per_capita_consumption_per_capita_and_price_level_indices

^bHealth expenditures 2011 (accessed 15.12.2014): http://ec.europa.eu/eurostat/statistics-explained/index.php/General_government_expenditure_on_social_protection_and_health

^cTotal population and those > 65 years of age 2011 (accessed 15.12.2014): <https://ec.europa.eu/CensusHub2/intermediate.do?method=forwardResult>

^dPopulation with chronic medical conditions 2006: http://www.ecdc.europa.eu/en/publications/Publications/0808_GUI_Priority_Risk_Groups_for_Influenza_Vaccination_on.pdf (Fleming, D.M. and A.J. Elliot, Estimating the risk population in relation to influenza vaccination policy. 2006 May 15; 24(20):4378-85)

^e Number of live births in 2011 (accessed 15.12.2014): <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00111&plugin=1>

Seasonal influenza vaccination recommendations and payment mechanism for vaccination

Vaccination recommendations (population groups targeted by vaccination)	
Overall population	No recommendation
Healthy children and adolescents	No recommendation
Older population groups: ≥60 years of age	Recommended
Chronic medical conditions	Recommended: <ul style="list-style-type: none"> - Pulmonary diseases; - Cardiovascular diseases; - Renal diseases; - Metabolic disorders; - Immunosuppressed individuals; - HIV/AIDS.
	No recommendation: <ul style="list-style-type: none"> - Neurologic diseases; - Hepatic diseases; - Haematological disorders; - Morbid obesity; - Long-term aspirin use (children <18 years).
Pregnancy-related vaccination (including post-partum women)	Recommended: <ul style="list-style-type: none"> - For pregnant women with chronic medical condition at any pregnancy trimester.
	Postpartum women if not vaccinated during pregnancy recommended only for those with chronic medical condition.
Healthcare workers	Recommended: <ul style="list-style-type: none"> - For all healthcare workers
Other occupational groups	Recommended: <ul style="list-style-type: none"> - Laboratory workers working in other laboratories (not medical/public health laboratories, but who may work with avian influenza viruses in the environmental/ academic sector).
Population groups in closed communities	Recommended: <ul style="list-style-type: none"> - For residents of long- term care facilities.
	No recommendation: <ul style="list-style-type: none"> - For prisoners; - For children in day care centres
Household contacts or carer of:	Recommended: <ul style="list-style-type: none"> - Immunosuppressed individuals; - Individuals with chronic medical conditions.
	No recommendation: <ul style="list-style-type: none"> - Infants <6months of age; - ≥65 years of age.

Payment mechanism for vaccine and its administration for the population groups targeted by seasonal influenza vaccine		
	For vaccine	For administration
Overall population	na	na
Healthy children and adolescents	na	na
Older population groups (≥ 60 years of age) ^a	National health service	National health service
Chronic medical conditions groups (by group) ^a	National health service	National health service
Pregnancy related vaccination (for those with chronic medical condition) ^a	National health service	National health service
Healthcare workers (including staff of long-stay care facilities) ^a	Employer	Employer
Other occupational groups ^a	Employer	Employer
Population groups in closed communities ^a	National health service	National health service
Household contacts or caregivers ^a	na	na

na: Not applicable

^a No co-payment for vaccine and vaccine administration.

National insurance scheme: health contributions are paid to the insurance fund and then for this contribution there is a package of services received. It is not by default that you receive the services if you do not pay the insurance contributions.

National health service: taxes are paid by a citizen or resident of the country and this person is covered by the health service.

Out of pocket: not reimbursed, paid by receiver of vaccine.

Vaccination coverage rates

Vaccination coverage (%) in population groups targeted by seasonal influenza vaccination the from 2008–09 to the 2012–13 influenza season by method of data collection (administrative and /or survey)

Population group	Influenza season									
	2008–09		2009–10		2010–11		2011–12		2012–13	
	Admin.	Surv.	Admin.	Surv.	Admin.	Surv.	Admin.	Surv.	Admin.	Surv.
Overall population	21.8	na	22.4	na	21.3	na	19.7	na	19.8	na
Children/adolescents	na	na	na	na	na	na	na	na	na	na
Older population groups: ≥65 years of age	82.5	na	81.1	na	80.6	na	77.2	na	74.3	na
Older population groups ≥60 years of age	76.9	na	76.3	na	75.4	na	71.3	na	67.8	na
Chronic medical conditions groups	71.5	na	70.4	na	68.9	na	68.6	na	65.8	na
Pregnant women ^a	-	-	-	-	NA	na	NA	na	NA	na
Healthcare workers ^c	NA	na	NA	na	NA	na	65.1	na	75	na
Staff in long-stay care facilities ^b	-	-	-	-	-	-	NA	na	NA	na
Residents in long stay care facilities ^b	-	-	-	-	-	-	NA	na	NA	na

na: Not applicable

NA: Not available

^a VENICE started to collect vaccination coverage data for pregnant women after the A(H1N1)pdm09 (2010-11 influenza season).

^b VENICE started to collect vaccination coverage data for staff and residents in long-stay care facilities for the influenza season 2011-12.

^c There are no systematic data collected on the percentage of healthcare workers vaccinated against influenza in the Netherlands. A small, opportunistic survey among 52 of 7.893 (0.7%) GP practices found that in 2012–13 7.7% of practices all employees were vaccinated, while a proportion of employees were vaccinated in another 67.3% of participating GP practices. A recently published study among hospital healthcare workers found a median vaccination level of 13% (spread 2-33%) in 2012–13 (Van Gageldonk-Lafeber AB et al. Low influenza vaccination coverage rate among hospital employees. *Ned Tijdschr Geneesk* 2014; 158:A7650).

Figure 1. Seasonal influenza vaccination coverage among those ≥60 and ≥65 years of age from the 2008–09 to the 2012–13 influenza season

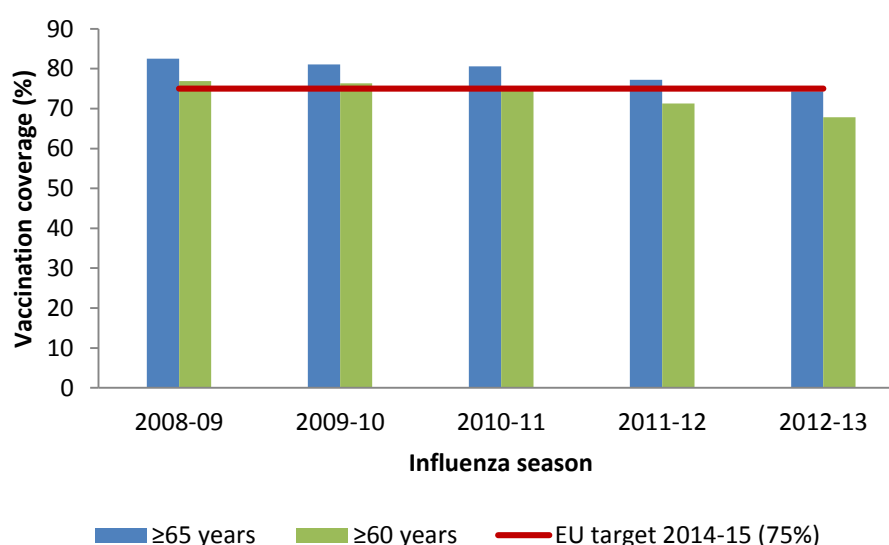


Figure 2. Seasonal influenza vaccination coverage among those with chronic medical conditions from the 2008–09 to the 2012–13 influenza season

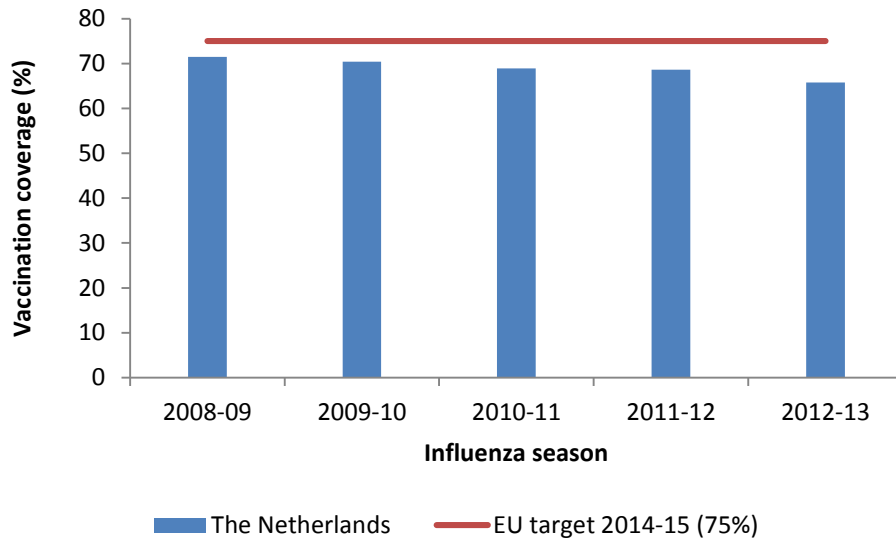
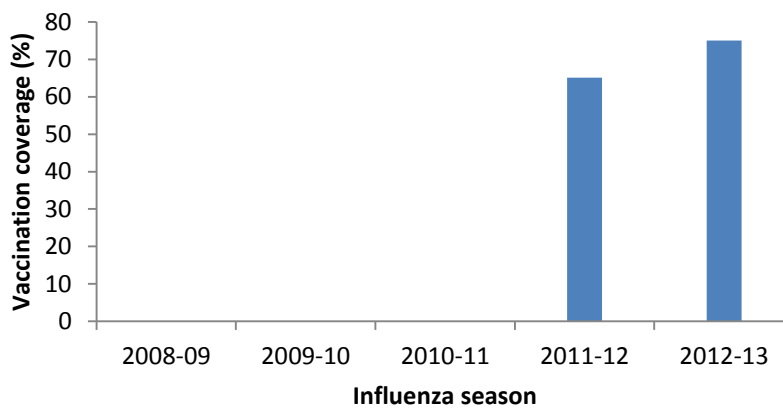


Figure 3. Seasonal influenza vaccination coverage among healthcare workers from the 2009–10 to the 2012–13 influenza season



There are no systematic data collected on the percentage of healthcare workers vaccinated against influenza in the Netherlands. A small, opportunistic survey among 52 of 7,893 (0.7%) GP practices found that in 2012–13 7.7% of practices all employees were vaccinated, while a proportion of employees were vaccinated in another 67.3% of participating GP practices. A recently published study among hospital healthcare workers found a median vaccination level of 13% (spread 2-33%) in 2012–13 (Van Gageldonk-Lafeber AB et al. Low influenza vaccination coverage rate among hospital employees. Ned Tijdschr Geneesk 2014; 158:A7650).

Methods to monitor vaccination coverage, safety and effectiveness

Monitoring of vaccination coverage during the 2012–13 influenza season	
Method used to monitor influenza vaccination coverage	
Administrative method only	

Method used (administrative, survey) to monitor vaccination coverage by population group	
Administrative	Survey
Adults: aged ≥60 years old; Adults: aged ≥65 years old; Individuals with chronic medical conditions;	na

na: Not applicable

Details on administrative method used (medical records vs. immunisation registry; manual vs. electronic) by population group			
Medical records		Immunisation registry	
Manual	Electronic	Manual	Electronic
No	Adults: aged ≥60 years old; Adults: aged ≥65 years old; Individuals with chronic medical conditions;	No	No

Numerator assessment		
Pharmaceutical data	Administrative data	Frequency of numerator assessment
Not used	Aggregate collection of number of vaccines administered	Annually

Denominator assessment by population groups and data source	
Population group	Data source for population group
Entire population	Used. Central population statistics
Children and adolescents	Used. Central population statistics
Adults	Used. Central population statistics
Individuals with medical/risk conditions (clinical risk groups)	Not used
Pregnant women	Not used
Health care workers	Not used
Essential public sector workers	Not used
Prisoners	Not used
Residents of long term care institutions	Not used
Educational institutions	Not used
Other	Not used

Details for survey method used for the 2012–13 influenza season			
Type of the survey	Survey mode	Sampling strategy	Sample size
na	na	na	na

na: Not applicable

Scientific studies conducted for vaccination coverage; vaccine safety and vaccine effectiveness

I move studies on effectiveness of influenza vaccine:

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20399>

Vaccine safety monitoring (adverse events following immunisation AEFV)

Data collected at the national and at the regional level	Data linkage with immunisation registry	Details collected	Status of reporting	AEFV reported to
Yes	Possible	Aggregated data including age, sex and suspected symptoms should be reported	Not mandatory	Lareb monitors the AEFV. The monitoring report can be found through: http://www.lareb.nl/Nieuws/2013/Rapportage-meldingen-griepvaccin-seizoen-2012-2013 .

Monitoring of influenza vaccine break-through^a infections in vaccinated individuals

Data collected at the national and at the regional level	Data linkage with immunisation registry	Details collected
There is such a system	Possible	Aggregated should be reported to the national level

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

Vaccine procurement and delivery

Influenza vaccine procurement and delivery, 2012–13 influenza season

Number of doses		
Purchased	Distributed	Used
3 950 000	3 735 000	3 490 000

Type of vaccine/Product Name	Target groups
Trivalent inactivated non-adjuvanted vaccines (TIV)	
Used	
Abbott; Sanofi Pasteur;	Older adults (e.g. ≥60/65 years); Those with medical condition/s.
Trivalent inactivated adjuvanted vaccines (aTIV)	
Not used	
Trivalent live attenuated nasal vaccine (LAIV)	
Not used	
Quadrivalent attenuated nasal vaccine (LAIV)	
Not used	
Quadrivalent inactivated non-adjuvanted vaccine (QIV)	
Not used	

Promoting seasonal influenza vaccination

Promoting seasonal influenza vaccination during the 2012–13 influenza season	
Promotion activities with the general public and healthcare workers	Source of information (if yes)
	na

na: Not applicable

Use of antiviral agents for treatment and chemoprophylaxis of influenza

Recommendations and/or guidelines (policy document) on antiviral use
Recommendations available

Use of antiviral agents for treatment and chemoprophylaxis of influenza during the 2012–13 influenza season	
Use of antivirals for <u>treatment</u> for in-patients and out-patients who are at higher risk of developing influenza complications	
For in-patients who:	
<ul style="list-style-type: none"> - have severe, complicated influenza-like illness (ILI)^a; - have progressive influenza-like illness^a; - require hospitalisation due to influenza-like illness^a. 	Recommended
For out-patients who are at higher risk of developing influenza complications on the basis of their age or underlying medical conditions:	
<ul style="list-style-type: none"> - Children < 2 years; - Children < 5 years; - Adults aged ≥65 years; - Women who are pregnant or postpartum (within 6 weeks after delivery). 	No recommendation
<ul style="list-style-type: none"> - Individuals belonging to risk groups^a. - Residents of nursing homes and other chronic-care facilities^b. 	Recommended
Use of antivirals for <u>post-exposure</u> prophylaxis	
For family or other close contacts of a person at higher risk for influenza complications who have not been vaccinated with influenza vaccine at the time of exposure. ^c	No recommendation
For unvaccinated healthcare workers with occupational exposure and who did not use personal protective equipment at the time of exposure	No recommendation
Use of antivirals for <u>pre-exposure</u> prophylaxis	
For individuals who are at high risk (e.g. severely immunosuppressed patients) for influenza-related complications who cannot otherwise be protected during times when a high risk for exposure exists	Not applicable
Use of antivirals for <u>control of influenza outbreaks</u>	
For individuals in long-term care facilities/care for immunocompromised individuals if not vaccinated or if the circulating influenza strain does not match the vaccine strains ^d	Recommended
For unvaccinated healthcare staff who provide care to individuals at high risk of developing complications in long-term care facilities/ care for immunocompromised patients if not vaccinated or if the circulating influenza strain does not match the vaccine strains ^e	Recommended

For all health care staff regardless of whether they received an influenza vaccination if the circulating influenza strain does not match the vaccine strains	No recommendation
Prisoners	No recommendation
Educational institutions	No recommendation
Existence of antiviral resistance surveillance system	
Antiviral resistance surveillance system	There is an antiviral resistance surveillance system in place

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

- Patients with severe abnormalities or disorders of the heart or lung function, who despite medication have a high risk of decompensation of heart or lung function.
- Patients with serious liver or kidney failure.
- Patients with a deficient immune system, for example because of an HIV infection, chemotherapy or treatment with immunosuppressive medicine.

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

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

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

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

Country profiles are based on the [Seasonal Influenza Vaccination in Europe](#) report produced by the European Centre for Disease Prevention and Control (ECDC) and the Vaccine European New Integrated Collaboration Effort III (VENICE III). The data are from the seasonal influenza vaccination survey for 2012–13 season in EU/EEA countries. During the validation process in June 2015, minor changes were introduced in some country profiles. Therefore, data may be different to those available in the report.